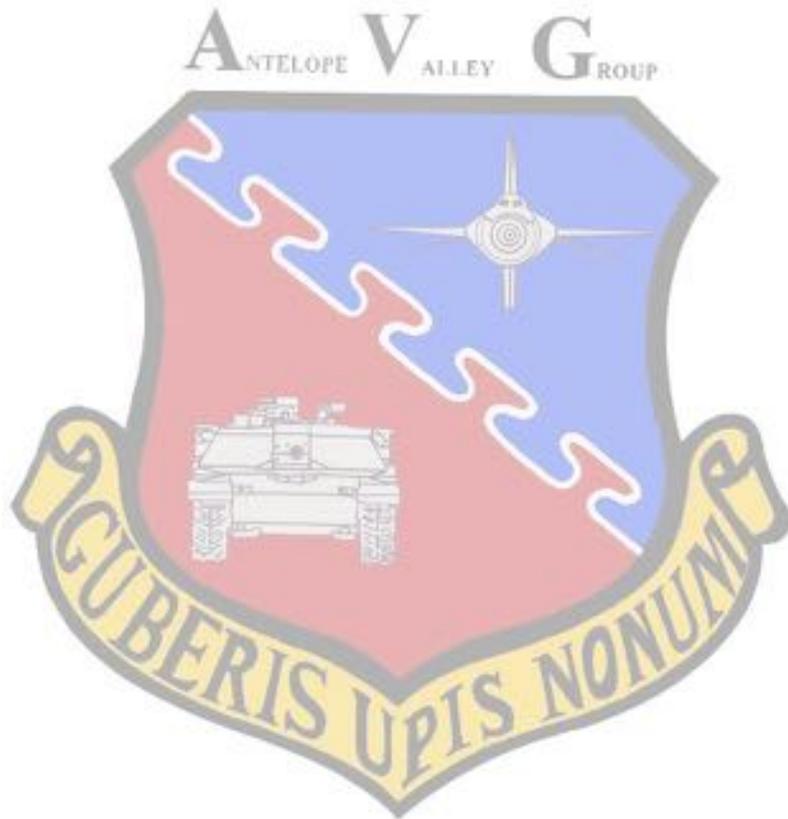


# The Smoking Hole

A Publication of the Antelope Valley Group IPMS

**Volume 25, Number 10**



**[www.avg-ipms.org](http://www.avg-ipms.org)**  
**[avg\\_ipms@yahoo.com](mailto:avg_ipms@yahoo.com)**

## 2020 Club Officers

President

Dwight Young

[dwight.avg@gmail.com](mailto:dwight.avg@gmail.com)

Co-Vice Presidents

Jay Faulk / Luis Toledo

[Faulkme2002@yahoo.com](mailto:Faulkme2002@yahoo.com)

[Coladito1@aol.com](mailto:Coladito1@aol.com)

Treasurer

Niilo Lund

[niiloj7@verizon.net](mailto:niiloj7@verizon.net)

Secretary

Matt Graham

[flighttester64@gmail.com](mailto:flighttester64@gmail.com)

## Club News and Business

### OCTOBER PHYSICAL MEETING IS CANCELLED

We are planning a 'virtual' meeting for Saturday, 17 October, 4pm. Should have received an e-mail Zoom invitation with details from Prez Dwight

#### September Meeting General Meeting Notes:

The September meeting was canceled, due to the closure of the Kern County Library system. Same as it ever was...

#### Latest Club Status.

The Kern County Library System has re-opened in a limited capacity. Activities are still limited to browsing for materials, computer use, copying, faxing, printing and research services and you are limited to 30 minutes in the library. Specifically excluded at this time are meeting and study spaces and restrooms. Kern County recently upgraded from State "Purple" COVID status to "Red", which allows wider re-openings, so perhaps in the not-to-distant future the meeting spaces may re-open.

#### West Coast Contests Cancelled, Postponed or Rescheduled

As I'm sure you all know by now, there are no West Coast contests for the remainder of 2020.

#### IPMS Region 4 "Virtual Regional" Contest

Prez Emeritus Mike B. has sent information on a novel contest format his club, the Wright Field Scale Modelers, is sponsoring a 'virtual' contest. All the entries will be by uploaded photographs, and there's even a virtual vendors area. This is a very cool idea, and Mike has invited the AVG members to participate. Here's all the information:

### **Never Surrender**

Wright Field Scale Modelers (WFSM) is pleased to announce WrightCon, the 2020 IPMS-USA Region IV Convention, will be held online only this year. The unofficial theme will be "Never Surrender."

