



# *The FlakSheet*

**March 2014**

*All the News We Make Up to Fit*



**Tora Tora Tora  
Kate Replicas  
310 N2047  
313 N3242G  
Alliance AirShow  
10/20/13**





## The Prez Sez!

### Remembering IPMS-USA Founder Jim Sage

By Michael McMurtrey, IPMS #1746  
President, IPMS-North Central Texas

Jim Sage, founder of the US Branch of the International Plastic Modelers Society, passed away on February 16, 2013, it was only recently learned. I had received a forwarded email from Mary Jane Kinney, IPMS Office Manager. Mary Jane was looking for information on Jim's whereabouts, as there were plans to honor him at our upcoming 50th anniversary national convention.

I had asked about Jim several times upon moving back to North Texas some eight years ago, but none of the active IPMS members in the area seemed to know where he was, although there were reports he was in a nursing home "in Tennessee." I decided to find out, and began an Internet search, half dreading what I might find.

Googling "Jim Sage Dallas" I got a "hit" at the top of the very first page — an obituary, published in the *Dallas Morning News*, February 24, 2013:

*James H. Sage, 84, of Dallas, passed away on February 16, 2013 in a nursing home in Knox City, Texas. James was born September 4, 1928 in Kalamazoo, Michigan; the son of Howard & Bonnie Sage. He moved to Dallas in 1951 where he was employed by Southwestern Life Insurance Company. He married Peggy Bright in the early 1950s. James enjoyed traveling & spending time with his church friends & others. He also wrote a small paper called Durango Drive News, with his friend Old Bear. James is preceded in death by his wife and brother Richard Sage. He is survived by his sisters Mary Popejoy, Penny Lamb, Pam Doherty & Hester Dulla; and a brother Howard Sage. Funeral services will be held at 2pm on Wednesday, February 27, 2013, at the Hughes Crown Hill Funeral Home. Interment will follow at Calvary Hill Cemetery.*

So he hadn't moved to Tennessee after all, but was still residing in north Texas at the time of his death. How had we not known where he was? Knox City, Texas, is a small town about 200 miles ENE of Dallas, not so far away that we couldn't have gone to visit him. How had we not known of his passing, which was reported in one of largest newspapers in the area? Many of us could certainly have attended his funeral had we but known. But his wife had passed away (on Good Friday, 1983, just one day after her 57th birthday, I subsequently learned) and they had no children, and Jim's brothers and sisters lived outside Texas, so there was no immediate family to keep us informed.

The discovery of Jim's death hit me like a rock. I had lost touch with him, but had known him since joining IPMS in 1967, when I was a college sophomore in my home town, Wichita Falls, Texas, only about 135 miles from Dallas. Jim put me in touch with the only other IPMS member in Wichita Falls at the time, the late Merle Olmstead. I would see Jim on the occasions when I drove down to Dallas to attend the Sunday meetings of IPMS-North Central Texas, then held at the old Coca-Cola bottling plant on Lemmon Avenue, not far from Love Field. Once, when I flew down and Braniff wouldn't let me use the return portion of my round-trip ticket on the same day, Jim and Peggy put me up for the night on their sofa; I awoke the following morning to find one of their Siamese cats sitting on my chest, staring at me. On another occasion, I visited Jim at his office at Southwestern Life Insurance, where he showed me how he was using the company's mainframe computer to maintain the membership directory (saved as his "Christmas Card" list) and print mailing labels!

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It was Jim who put the “International” in IPMS. Jim was an early importer of hard-to-get model kits from England and Japan, and when he learned of the formation of the British Plastic Modelers Society, he began promoting it with leaflets in the kits he sent to his customers. Subsequent discussions with the founders of the BPMS led to its being renamed IPMS, with branches in the UK and the USA and Jim running the US branch from his house on Durango drive in Dallas.

A Canadian branch soon followed. I’m sure many “old-time” members recall that before there was an IPMS Journal, US members for a long time received the IPMS-UK magazine with a “wrapper” of US news; Jim printed that wrapper and stapled it to the magazine.

He actually was the first member of IPMS-USA, but forgot to give himself a membership number! Accordingly, he was named Member #0 by IPMS-USA a few years ago. His sense of humor literally shone when he poked fun at his “celebrity status” by showing up at an IPMS convention wearing a gold hard hat! And it was Jim who organized the first IPMS/USA “National Convention” — an informal gathering in a Chicago restaurant, where several of the founding members got together to discuss modeling and the direction and influence IPMS-USA should take.

As IPMS-USA grew, placing more and more demands on Jim’s time, he was forced to give up his importing business to concentrate on the Society, recruiting various members of the North Central Texas chapter, and any visitor who might drop by, to assist him. After the creation of a permanent national office, Jim gradually stepped away from the hobby, although he still kept in touch with friends and managed to attend most of the national conventions.

The facts of Jim’s final years are sketchy. After his retirement, Jim started a newsletter — the *Durango Drive News* — that he mailed to friends and relatives. He traveled quite a bit, always accompanied by “Old Bear,” a well-worn teddy bear from his childhood that he had kept and which was repaired by a doll hospital following the death of his wife.

About 2001, the *Durango Drive News* went on-line, containing Jim’s poetry and reports of his travels, with most of the “reporting” by Old Bear in his own inimitable style. Jim and Old Bear won an award for their web site from their site host, and you can still find most of their writings at [www.durangodriveneews.org](http://www.durangodriveneews.org). The *News* ends with the July 2007 issue; presumably Jim went into a nursing home shortly thereafter for reasons related to his health, but details unknown.

Upon learning of Jim’s death, I posted an announcement on several of the modeling forums and interest groups to which I belong. Here are just some of the replies, as well as some comments from earlier postings:

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**From the IPMS/USA forum:**

I’m very grateful for the society he founded. I’ve learned a lot and met some very good friends. I hope he knows how much of an impact he had on many lives. May he rest in peace.

— Christopher Martens, IPMS #48653

I first met Jim in 1967 when he helped us form IPMS-NorDel. Next we worked together drafting the IPMS/USA Constitution and By-Laws, then on the first Executive Board, Jim was a joy to work with during those early IPMS times.

Jim’s efforts established IPMS/USA’s guiding principles we follow today. Jim was both our society’s founder and inspiration.

Jim was one of those rare individuals you meet, work with, and then admire and deeply appreciate the rest of your life. Jim will be sorely missed by those of us that knew him.

— Ralph Forehand, IPMS #1592

We owe him a debt of thanks for what he started. For all its faults, IPMS/USA is the glue that’s held US modeling together for 50 years.

— Paul Bradley, IPMS #35554

I owe Jim a debt that cannot be repaid for a lifetime of modeling enjoyment through the Society he founded: IPMS/USA! May the Lord rest his soul and comfort his loved ones!

— Gil Hodges, IPMS #10803

I never met him, but I am thrilled with the organization he founded. I have enjoyed the company of so many friends from all over through this organization and I offer my condolences to his family. May God welcome him into His Kingdom and may he rest in peace.

— Mark Deliduka, IPMS #45047

Sad news, indeed. I got to know Jim when I was 2nd VP, and always made time to talk with him. He never turned down any of my requests. When I consider how many strong egos we have in IPMS/USA, Jim stood out as one of the most humble, genuine people I’ve ever met. He was truly overwhelmed at the growth of IPMS/USA, particularly the number and the extraordinary quality of entries at the National Contests. He always deflected the attention and the accolades, but there was a “proud papa” type of sparkle in his eyes when we discussed the past and ideas for the future of the Society. We didn’t become real close friends, but every chance to sit and talk with him is a treasured memory. Rest in peace, Jim. You will be missed by everyone in IPMS/USA.

— Mike Brickman, IPMS #12894

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**From Hyperscale:**

Jim would do anything he could to help a young modeler out. Case in point: Back in that day we received an IPMS/USA and an IPMS/UK publication with our membership. In the second year of the organization an advertisement to join IPMS/USA depicted cover shots from some of the previous years publications. One of the UK magazines depicted a really cool photo of a B-17G flying at low level. Since I had not joined IPMS/USA in time to receive this issue, I sent Jim an inquiry, seeking a back issue. His response was, "No back issues are available, but you can have mine."

The B-17G turned out to be "A Bit O' Lace," and Airfix had just released their kit with these decals. The UK article described how to detail the aircraft and build it in a historically correct context. That was my first super detail job, and it is still in my collection more years later than I care to remember on a regular basis.

Thank you, Jim Sage! I was only a junior high kid spending his grass cutting money at the time but I am still enjoying the hobby today thanks to your small act of kindness.

— Michael A. Campbell, IPMS/USA No. 1432

I joined IPMS in Dec 1966, and met Tom Mitchell, the first IPMS/USA Membership Secretary, who had me over to his home in the summer of 1967... then took me over to Jim Sage's home.

What an intro to IPMS/USA ... as on the dining room table were hundreds of envelopes filled with checks for the four dollar membership, and a dude from New York City and another from Houston were helping Tom to process the memberships.

IPMS member and famous singer Mel Torme, the "Velvet Fog," came by Jim Sage's home once ... and Sage brought him by the IPMS-NCT meeting. We all found out that Mel Torme was into pre-WWII 1/32 aircraft.

Sage brought something great to the USA ... IPMS/USA

— David Aiken

When I was 11 or 12, I attempted to get a junior membership ... and something went off the rails. A check was sent, and there was no response from Texas. Don't remember if it was me or my mom that sent off the "What's going on?" letter, but it was Jim Sage, the top dog himself that stepped up and got things straightened out. He sent me a two-page single-spaced typed letter, encouragement from one old-time modeler to a youngster. Boy, did that make an impression on one kid! Sadly, I never met the guy. The fact that he took the time to type and send a personal letter to a young stranger, should give a clue to what kind of guy he was.

— P. J. Hawkey

So sorry to hear this. I hope family was with him at the end. He was a great guy. I worked alongside him a few times judging models at the Texas State Fair.

I would venture to say that were it not for Jim Sage and his getting IPMS USA started I would not be doing what I am for a living. I began my professional career in petrochemical design. We got a project in that had a model as part of the design effort.

Our company had no model department so I was asked if I would be interested in joining that effort. After I transferred into the model department we hired two outside guys, James Sharp and Lee Thomas. Both were in IPMS. I had never heard of it. They brought in some of their models to show the rest of us.

I was hooked. Even from the beginning I was doing conversions and extra details. I still have those first models in my display case.

— Mike West, Lone Star Models

What a great leader ... May his memory be eternal! We all owe a lot to Mr. Sage. Truly a visionary at a time when most folks who bought model airplanes viewed them as fancy toys for children.

— "38Chip"

Somewhere I still have my original IPMS/USA membership card from 1967, number 2452, hand signed by Jim Sage. I never met him, but he is an icon in the hobby, someone who helped move it from "boys playing with toys" to a serious and respected hobby, and there should be some sort of permanent memorialization by IPMS-USA.

Perhaps an annual Jim Sage Memorial Award for the individual deemed to have made the biggest contribution to the organization or the hobby. His own contribution would be hard to match, in my opinion.

— Tom Weinel

I agree with your idea of naming an award in Jim's honor! It would be perfect for the highest award and honor at the Nationals!

I'm grateful for all he did to make the things I may take for granted (this awesome hobby) bring so much satisfaction to my life. Wish I'd met him to be able to say "Thank You."

— Joshua Van Dyke

I was sitting in the lobby of the hotel at the Phoenix show in 2004 with my bags of model deals. I had never met him before and he came up to me, sat down, and started talking.

I felt like I knew him forever and that we were friends catching up on news. I liked him right off the bat. He had show pins on his hat and shirt going back many years. I am sorry to hear of his passing!

— Kelly Jamison

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I joined in 1964 (8th grade) and would call Jim at his office when we visited my grandparents in Ft. Worth. I did not meet him in person until much later, but he always took some time back then to talk with a young member of the society.

— Bill Strandberg, IPMS 999

#### **From Britmodeler:**

... a great loss for all as IPMS has helped to keep our hobby alive, and he was the man who made it happen.

— “bigh827”

Sad that he passed without a blink! There are many modelers who should be grateful he had the foresight to start the US IPMS. Thanks, Jim for your efforts.

