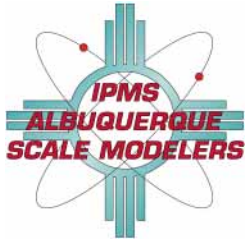


# ALBUQUERQUE SCALE MODELERS



<http://abqscalemodelers.com>

July 2019

## JUNE CONTEST RESULTS JOSH PALS

### and Some Words from the Prez

To celebrate the 75th anniversary of the D-Day landings in Normandy, June's contest was a Special Non-Points contest with the theme being "D-Day." As with most Special contests, the turnout was lighter than usual, with five entries in Intermediate and seven entries in Masters.

Rob Whitlock took Best of Show in Intermediate with his *British Centaur IV* and Scott Jaworski took Best of Show in Masters with his *British Churchill Mk.III Type D AVRE Carpet Layer Tank*.

We have five contenders left in the E-Board Con-

test Challenge! Mike Blohm, Bob Henderson, Scott Jaworski, Frank Randall, and John Tate. With only five contests left, it will be exciting to see who makes it! If all five make it to the December contest, then all five names will be put in a hat and the winner will be chosen at random and receive a Hobby Proz gift card.

Since we have several new members, who may not know all the "rules" when it comes to all the different contests, I'll explain a little here. When entering either a "Special" or "Sponsored" contest the

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June Meeting highlights, left to right: members milling about before the meeting, Josh Pals gives a presentation on D-Day, and the business meeting in progress.



models *must* be in the theme of those contests. When entering a “Points” contest the model *does not* need to be in the theme for the contest. However, if the model is not in theme, it won’t be eligible for the extra points awarded for being “in theme” nor will it be eligible for Best of Show. For more information on model contest eligibility please check out the ASM website under “Contest Guidelines” or feel free to ask any of the E-Board members.

The New Mexico State Fair is almost upon us and some changes have been made. The fair runs from September 5 – 15 and the entry dates have been changed and moved up. Entry dates to enter models are Monday, August 19, from 9:00 A.M. – 5:00 P.M. and Tuesday, August 20, from 9:00 A.M. – 5:00 P.M. The theme for our “Display Only” case is the *80th anniversary of the start of WWII*. The reason we have a theme for a “Display Only” is that the club is given four cases to use for entries and if we don’t fill them, we lose them. Fortunately, the past couple of years have been record breaking and we have filled all four4 cases *and* a case from the car club! Let’s go for the hat trick and make this year another record breaking, case stuffing year at the fair! If you would like to help out with entries, judging or pickup please let me or Mike Blohm know.

## Year 2019 Contest Quick Reference Chart

Titles in **blue** indicate contests for points

- 04 Jan** **SPECIAL CONTEST #1:**  
**SCI-FI/SCIENCE/REAL SPACE/FANTASY**  
*Sponsored Contest: “Frickin’ Laser Beams” (Patrick Dick)*
- 01 Feb** **ASM Swap Meet**—no contest
- 01 Mar** **Open Contest**—Any kit/subject/scale
- 05 Apr** **SPECIAL CONTEST #2: PRESIDENT’S CHOICE: FABULOUS FIFTIES**
- 03 May** **Automotive**—Any kit/subject/scale
- 07 Jun** **SPECIAL CONTEST #3: D-DAY 75TH ANNIVERSARY**
- 12 Jul** **Man in Space**—Any proposed/realspace crewed subject  
*Sponsored Contest: “Best Supersonic” (Patrick Dick)*
- 02 Aug** **SPECIAL CONTEST #4: BEGINNING OF WWII 80TH ANNIVERSARY**
- 06 Sep** **ASM Swap Meet**—no contest
- 04 Oct** **Enter the Dragon**—Any DML/Dragon/Cyberhobby kit
- 01 Nov** **Open Contest**—Any kit/subject/scale
- 06 Dec** **SPECIAL CONTEST #5: BATTLE OF THE BULGE 75TH ANNIVERSARY**  
Plus Model of the Year competition!