While the pandemic may have put the kibosh on every other model show in Region IV, and throughout most of the US, WFSM refuses to yield to yield to the virus. It is our desire to bring our friends in Region IV an enjoyable, if somewhat unorthodox, Regional this year. WrightCon will return to its normal in-person format when the pandemic is over.

WrightCon 2020 will be presented in a virtual format, and we invite you to join us in this grand experiment. Elements of the event will include an

- online model show and contest with IPMS-style judging,
- virtual vendor room,
- door prizes.

## **Contest**

Model registration, entry, and photo upload is now available through 11:59 p.m. Eastern Time Saturday, November 7, 2020. Judging will take place from Sunday November 8th – Friday November 13th, with awards announcement on Saturday, November 14<sup>th</sup>.

Judging will resemble traditional IPMS judging, with teams of judges evaluating entry photos uploaded to the [WrightCon website](#) and collaborating via video teleconference. Judging criteria and approach will be based on the [IPMS-USA Competition Handbook](#). Judging will be conducted over a 1-week period from the closing of registration to best accommodate the virtual format and the remote judging teams. Additional details are available at the [WrightCon website](#).

## **Virtual Vendor Room**

Vendors will be listed with a link to a website, webstore, or a list of available kits. Delivery arrangements will be worked out between the vendor and the buyer.

## **Door prizes**

Each model contestant will be automatically entered into a drawing for door prizes. The drawing will take place on Saturday, November 14<sup>th</sup> live on Zoom (need not be virtually present to win). The specific prizes will be listed on the [WrightCon website](#).

## **Pricing**

We will be offering 2 registrations options: (1) Compete for actual awards, which will be mailed following the show, for a \$15 registration; or opt to compete for “virtual” awards, which will consist of recognition on the event website, with a \$10 registration. Price differential is to cover cost of the awards, packaging, and postage.

**Vendor** options will be available starting at \$10 for a link to vendor website or posting of their show offerings.

**General admission** will also be offered for \$5 per person, providing general public access to the virtual contest room, vendors.

## **Come Join Us**

While we would rather see you in person, we hope to see you online for WrightCon 2020! Please, come join us, and *Never Surrender!*

## 2020 Meeting Schedule

Primary	Activities	Refreshments	Demo	Review
18 Jan	Member Dues Collected	Steve/Mike -Main Jim- Drinks Jay - Chips		
15 Feb		Bill, Mike O.		
21 Mar		<b>CANCELED</b>		
18 Apr		<b>CANCELED</b>		
16 May		<b>CANCELED</b>		
20 June		<b>CANCELED</b>		
18 July		<b>CANCELED</b>		
15 Aug		<b>CANCELED</b>		
19 Sept		<b>CANCELED</b>		
17 Oct		<b>CANCELED Virtual meeting planned</b>		
31 Oct	2020 Desert Classic <b>(CANCELED)</b>			
21 Nov <b>(TBD)</b>	2021 Club Officer Nominations	Dwight		
19 Dec <b>(TBD)</b>	Gift Exchange, In-House Contest "Your Personal or Professional Experience" <b>(POSTPONED)</b>	Everyone!		

## The Tool Crib

We have a new installment from “Rich the Toolman”!

**Reviewer:** Rich Ribaudó

**Product:** Machinist’s “1-2-3” Blocks

**Source(s):** Amazon

In days of old (well, not *that* old) one of the first projects an apprentice machinist would be tasked with was making perfectly square blocks from bar stock that they had to cut, file and polish by hand. Some trade high schools had their Industrial Arts students make them and I even had to make one in Airframe and Powerplant school for sheet metal repair class. It taught you measuring, cutting, file work and polishing on an extreme precision level. And lots of patience.

Machinist Blocks, sometimes called “1-2-3 Blocks” (they measure 1” by 2” by 3”) have perfectly square sides. Their obvious use is for setting up projects for machining, milling, joining and welding anything needing a 90-degree angle. For the modeler, a good set of these blocks is very handy for squaring up all sorts of parts before committing them to cement. I recently found a very affordable pair of blocks with a feature that allows them to be adjusted to an off 90-degree angle.