— Colin Burgess, Chairman, IPMS South Africa

#### **From the IPMS Canada forum:**

Though I never met him, I remember him from the early days of IPMS-USA (I was member #211). Always enjoyed his columns in the old *Quarterlies* — especially when he started writing about the early days of the Society. And remember the incredibly annoying and arrogant “Bruce Beamish,” a mysterious “member” he created specifically to stir things up and poke a little fun?

— Bob Migliardi, National Director, IPMS Canada

#### **From steelnavy.com:**

His passing is truly regretted here. Brings back a lot of memories of the Coke plant on Sunday afternoons. He got a great many started on this dreary path we find ourselves on. Jim always refused to relinquish my Monogram 1/48 P-38, resplendent in Pactra Khaki, Gray, Silver, Black, Lemon Yellow for the prop tips, and Leaf Green interior (all gloss, of course). There was the unwritten threat to bring it out, if I failed to “volunteer” for something.

— Michael Davis, IPMS #1588.

#### **From the Wings of Peace Yahoo group:**

I’m so sorry to hear of Jim Sage’s death. I had a lot of correspondence with him in the early days of IPMS and got to know him quite well, even though I never met him.

I always remember that he insisted that should the matter of payment for IPMS officers ever arise, those in the USA should be treated in the same way as those in the UK. As far as I know this has never arisen!

A good deal of our letters was taken up by chat about cats, which both of us were very fond of — but he never mentioned his wife.

I always assumed that he was a bachelor. Like you, I lost track of him, various enquiries having no effect. RIP Jim, you did a good job. I hope you were met by a cat when you passed through the pearly gates.

— W. R. “Bill” Matthews

Former model columnist, *Flying Review International*

#### **From the 72ndscalesmilair Yahoo group:**

I’m sorry to hear this. I knew Jim, not well, but I was in IPMS starting in ’66 or ’67, and was an officer starting about ten years later, and it was hard to miss his presence in those early days.

— Ned Barnett

#### **From the Space Modelers Yahoo group:**

Jim, along with myself and many others, was a member of the Texas Aviation Historical Society. They met in Dallas and model building was an integral part of the meeting. It was while he was involved in the TAHS that Jim made contact with the IPMS in England and the rest, as they say, is history.

I lost track of Jim a long time ago, but I seem to remember that he sent in some comments to the *Journal* not too many years ago about the early days of the IPMS/USA. As a result, it’s a safe bet that he wasn’t in the nursing home more than three to five years.

— Richard Marmo, IPMS/USA #2

#### **Via email:**

Jim set the stage for all of us to get together and share the hobby we love. With Sox Stocking, he set up and ran the state fair model contest for many years, and ran one of the first kit importing businesses until IPMS got too big and he had to close it down.

He was a fun and interesting man to know. For those of us that knew him, we will miss knowing he is out there, but I believe we will meet again. It is said that only God can make a tree; save me a seat at his workbench, Jim.

— Lee Thomas

I had the privilege of meeting Jim a few times at IPMS/USA Nationals. He certainly made a great contribution.

— Brett Green, Editor, Hyperscale.com

Happy modeling!

*Michael*

*Michael McMurtrey, IPMS  
Proud IPMS NCT member since 2013*

# Jim Sage



## By Capt Jim P Wood

The background as to exactly why a Nevada ANG RF-101G was named "IPMS One" takes us back to the year of 1963. I was on active duty in the USAF at that time and while on 'alert' duty I occupied my spare time with the building of wooden scale model aircraft. As my collection grew in size and scope, I had become aware of the then new to the USA Airfix range of kits. It was also about this time that I had discovered a new range of specialist decals known as HisAirDec. Through their innovative little newsletter I became informed of the embryonic US branch of the IPMS. I joined (IPMS/USA No.164) and began correspondence with the first president, Jim Sage.

After a while it seemed logical to pay Jim a social visit. By 1965 I had left active duty and was serving as a 'weekend warrior' flying Voodoos with the 192nd TRS at Reno Nevada, so it seemed logical to schedule myself a training mission to Dallas Texas where Jim lived. Training 'cross country' flights are a necessary item for pilots and they offer the perk of travel to see old air force chums or other friends who live in the vicinity of military airfields. In this case NAS Dallas proved to be conveniently close to Jim Sage's abode. Sometime after my visit, Jim had suggested in a letter that because of my use of the US Governments high speed personal transport, it should be christened "IPMS One". It was!



<http://www.ipmsusa.org/>

## Membership

**IPMS/USA** is an organization dedicated to the fun of Scale Modeling. It was started by Jim Sage, of Dallas, Texas, in 1963. There are now branches of IPMS all over the world. Many of our Local Chapters and Regions sponsor Model shows and contests every year. Of course, you needn't be a member to just visit the shows, or attend the clubs.

As part of your IPMS/USA Membership, you will receive **The Modeler's Journal** six times a year. In it you will find stories of interest on subjects such as aircraft, armor, automotive, ships, figures, you name it. 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 Member's Forum where a wide variety of Society and Modeling topics are discussed, and enjoy real-time access to other Modelers for help with questions about Modeling or the Society in general.

In addition, many Hobby Shops around the county offer discounts to IPMS/USA Members. Memberships are available in several packages:

**Junior** 17 years old or Younger, \$12.00 per year

**Adult** 1 Year, \$25.00 2 Years \$49.00 3 Years \$73.00

**Family** Adult Membership plus \$5.00 (Additional Membership cards as requested)

**Canada or Mexico** \$30.00 per Year

**Foreign** \$32.00 per Year (Journal via Regular Mail) or \$55.00 per year (Journal via Air Mail)

Payment Information: Payment may be made via Personal Check, Money Order, or Credit Card. Applications using payment via Check or Money Order should be printed upon completion of the registration process, and mailed to:

**IPMS/USA  
Dept. H  
PO Box 2475  
N. Canton, OH 44720-0475**

For any questions or problems with your membership application/renewal, please contact the IPMS/USA Officer Manager, Ms. M.J. Kinney, at [manager@ipmsusa.org](mailto:manager@ipmsusa.org)



## The VP's Notes!

**March 9, 2014 1:00 pm**  
**NCT Fundraiser**  
**TBD**  
**Irving Garden & Arts Building**

You know the drill! Bring a lot, sell a lot, buy a lot!

**April 13, 2014 1:00 pm**  
**Modeling Skills Workshop**  
**Irving Senter Park Recreation Center**

If you cleaned up at ModelFiesta in San Antonio, don't forget to display you trophies, real or imagined! Be sure to bring your 2014 and 2015 Club build kits!

**May 11, 2014 1:00 pm**  
**Modeling Skills Workshop**  
**TBD**  
**Irving Garden & Arts Building**

Be sure to bring your 2014 and 2015 Club build kits!

**June 8, 2014 1:00 pm**  
**Modeling Skills Workshop**  
**TBD**  
**Irving Garden & Arts Building**

Be sure to bring your 2014 and 2015 Club build kits!

**July 13, 2014 1:00 pm**  
**Modeling Skills Workshop**  
**TBD**  
**Irving Garden & Arts Building**

Be sure to bring your 2014 and 2015 Club build kits!

**August 10, 2014 1:00 pm**  
**Modeling Skills Workshop**  
**TBD**  
**Irving Garden & Arts Building**

Be sure to bring your 2015 Club build kits!

**September 14, 2014 1:00 pm**  
**Modeling Skills Workshop**  
**TBD**  
**Irving Garden & Arts Building**

Be sure to bring your 2015 Club build kits!



I am sorry I have not spoken to the membership sooner but due to work schedules time has been at a premium. First let me say I am honored to be your Vice President. As you know this is the 50<sup>th</sup> anniversary of I.P.M.S. of which I have been a member of for over thirty years. I have seen many changes in my time as a member some bad and some good. Over the years I have made many friends and attended many of the conventions. I would like to encourage those of you who are not a member of the national organization to do so and If possible attend a National Convention.

But on to the other subject at hand and that is this year's group builds. As you know the project for this year is THE RED BALL EXPRESS in 1/48th scale. I have done some research on this hand have found the following items available from various manufacturers.

### Black Dog Model Company



Covered beds  
Partial covered beds with exposed loads  
Accessory set which includes a winch conversion and partial covered load and assorted tarps  
Jeep accessory set

[www.blackdog.cz](http://www.blackdog.cz)

## Gasoline



GMC 40 mm Bofors conversion  
Hard cab conversion  
750-gallon fuel truck conversion  
Winch conversion  
Dump truck conversion  
CCKW 352 conversion (short wheelbase)  
Ordinance Shop conversion  
Airport fuel truck conversion  
1 ½ ton Chevrolet Tractor (Full Resin Kit)  
3 ½ ton Cargo Trailer (Full Resin Kit)  
Harley Davidson WLA (Full resin Kit)  
1 ½ ton cargo trailer Ben Hur (Full Resin Kit)  
<http://gasoline.eu>

## CMK Kits



Club mobile conversion  
Water tank Truck conversion  
Airport Fuel Truck conversion  
Fuel Tank Trailer kit  
1 1/2 ton cargo trailer Ben Hur kit  
[www.cmkkits.com](http://www.cmkkits.com)

## Tank Workshop



Accessory sets for the M-8 armored car and  
US Jeep Accessory Set (Tamiya)  
Allied Fuel Drums & Jerry Cans

[www.tankworkshop.com](http://www.tankworkshop.com)

These are the companies I have found with items for the 2-½ ton truck. Please check out their websites for pricing and availability as well as U.S distributors.

In closing I look forward to working with all of you in the future. I will always have an open ear for suggestions of projects and programs.

Remember this month's meeting is the semi-annual fund-raiser (don't say auction) so bring your goodies and lets have a good time.

Until the meeting March 9<sup>th</sup>,

HAPPY MODELING!

**Randy Spurr**  
Vice President  
I.P.M.S/NCT  
IPMS # 7854







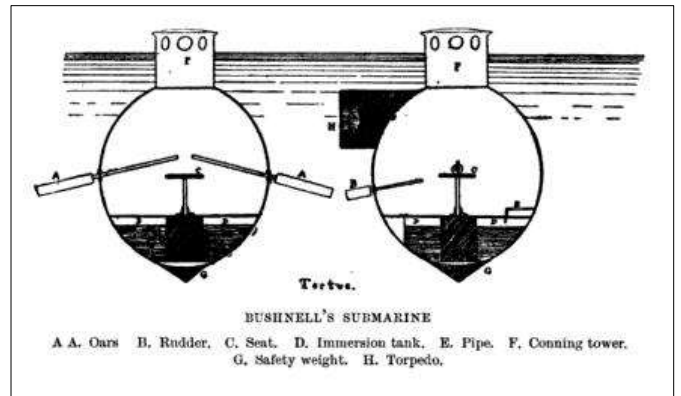
# Bushnell

## The Submarine Goes To War

As noted in a previous issue, the first submersible of whose construction we have reliable information was built in 1620 by Cornelius Drebbel. Nothing coming close to success occurred for another century and a half, although many designs were quite comical, they were also quite deadly.



*A full-size model of the Turtle submarine on display at the Royal Navy submarine museum*



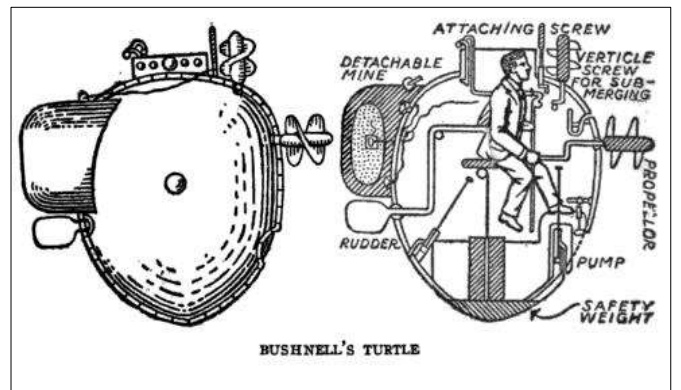
*A diagram showing the front and rear of the Turtle*

The next submersible of consequence, and the first military submarine was the *Turtle* (1775), a hand-powered acorn-shaped device designed by the American David Bushnell to accommodate a single person. It was the first verified submarine capable of independent underwater operation and movement, and the first to use screws for propulsion.