**Note: The most complete and up-to-date details on the contests, as well as detailed rules, as always, are on the ASM Website: <http://tinyurl.com/asmsched>**

### Master

Scott Jaworski . . . . .	810
Chuck Hermann . . . . .	439
John Tate . . . . .	385
Glenn Bingham . . . . .	250
Josh Pals . . . . .	200
David Epstein . . . . .	150
Mike Blohm . . . . .	125
Steve Brodeur . . . . .	100
Casey Rupley . . . . .	100
Frank Randall . . . . .	50
Tony Humphries . . . . .	25

Ken Liotta . . . . .	6
Larry Glenn . . . . .	6
<b>Intermediate</b>	
Jim Medina . . . . .	608
Ken Piniak . . . . .	572
Bob Henderson . . . . .	560
Don Smith . . . . .	335
Rob Whitlock . . . . .	225
David DeYoung . . . . .	50
Jack Garriss . . . . .	50
Charles Petrilli . . . . .	25
David Hasking . . . . .	4

Steve Miller . . . . .	2
Logan Carbin . . . . .	2

### Basic

Jeannie Garriss . . . . .	495
John Wyer . . . . .	335
Aaron Schmiedke . . . . .	300

### Junior

Alexander Tate . . . . .	335
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## 2019 MODELER OF THE YEAR POINTS

As of 23 May 19

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ASM members are encouraged to submit articles, reviews and other items as appropriate. Contact editor Joe Walters for details and specs. Submission deadline for each issue is the 20th of the preceding month.



# BONUS PAGES!

## JUNE CONTEST WINNERS

Best of Show winners from June's "75th Anniversary of D-Day Invasion" Special Contest, top to bottom: Rob Whitlock's *British Centaur IV Tank* (Intermediate) and Scott Jaworski's *British Churchill Mk III Type D AVRE Carpet Layer (Bobbin) Tank* (Masters). There were no Junior or Basic entries.



# BONUS PAGES!

## 2019 NEW MEXICO STATE FAIR MODEL CONTEST

### MIKE BLOHM

#### **Enter Your Models in the Contest and/or Contribute to the ASM Display**

The 2019 State Fair is rapidly approaching. The entry dates for the ASM-sponsored model contest are on Monday August 19 and Tuesday August 20 from 9:00 A.M. to 5:00 P.M. each day. This is earlier than in the past and we do not have a weekend entry day (normally Saturday). So please plan accordingly. We do not yet know when judging will be, so stand by on that. We do need some ASM volunteers to help man the entry tables. We will likely have two shifts from 9:00 A.M to 1:00 P.M. and from 1:00 P.M. to 5:00 P.M., and we will need at least two people per shift. We will talk more about that at the July 12th and Aug 2nd meetings. Please contact Josh Pals (jpals871@gmail.com) if you can help with the registration and judging.

2019 has the same contest entry setup as previous years. There are eighteen different classes (categories) to enter, and you can enter one model in each class. Model entries at the Fair will count in the ASM Modeler of the Year competition—at 50 points per contest model entry or 25 points per display-only model entry, with a max of three models counting for points. This means you can enter more than three (please do), but only three will count for points. As in previous years, ASM members in the Masters and Intermediate divisions are requested to enter their models in the “Professional” Section. Juniors and Basics can enter in either the Youth (11 years and under), Senior Youth (12 – 17), or Adult (18 and over) as they fit. Please see the New Mexico State Fair webpage for additional info and rules for the contest. Please note that you cannot enter a model in the contest that has been previously entered in the fair. See the ASM New Mexico State Fair web pages if you cannot remember what you previously entered. There are web pages going back to 2005.

This year’s “ASM Display-Only” theme is “1939—80th Anniversary of the Beginning of World War II.” We are looking for anything that fits that theme, in any scale: armor, other military vehicles, artillery, aircraft, ships, figures, and dioramas (people love dioramas)—all are welcome to be put on display. Note that model contest entries that are in the “1939” theme are okay too—they will be placed in the ASM display-only case after the judging, and all the State Fair paperwork (entry/name tags) will be kept with them. Hopefully we can totally fill the case and have an impressive display again this year. Additionally, this “80th Anniversary of the Beginning of WW II” theme is also the theme for the August 2 ASM contest, so hopefully you are building something for that!