Each of these blocks have 46 threaded holes in them, into which machine bolts can be threaded. The end of the bolt can protrude through the opposite side of the block to raise the block above the workbench (see the last photo). An ideal application for modelers is for adjusting wingtips and horizontal stabilizers to equal angles of dihedral. Placing the surface at the edge of the block and adjusting the screw allows for precision alignment on both sides; set one side, measure the dimension of the part to the bench and then adjust the other side equally. No more shimming with card stock or baseball cards under the wings and horizontals! Placing one of these blocks next to a car tire or armor road wheel gives a perfect right angle for alignment. Same goes for ship masts and many other applications.

I got the set pictured here from Amazon. Just search for “Machinist 1 2 3 blocks”. You will find dozens of configurations of blocks, sold individually and in sets, for many applications. This set was \$32, but less expensive blocks are available. A very worthy investment that quickly takes your work to a higher level of accuracy. Highly recommended to add to your toolbox.

[Back to results](#)



Roll over image to zoom in

### HFS Ultra Precision 1-2-3" Blocks 2pcs/Pair, 0.0001" (Plastic Case)

Brand: [HardwareFactoryStore.com](#)

★★★★★ 123 ratings | 8 answered questions

**Amazon's Choice** for "1x2x3 blocks"

Price: **\$31.89** ✓ **PRIME & FREE Returns**

- Size within +/- .0001"
- Flatness and parallelism within .0001"
- Squareness on all sides is 0.0002" per inch
- Pairs are matched to a tolerance of 0.0001"
- Used for set-up, layout and inspection jobs

#### Specifications for this item

Brand Name	HardwareFactoryStore.com
Material	hardened tool steel
Number of Items	1
Part Number	10298
Specification Met	
UNSPSC Code	27000000

[See more product details](#)

**\$31.89**

✓ **PRIME & FREE Returns**

**FREE delivery: Friday, Oct 16**  
Order within 10 hrs and 18 mins.  
[Details](#)

**In Stock.**

Qty: 1 ▼

**Add to Cart**

**Buy Now**

Secure transaction

Ships from [Amazon](#)  
Sold by [Hardware Factory Store](#)

Add gift options

Deliver to Rioh - Resealed \$358

**Add to List** ▼

Share

Have one to sell?

**Sell on Amazon**

## Sturdy case



**All the parts. Blocks come wrapped in Cosmoline coated paper.**



**Note the block on the right has a machine bolt lifting it off horizontal.**

**This feature allows for fine adjustment for lifting parts**



## Club Demos

Little bit hard to do demos during “social distancing”, though suppose you could do a YouTube demo or Zoom session.

Anyway, hope to see some demos when we all get back together.

## Kit Review

*Zvezda 1/48<sup>th</sup> Soviet Attack Helicopter Mi-24V/VP*



The Mi-24 was developed in the 1960's as a heavy assault helicopter. Based on the dynamic components of the Mi-8 transport, the Mi-24 could carry 8 combat-equipped troops in a fuselage incorporating an titanium-armored tub. The initial variant, the Mi-24A, housed a crew of 3 (pilot, co-pilot and gunner) in a 'beetle-eye" multi-transparency cockpit. Armed with a single 12.7mm machine gun, the Mi-24A also sported two large stub-wings with 2 hardpoints for mounting unguided rocket pods. Later, a third hardpoint was added at the wing tip to carry anti-tank missiles. A contemporary of the AH-1 Cobra, the Mi-24 had no direct Western counterpart, the closest being the Sikorsky S-67 Blackhawk (not to be confused with the later UH-60), which was also derived from transport helicopter dynamic components and contained a troop compartment. The S-67, however, never entered production. The Mi-24 received the NATO code name "Hind".

The next variant of the Mi-24 received a significant upgrade to a more traditional 'gunship' configuration. The original 3-man cockpit was replaced by a stepped, 2-man tandem seating arrangement of typical configuration with the pilot in the aft cockpit and the co-pilot/gunner forward. The single 12.8mm gun was replaced with a turreted, multi-barrel 12.7mm 'gatling' gun. This was the Mi-24D (Hind D) and saw extensive use during the Soviet invasion of Afghanistan. The Mujahedeen discovered that, while the Mi-24 was heavily armored underneath, it was vulnerable from the top, and were able to down a number of the helicopter by shooting at them from *above* as they flew through the Afghan valleys. Experience in Afghanistan led to the introduction of a suite of aircraft survival equipment (ASE) that included exhaust heat

suppressors, chaff and flare dispensers and infra-red jammers. This produced the Mi-24V (Hind E). Other variants replaced the turreted gun with a fixed, twin-barrel 23mm cannon (Hind F).