Bushnell designed it for use against British Royal Navy vessels occupying North American harbors during the American Revolutionary War. Connecticut Governor Jonathan Trumbull recommended the invention to George Washington; although the commander-in-chief had doubts, he provided funds and support for the development and testing of the machine.

Several attempts were made using the *Turtle* to affix explosives to the undersides of British warships in New York Harbor in 1776. All failed, and her transport ship was sunk later that year by the British with the submarine aboard. Bushnell claimed eventually to have recovered the machine, but its final fate is unknown. Modern functional replicas of the *Turtle* have been constructed; the Connecticut River Museum, the Submarine Force Library and Museum, and the Royal Navy Submarine Museum have them on display.

In the early 1770s, Yale College freshman David Bushnell began experimenting with underwater explosives.

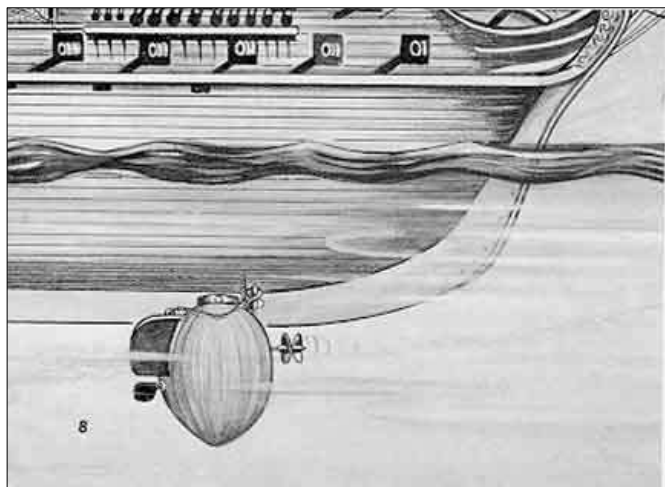


*This 19th-century diagram shows the side views of the Turtle. It incorrectly depicts the propeller as a screw blade; as seen in the replica photographed above and reported by Sergeant Lee, it was a paddle propeller blade*

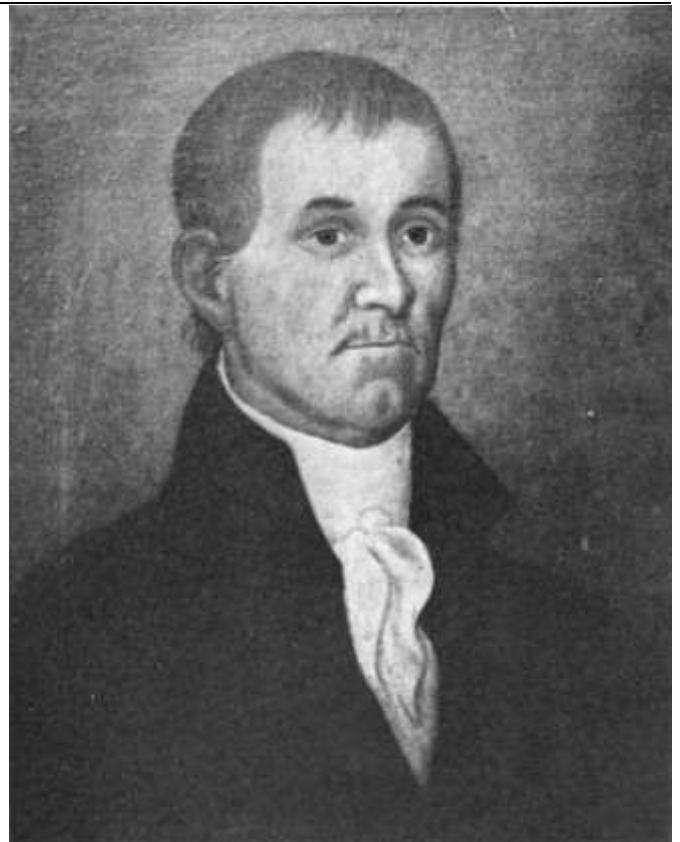


*Drawing of a cutaway view of Turtle's interior.*

By 1775, with tensions on the rise between the Thirteen Colonies and Great Britain, Bushnell had practically perfected these explosives. That year he also began work near Old Saybrook, Connecticut on a small manned submersible craft that would be capable of affixing such a charge to the hull of a ship. The charge would then be detonated by a clockwork mechanism



*The Turtle in attack mode.*



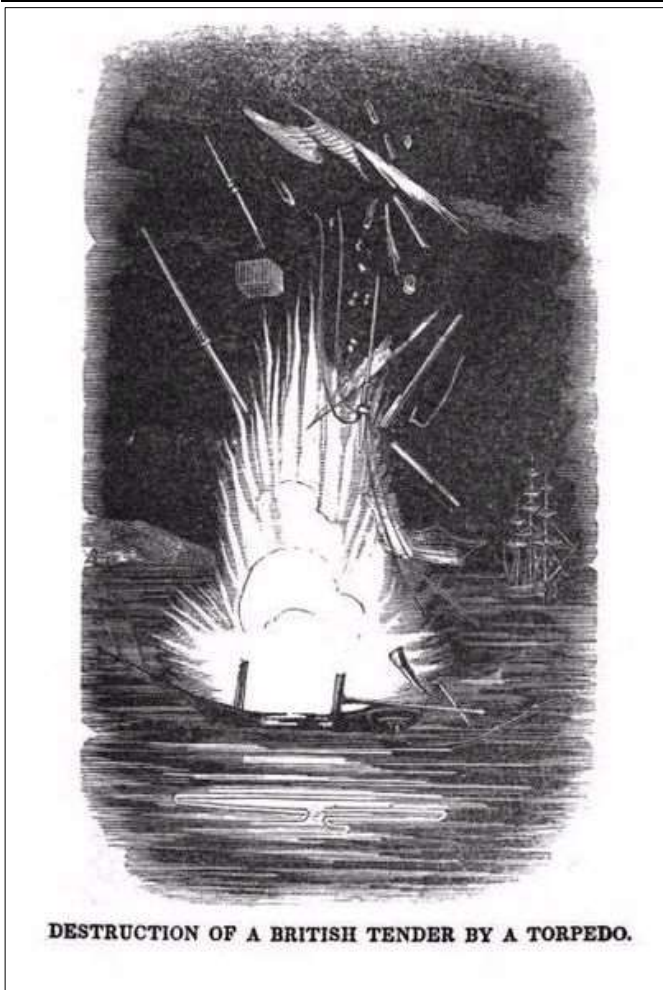
*Portrait of Ezra Lee, the Turtle's operator*

that released a musket firing mechanism, probably a flintlock, that had been adapted for the purpose.

According to Dr. Benjamin Gale, a doctor who taught at Yale, the firing mechanism and other mechanical parts of the submarine were manufactured by a New Haven clockmaker named Isaac Doolittle.

Named for its shape, *Turtle* resembled a large clam as much as a turtle; it was about 10 feet (3.0 m) long (according to the original specifications), 6 feet (1.8 m) tall, and about 3 feet (0.9 m) wide, and consisted of two wooden shells covered with tar and reinforced with steel bands. It dived by allowing water into a bilge tank at the bottom of the vessel and ascended by pushing water out through a hand pump.





*Bushnell mines destroying a British ship*

It was propelled vertically and horizontally by hand-cranked propellers. It also had 200 pounds (91 kg) of lead aboard, which could be released in a moment to increase buoyancy. Manned and operated by one person, the vessel contained enough air for about thirty minutes and had a speed in calm water of about three miles per hour (5 km/h).

Six small pieces of thick glass in the top of the submarine provided natural light. Illumination while submerged was provided by a piece of cork that gave off a fungus-powered bioluminescent foxfire.



*Replica at the Connecticut River Museum*

During trials in November 1775, Bushnell discovered that this illumination failed when the temperature dropped too low. Although repeated requests were made to Benjamin Franklin for possible alternatives, none were forthcoming, and the *Turtle* was sidelined for the winter.

Bushnell's basic design included some elements present in earlier experimental submersibles. The method of raising and lowering the vessel was similar to that developed by Nathaniel Simons in 1729, and the





gaskets used to make watertight connections around the connections between the internal and external controls also may have come from Simons, who constructed a submersible based on a 17th-century Italian design by Giovanni Alfonso Borelli.

Bushnell's work began to receive more attention in August 1775, when Franklin was informed of it. Despite Bushnell's insistence on secrecy surrounding his work, news of it quickly made its way to the British, abetted by a Loyalist spy working for New York Congressman James Duane. On November 16, 1775, a coded message to William Tryon, the last royal governor of the Province of New York, brought Bushnell's work to British attention.

The details of the report were highly inaccurate, implying that the *Turtle* was nearly ready to be deployed in Boston harbor against the fleet that was part of the British siege effort there. In fact Bushnell and his brother Ezra were still testing the machine in the Connecticut River. In the spring of 1776, after the British withdrew from Boston, Bushnell offered the submarine to General George Washington for use in the defense of New York City. Washington agreed, and provided some funding to the inventor to prepare the vessel for deployment.

In August 1776 Bushnell asked General Samuel Holden Parsons for volunteers to operate the *Turtle*, because his brother Ezra, who had been its operator during earlier trials, was taken ill.

Three men were chosen, and the submarine was taken to Long Island Sound for training and further trials. While these trials went on, the British gained control of western Long Island in the August 27 Battle of Long Island. Since the British now controlled the harbor, the *Turtle* was transported overland from New Rochelle to the Hudson River.

General Washington then authorized an expedition by the *Turtle* in the waters of New York Harbor. At 11:00 PM on September 6, one of the volunteers, Sergeant Ezra Lee, took the *Turtle* out to attempt an attack on Admiral Richard Howe's flagship HMS *Eagle*. She was moored off what is today called Governors Island, which is due south of Manhattan.

According to Lee's account, she was towed by rowboats as close as was felt safe to the British fleet. He then navigated for more than two hours before slack tide made it possible to reach the *Eagle*.

His first attempt to attach the explosive failed because the screw struck a metal impediment. A common misconception was that Lee failed because he could not manage to bore through the copper-sheeted hull. Bushnell believed that Lee's failure was probably due to an iron plate connected to the ship's rudder hinge.

When Lee attempted another spot in the hull, he was unable to stay beneath the ship, and eventually abandoned the attempt. Lee reported that British soldiers on Governors Island spotted the submarine and rowed out to investigate.





He then released the charge (which he called a "torpedo"), "expecting that they would seize that likewise, and thus all would be blown to atoms." Suspicious of the drifting charge, the British retreated back to the island.

Lee reported that the charge drifted into the East River, where it exploded "with tremendous violence, throwing large columns of water and pieces of wood that composed it high into the air."

It was the first recorded use of a submarine to attack a ship; however, the only records documenting it are American. British records contain no accounts of an attack by a submarine or any reports of explosions on the night of the supposed attack on HMS *Eagle*.

According to British naval historian Richard Compton-Hall, the problems of achieving neutral buoyancy would have rendered the vertical propeller useless. The route the *Turtle* would have had to take to attack HMS *Eagle* was slightly across the tidal stream which would, in all probability, have resulted in Ezra Lee becoming exhausted.

In the face of these and other problems Compton-Hall suggests that the entire story was fabricated as disinformation and morale-boosting propaganda, and that if Ezra Lee did carry out an attack it was in a covered rowing boat rather than the *Turtle*.



*Mr. Riley in his vessel the night before the launch.*



*Duke Riley, an artist, in his Revolutionary War-era submarine replica, the Acorn, today. (Photo: Damon Winter/The New York Times)*

On October 5, Sergeant Lee again went out in an attempt to attach the charge to a frigate anchored off Manhattan.

He reported that the ship's watch spotted him, so he abandoned the attempt. The submarine was sunk some days later by the British as it sat on its tender vessel near Fort Lee, New Jersey. Bushnell reported salvaging the *Turtle*, but its final fate is unknown. George Washington wrote of the attempt that it was "an effort of genius", but that "a combination of too many things was requisite" for such an attempt to succeed.

