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May 2020



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Hello Swamp Foxes, Welcome to the May 2020 Newsletter.

Well it seems like forever since we had our February meeting, I hope all our members and their families are keeping safe and well along with the rest of the World population.

I think as modelers we are somewhat well adapted to adjust to the restrictions, More time at the benches in many cases cannot be too bad, Postal Services are doing a Stirling job and most online stores are operating a near normal service, Hobby Lobby and New Brookland are both back open now as is Dave over in Augusta.

From the Front Office...

Howdy, all!

Another month of self isolation model building time has come and gone!

I'm going to set aside the normal agenda format again. It appears we will not have a May meeting at the library. At this time (Wednesday, 6 May), I have not heard from them, and their website still has the "We're closed to the public..." banner. Regardless, until the large gatherings restrictions are lifted, we won't be able to meet there anyway.

I'd like to thank Mike Gearon for offering his back yard for meetings. Honestly, though, I don't see that solution having the ability to maintain distancing protocols, either. Mike, I appreciate the offer, but I'd rather not risk it right now.

I would also like to thank those of you who asked about virtual meetings. I would do so, but here's the rub:

- Some of your fellow club members are not tech savvy or they lack the required equipment.
- Some of your fellow club members do not have high speed internet connections. For instance, my options are satellite—with all of the latency issues—or dial up. I'm not the only one in that boat.

I don't see how we can be inclusive with these underlying conditions. If you think you have a way to do this and be able to offer it to everyone, I'm all ears.

I'd like to thank all of you for your input on the plans for the June show. It has been decided to postpone the show until 22 August. In the meantime, we have set one last trip-wire date of 7 July. If, by then, we don't see an improvement in the COVID-19 situation (including infection levels, occupancy restrictions, or anything else that would preclude hosting a successful show), we will cancel the show and move on to next year.

I would also like to assure you that I heard every last one of you, loud and clear. The announcement may not be what some of you expected, but I did hear you—ALL of you. In the end, several things had already been put in motion, and I decided for the good of club relations to continue according to plan. I will leave it at that, and you'll have to trust me that I took the best path forward, and I will continue to do so in the future.

John is in need of newsletter articles. If you have a little time, bat something out and send it to him. I mean, I can keep pulling subjects that interest me out of my nether regions and write about them, but I'm sure you guys would like something different every now and again.

Keep calm, keep safe, and model on.

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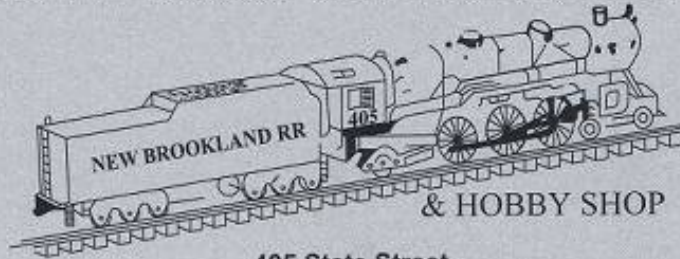


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SUPPORT THE LOCAL HOBBY STORES

The “Missing” Century Series Aircraft

As many of you might know, in the 1950’s the United States Air Force fielded a group of jet fighter aircraft that all featured advanced avionics and engines, and were all able to sustain supersonic speeds in level flight. There was a mix of Interceptor (F-101B, F-102, F-104, F-106) and Fighter-Bomber (F-100, F-101, F-105) aircraft. They were leaps and bounds more capable than the first generation of jet fighters that preceded it.

Since all of their designations were in the F-1XX range, they quickly were dubbed the “Century Series”.

The **North American F-100** Super Sabre began life as a supersonic day fighter, but for most of its service life it served as a fighter bomber. Late in its life, it was modified to become the first “Wild Weasel”, aircraft specialized in the destruction of enemy air defense systems. (Our own Jim Hamilton regards the Hun as “God’s Airplane.”)

The **McDonnell F-101** Voodoo started out as an escort fighter—a hold-over from the XF-88 program. It was eventually re-worked (a second seat and intercept radar were added) into an interceptor (**F-101B/F**). There’s some irony in that an airplane designed to protect bombers mainly served in a role that sees them shooting down bomber. The Voodoo community was a fun bunch—over the years, I’ve made the acquaintance of several Voodoo “Scope Wizards” (WSO) and “Medicine Men” (technicians) who would regale me about their time working on and flying the “One-Oh-Wonder”.

The **General Dynamics F-102** Delta Dagger was an interceptor. Stemming from the earlier XF-92 delta-wing fighter project from 1948, it was designed to fly towards enemy bomber formations and shoot them down. Delays in the program resulted in the re-design of the F-101 described above. A subsonic two seat trainer, the **TF-102A**, was also produced. Known as the “Tub”, it is a decidedly-homely looking ship, with side-by-side seating in a widened cockpit.

The **Lockheed F-104 Starfighter** was also designed as a high-speed interceptor. Featuring a long, pointy fuselage with stubby wings, it gained the nickname “Missile with a man in it”. As a USAF aircraft, it saw limited use, but as an export fighter to Allied nations, it excelled. It equipped the air forces of Belgium, Canada, Japan, West Germany, Italy, Denmark, Norway, the Netherlands, Greece, Pakistan, Jordan, Spain, Taiwan, and Turkey. The South Carolina Air National Guard was one of three units (Tennessee and Arizona were the others) to fly the early “Zippers”...

The **Republic F-105 Thunderchief** was a fighter bomber, and would eventually assume the F-100’s place as the premier USAF fighter bomber in Southeast Asia. It, too, would be modified into a Wild Weasel platform. Pound for pound, the “ThunderThud” delivered more ordnance to the battle zones in Southeast Asia than any other type other than the B-52.

The **General Dynamics F-106 Delta Dart**, called the “Ultimate Interceptor” (ultimate as in “last” rather than optimal), was a follow on to the F-102 program (in fact, it was initially designated F-102B) that aimed to cure all the ills of the F-102. The Dart served until the late 1980’s with the Air Guard.

But what about the missing numbers? Was there an F-103, F-107, F-108, and F-109? What about the F-110, F-111, and F-117—do they count as Century Series aircraft?

As the wise old owl in the Tootsie Roll Pops commercial says, “Let’s find out...”