The Mi-24 was successfully exported to a number of customers. The export versions (referred to as Mi-25's or Mi-35's) were provided to Eastern Bloc client states, and various other customers in the Middle East, Africa and Latin America.

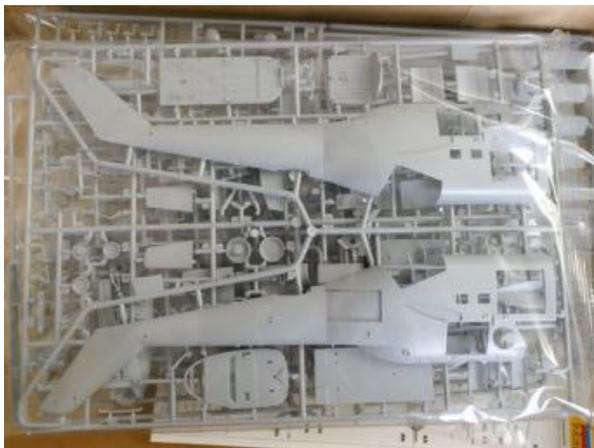
Development of the Mi-24 series has continued and the helicopter is still in production. The newest airframes include upgraded engines, 'glass' cockpits, composite rotor blades, 'scissor' tail rotors and sophisticated sensors

There have only been 2 1/48<sup>th</sup> Mi-24 kits produced. The first is the Monogram kit from the late '80's. It is typical '80's Monogram, with raised panel lines and iffy fit. Considering the kit was produced prior to the fall of the Berlin Wall when references to Soviet aircraft were scarce, it is surprisingly well done. The most significant flaws are that the tail boom is too short, and the cockpit is fairly sparse and mostly fictional. It also lacks the characteristic Hind 'twist' (the main transmission of the Mi-24 is offset 3.5 degrees from vertical to counteract tail rotor thrust). There are a number of aftermarket sets for this kit, including a couple from CMK that include a plug to correct the tailboom length, and it can still be made into quite a presentable model. The other 1/48<sup>th</sup> kit is from Mini Hobby (a Trumpeter offshoot). This is essentially just a knock-off of the Monogram kit with recessed panel lines and inferior detail.

Zvezda has been on a roll lately, producing some truly outstanding kits. They introduced a series of Mi-24's in 1/72 a couple of years ago that are regarded as the best Mi-24's in any scale (they even include the 'twist'), so I was excited to hear they would be producing the Mi-24 in 1/48<sup>th</sup>.

The kit comes in a very large, sturdy box with a hinged lid, decorated with a painting of 2 Mi-24's overflying a Soviet convoy in a valley. The rear of the box has color photos of the built kit.

Opening the box, one finds 5 light-gray sprues and one clear sprue. The kit has 318 total parts.



The fuselage nose is produced as separate parts, hinting at future versions. Hopefully Zvezda will produce the 'beetle-eye' nose Mi-24A, which has never been kitted in 1/48<sup>th</sup>.

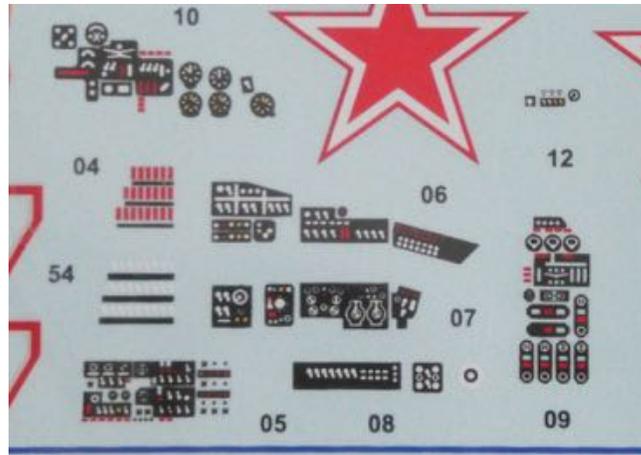
The kit includes a full interior, to include both engines and the main transmission, which can be displayed with open panels. Two crew figures are provided, along with a good selection of external stores (ant-tank missiles, rocket pods and napalm, among others). The kit provides the option of the 12.7mm rotary gun (Mi-24V) or the 2-barrel 23MM rotary cannon (Mi-24VP). The level of detail and engraving are high, especially on the rotor head and engines.