In 1777, Lee used floating mines in an attempt to destroy the British frigate *HMS Cerberus*, anchored in Niantic Bay. The explosion was said to have killed three sailors and destroyed a prize schooner anchored astern of the *Cerberus*, although it left the *Cerberus* undamaged. In 1778 Bushnell floated mines down the Delaware River in an attempt to destroy British ships off Philadelphia. The mines took longer to reach the area than expected, and there was a report that two boys investigating them were blown up. On January 5, 1778, one of the mines struck a British barge, killing four men and raising the alarm. The British response, in which virtually any piece of floating wood in the river became a target, was lampooned in a ballad called "The Battle of the Kegs".

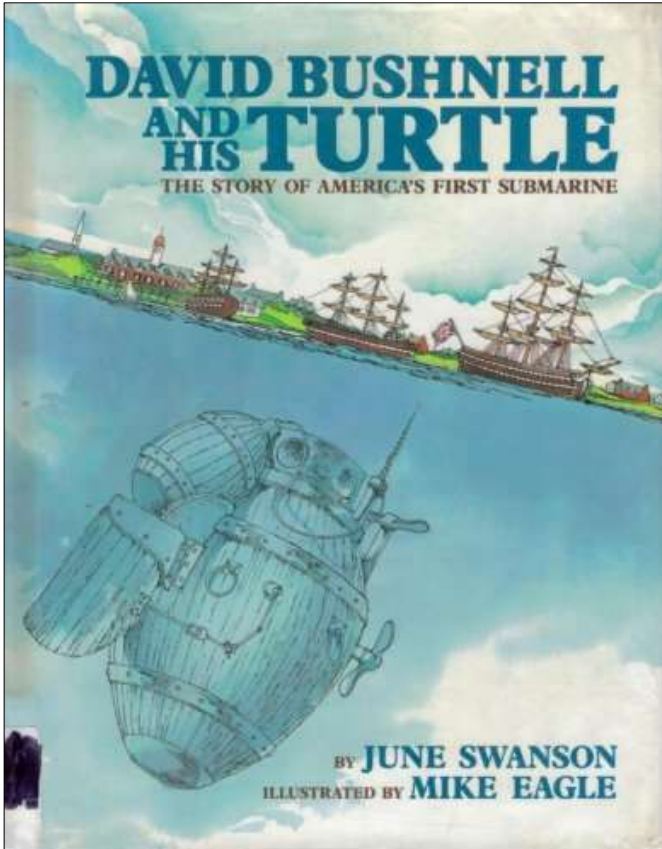


*Duke Riley too close to the Queen Mary 2. (Photo: Damon Winter/The New York Times)*



In 1976, a replica was designed by Joseph Leary and constructed by Fred Frese as a project marking the United States Bicentennial. It was christened by Connecticut's governor, Ella Grasso, and later tested in the Connecticut River. This replica is owned by the Connecticut River Museum.

On August 3, 2007 three men were stopped by police while escorting and piloting a replica of the *Turtle* within 200 feet (61 m) of the *Queen Mary 2*, then docked at the cruise ship terminal in Red Hook, Brooklyn. The replica was created by New York artist Philip "Duke" Riley and two residents of Rhode Island, one of whom claimed to be a descendant of David Bushnell. The Coast Guard issued Riley a citation for having an unsafe vessel, and for violating the security zone around the *Queen Mary 2*.



*Frank Landrus*

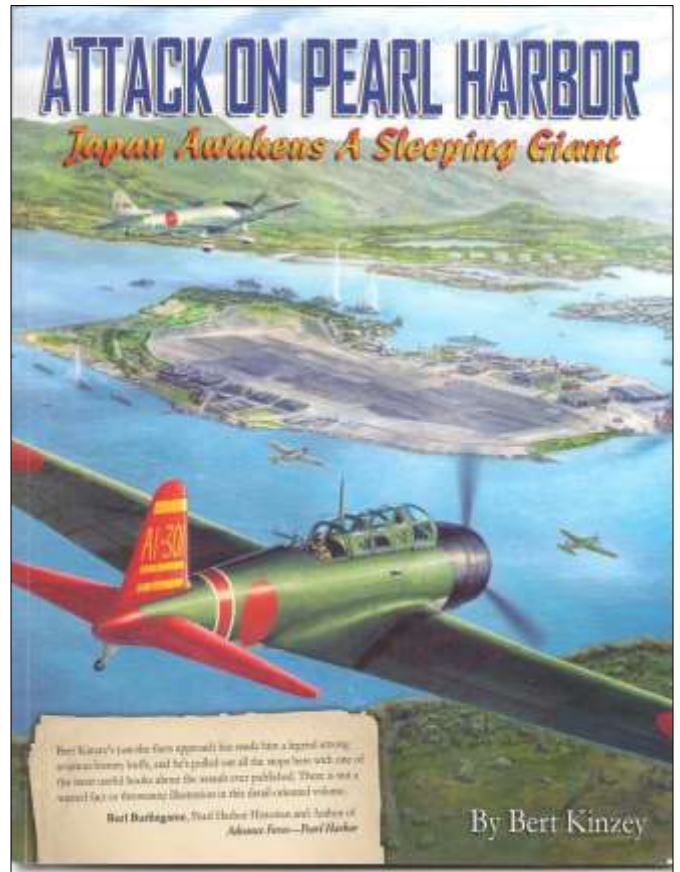
*Frank Landrus, IPMS 35035  
Proud IPMS NCT member since 1985*

## *Floyd's Fling*

### Detail & Scale

## “Attack on Pearl Harbor”- Japan Awakens A Sleeping Giant

By Bert Kinzey



ISBN #: 978-0-9844665-0-4

MSRP: \$ 18.95

Reviewed by

Floyd S. Werner, Jr. IPMS# 26266

Company Website URL: [www.detailandscale.com](http://www.detailandscale.com)

Bert Kinzey has been writing the Detail & Scale series for many years now. If you've had the chance to read any of the volumes his has penned you will know that the information is always well researched and always the go to reference.

Bert has turned his passion for writing and research onto the opening battle of Pearl Harbor. He was tasked with writing the most informative booklet for the USS Arizona memorial and keeping the price under \$20.

This 80 page soft bound book is printed on high quality gloss paper. The writing is typical Bert, easy to read, even when presenting lots of information, but not wordy.

The 46 illustrations are done by Rock Roszak and are superbly done, whether it is aircraft, ships, or submarines. Aspects of the attack are shown in six maps and eight tables.

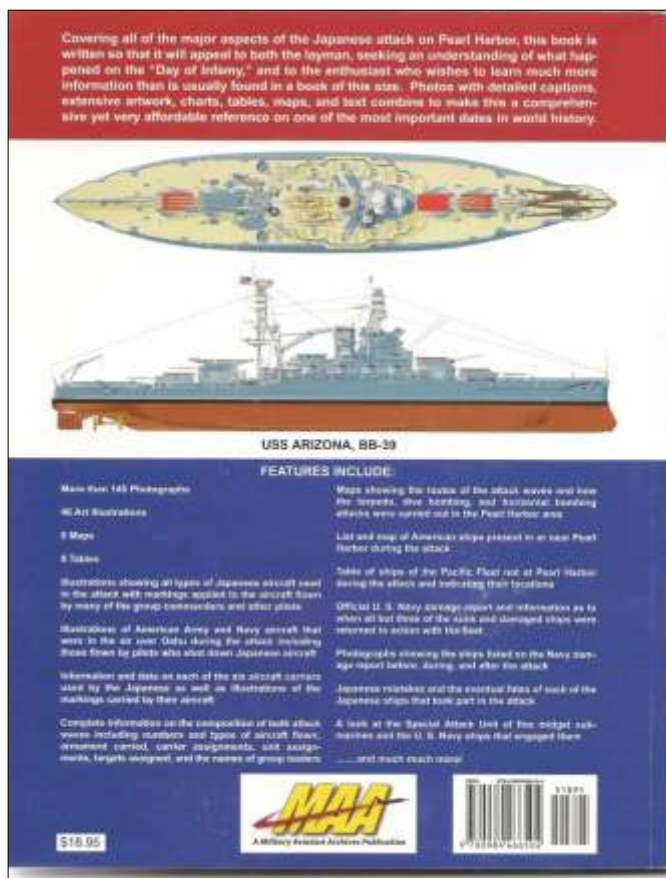
The key to a book like this is that the information is presented in a form that allows it to be used. This book uses tables, maps, illustrations, and text to convey its points. It is presented in an easy and natural manner.

The book starts out with the planning stage of Operation Z until the end of the battle and its aftermath. A map shows the timeline and the subsequent operations for the carrier groups until they returned to the home islands.

The order of battle is addressed in the Japanese Aircraft Carrier Divisions. The First, Second and Fifth Carrier Divisions all carried Zero, Vals and Kates. The individual markings for each carrier division is explained and illustrated. The command markings are explained as well.

The inclusion of the Jake recon planes, including markings and pilots, is just an example of how in depth this research is. One of the Jakes was the first plane over Pearl at 0530, confirming that the capital ships were there. Interesting is the fact that all but three ships that were 'destroyed' during the attack were put back into action during the war.

The aircraft illustrations are absolutely superb. It is interesting that there is a slight difference in the aircraft of paint schemes. This is addressed in the illustration and the text.



The aircraft of the Hiryu and Soryu had a greenish-khaki color than the gray-green seen on the other aircraft. All the US Navy ship and locations that were present are included. A map shows their position through out the inlets. Even the ships that weren't at Pearl are listed. These are also important to the rest of the war. About half of the Pacific Fleet was NOT at Pearl Harbor on 7 December. The fight of the midget subs is presented with the latest information available. All five subs and their demises are discussed.

The Air Attack is obviously the thing that is remembered the most. The organization of the separate waves is addressed with all the commanders of the attack along with their ordnance loads. The torpedo run is illustrated with charts and photos. The horizontal ad dive bombers and their mission is given the same treatment.

Each aspect and target is discussed from the Navy Yard to the airfields. We all know about the B-17s coming into Pearl from the West Coast. The B-17s, P-40s and P-36s, but did you know that there were Navy planes there in the air as well? I didn't. I should have figured as much. Besides the Catalinas that were actually out training there were SBDs, TBD and Wildcats. The Enterprise had launched aircraft and many of the aircraft came under fire by both the Japanese and the local AA batteries. Despite the aircraft being in the air looking for the Japanese fleet

they did not find anything and the anti-aircraft gunners were deadly in their friendly fire shooting.

The actual losses and damage to the ships and aircraft are summarized. Then in what may be a unique approach, each ship that was damaged or destroyed is discussed. Each ship is shown in photos with the information in the caption. Japanese mistakes and losses are shown. The fate of the Japanese ships throughout the war wraps up the Japanese portion of the book. Pearl Harbor today is the final chapter of the book. Explaining the tourist exhibit that is highlighted by the Arizona and the Missouri battleships finishes off the book.

If you were going to buy just one book on Pearl Harbor this is that book, especially if you are on a budget. It is that good. There is more information contained in its 80 pages than books with hundreds of pages more and costing much more. Bert Kinzey has done a fabulous job putting together all the information into a one stop reference at a very reasonable price. Is it any wonder that the Pearl Harbor National Park has decided to use this book in their gift shop?

**Highly recommended**

Thanks to Bert Kinzey for the review copy. You can obtain yours by contacting them at [www.detailandscale.com](http://www.detailandscale.com). Make sure you tell them you heard about it here.

*Floyd S. Werner, Jr., IPMS 26266  
Proud IPMS NCT member since 1989*



**P-40B Warhawk** flown by Second Lieutenant Philip M. Rosemore, 48th Pursuit Squadron, 15th Pursuit Group, Lincoln Army Airfield and other pilots of the 48th FS engaged Japanese Zeros over Wake Island. The P-40B was shot down and destroyed during the engagement.