Republic XF-103: The Republic Model AP-57 was designed under Weapons System WS-201A (the same requirements that yielded the F-102A and the F-104, also known as the “1954 Interceptor” program). It was to be a Mach 3 missile armed interceptor. Unlike the other two designs, the Republic proposal was to be powered by a compound turbojet-ramjet powerplant to achieve the highest speeds possible. The airframe was to be constructed of titanium. It received the designation XF-103.

The powerplant was proposed to use a Wright J-67 (a license built Bristol Olympus) coupled to an RJ-55 ramjet unit. At speeds up to Mach 2.2, the turbojet functioned normally, and the ramjet was used as the afterburner. Above M2.2, the turbojet was shut down and a series of valves redirected the airflow directly into the RJ-55, where it was mixed with fuel, ignited, and expelled out of the exhaust.

Other design choices saw the elimination of a conventional cockpit canopy. It was replaced with streamlined, sealed flush windows (similar to the Douglas X-3 Stiletto research aircraft) and employed a periscope for forward vision (the designer, Alexander Kartveli, did not like this arrangement, by the way). The pilot was to sit in an escape capsule that acted as an elevator to the cockpit—the capsule lowered through a hatch in the bottom of the airplane, the pilot climbed in, and as the seat was raised into the cockpit, the hatch closed and sealed.

It featured a variable incidence delta wing (the entire wing could pivot to trim the longitudinal axis) with delta tail surfaces. The outboard third of the wing was separate from the rest, and could independently pivot to act as lateral flight control surfaces (ailerons)—in-house at Republic, they were referred to as “tipperons”. The small horizontal stabilizers were also of the “all flying” type, and the vertical stabilizer could be folded for storage on the ground.

There was only a single mockup constructed. During development, problems with the J67 (which would never go into production) caused it to be cancelled on 21 August 1957. It was later being discussed as a testbed for some of the systems for the XF-108, but they came to naught and the Convair B-58 was used instead.



XF-103 Mockup (left) and artist’s impression (right)

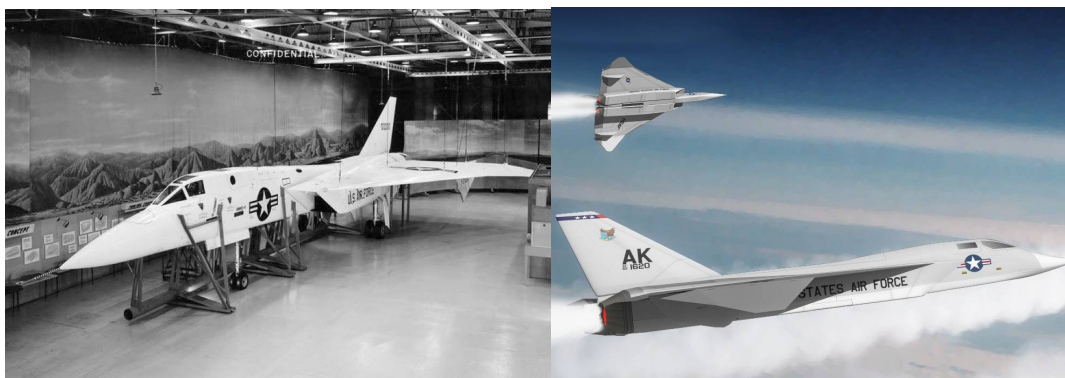
North American XF-108 “Rapier”. Designed to meet the requirements of Weapons System 202A (WS-202A), two prototypes of the airplane (manufacturer’s model number NA-257) were ordered on 11 April 1957. As a cost-savings measure, the engine development for the Rapier and the XB-70 Valyrie

were shared—the Rapier would use two of the same General Electric J93-GE-3AR afterburning turbojet engines designed for the Valkyrie.

The XF-108 was intended to be a high-speed, long-range interceptor—1,000 mile range at 16,000 feet with a speed of 1.7 Mach—but other ideas were floated as well, including the use of the Rapier as an escort fighter for the Valkyrie. Studies showed that the airplane would have been a marginal performer while escorting bombers, and the Strategic Air Command had abandoned the “Escort Fighter” concept with the F-101, so those plans were shelved.

The mock-up was impressive. The crew sat in tandem under dual canopies in a pressurized cockpit. A weapons bay could house three Hughes GAR-9A (later AIM-47) Super Falcon missiles, guided by a Hughes AN/ASG-18 radar with look down, shoot down capability. A separate Infrared Search and Track system (IRST), using sensors installed at the leading edge wing root, could also guide the missiles.

The airplane was changed several times. There were two mockups: one in 1954 and one in 1959, featuring several changes to the cockpit and flight control surface configuration. Difficulties and cost escalations led to the cancellation of the project on 23 September 1959, but the teams at North American kept refining the design through the following year, in hopes that some, if not all of the design would be revived. And, in the end, it wasn't a total waste—the company's A3J (later A-5) Vigilante employed several design features (general layout, crew arrangement, and flight controls, including the all-moving vertical stabilizer) initially intended for the Rapier and Valkyrie.



XF-108 Rapier 1954 mockup (left) and artist's impression (right)

North American F-107A: Of all the “absent” Century Series airplanes, this is the only one to reach actual hardware stage. The F-107 was a development of the F-100 Super Sabre (the 107 sometimes being called “Ultra Sabre”), initially referred to as the F-100B. Several options were examined, including an interceptor variant (the F-100BI, “I” for “interceptor”). It was, for all intents and purposes, an enlarged F-100D featuring a dorsal air inlet aft of the cockpit (rather than the nose inlet) and a recessed weapons bay under the fuselage capable of accommodating a nuclear weapon.

Three aircraft were built, but the program on was cancelled on 25 November 1957 after the airplane lost the fly-off competition between it and the Republic F-105. Later, the #1 and #3 aircraft were leased to the National Advisory Committee for Aeronautics (NACA), who used them for high-speed flight research. F-107A #3 (Serial Number 55-5520) was damaged beyond repair during an aborted

takeoff. F-107A #1 (Serial Number 55-5118) is at the Pima Air and Space Museum in Tucson, Arizona; F-017A #2 (Serial Number 55-5119) is at the National Museum of the United States Air Force in Dayton, Ohio.