The instruction are well laid out and clear, being reminiscent of Tamiya's



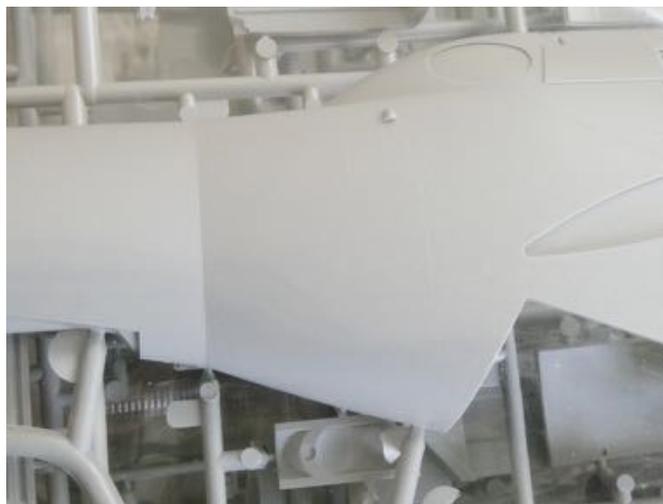
Decals are provided for 4 options, one Czech and 3 Soviet/Russian, including a sinister all-black example of the Russian Baltic Fleet.

As well done as the kit is, it does have a couple of significant drawback. One is the use of decals to depict the instruments and switches in the cockpit.



Many modern kits include instrument decals to use on a plastic panel with the instruments molded in relief. This can make a very effective presentation. But in the Zvezda kit, the decals simply affix to a flat panel. They are not particularly well done, either. Overall, it's reminiscent of an old ESCI kit. In 2020, this is inexcusable in a 1/48<sup>th</sup> kit. Fortunately, Eduard has produced several sets in their standard and Look lines, and Quinta has various sets of their outstanding 3-D printed color decals.

The other issue is the lack of rivet detail.



Helicopters, because of their low-speed nature, are rarely flush-riveted. Most helicopters are festooned with brazier-head rivets, and the Mi-24 has some particularly large ones, looking like an old boiler in places. The Zvezda kit is completely smooth, with only fine recessed panel lines. It even lacks the 'divot' style rivets so popular with so many kit manufacturers. I've complained about the lack of realistic rivet detail on modern helicopter kits (the Kitty Hawk UH-1's, in particular), as to me, this is a major characteristic detail. To be fair, the Monogram Hind lacks rivet detail also. Those that want to duplicate the characteristic look

will be spending a lot of time with Rosie the Riveter, or , better yet, Archer decal rivets. Perhaps HGW will produce a rivet set specific to this kit, as they have for several others.

Despite these 2 'misses', the kit is a tremendous improvement over the Monogram kit and will produce a fine replica of this iconic helicopter.

The kit is not particularly cheap (considering the Monogram kit can be had for around \$10 at swap meets) Retail is \$74. Sprue Brothers has it for \$60. I got mine directly from Ukraine for \$25, plus \$10 shipping, but shipping from Eastern Europe is EXTREMELY slow due to the pandemic, and it took 3 months for the kit to arrive. If you're willing to wait, you can get significant savings.

## **Member Show and Tell, 8<sup>th</sup> COVID Edition**

Builds have been sparse over the past month. I haven't seen any completed models in the e-mail threads over the past month. COVID-fatigue?

Not to fear, though. Jurassic Kit Game Warden Rich R. has another 'blast from the past'.

**Builder:** Rich Ribaldo

**Kit:** 1/20 scale Hawk Explorer 18 Satellite (1968 vintage)

**Construction Time:** 4 hours

**Finish:** MRP Black and Tamiya White Rattle Can Primer.

**Aftermarket:** eBay seller's provided reprinted decals

### ***Wikipedia tells us...***

Explorer 18, also called IMP-A, IMP 1 and S-74, was an American satellite launched as part of the Explorers program. Explorer 18 was launched on 27 November, 1963, from Cape Canaveral, Florida, with a Delta rocket. Explorer 18 was the first satellite of the Interplanetary Monitoring Platform.

Explorer 18 was a solar cell and chemical-battery powered spacecraft instrumented for interplanetary and distant magnetospheric studies of energetic particles, cosmic rays, magnetic fields, and plasmas. Initial spacecraft parameters included a local time of apogee of 1020 hours, a spin rate of 22 rpm, and a spin direction of 115° right ascension and -25° declination. Each normal telemetry sequence of 81.9 s duration consisted of 795 data bits. After every third normal sequence there was an 81.9-s interval of rubidium vapor magnetometer analog data transmission. The spacecraft performed normally until May 30, 1964, then intermittently until May 10, 1965, when it was abandoned.