Below are some pictures of the 2018 New Mexico State Fair. The ASM Display-Only theme was “1918.” The 2019 State Fair runs from September 5 –15.













# BONUS PAGES!

## KEN'S ARMOR FILES

### KEN PINIAK

#### Stowage on Modern US Armored Vehicles

One topic that gets even the experts is all of the gear that is stowed on modern US armored vehicles. Beginning especially with all the media coverage of Operation Desert Shield/Storm (ODS), people were



Bradley covered with gear



Bradleys with gear

amazed by the sheer amount of stuff carried in and on US vehicles. Often this is referred to as “extra stowage” or “extra gear.” It is not “extra” anything; it is just gear, and mostly required gear. So here I will go over just what all that gear is, and how to model it on a vehicle. This information is most relevant to vehicles used during the Cold War, ODS, and the initial invasion of Iraq in Operation Iraqi Freedom (OIF). It is also relevant to vehicles deployed to the National Training Center (NTC) at Ft. Irwin, vehicles deployed on REFORGER, and those in South Korea. During Vietnam and many of the actions in OIF vehicles operated out of base camps, and carried very little gear with them, so much of the personal gear would not be present. The gear carried on a vehicle can be broken down into two main types; gear required by the crew/personnel, and gear required to operate the vehicle. Let's take a look at the gear for the crew.

Throughout the Cold War and beyond, heavy mechanized units were expected to operate, in combat, for at least three to four days without resupply. Therefore, they had to carry everything they needed to survive with them. Exactly what was carried, and where, varied by unit; and was covered by the unit Standing Operating Procedure (SOP). Although these varied from unit to unit, the basics

are all the same. Also, these amounts are required minimums; you could always carry more (and we often did). Each soldier carried/wore their basic combat gear: one full uniform, helmet, flak vest, web gear, gas

mask, and weapon. Everything else was divided up into three bags: A bag, B bag, and C bag.







Living on the tank



Duffel bags and water

The A bag was carried by the soldier, and went with him. Usually the rucksack, sometimes a duffel bag, it contained at least one fresh uniform, socks, and underwear, toiletry items, a sleeping bag, and anything else that a soldier would need right away. The B bag, usually a duffel bag, carried another uniform, boots, more socks and underwear, along with the field gear that was expected to be needed very quickly. This usually included cold weather gear and wet weather gear. The B bag should travel with the soldier, but may be transported separately and get to the soldier later.

The C bag, the last duffel bag, contained another uniform, socks, and underwear, and the rest of the issued field gear. This bag was often transported separately from the soldier and delivered to him when needed/available.

All this means that for every soldier on a vehicle, you have one rucksack and two duffel bags. A tank has a crew of four, a Cavalry Bradley five, I believe an M113 carried ten, and an Infantry Bradley nine. At three bags per crewman, that gives you twelve to eighteen bags of required personal gear carried on a vehicle. Additionally, in ODS, we were not allowed to sleep on the ground and were issued cots.

So add four to nine cots to the vehicle. The crew has to eat. Assuming three meals a day, one case of MREs will feed a soldier for four days. So add four to nine cases of MREs to the load. The crew also needs water, so add at least one five-gallon can of water to the vehicle. In ODS and OIF, cases of bottled water were often carried. Many units also began to issue insulated 1 gallon water jugs and ice chests. These were regular civilian items, and came in a variety of colors. In ODS we carried extra canteens; usually two, one quart canteens on the web belt, and an additional two-quart canteen. In OIF, they carried a camelback water container on their back or inside their body armor or rucksack. That covers the required gear for the crew.