S/N 55-5519 (top) at the NMUSAF, 55-1118 in flight (lower)

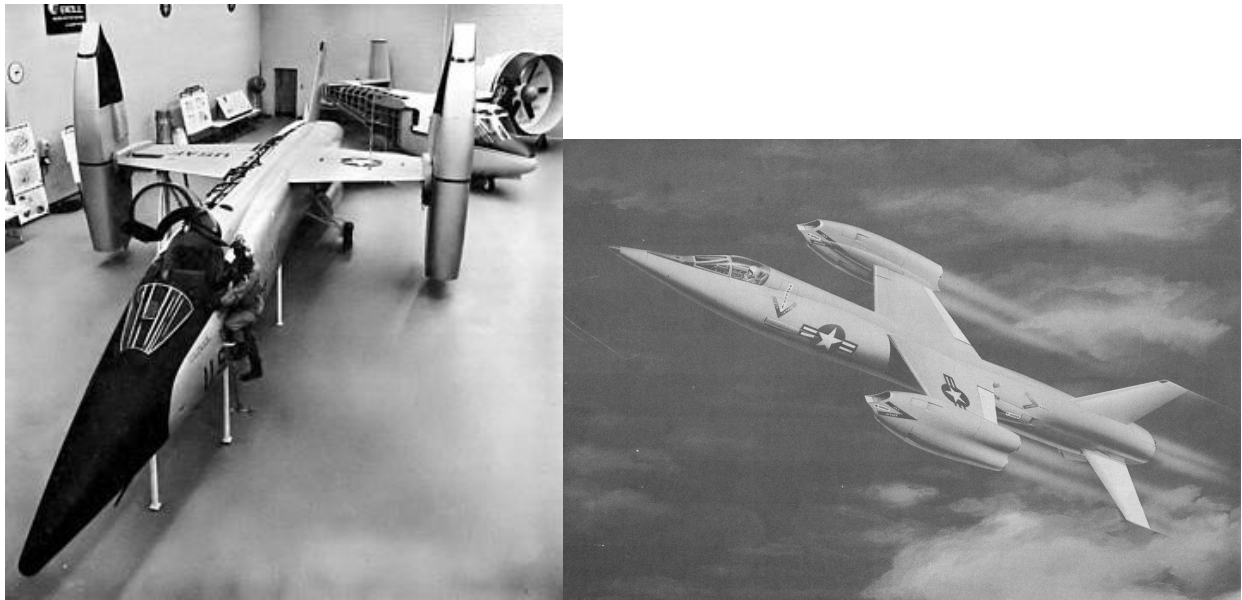
What about the F-109?

No aircraft was ever officially given the designation XF-109, although there were two designs closely associated with it. The first was to a proposed improved General Dynamics F-106B variant that was never built.

The second airplane associated with the designation is the Bell Model D-188A, a proposed supersonic interceptor capable of vertical takeoff or landing (VTOL). It was to be powered by no less than eight J85-GE-5 turbojet engines—two each in pivoting wingtip pods, two in the mid-fuselage angles to assist VTOL flight, and two in the aft fuselage for forward flight.

The fuselage resembled that of an F-104 Starfighter. Bell Aircraft dubbed it XF-109 when they discovered the designation was unused. They also, somewhat cheekily, gave it a Navy designation of XF3L-1, as well—although the Navy's interest quickly waned.

Only one mockup was built. The project was cancelled in 1961.



D-188A mockup (left), artist's impression (right)

What about the rest? Are they Century Series, too?

Let's start with the F-110. This was a designation originally given to the U.S. Air Force's first Phantoms based on the McDonnell Douglas F4H-2 airframe. When McNamara's Department of Defense implemented the MDS in 1962, the airplanes were redesignated. The F4H-2 became the F-4B, and the USAF's first Phantoms became the F-4C.

The General Dynamics F-111 "Aardvark" was a supersonic fighter bomber. It was designed to meet the requirements of the "Tactical Fighter, Experimental" (TFX) program that combined the USAF's requirements for a fast interdiction fighter bomber and the Navy's fleet defense interceptor requirements, but the Navy dropped out of the program and adopted Grumman's F-14A Tomcat instead. The USAF F-111 program was fraught with issues, from engine stalls to avionics issues, but by the late 1970's, the airplane performed well.

As we've discussed previously, other "Century Series" designations were given to ex-Soviet aircraft involved in various research and training scenarios, most of which culminated in the Project CONSTANT PEG operations.

The last one to speak of is the F-117. Again, we've previously discussed this, and how the designation was taken from a common radio call sign the early aircraft used during testing.

Now, as to whether these are also "Century Series" airplanes all depends on who you ask.

A few make the argument that they all have F-1XX designations; so sure, they're all in the Century Series. But don't do that if you go up against a dyed-in-the-wool fan of the Century Series—or if you do, you do so at your own risk.

Most Century Series historians will include the F-100, 101, 102, 104, 107, and 106, plus the XF-103 and 108 as well. These airplanes are all considered second generation jet fighter aircraft.

As to the XF-109, F-110, F-111, and F-117? Most people say no. The reasons vary, but the most oft-used logic is that the latter three were of a different generation of technologies (the F4H/F-4 family is considered a third generation jet fighter), or the fact that they were not actually fighters (the F-111 and F-117 never did anything except to drop bombs).

Also, as we've seen, the XF-109 designation was never officially used on any airplane.

So now you know.

Cheers all!

Ralph

Build in progress report from DC Locke

Currently at my...messy, workbench I am still plugging along when I can on the Revell PV-1. As you can see I have finally placed the three tone paint scheme on it. All by masking, painting, re-masking, painting and so on. We know how it goes. I used "rattle cans" this time (I need to do something with all those rattle cans Hamilton gave me a couple of years ago) and it came out not too bad. There are some masking lines underlying areas of the paint I need to deal with. The canopy did not go on well, but I did my best. I'll try to deal with that post painting. Once I deal with the minor paint issues I'll gloss coat it in prep for the decals and then attach the belly gun position, mask the clear area there, put bombs into the bomb-bay, put the bomb-bay doors on in open position and also attach the landing gear and do final touch up before applying a dull coat. Then I'll place the decals in position and afterward I'll remove the masking over the clear parts and the guns. At least I hope to do it that way if all goes well. The model will not be weathered much per request of whom I am building it for.