**P-40B Warhawk** flown by Second Lieutenant George S. Welch, 47th Pursuit Squadron, 15th Pursuit Group, during the invasion of Oahu. Lieutenant Welch was credited with shooting down four enemy aircraft on December 7, 1941. The P-40B flown by Second Lieutenant Kenneth M. Taylor looked the same as this one, except that the large white nose art number was 160.

50-caliber and one .30-caliber machine gun in the cowling. Both P-36As and P-40s took off to engage the attacking Japanese aircraft during the attack, and they were successful in shooting down several enemy planes.

The 48th Pursuit Squadron was temporarily assigned to Bellows Field for gunnery training when the Japanese attacked. 2nd Lt. George Whitman and 2nd Lt. Samuel Bishop jumped into their P-40s and tried to take off. Whitman was shot down just after becoming airborne and died as his aircraft crashed on the beach. Bishop made it out over the ocean, but the two Japanese fighters that had shot down Whitman quickly turned their attention to him. He was also shot down, but survived with a wound to his leg. He escaped from his sinking plane and swam back to shore.

1st Lt. Lewis Sanders, commanding officer of the 48th Pursuit Squadron led four P-36s on a flight out of Wheeler Field. The other three pilots in the flight were 2nd Lt. John Trasker, 2nd Lt. Philip Rosemore, and 2nd Lt. Gordon Fleming, Jr., who had jumped into one of the fighters when its intended pilot, 2nd Lt. Oswald Norm had gone to change parachutes. The four P-36s headed over to Kaneohe where they engaged in a fierce air battle with Zero fighters that had been strafing that airfield. During the melee, the Americans damaged several of the Zeros and claimed three kills, but post-war analysis of Japanese reports proved that none of the Zeros were shot down by those four pilots. However, Lt. Sanders was shot down and killed during the engagement.

2nd Lt. Henry Brown and 2nd Lt. Malcolm Moore, who had taken off from Halewa Field then joined the fight and shot down two of the Zeros that were now trying to leave the scene being low on fuel and ammunition. These two aerial victories were later confirmed by Japanese records.

The most well known Army pilots to get into the air on the morning of December 7, 1941, were Second Lieutenants George S. Welch and Kenneth M. Taylor of the 47th Pursuit Squadron. Their exploits have been recounted many times in books and magazines and dramatized in movies. However, some more accounts have been fictionalized and even different names used for the flyers.

Welch and Taylor were at Wheeler Field when the attack began and had just been in an all-night party. They were stranded on the way, but made it safely. They took off with only their .30-caliber guns loaded and climbed up to meet the Japanese. After finding no enemy aircraft over Wheeler Field, they headed south to Ewa airfield where they engaged several Vals that were strafing the field. Welch claimed one victory and one damaged, and Taylor shot down two of the Vals.

The two flyers then flew to Wheeler Field to return. While their guns were being reloaded, the Japanese began to strafe the field again, so the two took off, being at the Japanese as they became airborne. Welch shot down two Vals and one Zero, while Taylor claimed two more Vals.

Welch and Taylor were both awarded the Distinguished Service Cross for their actions that day, and Taylor also received the Purple Heart for a wound to his arm during his second sortie.

Another pilot from the 47th Pursuit Squadron, 2nd Lt. John Dains also took off from Halewa in a P-40B that morning, and witnesses say he shot down one Japanese aircraft. Unfortunately, Lt. Dains was shot down and killed by friendly fire later in the day while flying a P-36.

As the attack continued, other Army pilots made it into the air in the few undamaged fighters available. One of them, Francis S. Galinski, would go on to become the leading U.S. ace in Europe. But none matched the success of George Welch and Kenneth Taylor on the Day of Infamy.

**USS NEVADA, BB-36**

USS NEVADA, BB-36, was the last ship in a new class of battleships, with OREGON, BB-37, being her sister. She was built by Bethlehem Steel, launched on July 11, 1914, and commissioned in March 1916, making her the oldest battleship present at Pearl Harbor during the attack. Originally her appearance was the same as OREGON, as shown in the top photograph on the previous page. She was modernized between 1927 and 1930, and at that time her cage masts were replaced with tripod masts as shown here. The main armament of ten 14-inch guns in the NEVADA class battleships were arranged in two triple and two dual turrets. (National Archives)

Even though she had been hit by bombs and a torpedo on her forward port side, NEVADA was the only battleship to get underway during the attack. As she moved down the channel she came under the intense attack by five bombers in the second wave. She was beached instantly at Healy Point, but was then moved to Mahalo Point and beached there. Fifty members of her crew were killed during the attack. (National Archives)

NEVADA is shown here after being beached at Mahalo Point. She is shown by the bow because of the torpedo hit forward on her port side. White smoke continues to rise through holes in her forward deck caused by bombs. On February 12, 1942, she was raised and moved to the Navy Yard for hull repairs. Once these were completed she sailed for Puget Sound Navy Yard for modernization. (National Archives)

Following her modernization, NEVADA looked quite different than she did at Pearl Harbor. Eight-inch turrets were replaced with 5-inch/54 dual purpose guns with local anti-aircraft, and numerous 40-mm quad mounts and 20-mm cannons were added for anti-aircraft defense. After participating in the landings on Iwo Jima, NEVADA moved to the Atlantic where her guns provided the heaviest of Missouri in support of the invasion of France. She returned to the Pacific and used her guns to support further landings. NEVADA was a target ship at the Bikini atomic bomb test in July 1946. She was used as a target ship and sunk by gunfire and torpedoes on July 21, 1946. (National Archives)





*Soviet pilots Kurbatov and Moshin near I-16. Khalkyn Gol*

# Gulls and Rats Over the Khalkhin Gol

Compiled by John Walen



*I-15bis attacking Kawaski Ki-10*

Significantly influencing Japanese military thinking and later strategy, the numerous Soviet - Japanese skirmishes and battles along the Manchurian-Mongolian border beginning in 1932 and culminating in the Battle of Khalkin-Gol in 1939 had a profound effect on Japanese military thinking and strategy and ultimately lead to the emergence of a 'Strike South' faction at the highest levels of the Japanese military and resulted in war with the US and its allies. Khalkhin Gol or River was one of the most decisive and important conflicts fought during the last months of the prelude to WWII.

The numerous aerial and land battles fought from May to September 1939 on the banks of the river and



*Recent photo of the Khalkhin Gol landscape  
(PacificWrecks.com)*

surrounding prairie lands, and especially in the sky over the area effectively checked Imperial Japanese aggression and imperialist ambitions in Siberia and Mongolia. This series of battles and skirmishes had combined casualties of perhaps in excess of 50,000 men was a decisive victory for the Red Army and their Mongolian allies.

Antagonism between the two nations ran deep. The decline of the Chinese empire had whetted the territorial appetites of its neighbors, and the expanding empires of Russia and Japan collided in Korea and Manchuria. Their conflicting ambitions sparked the Russo-Japanese War of 1904, which ended in a stunning victory for Japan in 1905. In 1918, following the disintegration of the Tsarist Empire, the Japanese army occupied Russia's far eastern provinces and parts of Siberia.



*Recent photo of the Khalkhin Gol landscape  
(PacificWrecks.com)*



*Recent photo of the Khalkhin Gol landscape  
(PacificWrecks.com)*

The emergence of the powerful Communist regime, however, compelled a reluctant Japan to withdraw from those territories in 1922. Japan resumed its imperial ambitions in 1931 with the occupation of Manchuria and the establishment of the puppet state of Manchukuo and Japanese Kwantung Army. In 1937, the Japanese invaded China, seizing Shanghai and Nanking.

The Anti-Comintern Pact signed in 1936 between Germany, Italy, and Japan, alarmed the Soviet Union. A treaty concluded between the Soviet Union and Chiang Kai-shek's Kuomintang government in 1937 furnished Soviet financial and military aid to the Chinese. About 450 Soviet pilots and technicians and 225 Soviet warplanes were soon sent to China.

Beginning in 1932 military clashes along the 3,000 miles of ill-defined border between Manchukuo and the Soviet Union numbered in the hundreds. In the summer of 1938, a major clash erupted at Lake Khasan, 70 miles southwest of Vladivostok at the intersection of the Manchukuoan, Korean and Soviet borders, leaving the Soviets in possession of the ground.

The lifeline of the Soviet position in the Far East and Siberia was the Trans-Siberian Railroad, which served as the only link between those regions and European Russia. Outer Mongolia was the key to strategic control of the Trans-Siberian Railroad. To ensure the protection of that vital artery, the Soviets had established the Mongolian People's Republic (MPR) in Outer Mongolia.



*I-15bis vs Ki-27 over Lake Khasan*



*I-16 Type 10 with field applied camouflage scheme  
(Khalkhin Gol)*

A treaty of mutual assistance between the Soviet Union and the MPR had been signed in 1936.

Part of the reason for the escalating tensions in the area was due to the 'Strike North' faction in the Japanese Army's high command — a faction found predominantly among the staff officers of the Kwantung Army stationed in Manchukuo. Army officers argued if their forces severed the Trans-Siberian artery the Japanese empire could then be expanded to include all of Mongolia, the Soviet maritime provinces, and parts of Siberia. Shielded by those buffer territories, the natural resources and heavy industries of Manchukuo could then be fully developed by the Japanese. Separated from Soviet support, Chinese military strength would be significantly weakened.

In the spring of 1939, a minor border dispute in a remote area provided the 'Strike North' faction with the opportunity needed to pursue its ambitious plan. The Japanese claimed the Halha River as the western border of Manchukuo. However, the Soviets argued that the frontier was 15 miles east of the Halha, close to the village of Nomonhan.

The Army's leadership was convinced it had a decisive logistical advantage in that remote area. Japanese railheads were located 100 miles east of Nomonhan. In sharp contrast, the nearest Russian railhead was 434 miles away at Borziya. The Japanese were sure that the Soviets could not commit more than two infantry divisions to operations in that area. The Japanese were also convinced that Stalin's Great Purge of 1935 to 1937 had effectively crippled the Soviet officer corps.



*R-5sh vs Ki-27 over Khalkhin Gol*



*I-153s armed for ground attack (Khalkhin Gol)*

The Khalkin Gol (or river) flows north–south, parallel with the borderline between the two countries. At the center of the border, the Holsten River bisected the Khalkin. Terrain east of the river is hilly, but west of the river stretches vast flat grasslands. During July and August, temperatures ranged as high as 104 degrees. Water in the area at that time was described as “brackish” and water purification was a major problem for both armies.

In May 1939, a series of Japanese instigated skirmishes between Mongolian and Manchukuoan forces escalated into what the Soviets would term the Khalkhin Gol and the Japanese would call the Nomonhan Incident. Elements of the Japanese 23rd Division were committed to action on May 14, as were Japanese warplanes.

The first major encounter between Japanese and Soviet forces took place on May 28 and 29. Both sides fought to a draw. Having committed themselves, Japanese forces were reinforced and organized into an army of 20,000 men and 112 field artillery pieces.



*Polikarpov I-15bis of the 70th Fighter Regiment, Chalchyn-Gol (Nomochan), June 1939.*

*Polikarpov I-15bis of the 70<sup>th</sup> Fighter Regiment, Chalchyn-Gol (Nomochan), June 1939*



*Pictures from sas1946.com*

On June 2, General Georgi Zhukov, one of the few general officers to survive Stalin's purges, was entrusted with the command of Soviet and Mongolian troops at Khalkhin Gol. Reflecting the conflict's importance to the Soviet premier, Zhukov was instructed to report directly to Stalin. Upon his arrival, Zhukov thoroughly organized his command facilities and communications networks. Another hallmark of his leadership, strict discipline, was ruthlessly enforced.

The Soviets used three types of fighter aircraft during the battle: the Polikarpov I-15bis, I-153 (Gull), and I-16 (Rata).



*Damaged I-16 at Soviet airfield near Khalkhin Gol*



*Ki-27s at Japanese airfield near Khalkhin Gol*

The principal Japanese Army fighter was the Ki-27 (Nate). (The Mitsubishi A6M1 Zero did not come into service until September 1940.) In the spring of 1939, the new fast and highly maneuverable Nakajima Ki-27 (Nate) entered service with the Japanese Air force. The Ki-27 was armed with two 7.7 mm (.303 in) machine guns. The I-15bis was no match for the Ki-27. The I-153 proved well-suited to operate from hot and windy desert airstrips. It featured a short takeoff run and was very stable, even in crosswinds. The I-16 was considered a very demanding aircraft to fly and unforgiving to inexperienced pilots. The high landing speed of the I-16 required long airstrips. But the I-16 was fast, climbed rapidly and possessed an outstanding rate of roll.