The vehicles themselves need maintenance and repairs. They carry tools, equipment and supplies to keep them operating. What has to be carried, and where it goes, is covered by the vehicle Basic Issue Items (BII) list in the vehicle Operators Manual or Technical Manual (TM) and unit SOP. Some unit SOPs are





Model Tank with Duffle Bags and Rucksacks

pretty generic; they might state that a tank must carry one spare road wheel and two spare track blocks mounted on the turret. Others can be more specific; *i.e.*, one spare road wheel will be mounted to the left side of the bustle rack and two spare track blocks will be mounted to the right side of the turret in front of the bustle rack. Most SOPs require at least one spare road wheel, track blocks, and other parts to fix broken tracks and road wheels. They also have at least one five-gallon can of oil for the engine, and one for the transmission. Additionally, Bradleys, M 113s, M 577s, Humvees, and most wheeled vehicles need water for the radiator, so add another five-gallon water can. And lastly, most vehicles were required to carry a camouflage system consisting of one net (in bag) and one support bag of poles and spreaders. Every vehicle also comes with one tarpaulin (tarp). Many units specify the use of additional stowage containers. The 20mm ammo boxes often seen mounted on the back of tank bustle racks are a good example of this.

Where a vehicle is can also dictate some gear stowage. German law requires tactical vehicles to be equipped with a rotating or flashing “whoopee light” to alert civilian traffic. This is



M60A1 with Camo net on turret and pole bag on side





Model Bradley with full bustle rack

usually mounted on top of the vehicle or on the rear. Vehicles involved in training exercises or deployed to the NTC are equipped with Multiple Integrated Laser Engagement System (MILES) gear which includes firing simulators and a “kill light” that looks similar, but is different from, the whoopee light. Vehicles involved in REFORGER or other exercises have a blue or orange panel mounted on the side or turret to show what “side” they are on. Vehicles in REFORGER can have all of these at once!



Water, MREs, oil can

Finally, if a unit is involved in combat operations, it will be packed full of ammunition (ammo). Most of the ammo is packed in specified racks or bins; but extra ammo can be carried on the outside of the vehicle. In ODS, we carried lots of extra ammo, especially for the machine guns.

At this point, a vehicle is pretty





Gear on Rear

well covered with gear, all of which is required by SOP. This does not include any extra personal gear, comfort gear, or war trophies. And if you have ever looked inside of an armored vehicle, you know that there is very little room in it, so all this stuff gets piled on top or hung along the sides. So now you know why US armored vehicles are covered with so much “extra” gear.

So now how do you model all this stuff? Back in the 1970s — '80s, there was very little gear available, either from the major model manufacturers or the aftermarket. If you wanted to add any gear, you had to make it yourself from epoxy putty or tissue paper soaked in diluted white glue. Today there is literally tons of gear available. Major manufacturers (AFV Club, Tamiya, Academy, Meng, Rye Field, Trumpeter, etc.) provide lots of stowage gear with their

So now how do you model all this stuff? Back in the 1970s — '80s, there was very little gear available, either from the major model manufacturers



Model M60A1 with pole bag on side of turret





M60A1 tank in Germany with camo net

kits, or as accessory sets. Aftermarket companies (CMK, Verlinden, Legend, DEF Model, Plus Model, etc.) provide gear in resin, photoetch metal, paper, and other materials. The quality of most of these items can be great, but be careful. They do get some things wrong (Note: specific manufacturers and items listed here are simply ones that I have used or know of, it is not intended to be a complete or all-inclusive listing).

Tamiya, especially, often has you just glue items to the side of the turret or hull of a vehicle, with no indication of how it is actually attached. In real life, everything should be securely attached to the vehicle, or it



Legend camo net

will come off and get lost. Most items are attached using straps and tie-down loops (sometimes called footman loops). Other items are strapped to guards, hand rails, antenna mounts, lifting eyes, or something. During ODS, many US units created improvised tie-down points on the sides of their Bradleys; often using straps



Early M1 with Whoopee Light on rear fender





M3 Bradley ammo stowage

beginning of OIF, some Bradleys had locally-fabricated racks mounted to the sides of the vehicles. Several companies model these, including Legend and Verlinden.