Also seen on the bench is the Nichimo Ki-51 kit. I have brought it in to the Jan. meeting, I think. Hub passed this kit on to me back at the November meeting. Perhaps unbeknown to Hub he gave me a real challenge to my modeling skills with this one. And that's okay, I need that when I actually have the patience for it. Since the meeting I brought it in to I have added scratch built ammo cans, a camera, control sticks that were missing from the kit. I fabricated seat belts based on research from tinfoil and added them to the seats. I also added in a more correct pilot seat I requested and received at one of the recent meetings. Thanks, by the way for ALL the generosity and consideration shown toward me at any of the meetings. It is truly greatly appreciated. This kit has been quite fiddly and in some ways a pain in the backside. The moulding of course is old, the seams don't

line up and some cockpit parts are a bit oversize. The hardest thing to do so far was attach the engine and engine mounts onto the fuselage and then close the fuselage around them. The fuselage half's would not close well esp. around the engine area. I had to finagle the parts together and "stupid glue" them in place. Rubber bands and clamps are God send and blessings in cases like that. After all that dried I sanded the wing half join areas and mould seams along the stabilizers. Next I re-scribed seams and rivet marks a bit, oh...such fun. ;-p After that I then attached the wing halves and stabilizers to the fuselage. After I allowed the glue dry real good for a couple of days I sanded the joint seams and now am getting ready to putty the gaps that are now between the wings, stabilizers and fuselage. The pilots control stick somehow went A.W.O.L., probably while I was attaching the fuselage halves together and I need to fabricate another one. At any rate maybe I'll have accomplished more progress on those two models by the time I bring them to our next meeting...whenever that will be.



DC Locke

AS90 155mm Self-Propelled Gun (SPG)

The AS-90 SPG replaced the American M109 SPG in British Army service.

The AS90 currently serves as the backbone of British self-propelled artillery regiments. Such weapon systems supply the modern land army with a powerful "reach" across miles of terrain and provide accurate results through the lethal ammunition types available. Since its inception in the early 1990s, the AS90 has been called to arms in a variety of theaters where the British Army has operated. The vehicle continues to provide valuable service even today and has undergone upgrade measures to keep her a viable gunnery platform into the next decade. The "AS90" designation stems from the wording of "Artillery System, 1990".

The SP70 project of the 1970s sought to provide participating nations with a fully-modern, highly-capable self-propelled gun system to fit a universal NATO 155mm 39 caliber standard. The joint venture included the United Kingdom, Germany and Italy and was formally born in 1973 with the British firm of Vickers Shipbuilding and Engineering developing the turret (designated GBT155).

In trials, the SP70 was outgunned in several respects by the competing American-made, proven and readily available M109 self-propelled gun which eventually led to the SP70 project being cancelled in full.

In an effort to shore up the inherent deficiencies in the abandoned SP70 design, Vickers took to creating an all-new private venture self-propelled artillery design that included both an in-house turret and chassis. The main gun itself was based on the 155mm FH70 towed field gun and several automotive components of the Challenger Main Battle Tank were integrated into the hull including a quick-change transmission system (removal in about 1 hour). The first prototypes were completed in 1986. After trials, the new Vickers product was formally adopted by the British Army in 1989 as the "AS90" (or Formally as ("AS-90" "Gun Equipment 155mm L131") it replaced all existing heavy gun systems.

First deliveries of the vehicle began in 1992 and some 179 examples were produced until 1995. In 1993, BAe Systems acquired Vickers Shipbuilding and went on to manage the AS90 family for the British Army. The AS-90 replaced the Abbot and M109 self-propelled artillery guns in British Army service and has also covered functions of the towed FH-70 gun system.

Outwardly, design of the AS90 is conventional by modern self-propelled gun standards. The hull is traditional in layout and sports six rubber-tired road wheels to a tracked side (each road wheel is doubled). The drive sprocket is fitted to the front of the track system (as is the engine) with the track idler at the rear and three track return rollers across the top. The hull sides are vertical panels though the glacis plate is well sloped, nearly horizontal. The boxy turret emplacement is set well to the rear of the hull with the forward-set engine balancing the vehicle's weight. The turret itself features slightly sloped side and front surfaces with entry/exit hatches located along the turret roof panel. "Pioneer" equipment can be stocked along the turret sides. A large access door at the extreme rear center of the vehicle hull allows for entry/exit of the crew and resupply of the 155mm projectiles from an ammunition carrier (the Foden DROPS 8x8 logistical vehicle). The main gun sits at the front center of

the turret with its integrated recoil system very noticeable at the gun base. The gun tapers towards the muzzle end and a fume extractor is identified at the midway point of the barrel. The muzzle is capped by a conical double-baffled muzzle brake to contend with the inherently violent recoil of such a heavy caliber weapon. The overall AS90 system weighs in at 45 tons. Passive night vision equipment is standard for the crew and hydropneumatic suspension (Hydrogas) for the road wheels allows for strong on road/off road capabilities.

The AS90 is crewed by five standard operating personnel. The driver sits at the front left side of the hull with the engine to his right. The engine consists of a single Cummins VTA 903T 660T-660 V8 turbo diesel, liquid-cooled engine delivering up to 660 horsepower at 2,800rpm. This supplies the vehicle with a top speed of 55 kilometers per hour and a range of 370 kilometers. The remaining crew consists of the vehicle commander, a gunner (also known as the gun layer) and ammunition handlers. At least 48 x 155mm L15 series projectiles are carried aboard each vehicle system and 31 of these are within reach of the turret personnel. Self-defense (against both infantry and low-flying aircraft) is handled by a single fitting of an optional 7.62 general purpose or 12.7mm heavy machine gun on the turret roof - 1,000 rounds of ammunition are afforded to this weapon. Armor protection for the crew is relatively light by being only 17mm of steel at its thickest point. Construction is of welded steel for both turret and hull. A Nuclear, Biological and Chemical (NBC) system is also standard for the crew - harkening back to the days of the Cold War. 10 x smoke grenade dischargers can be called upon to cover offensive and retreat actions of the vehicle. An internal fire suppression system helps protect the crew from internal fires.