The principal periods of data coverage were November 27, 1963 to May 30, 1964; September 17, 1964 to January 7, 1965; and February 21, 1965 to March 25, 1965; however, only the first of these periods was very useful.

Manufacturer: Goddard Space Flight Center

Orbital Period: 5,606 minutes

Launch Mass: 304 lbs.

Analyzer

Launch Date: 27 November 1963

Launch Vehicle: Delta C

Counters

Launch Site: Cape Canaveral LC-17B

Apogee Altitude: 119,305 miles

Instruments: Retarding Potential

Fluxgate Magnetometer

Ion Chamber and GM

Solar Wind Protons

Faraday Cup

**BACKGROUND:** I bought one of these kits back in 1968 from Bill's Candy Store, around the corner from where I lived. Bill's wife was a card-carrying *witch* (I could have started that word with a different consonant) who had no tolerance for kids of any age. My friends and I used to joke and say, "if you see a broom parked outside, she's in there". But Bill was a mild-mannered, very cool guy who had a small shelf set aside in his store for model kits of all kinds. For two years that store was my sole source for buying models. Bill was usually working the counter in the afternoons, so it was a pretty sure bet he'd be working when I bought my kits after school. Always interested in which kits we neighborhood kids bought, Bill never failed to say, "make sure you bring that back and show me when you finish it". Bill was definitely a validating factor in my early interest in model building. His wife made me dislike "*The Wizard of Oz*".

**THE BUILD:** With just 22 parts, this kit was built and polished in about 2 hours! For something half a century old, the fit was exceptionally good and the parts were well molded. I only used about ¼" square of filler on the entire model. The kit has four metal plates for balance that are epoxied onto the solar panel paddles. These solar panel arrays are adjustable so you can get the model to spin correctly. The four antennas on the main body are thin wires which were also epoxied in place. While the kit did include an intact original decal sheet, the seller included two sets of fresh, reprinted decals that could actually be used.

**PAINT AND FINISHING:** The entire model was given a coat of Tamiya Flat White Primer. I chose not to use decals for the markings on the round sphere and the main body. Instead, I made a photocopy of the decals and used it as a guide for cutting out Tamiya Tape masks of the shapes. I placed the masks on the model over the white primer and sprayed the entire model with MRP Black. This gave the model the satin finish I was looking for. I gave the metal plates a coat of Future Floor Polish and applied the newly printed solar panel decals. Once dry, I masked around the edges of the solar panels and shot a black border on them. All that was left was to place it on the stand and give it that long-awaited spin!

**CONCLUSION:** It has been 52 years since the last time I spun one of these models on its stand! It was very satisfying to do so again, maybe this time on a slightly better constructed model. *Maybe*. The low parts count interesting subject and simple paint scheme made this a great entry level kit for young modelers. But getting one today is problematic, both in cost and scarcity. It's off to eBay or a kit collector show if you want one of these kits. I found mine on eBay and decided it was worth the price because it was complete, had fresh usable decals, a crisp instruction sheet and excellent box. I'm hoping someone does a reissue if the molds are still out there somewhere, maybe "Atlantis" or "Round Two" will answer the call someday.

# The 1968 Hawk Explorer 18 box



# 1968 Comic Book Ad for the Hawk Explorer 18

**UNBELIEVABLE!**  
**UNCANNY!...**  
*Unlike any space model on earth!*

**NEW**  
**"Gravity Defying"**  
**EXPLORER 18**  
**SATELLITE**

Designed to be used, the satellite model gives a startling, gravity defying performance in flight suspended in outer space. It spins, tilts, tumbles in with a swirl of its wings. It flies the funny and curious way. An exciting, wild look at "space" with a model, simple to use, simple to build. The model is made of sturdy, durable plastic, with a simple, "no-solder" design. It includes finely detailed plastic parts, and metal details. It will amaze, entertain and thrill.

We guarantee that the Explorer 18 will take you on a most exciting journey into the exciting thrill of space fun!