Sometimes, crews will remove the camouflage net from its bag and place it on the vehicle. Italeri included this in their M-163A1

and the bolts on the armor plates. After ODS, the US Army added tie-down points to the sides of Bradley fighting vehicles and an additional bustle rack to the turret of M1 tanks to better handle all this gear. In the



Bradley Gear



Model Bradley ammo stowage





Model Bradley gear

Vulcan, but it is pretty crappy. Legend does a nice version in resin; AVF Club and DEF Model have the material in a thin plastic. One trick US tank crews like to do is use the vehicle's tarp to cover the gear stowed in the bustle rack to protect it from rain, snow, and mud. Some aftermarket companies, especially Verlinden, use a lot of "random" tarps and tent rolls to fill space when they don't know what to put there. As I explained earlier, there is no "random" anything, every item has its purpose.

There are, of course, exceptions to everything. If you have a photo of a vehicle that shows something different, go ahead and build it.



Duffel bag strapped to vehicle





War Trophy portrait of Saddam



Model with all gear strapped or tied down





Clockwise from top left: M1 with additional bustle rack;  
M60A3 with tarp covering bustle rack; tank under  
camo; and model tank with tarp covering bustle rack.





# BONUS PAGES!

## JULY 20, 1969

### FRANK RANDALL

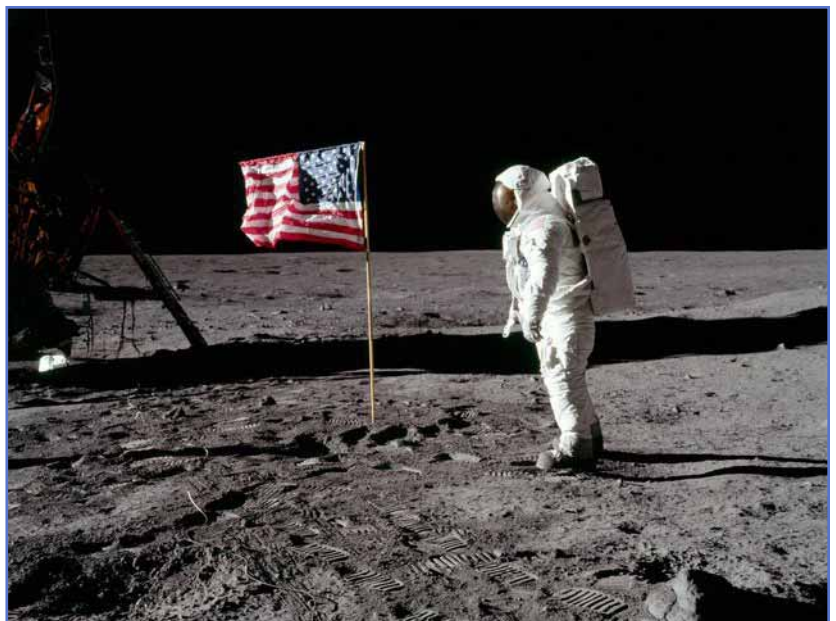
July 20, 1969, a 10-and-a-half-year-old boy was glued to the TV watching a grainy black and white broadcast of the Apollo 11 landing. I remember my Dad saying that this would be a history-making event. And now, fifty years later, we remember that great event. So who was that first man on the moon making that great statement, “That’s one small step for man, one giant leap for mankind?”

Neil Alden Armstrong (August 5, 1930 – August 25, 2012). He was a naval aviator, test pilot, astronaut, and university professor.



A graduate of Purdue University, Armstrong studied aeronautical engineering. He became a midshipman in 1949, and a naval aviator the following year. He saw action in the Korean War, flying the Grumman F9F Panther from the aircraft carrier *USS Essex*. In September 1951, he was hit by anti-aircraft fire while making a low bombing run, and was forced to bail out. After the war, he completed his bachelor’s degree at Purdue and became a test pilot at the National Advisory Committee for Aeronautics (NACA) High-Speed Flight Station at Edwards Air Force Base in California. He was the project pilot on Century Series fighters and flew the North American X-15 seven times. His first flight in a rocket-powered aircraft was on August 15, 1957, in the Bell X-1B, to an altitude of 11.4 miles (18.3 km).