The main gun is cleared for the firing of 155mm projectiles and has an inherent range out to 25 kilometers. The 155mm L31/39 caliber ordnance version can strike at target areas out to 25 (24.7) kilometers. Extended Range Ammunition (ERA) can further this value up to 80 kilometers. The standard gun projectile is a High-Explosive, Fragmentation (HE-FRAG) round and rocket-assisted types are available for increased ranges. The loader places the projectile onto the awaiting cradle arm which then automatically slides the round into the breech. The main gun is optimized with a split sliding breech mechanism which, when coupled with a capable crew, can fire up to 6 rounds per minute for up to three minutes if need be with sustained firing dropping to 2 rounds per minute. The turret sports a fully automatic gun laying system that displays pertinent information back to the vehicle commander, gunner and loader. The gun laying system is integrated with the vehicle's inertial navigation system known as the Dynamic Reference Unit (DRU). When traveling, the barrel is secured to a heavy duty "A frame" type clamp that folds out from the glacis plate. The turret emplacement offers up complete 360-degree traversal allowing the hull to point in any direction regardless of which direction the gun itself will fire in. Elevation is limited to +70 and -5 degrees. An auxiliary power unit allows the vehicle's engine to be powered down but keeps the turret functions active.

Some if not all the AS90's were converted for operations in desert environments to produce the "AS90D" designation ("D" = "Desert"). To contend with the extreme temperatures and unforgiving climates inherent in such regions of the world (particularly in the Middle East), the engine received additional cooling measures to prevent overheating. Thermal protection was applied for the crew within and specially designed tracks were integrated into the design to promote much improved travel over loose sandy terrain.

In 1999, Marconi Electronic Systems was contracted to upgrade 96 of the British Army AS-90's to

include a 52 calibre gun in order to increase the range of the artillery, The upgraded AS-90 systems would have been known as "AS90 Braveheart".

Critical to the program was a bi-modular charge system from Somchem of South Africa (selected after extensive trials of ammunition from many suppliers), which offered greatly reduced barrel wear. However, this ammunition failed to meet the requirement for [insensitive munitions](#) and the project was terminated

The Polish saw potential in the AS90 Braveheart 155mm/52-cal, Early production howitzers used a modified chassis of Polish PT-91(T-72) and mounted licensed turrets on Polish PT-91(T-72)

Armatohaubica "Krab" a Licensed "Braveheart" turret on a K9 Thunder chassis,

In 2014 production of Krab chassis was given to Korean Samsung Techwin, which will provide 120 units, replacing Polish built units.

The AS90 has seen service in theaters such as Bosnia and the Gulf Region and currently equips the following units of the British Army.

1st Regiment Royal Horse Artillery

19th Regiment Royal Artillery – The Scottish Gunners

As of March 2020, the expected out-of-service date for the AS-90 is 2030.

AS90 Characteristics

Crew: 5, on board when moving (driver plus 4 gun detachment), full gun detachment 10 including driver, 4 detachment members in the turret.

Length: 9.07m

Width: 3.3m

Height: 3.0m

Armour: 17mm (maximum, steel)

Weight: 45 tons[vague]

Calibre: 155mm

Range: 25km standard charges

Rate of fire: 3 rounds in 10 seconds (burst), 6 rounds per minute for 3 minutes (intense), 2 rounds per minute for 60 minutes (sustained)

Secondary armament: 7.62mm L7 GPMG

Ammunition carried: 48 projectiles and charges (31 turret and 17 hull), 1000 MG rounds

Main Engine: Cummin VTA903T 660 bhp 90 degree, v8, 4 stroke, liquid cooled, turbo diesel,

Max Speed: 55 km/h (Road)

Range: 370km or 231mi (Road)

Ground clearance: 0.41 m; Gradient: 60°; Vertical obstacle: 0.75 m; Trench crossing: 2.8 m; Fording depth: 1.5 m