Two models of the I-16 were involved in the conflict – the Type 5 and Type 10. While the Ki-27 was considered superior to the I-16 Type 5, it was outmatched by the later Model 10 which was faster, more heavily armed (with twin wing-mounted 20mm cannon) and armored and could easily escape the Ki-27 in a dive.

As befitted a battlefield with little or no ground cover, much of the early fighting between Soviets and Japanese was to secure air superiority. Both nations deployed several squadrons of fighters, light and medium bombers, and reconnaissance aircraft. The Japanese sent 90 Ki-27s to contest the skies over Mongolia and initially achieved air superiority over the Soviets. Opposing the Ki-27s were 14 Polikarpov I-15bis and 24 I-16 Type 5s. In the initial phase of the conflict, the Ki-27's performance was superior to that of the two Soviet fighters.



*Soviet soldiers examined crashed Ki-27*



*I-16 Type 10 at Soviet airfield near Khalkhin Gol*

In early engagements the Japanese also enjoyed a distinct advantage because their pilots were experienced veterans of the air war over China. Researchers believe Soviets losses were three to four times larger than Japanese aircraft losses in the first month of the conflict.

To reverse that situation, in June 1939 the Soviets deployed six squadrons (12 aircraft per squadron) of improved Polikarpov I-153 biplanes and three squadrons I-16 Type 10 to Mongolia. The Soviets also introduced new tactics consisting of flying in large tightly knit formations, attacking with altitude and/or speed advantage and hit-and-run tactics much as Claire Chennault would later formulate for the 1941-era American Volunteer Group (Flying Tigers) in China.

Among the Soviet fliers sent to Mongolia in June were veterans of the Spanish Civil War. With experienced leadership and new fighters, the Soviets turned the air war to their advantage as the summer wore on. Japanese statistics on casualties suffered by their army air force reveal that of those airmen lost in battle, 10 percent were lost in May and June, 27 percent in July, 67 percent in August and September.

Japanese pilots claimed fantastic scores during that period, including 58 by Hiromichi Shinohara before he was killed in action on August 27. Recent analysis by Japanese WWII aviation researchers indicates that while Soviets pilots claimed four times as many victories than actually achieved, Japanese pilots over-claimed by a factor of 6 to 1.

A growing rift between the Kwantung Army and the army general staff in Tokyo was intensified by the air war. While initial air battles were largely confined to frontier areas, without prior knowledge or approval of



*I-16 Type 10s at Soviet airfield near Khalkhin Gol*



*Typical Soviet pilot gear for 1935-1939*



*Soviet pilots prepare for mission (Khalkhin Gol)*

the high command in Tokyo, the Kwantung Army unleashed major bombing raids in late June against air bases deep in the Soviet rear. Infuriated by such glaring insubordination, the officers in Tokyo delivered a blistering rebuke.

Orders were issued forbidding attacks upon airfields in Soviet rear areas. The incident illuminated the deep division within Japanese army leadership at the highest levels. Deeply concerned about personnel and logistical demands of forces in China, the army general staff in Tokyo was beginning to view the escalating conflict in Mongolia with growing alarm.

While Japanese leaders squabbled over their commitment of forces in Mongolia, Zhukov and others began to focus on overcoming the daunting logistical challenges of maintaining a sizable defensive force in the region. In an impressive effort that would provide valuable lessons for future operations, Russian truck convoys drove day and night (much like the “Red Ball Express” and subject of this years NCT Chapter project) over desert tracks, a grueling round trip of 868 miles. The Soviets employed 3,800 trucks and 1,375 fuel tankers in their supply organization.



*Book cover art from “The Skies Over Nomonhan”*



*Major Glazykin, commander of the 22<sup>nd</sup> Fighter Air Regiment (5 squadrons X 12 aircraft)*

On June 22<sup>nd</sup> the largest air battle was fought, lasting two and a half hours of a running battle that pitted the entire fighter forces of both nations against one another. The total aircraft shot down remains disputed to this day with both sides claiming many more than records support.

A smaller air battle occurred on June 27<sup>th</sup> with the results once again disputed by both sides. While massive aerial took place high over the vast plains below, the battle on the ground was at a stalemate.

Under orders to finish the campaign so that the Soviets could focus on the deteriorating political situation in Europe, General Zhukov (who would later lead the Soviet Army against the Germans at Stalingrad) amassed a large ground and air force during August. His army now numbered over 57,000 men, supported by 557 aircraft.

On August 24, their force somehow undetected by the Japanese, the Soviets launched a surprise offensive. It would prove to be the decisive battle of the campaign, driving the Japanese completely out of Soviet Manchuria with an overwhelming victory.

Thanks to a number of Western and Japanese scholars the Japanese perspective of the air fighting during the 1939 clash has been well known, and a fairly complete order of battle available.



*9th Hikodan with 24 Ki-30 light bomber*



*9th Hikodan Ki-21 ("Sally") medium bombers.*

However, the Soviet perspective has been little known, even the public propagandistic version. And what was known has been generally misunderstood. With the end of Soviet Union, and its secrecy extending even into the distant past, information is becoming available as Russians, and some outsiders tap into the archives. Now researchers can make a serious effort to clarify the Khalkin Gol air campaign.



*Nice art work from Russian web site*



*Ki-27s at Nomonhan*



*The victors of the air war over Khalkhin Gol*

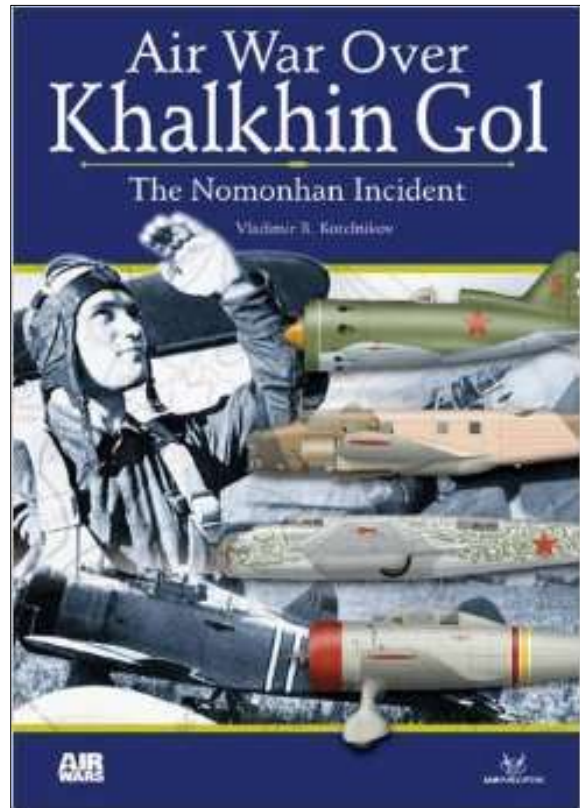


*Tupolev TB 3 with I-16 (not at Khalkhin Gol but I really like the picture)*

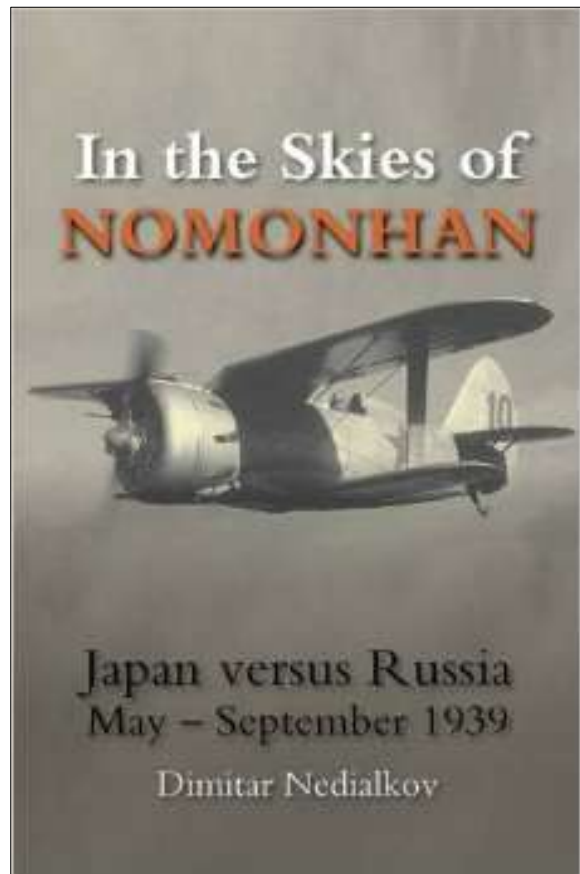
**Khalkhin Gol, Polikarpov I-153, and I-16 on the web:**

1. This link is to a great CAF Museum video covering the history of the I-16, including scenes of the Red 5 - <http://www.youtube.com/watch?v=cWDbUQx6DPg>
2. This link is to a very interesting Russian TV series Titled "Weapons of Victory" Episode 16: I-16 Fighter - <http://www.youtube.com/watch?v=AmeJYh0hqPI>
3. This link takes you to a battle scene from a Japanese movie about the battle. Watch kamikaze trucks charging Russian TB- 5 tanks - <http://www.youtube.com/watch?v=E9tdvahnhW0>
4. This link is to a Soviet 54 minute documentary on the battle that includes scenes of I-16s and Tupolev SBs - [http://www.youtube.com/watch?v=i\\_Rs0BE7k8o](http://www.youtube.com/watch?v=i_Rs0BE7k8o)
5. This link is to a an air show video taken a Wanaka, New Zealand, featuring a restored I-16 flying demonstration - <http://www.youtube.com/watch?v=Wre6DUAbMIg>
6. This link is to a neat UK air show video featuring a restored I-16 with walk-around and flying scenes - [http://www.youtube.com/watch?v=g\\_6jZ0YbMz4](http://www.youtube.com/watch?v=g_6jZ0YbMz4)
7. This link is to a neat video showing an I-153 engine start-up and taxi test - [http://www.youtube.com/watch?v=Pi100a\\_FtOA](http://www.youtube.com/watch?v=Pi100a_FtOA)

**Books on the 1939 Air Battle**



*Interesting text, lots of black and white photos, and numerous color profiles*



*Lots of black and white pictures appearing for the first time in Western publication*



# Walen's Kit Pick of the Month Eduard 1/48 I-16



*Eduard Model 10 ProfiPack 8148*

The Polikarpov I-16 was a fighter aircraft of revolutionary design; it was the world's first cantilever-winged monoplane fighter with retractable landing gear. The I-16 was introduced in the mid-1930s and formed the backbone of the Soviet Air Force at the beginning of World War II. The diminutive fighter prominently featured in the Second Sino-Japanese War, the Spanish Civil War where it was called the Rata (Rat) by the Nationalists or Mosca (Fly) by the Republicans, and the Battle of Khalkhin Gol. The Finnish nickname for I-16 was Siipiorava ("Flying Squirrel").

While working on the Polikarpov I-15 biplane, Nikolai Nikolaevich Polikarpov began designing an advanced monoplane fighter. It featured cutting-edge innovations such as retractable landing gear and a fully enclosed cockpit, and was optimized for speed with a short stubby fuselage (similar to Gee Bee R-1) and a Wright Cyclone radial engine in a NACA cowling. The aircraft was small, light and simple to build.



*Eduard Model 10 Weekend Edition 8466*



*Eduard Model 10 Dual Combo 1160*

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Work on the prototype began in June 1933 and the aircraft was approved for production in November 1933, a month before the prototype flew for the first time.