He flew the North American X-15 seven times, including the first flight with the Q-ball system, the first flight of the number 3 X-15 airframe, and the first flight of the MH-96 adaptive flight control system. Armstrong was involved in several incidents that went down in Edwards folklore or were chronicled in the memoirs of colleagues. During his sixth X-15 flight on April 20, 1962, when Armstrong was testing the MH-96 control system, he flew to a height of over 207,000 feet (63 km) (the highest he flew before Gemini 8). He held up the aircraft nose for too long during its descent to demonstrate the MH-96’s g-limiting performance, and the X-15 ballooned back up to around 140,000 feet (43 km). He flew past the landing field at Mach 3 at over 100,000 feet (30 km) in altitude, and ended up 40 miles (64 km) south of Edwards. After sufficient descent, he turned back toward the landing area, and landed, just missing a bunch of Joshua trees at the south end. It was the longest X-15 flight in both flight time and length of the ground track.







He became an employee of the National Aeronautics and Space Administration (NASA) when it was established on October 1, 1958, absorbing NACA. He was also a participant in the US Air Force's Man in Space Soonest and X-20 Dyna-Soar human spaceflight programs.

Armstrong joined the NASA Astronaut Corps in the second group, which was selected in 1962. He made his first spaceflight as command pilot of Gemini 8 in March 1966, becoming NASA's first civilian astronaut to fly in space. During this mission with pilot David Scott, he performed the first docking of two spacecraft. During training for Armstrong's second and last spaceflight as commander of Apollo 11, he had to eject from the Lunar Landing Research Vehicle moments before it crashed.

On July 20, 1969, Armstrong and Apollo 11 Lunar Module pilot Buzz Aldrin became the first people to land on the Moon, and spent two and a half hours outside the spacecraft while Michael Collins remained in lunar orbit in the command and service module. Along with Collins and Aldrin, Armstrong was awarded the Presidential Medal of Freedom by President

Richard Nixon. President Jimmy Carter presented Armstrong with the Congressional Space Medal of Honor in 1978, and Armstrong and his former crewmates received a Congressional Gold Medal in 2009.

After he resigned from NASA in 1971, Armstrong taught in the Department of Aerospace Engineering at the University of Cincinnati until 1979. He served on the Apollo 13 accident investigation, and on the Rogers Commission, which investigated the Space Shuttle *Challenger* disaster. He acted as a spokesman for several businesses, and appeared in advertising for the automotive brand Chrysler starting in January 1979.

While my Dad was stationed at the Air War College, we had access to a computer lunar lander simulation and we discovered it could be programmed with the same parameters that Neil Armstrong encountered during the landing of the Eagle module. After many tries we did manage to land the Eagle (fifteen tries according to my Dad), so we are not the pilots that Mr. Armstrong was to get it right on his only try. Mission Control later revealed that the module only had about 45 seconds of fuel left at landing!

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# BONUS PAGES!

## APOLLO 11

### KEN PINIAK

When I was a little boy—a very little boy—my grandfather, Milton E. Bureson, worked for the space program. He was a contractor for Boeing, and, for a time, Aerojet. He lived in Houston, Texas, Huntsville Alabama, and finally, Titusville, Florida. My family visited my grandparents several times, in Huntsville, and especially in Florida. One time, while visiting in Huntsville, we went to see Rock City.



Once, while visiting my grandparents in Titusville; I was playing with my Major Matt Mason Moon Suit toy. This toy had rubber arms with a wire in them, which often came out. Mine did, and poked me in the thumb (this was long before toy safety laws). Grandpa had to use needle nose pliers to get it out of my thumb; I guess it helps to have a rocket scientist in the family. And yes, I cried, the damn thing hurt! But that didn't stop me from playing with it! Another time, we visited them for Christmas in Florida. We went swimming in the ocean on Christmas Day! Okay, wading in the surf, I was just a little kid after all. But



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coming from northern Indiana where everything was frozen, going in the ocean on Christmas was a pretty big deal!

The best time was watching Apollo 11 lift off. The public was not allowed on the cape back then. This was long before the visitor center was built. Heck, this was even before Walt Disney World was built! We had to watch from across the Indian River. I was too small to see anything with all the big people in the way. I don't remember if they set up loudspeakers, or if it was just all the people with radios, but I could hear what was going on.