Royal Artillery



1st Regiment Royal Horse Artillery



19th Regiment Royal Artillery – Scottish Gunners

















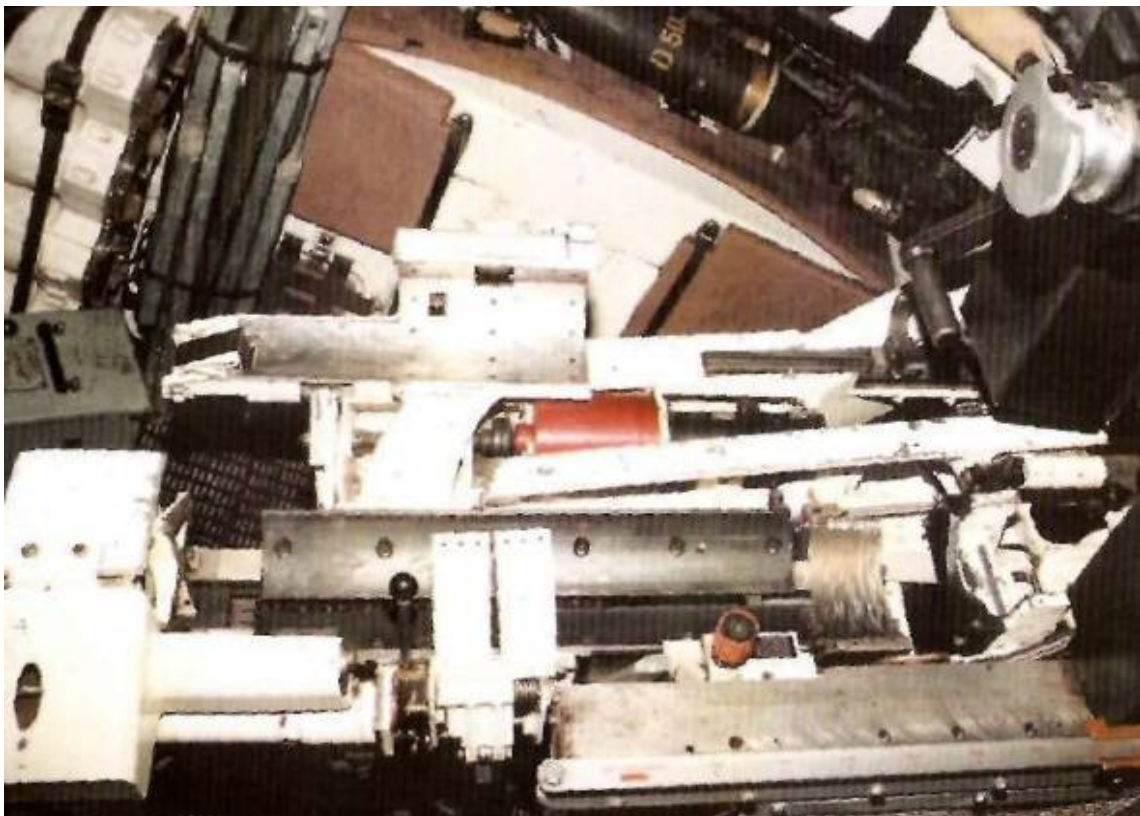


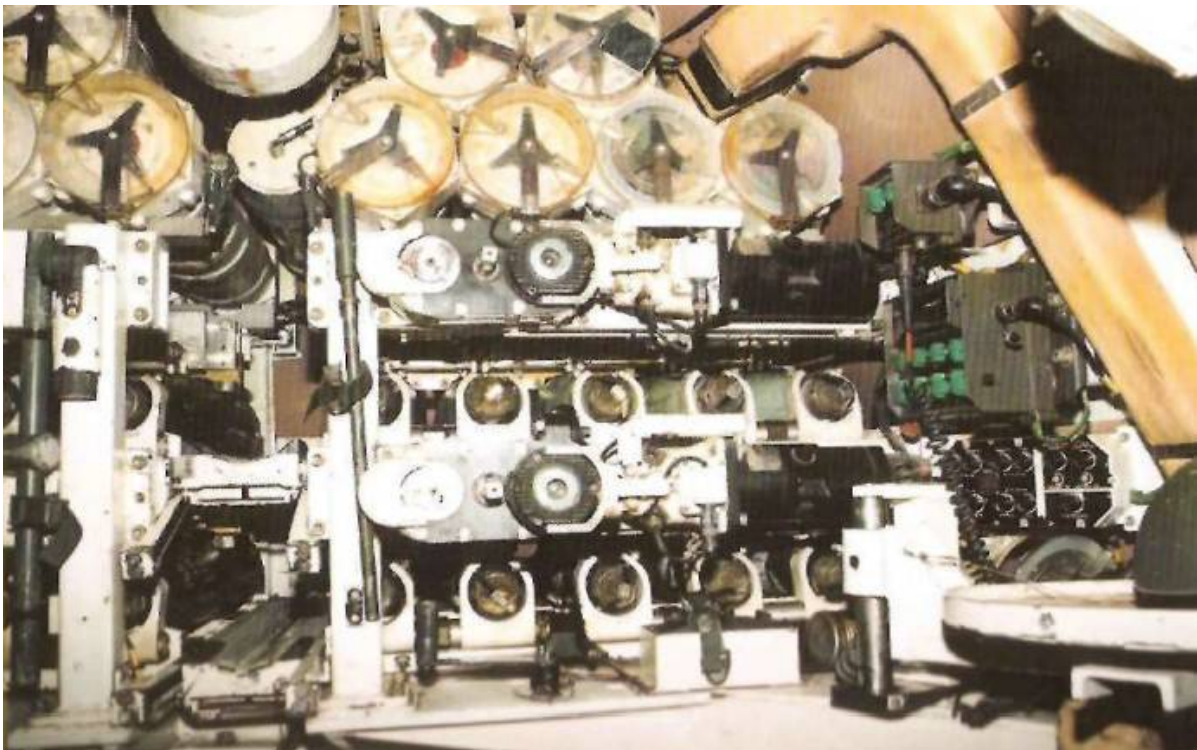
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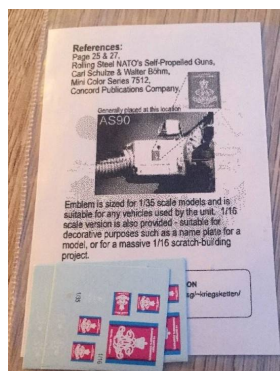
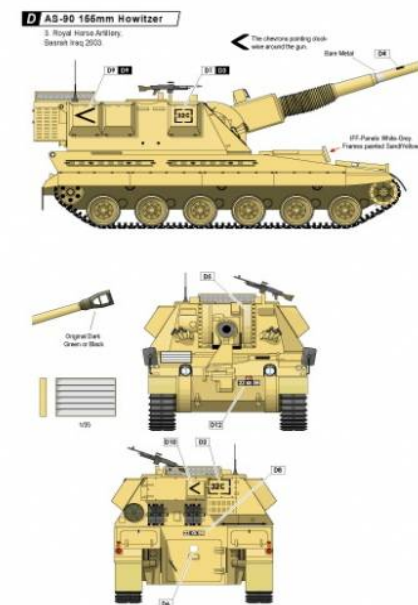
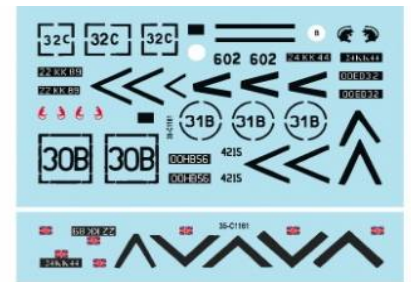


Modeling the AS90 155mm Self Propelled Gun (SPG)

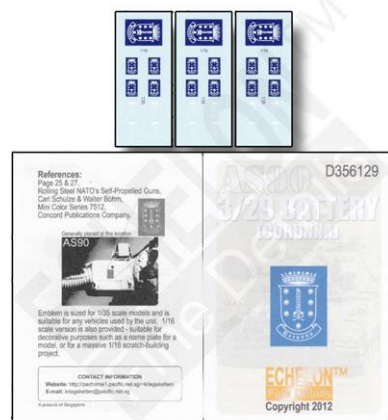
The AS90 is available in both 1/35 and 1/72 scale via Trumpeter and Hobbycraft has released it in 1/35 scale using the Trumpeter molds and new decals



Decals i found available, one set covering the M109A2 and AS90 from STAR DECALS and ECHELON released a couple of small sets covering emblems for



16 Battery Emblem for AS90



3/29 Battery Emblem for AS90

Improving the kits, there are quite a few sets available that will improve the Trumpeter 1/35 scale kit
Accurate Armour Have sets for both the 39 caliber and the cancelled 52 caliber