**\$1.00**

Launch a Complete Space Age Collection

- Space-Watching Laboratory
- Space-Watching
- Space-Watching
- Space-Watching

Now at your favorite  
ROBBY COLLECTOR  
**HAWK MODEL COMPANY**  
Chicago 90415

## The Kit Contents, Crispy Original Decals and Those Wonderful Exploded View Instructions!







## Calendar

Postponed. Date to be announced	50 Years of Modeling Excellence	Fresno EAA Chapter, Hangar 379 4344 W. Spaatz Ave. Fresno, CA
Postponed. until 2021	San Diego Model Expo & Swap Meet	San Diego Air and Space Museum Annex 335 Kenny St. El Cajon, CA
Cancelled	IPMS/USA National Convention	Embassy Suites and San Marcos Conference Center 1011 E McCarty Ln. San Marcos, TX
Cancelled	Best of the West	East Side Cannery Resort & Casino 5255 Boulder Hwy. Las Vegas, NV
Postponed. until 2021	Silicon Valley Classic VII	Napredak Hall 770 Montague Expressway San Jose, CA
Cancelled	IPMS Reno "High Rollers" 21 <sup>st</sup> Invitational Contest & Swap Meet	BPOE Lodge 597 597 Kumle Ln. Reno, NV
Cancelled	OrangeCon 2020	Hotel Fullerton Anaheim 1500 South Raymond Ave. Fullerton, CA
Postponed. until 2021	Desert Classic XXIV	Antelope Valley College Cafeteria 3041 W Ave. K, Lancaster, CA
10/8	WrightCon 2020 Virtual Contest	Online: <a href="http://wrightcon.com">http://wrightcon.com</a>

## AV Hybrid Airshow

This year was supposed to mark the return of the Edwards Air Force Base airshow, after an absence of 10 years. But, as with many things in 2020, COVID-19 through a wrench in those plans. With large gatherings essentially impossible, Brig. Gen. Higer (the 412<sup>th</sup> Test Wing Commander), announced plans for a week-long “hybrid” airshow, combining ‘virtual’ on-line events, social media and culminating with fly-overs of Air Force and NASA aircraft in the local area. The show had a strong STEM (Science, Technology, Engineering and Math) education emphasis, with many streamed education events. The show created a website (still active: <http://avairshow.com/>) with some really cool 360 external and internal views of aircraft operated at Edwards.

The fly-over events occurred on Friday and Saturday. The Friday event took a ‘western’ route, covering Lancaster, Palmdale, Mojave, Tehachapi, Bakersfield and California City. Saturday’s track was ‘eastern’, passing over Rosamond, Lancaster/Palmdale (again), Victorville/Apple Valley, Barstow/ Ft. Irwin and finally Ridgecrest. Not all aircraft originally announced participated (the F-22’s, B-1 and NASA ER-2 were notably absent) and the F-35’s didn’t participate in the Saturday flights, but there were still a good cross section of trainers, transports, bombers and fighters. The show was choreographed to have each different type fly over each spot at about 10 to 15 minute intervals for about an hour-and-a-half. Altitudes were about 2000 to 3500 ft AGL. The entire flight operation was streamed on YouTube, Facebook and Twitch, with commentary provided by Gen. Higer and various other military and civilian member of the Edwards community, who also answered questions sent by text by members of the public. There was a strong “Come work at Edwards, it’s a really cool place” recruiting flavor to the streamed commentary.

The ‘western’ flight path brought the aircraft directly over my house, so I got the opportunity to take a few photos.

The first aircraft were a 2-ship of T-38’s from Test Pilot School. I didn’t get a photo, as I didn’t know the flight path and they surprised me.

Next was a 2-ship of F-16’s. Missed them, too, as they broke left and my house was in the way. They were 2 two-seat F-16D’s from the 416<sup>th</sup>



Third was NASA F-18B 846. This is a VERY early F-18B, a Block 4, and is the oldest NASA F-18B



Next was a 2-ship of F-35A's. These guys were the best—they flew the lowest. The F-35 looks kind of ugly and stubby on the ground, but looks better in flight



The “Grand Old Lady”, the B-52H. This is 60-031, which is new to Edwards. The configuration is kind of interesting, with a single weapons pylon, and the rarely-seen chaff dispenser pod pylons between the engines, one of which has some sort of orange pod. There are also a number of ‘flight test orange’ panels on the airframe



C-17A. Not sure exactly which airframe this is, but it's a standard production jet, now that T-1 has been retired. These guys flew quite a bit higher than the rest of the jets, maybe 3500 AGL. There was a large flock of turkey vultures circling in thermals in the area, so perhaps that's why.