As the countdown neared zero, everyone got quiet. When the rocket engines lit up I couldn't see it, but I could feel it! The raw power of those engines made the ground rumble. Once it got above the heads of the people, I could see it. This big, bright, upside-down flame. I couldn't see the rocket, the flame was too bright. And it just kept going up, up, up, higher than anything I had ever seen, higher than any airplane, and it still kept going! Finally, it just got too far away to see any more. And then it was gone. Later, we watched on TV when Armstrong climbed out and stepped onto the moon. The image was very grainy, and I could barely make out what was happening.

That was the last space mission for my grandfather, he retired after that. I was never able to get him to talk about what he did, even when I got older and was in the Army. He never talked about a lot of things. But he did give me some Apollo training manuals.

So far, I have never returned to Cape Kennedy. I never got to see a Space Shuttle launch. But I got to see Apollo 11 and its Saturn V launch. To this day, fifty years later, it is still the biggest and most powerful craft ever built. And the only one to carry humans beyond Earth orbit.



# BONUS PAGES!

## X-15

### FRANK RANDALL

The North American X-15 was a hypersonic rocket powered aircraft operated by NACA (later NASA) as part of the X-Planes series of experimental aircraft. The X-15 set speed and altitude records in the 1960s, reaching the edge of outer space and returning with valuable data used in future aircraft and space craft design.



During the X-15 program, thirteen flights by eight pilots met the Air Force space flight criterion by exceeding the altitude of 50 miles (80 km), thus qualifying these pilots as being Astronauts.

Three X-15s were built, flying 199 test flights, the last on 24 October 1968.

The first X-15 flight was an unpowered glide flight by Scott Crossfield, on 8 June 1959. Crossfield also piloted the first powered flight on 17 September 1959. Twelve test pilots flew the X-15. Among these were Neil Armstrong, later a NASA Astronaut and first man to set foot on the Moon, and Joe Engle, later a commander of Space Shuttle missions.

On 15 November 1967, US Air Force test pilot Major Michael J. Adams was killed during when X-15-3, AF Serial No. 56-6672, entered a hypersonic spin while descending, then oscillated violently as aerodynamic forces increased after re-entry. The airframe broke apart at 60,000 feet (18 km) altitude, scattering the X-15's wreckage for fifty square miles.

The second plane, X-15-2, was rebuilt after a landing accident on 9 November 1962 which damaged the craft and injured its pilot, John Mackey. It was lengthened by 2.4 feet (73 cm), had a pair of auxiliary fuel tanks attached beneath its fuselage and wings, and a complete heat-resistant ablative coating was added. The plane was renamed the X-15A-2, and took flight for the first time on 25 June 1964.

Five principal aircraft were used during the X-15 program: three X-15 planes and two modified "non-standard" NB-52 bombers:

- X-15-1: 56-6670, 81 free flights
- X-15-2 (later X-15A-2): 56-6671, 31 free flights as X-15-2, 22 free flights as X-15A-2—53 in total
- X-15-3: 56-6672, 65 free flights
- NB-52A: 52-003 nicknamed The High and Mighty One (retired in October 1969)
- NB-52B: 52-008 nicknamed The Challenger, later Balls 8 (retired in November 2004)





My X-15 build used the Monogram  $\frac{1}{2}$  kit. It's a decent kit with good details, is a pretty quick build, and gives you the option of the canopy open or closed, and a pretty good carriage for the back of the vehicle as the X-15 did not have back wheels, just skids. The skids are in the kit but there are no struts for them. The model decals represent the X-15A-2 with the rebuilt and extended frame. I painted it with three different blacks and a very dark gray to try to get the look of the original. Also be aware that the external fuel tanks were different colors and markings for each mission so check your references! Overall not a bad kit in this scale and it's the only game in town in  $\frac{1}{2}$ .



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# BONUS PAGES! MISCELLANEOUS



What is this thing??