The I-16 was of mixed construction using a wooden monocoque fuselage and wings structured around a steel alloy wing spar with aluminum alloy skinning on the center and leading edges and the remaining portions of the wings fabric covered. Another modern feature were the ailerons which ran almost the entire trailing edge of the wing and also operated as flaps (in the manner of more modern flaperons) by drooping 15°. The cockpit was covered by a 16 in wide canopy which featured an Aldis tubular gun sight which could slide back and forth on runners fitted with bungee cords of rubber. A 59.4 US gal fuel tank was fitted directly in front of the cockpit. The main gear was fully retractable by a hand-crank.



*Eduard Royal Class R0003*

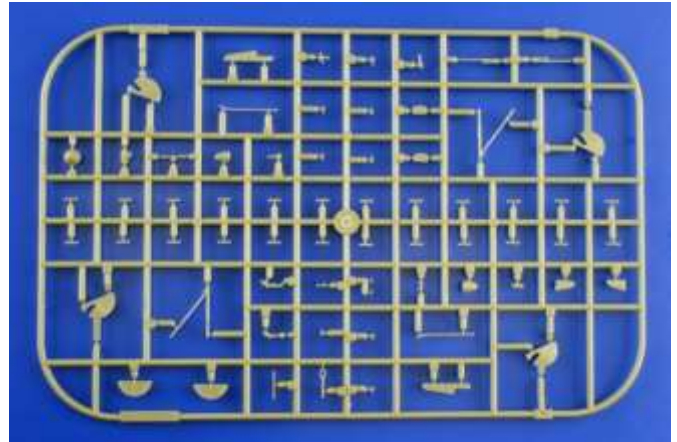
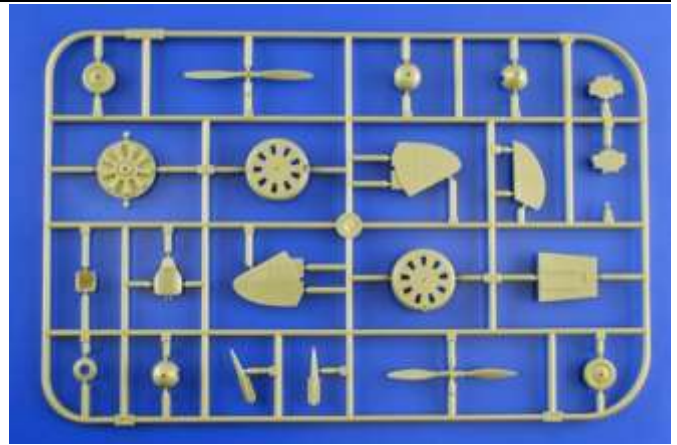
*Three complete models that can build into a Model 10, Model 17, Model 18, Model 24  
Also includes a 1/16 figure of Boris F. Safonov*



*What you get in kit 8148, Model 10 ProfiPack*

The armament consisted of a pair of 7.62 mm (0.30 in) ShKAS machine guns in the wings, mounted on the outboard side of the main gear and carried 900 rounds of ammunition.

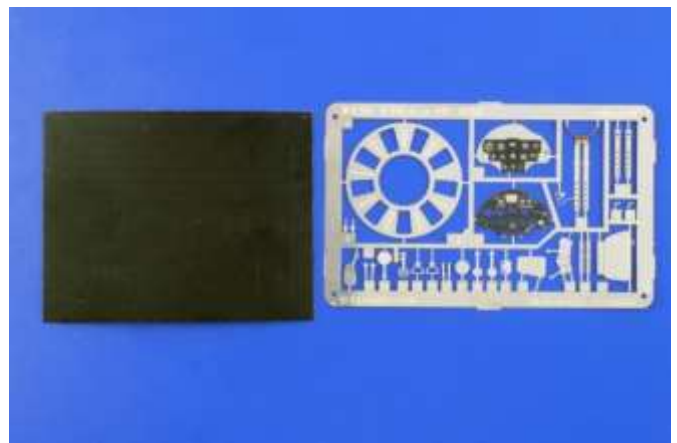
The I-16 was originally designed to use a licensed-built version of the Wright Cyclone SR-1820 F-3 nine-cylinder radial engine (rated at 710 hp). Due to problems negotiating a Wright Cyclone engine license, Polikarpov was told to use the less powerful M-22 (Soviet-built version of the Gnome-Rhone Jupiter



*Eduard Model 10 ProfiPack 8148 fuselage sprues*



*Eduard Model 10 ProfiPack 8148 wing sprues*



*Eduard Model 10 ProfiPack 8148 painting masks and colored photo-etch*



*Eduard Model 10 ProfiPack 8148 decals*

9ASB which itself was a licensed version of the Bristol Jupiter VI producing 480 hp). This was deemed acceptable because the projected top speed still exceeded 185 mph.

The M-22 powered I-16 first took to the air on December 30, 1933 with the famous Soviet test pilot Valery Chkalov at the controls. Test results indicated very good maneuverability but the aircraft did not tolerate abrupt control inputs. The I-16 prototype reached 223 mph. The manually-retracted landing gear was prone to jamming and required considerable strength from the pilot.

Most pilots who flew the I-16 Type 1 for evaluation purposes did not find the plane to have any redeeming characteristics. Despite these concerns, production of the M-22 powered I-16 began in 1934 at two aircraft factories. Because it was the fourth aircraft produced by these factories it received the designation I-16 Type 4. This aircraft incorporated small airframe changes, including armor plating for the pilot and changes to the retract doors to allow for complete closure.

The next version of the I-16, the type 5, used the Shvetsov M-25 engine (Licensed built Wright R-1820-F3) and incorporated more changes, including a new engine cowling which was slightly smaller in diameter, had nine forward facing shuttered openings to control cooling flow and a redesigned exhaust with eight



*Eduard Model 17 ProfiPack 8146*



*Eduard Model 18 Weekend Edition 8465*

individual outlet stubs. The M-25 was rated at 635 hp at sea level and 700 hp at 8,000 ft. Due to the poor quality of the canopy glazing, I-16 Type 5 pilots typically left the canopy open or removed the rear portion completely. By the time the Type 5 arrived, it was the world's lightest production fighter (3,219 lb), as well as the world's fastest, able to reach speeds of 282 mph at altitude and 245 mph at sea level. While the Type 5 could not perform the high-g maneuvers of other fighters, it possessed superior speed and climb rates, and had extremely responsive aileron control which gave the Type 5 a very good roll rate which led to precision maneuvers in loops and split-Ss. A total of 7,005 single-seat and 1,639 two-seat trainer variants were produced.

The I-16s greatest liability in these early combats was a relatively light armament of only two machine guns. Just as later versions of the I-16 were outfitted with more powerful engines, so too were they given stronger armament. At first, the number of machine guns was doubled to four by installing two in the fuselage along with the two in the wings. Later, the machine guns in the wings were replaced by 20 mm cannons, further increasing the firepower. Bombs could be carried under the fuselage, or rockets could be carried under the wings as well.



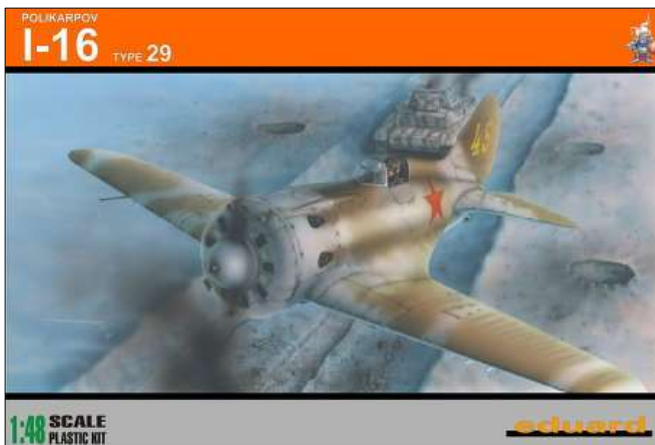
*Eduard Model 24 Weekend Edition 8468*



*Eduard Model 24 ProfiPack 8149*

Later variants of the I-16 incorporated the following features:

- Type 6 Type 5 with a M-25A engine, 545 kW (730 hp).
- Type 10 Four ShKAS machine guns (two synchronized in the fuselage and two in the wings), windscreen replaced the sliding canopy, could be fitted with retractable skis for winter operations, M-25B engine with 750 hp. Hispano-Suiza-built aircraft were powered by the Wright Cyclone R-1820-F-54 engine.
- Type 16 Type 10 with synchronized ShVAK 12.7mm prototypes. Only three were built, all in January 1939, with serial numbers 16211-16213. They passed factory trials and were delivered to the VVS for military trials.
- Type 17 Type 10 with two ShKAS machine guns and two ShVAK cannon, rubber tail wheel, M-25V engine with 750 hp. Some aircraft were fitted with an additional 12.7 mm (0.5 in) Berezin UB machine gun for strafing.



*Eduard Model 29 ProfiPack 8152*



*Moscow I-16 factory*

- Type 18 - Type 10 with Shvestsov M-62 engine producing 830 hp, with a two-speed supercharger and a variable-pitch propeller. Capable of carrying two 26 gal underwing fuel tanks.
- Type 19 Identical to the Type 10, except for the replacement of their wing-mounted ShKAS machine guns with Savin-Norov machine guns; the propeller-synchronized ShKAS were not replaced. Only three aircraft were built in this configuration, all in January 1939. They had serial numbers 19211-19213. They were first used as test platform for the new gun and then delivered to the VVS as I-16SN. They saw action during the Winter War.



*Moscow I-16 factory*



*Moscow I-16 factory*

Type 20 This designation was first applied to four prototypes built in February 1939 at Factory 21 and armed with Savin–Norov (SN) machine guns synchronized to fire through the propeller. This type was however rejected in August 1939, and then the designation reused for the first I-16 version (otherwise the same as the type 10) capable of carrying drop tanks. These 931 (25 US gal) tanks were designated PSB-21. Eighty aircraft of this specific type were delivered. Additionally, all I-16 types built after January 1940 could use these drop tanks. The tanks were based on the design used by the Japanese Nakajima Ki-27.

Type 21 Paper design only. Planned to have four ShKAS synchronized machine guns all firing through the propeller arc.

Type 22 Paper design only. Planned to have four synchronized machine guns, a mixture of ShKAS and SN, all firing through the propeller arc.



*Moscow I-16 factory*



*Moscow I-16 factory*

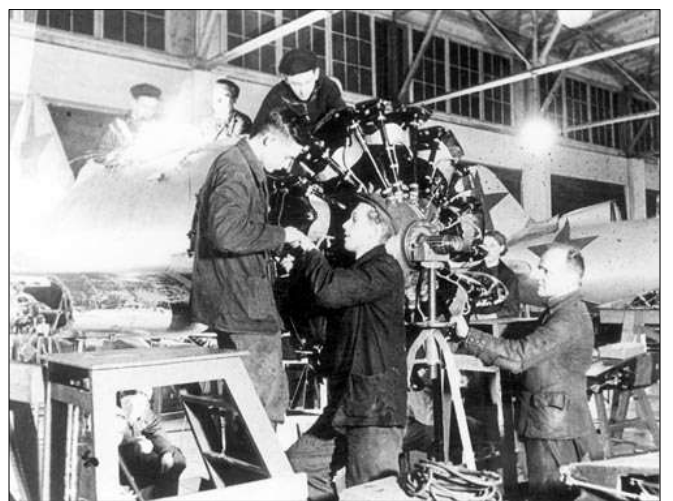
Type 23 Type 10 additionally armed with RS-82 rockets; 35 were built starting in May 1939 and ending in August 1939.

Type 24 Four ShKAS, landing flaps replaced drooping ailerons, tailwheel added, second cockpit door added on the starboard side, Shvetsov M-63 engine with 900 hp.

Type 27 Type 17 with an M-62 engine.

Type 28 Type 24 with two ShKAS and two ShVAK.

Type 29 Two synchronized ShKAS in the nose and a single 12.7 mm UBS in the bottom of the fuselage; it had no guns in wings which were reserved for ground attack weapons. Three rocket racks were mounted in each wing. Additionally, starting in 1941, the external fuel tank hardpoint was changed so that it became multipurpose: it could carry the new type of drop tank, PLBG-100, or a FAB-100 bomb. Photographs show two configurations: one with 6 RS-82 rockets and two FAB-100 bombs and another with four RS-132 rockets.