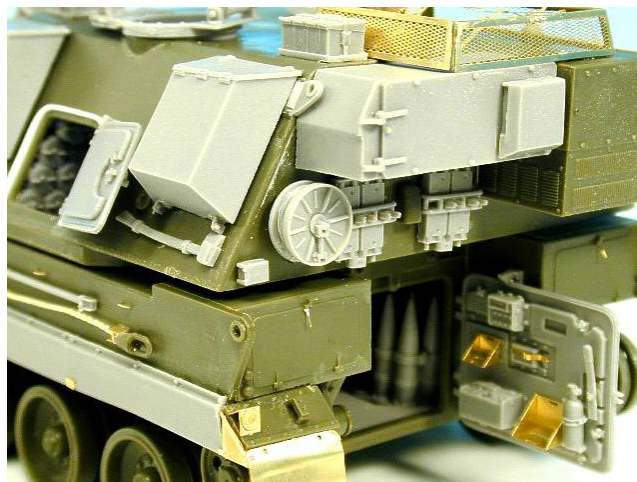
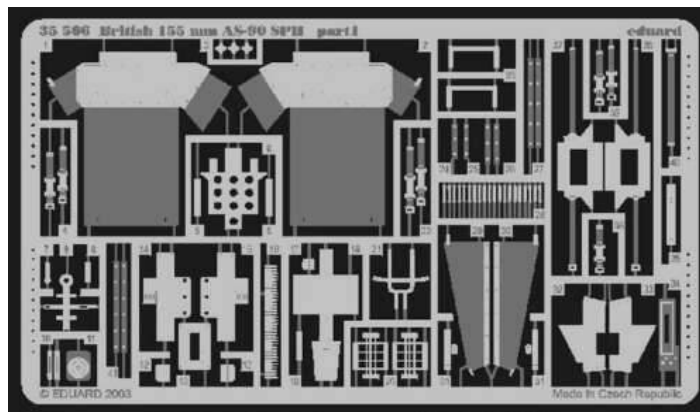
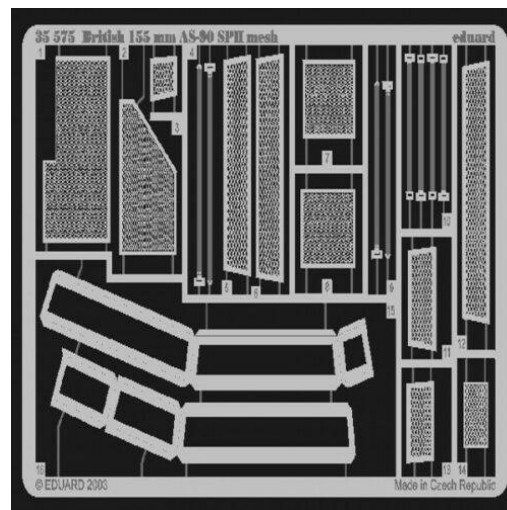


Photo Etched detail sets are available from companies like Eduard and Tetra





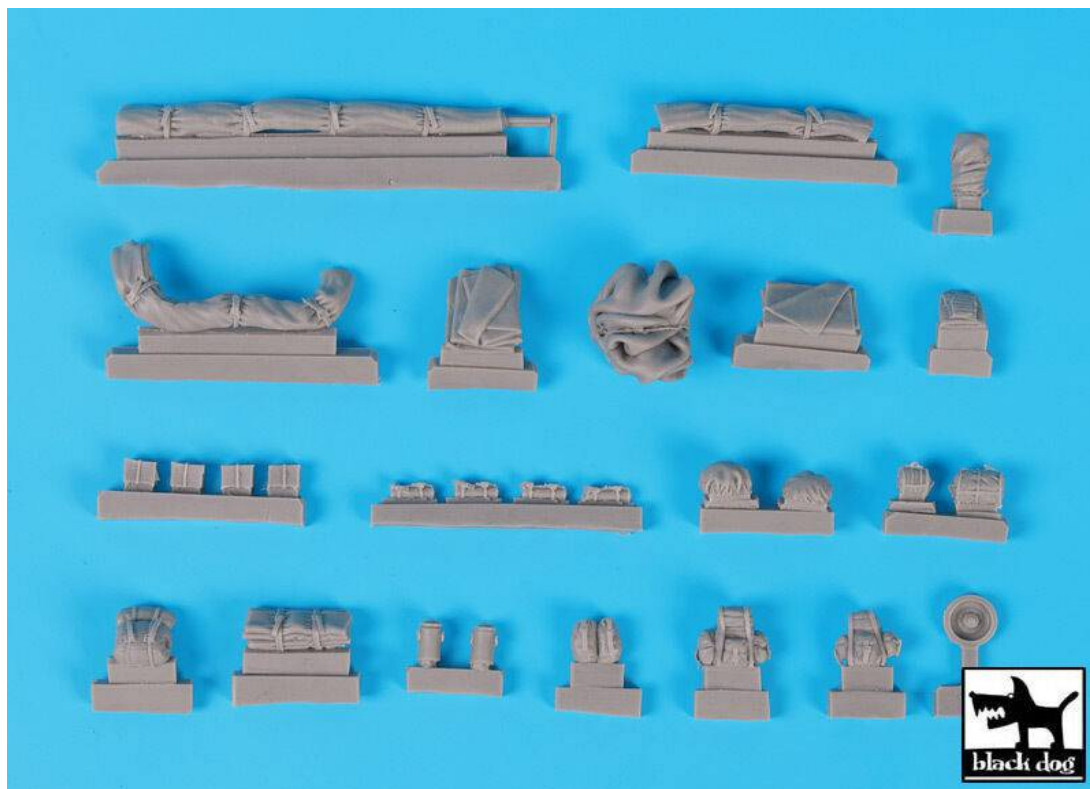
Tracks available from Bronco



RB MODEL supply replacement barrels for the 39 caliber version



Lastly, Black Dog supply accessories sets in both 1/72 and 1/35 scales





If you need any inspiration to build the AS90, here it is. This superb build is by my friend, fellow modeler and AMPS member British Army Veteran Keith Frape.









Information and pics used in this article was taken from online sources, Thanks again to Keith Frape for the use of his pics.

Now Go Build a Model

John Currie

Members Builds and Works in Progress during Self Isolation



Michael Carra – Matchbox – 1/72 scale Flower Class corvette (heavily modified to USN)(WIP).



Michael Carra – Revell – 1/72 scale PT-109 (smaller boat, being converted to PT-110)(WIP).



Jim Hamilton – Minicraft – 1/144 scale Douglas C-54 Skymaster (Candy Bomber)(WIP).