C-20A, NASA 502. It looks like a civil G-III, but is subtly different (mostly avionics). These were used as VIP aircraft by the Air Force in Europe, but were subsequently replaced by later-model Gulfstreams (G-IV's and G-V's). NASA obtained 2 of the surplus airframes, and uses them for Airborne Science programs. The pod under the belly is the JPL-developed UAVSAR (Unmanned Aerial Vehicle Synthetic Aperture Radar). Despite the name, UAVSAR has flown almost exclusively on C-20's and G-III's, having flown only 2 (mostly unsuccessful) flights on Global Hawk. UAVSAR has been used extensively in earthquake fault research, as it can detect changes in the Earth's crust of as little as 2 inches.

Tail-end Charlie was a Test Pilot School C-12 (Beech King Air 200). No picture – I had lost interest by then.

While not as dramatic as the usual airshow demonstrations, it was pretty cool to see the jets without leaving my backyard and a nice opportunity for members of the local community to see some of our airpower.

Hopefully all this craziness will be over with by the time the next Edwards airshow rolls around in 2022, celebrating the 75<sup>th</sup> anniversary of supersonic flight.

## From the Oval Office – Notes From the Prez

Everchanging Interests!

I don't pretend to speak for everybody, but I have heard from other people and not just the voices in my head that a person's interests can grow and change with the passage of time. To me, this is not disorder, a lack of discipline, or an indication of shallowness. On the contrary, I take it as an opportunity to deepen my understanding of my earlier interests, fascinations, and fields of study.

When I first took up the scale modeling hobby seriously between fifth and sixth grade, I had recently been introduced to the lethal beauty of Second World War aircraft in the photographs of books from my elementary school library, notably the American Heritage volume, *Air War over Hitler's Germany*. Man! The shapes of those planes, all-metal, fully-enclosed, sturdy, and posed with arrays of bombs and belts of .50-cal ammunition, in the (for the time) sharp, clear color photography for magazines like *Life* and *Look*. That was all it took for me to decide that THAT was the pinnacle of graceful and purposeful aeronautic design. Sure, modern aircraft looked neat, too, but...I don't know. They didn't speak to my heart the way the P-51 Mustang or the B-25 Mitchell did. I mean, I kept up with developments and what I might be likely to see flying over San Diego's South Bay neighborhoods. I could appreciate the smoky racket of the Navy's F-4Js, the vacuum cleaner sounds of the S-3 Viking's engines as they changed throttle settings, or the blatting "WOP WOP WOP!" of CH-46s stooging around Ream Field. But, boy howdy, what I wouldn't have given to see a B-17 fly overhead, or the box it came in, the B-24...Piper Cubs, Cessnas, Beechcraft general aviation types ticked no boxes for me at the time. Stearmans were all right, I guess. But Great War aircraft? Those KITES made from lumber and covered with CLOTH? Which were rumored to be piloted by guys who weren't allowed to wear parachutes, according to rumors, because parachutes were too heavy or would encourage spooked aircrew to leap free of a troubled and expensive machine? That just seemed nuts to me. I couldn't find an interest in what seemed to me to be an expensive way to send men off to certain death.

Until I rediscovered the hobby in 2013.

A friend of mine pointed me in the direction of Wingnut Wings, models that were so well-designed, measured digitally from actual prototypes or faithful reproductions. These models made it much easier to ponder the details of the airframes, their propulsion systems and weapons, and the various design and engineering choices forced by limits on horsepower and engine weight. Being more able to see accurate depictions of aircraft from the period, depictions that previously would be limited to grainy contemporary photos or pieces held somewhere in a museum I might never visit, gave me an opportunity to ponder just how aviation developed. This development, speeded up by the war and the need to not just build aircraft for something other than killing off their aircrew, but to actually fulfill missions with varying degrees of success, would lead to new solutions, and increased complexity would pose new challenges. I started to see the beauty in that shaped and polished wood, the spartan and utilitarian crew spaces, the ephemeral translucent beauty of the tight doped canvas. Engines of differing sizes, arrangements, and cooling schemes, trade-offs between light weight and the power needed to take a machine in the air, and all that castor oil flung out in a fine greasy mist! Suddenly, this was exciting to me! So much so that I decided I needed to try my hand again at scale modeling, to bring one of these things into my own home for further study and pondering technological innovation.

Think about the things you like best to work on in our hobby. What are the points of fascination for you? How have your interests expanded over time? I'm hoping to see many of you this Saturday afternoon on Google Meets. Hopefully, we will get a chance to discuss these interests while we also share our ongoing and finished projects! Stay healthy, and happy modeling!

*Oops. Glued my knife to the workbench again.*