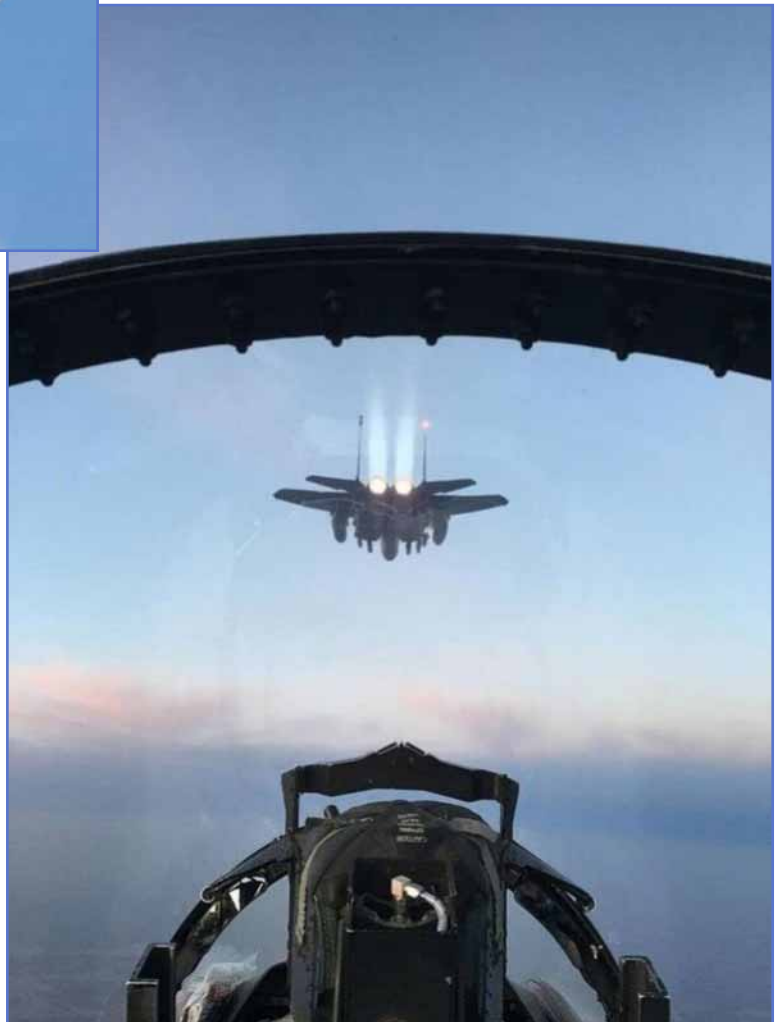








Above: Filming *Indiana Jones and the Last Crusade*.











## Join IPMS/USA!

The International Plastic Modelers' Society is an organization dedicated to the fun of Scale Modeling. There are IPMS branches all over the world.

As part of your IPMS/USA membership, you will receive the IPMS Journal six times a year. In it you will find stories of interest on subjects such as aircraft, armor, automotive, ships, and figures. You will also find listings of IPMS contests and swap meets, hints and tips, and reviews. Membership also qualifies you to participate in IPMS/USA-sanctioned Regional Contests, as well as our world-famous National Convention, held each summer.

As a member, you'll also be able to access our online Members' Forum, where a wide variety of society and modeling topics are discussed. In addition, many hobby shops around the country offer discounts to IPMS/USA members. To join, simply use the form below or join online (<http://www.ipmsusa.org>).

For any questions or problems regarding your membership application or renewal, please contact the IPMS/USA Office Manager ([manager@ipmsusa.org](mailto:manager@ipmsusa.org)).



## IPMS/USA MEMBERSHIP FORM

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Type of Membership  Adult, 1 Year: \$30  Adult, 2 Years: \$58  Adult, 3 Years: \$86

Junior (Under 18 Years) \$17  Family, 1 Year: \$35 (Adult + \$5, One Set Journals) How Many Cards? \_\_\_\_\_

Canada & Mexico: \$35  Other / Foreign: \$38 (Surface) Checks must be drawn on a US bank or international money order

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### IPMS/USA

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