John Currie – Italeri – 1/72 scale AC-47 Gunship (WIP).



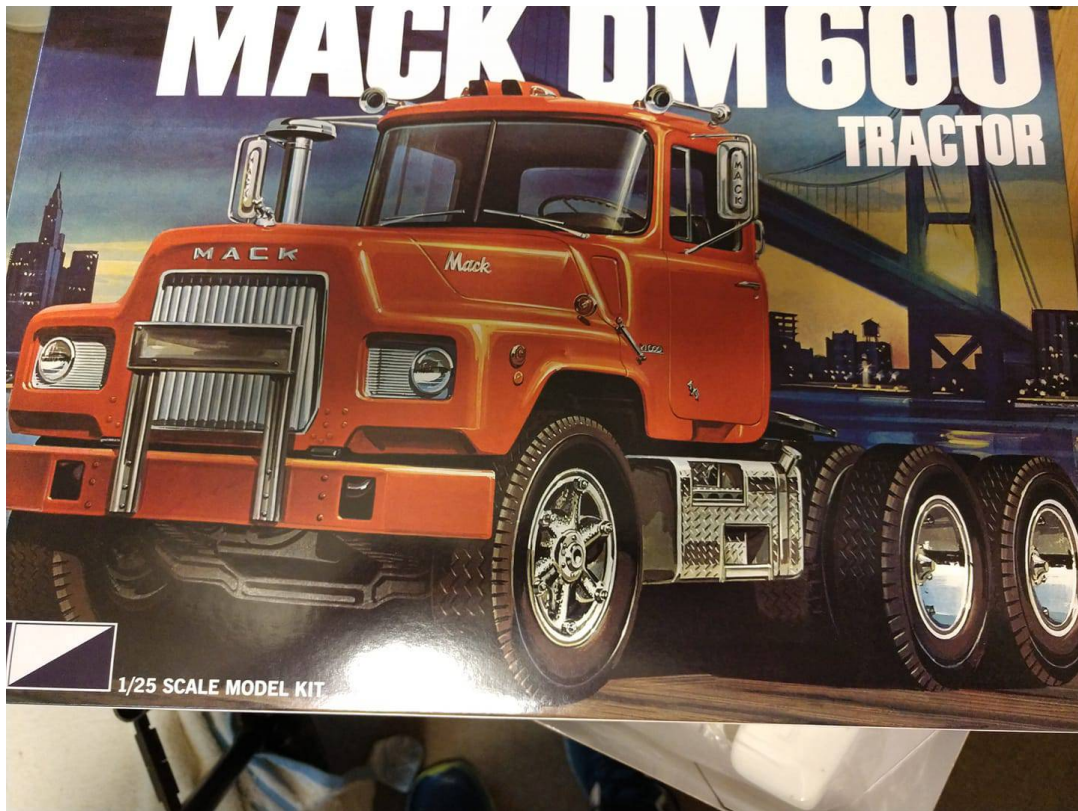
Tom Wingate – Revell – 1/32 scale F-104 Starfighter.



Tom Wingate – Trumpeter – P-51B (Berlin Express) – Bill Overstreet.



Tom Wingate – AMT – 1/25 scale 68 Corvette.



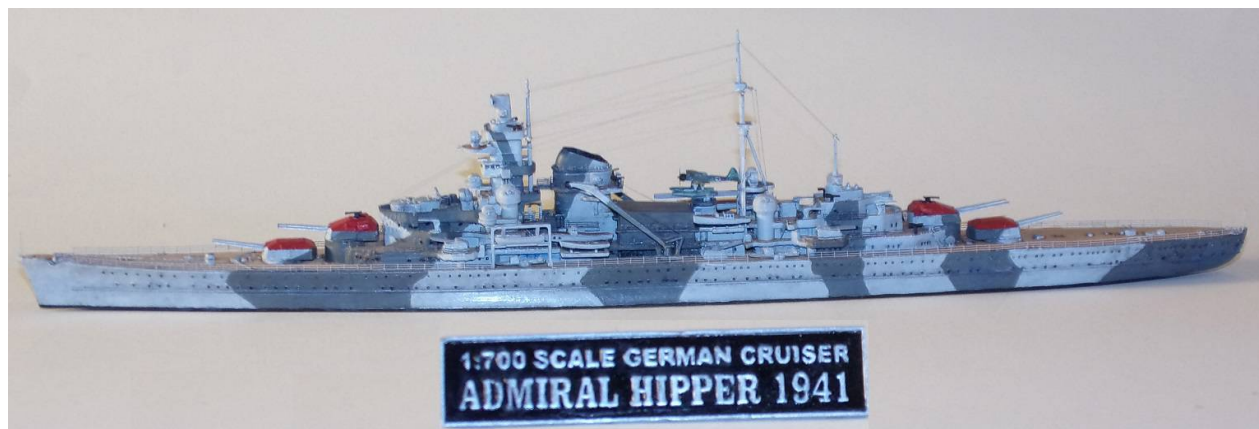
Donnie Greenway – MPC – 1/25 scale Mack DM600 (WIP).



Darby Erd – Hasegawa – 1/72 scale FW190A (WIP).



Matthew Goodman – Tamiya – 1/48 scale A-1J (WIP).



David Koopman – Trumpeter – 1/700 scale Admiral Hipper.





David Koopman – Tamiya – 1/700 scale Gneisenau.



Mike Martucci – Revell – 1/24 scale Bentley 4.5L Blower.



Jodie Peeler – Roden – 1/144 scale 720B in Continental's Saul Bass scheme.



Jodie Peeler – Minicraft – 1/144 scale KC-135E converted to early C-135B circa 1962.



Jodie Peeler – Meng – 1/72 scale TF-102A operational trainer, built from the 1:72 Meng kit with the Grand Models resin conversion.



John Currie – 1/35 scale – M109A2 40th Field Regiment Royal Artillery Op Granby 1991 with Star decals for M109 and AS90 1991 and 2003 (WIP).



John Currie – Tamiya – 1/35 scale M41 Walker Bulldog with Star decals for ARVN (WIP).



Mike Martucci – Revell – 1/24 scale 69 Dodge Super Bee.



Mike Martucci – Revell – 1/24 scale 71 Plymouth Barracuda Convertible.







Ralph Nardone – Fujimi – 1/72 scale SH-3A Sea King

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Well thats all folks

John