*Moscow I-16 factory*



Type 30 Re-entered production in 1941-42, M-63 engine.

TsKB-18 Ground attack prototype with M-22 engine and armored cockpit. Armed with four ShKAS or PV-1 machine guns and 100 kg (220 lb) of bombs. Two additional Type 5s were fitted with six ShKAS machine guns of which four could decline to 20° for ground strafing.

TsKB-29 AKA SPB. Pneumatically-operated landing gear and flaps, Wright Cyclone engine, armament of two ShKAS machine guns, used as a high-speed dive bomber in the Zveno project.

I-16TK Type 10 with a turbocharger for improved high-altitude performance, reached 494 km/h (307 mph) at 8,600 m ( 28,200 ft), did not enter production.



*Russian Polikarpov UTI-4, a two seater training version of the I-16 Soviet fighter. Russia 1941.*



UTI-1 Two-seat trainer version of Type 1.

UTI-2 Improved UTI-1 with fixed landing gear.

UTI-4 AKA I-16UTI, AKA I-16 Type 15. Two-seat trainer version of Type 5, most with fixed landing gear. This model was built in significant numbers, approximately 3,400 were produced

By 1941 the Soviets saw that the I-16 was clearly inferior to German fighters. Newer planes were in development, but it took time to deliver production models, so the I-16 continued to serve in frontline units. In June 1941 nearly forty percent of Soviet fighter craft on western airfields were I-16's when the German invasion began. Many of these were destroyed on the ground and those that made it into the sky fared little better. Despite its disadvantages, the I-16 could not be replaced with more modern types in any numbers until the summer of 1942. During the fall, the surviving I-16's were withdrawn for service as training vehicles.

In the early 1990s, New Zealand pilot and entrepreneur Sir Tim Wallis' Alpine Fighter Collection organised the restoration in Novosibirsk of six I-16s and three I-153s, found in Russia, to an airworthy condition, this project being completed in 1999 as the third and final I-153 arrived in New Zealand.

After a spectacular international debut at the Warbirds Over Wanaka airshow in 1998 (for the I-16s) and 2000 (for the I-153s), some of the aircraft were sold off around the world, to the Commemorative Air Force in the U.S. (as pictured above), to Jerry Yagen of Virginia, and an I-16 to Spain, where it is held in the collection of the Fundación Infante de Orleans at Cuatro Vientos airport, Madrid, and is occasionally flown for the public.

Despite intentions to keep one of each at the NZFPM, all of the I-16s have now been sold to overseas owners. Jerry Yagen also had a second I-16 restored in Russia. The Flying Heritage Collection in Washington, United States has an airworthy I-16 Type 24.

# Models of the Eduard I-16



*From Britmodeller.com modeler's name not shown*



*Model built by Ricardo Rodriguez*



*Pictures from FineScale.com model by "wing-nut"*

*Model built by Tomasz Gronczewski*



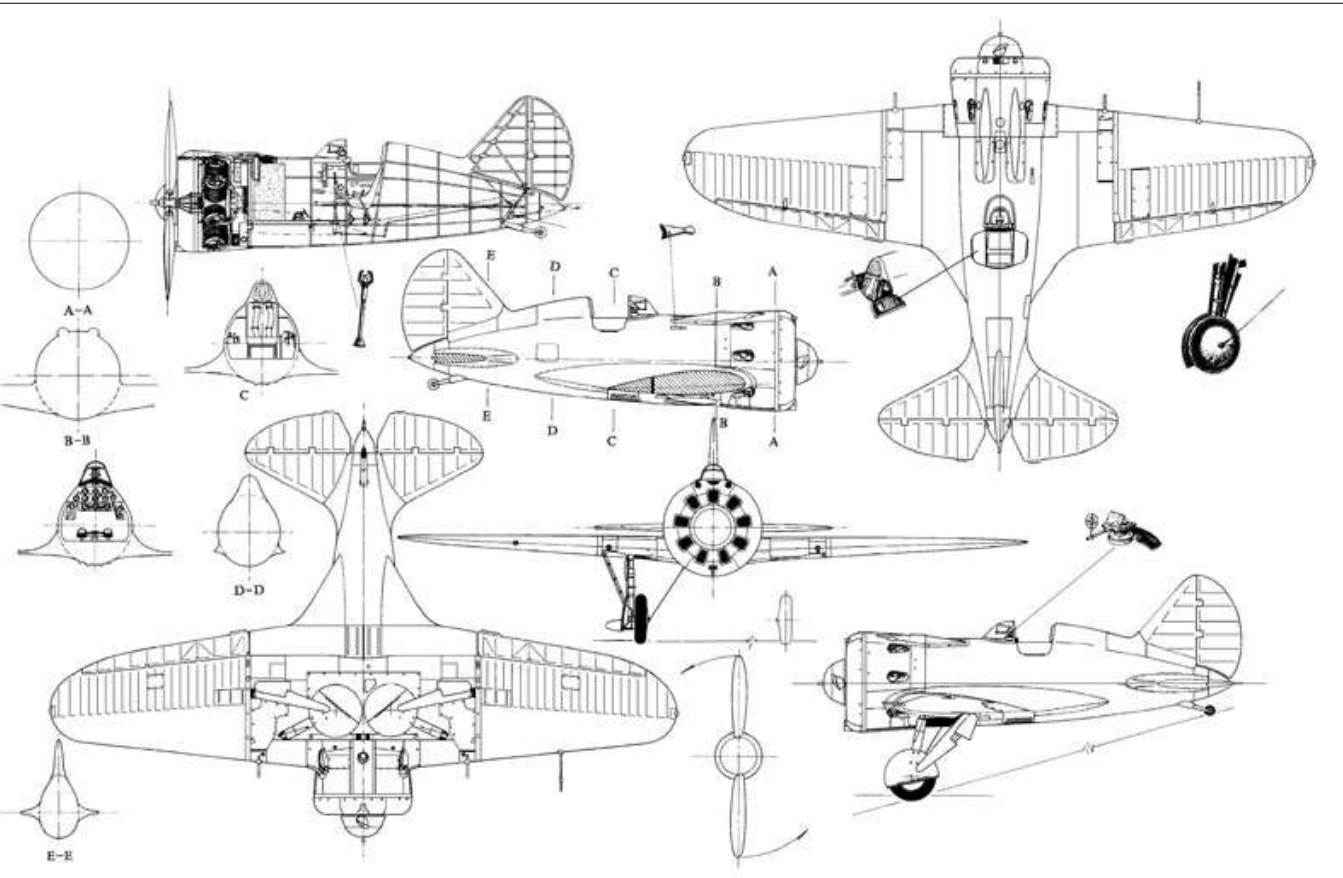
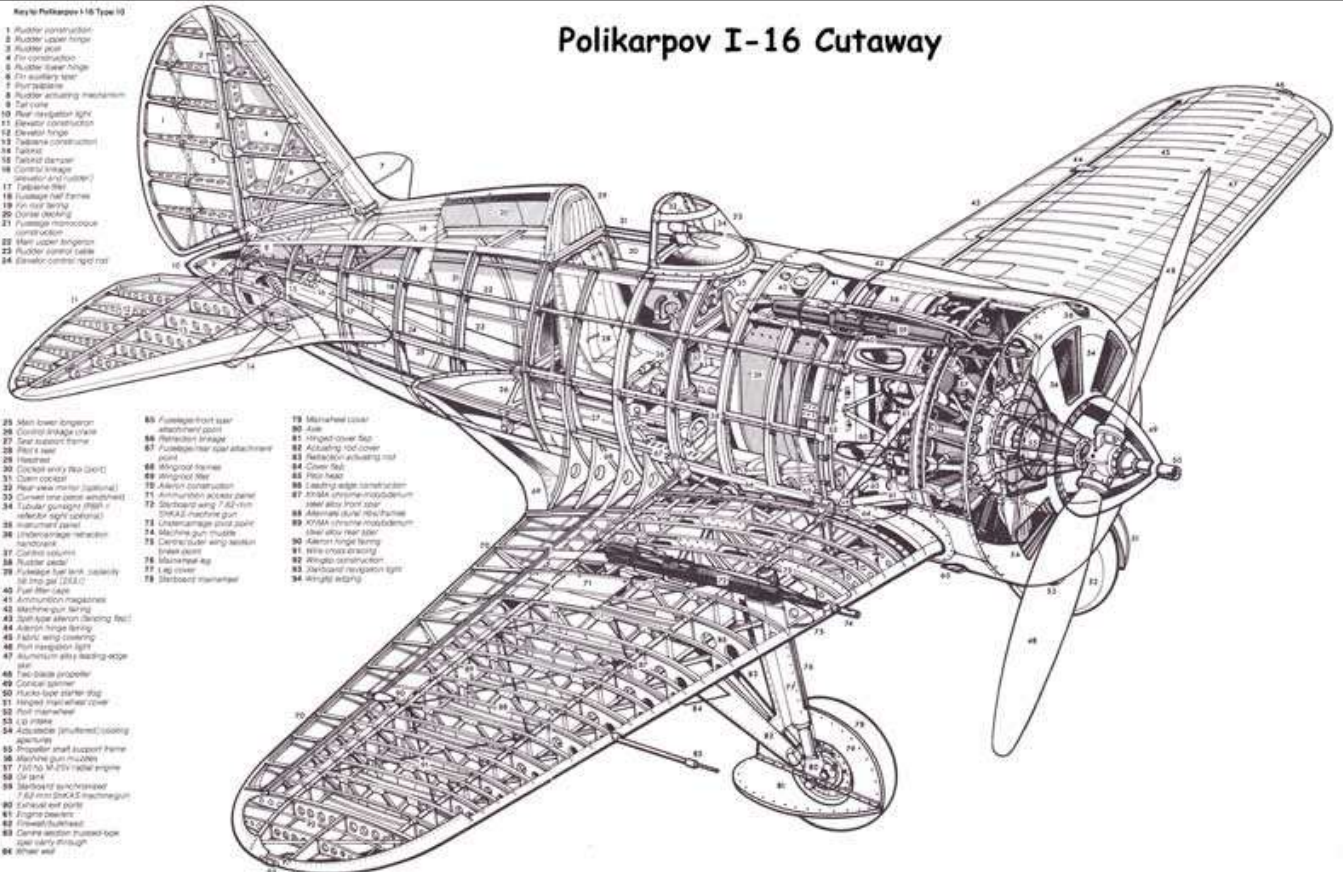
# Polikarpov I-16 Cutaway

- Key to Partnames - I-16 Type 10
1. Rubber upper holder
  2. Rubber upper holder
  3. Rubber post
  4. Pin connection
  5. Rubber lower hinge
  6. Pin auxiliary wire
  7. Flywheel
  8. Rubber actuating mechanism
  9. Car case
  10. Rear navigation light
  11. Elevator construction
  12. Elevator hinge
  13. Tailplane construction
  14. Tailfin
  15. Tailfin damper
  16. Control linkage master and rubber
  17. Tailplane rib
  18. Fuselage half frame
  19. Control linkage master and rubber
  20. Control linkage
  21. Fuselage monocoque construction
  22. Main upper longeron
  23. Rubber control cable
  24. Elevator control rod end

25. Main lower longeron
26. Control linkage cable
27. Seat support frame
28. Rib & spar
29. Heelbar
30. Control wire Rib (C/D)
31. Damper cable
32. Rear wheel master (optional)
33. Control wire cable attachment
34. Tubular gun sight (R/S) in vertical sight column
35. Instrument panel
36. Undercarriage attachment hardware
37. Control column
38. Rubber pad
39. Fuselage top link assembly (to top girder) (D/E)
40. Fuel filter cage
41. Ammunition magazines
42. Machine gun firing
43. Spin speed alarm (warning Bell)
44. Alarm hinge fitting
45. Fabric wing covering
46. Front navigation light
47. Aluminium alloy leading edge spar
48. Two blade propeller
49. Control column
50. Rubber tape starter strip
51. Hinged master wheel cover
52. Fuel meter
53. Oil filter
54. Aluminium (painted) coating aperture
55. Propeller shaft support frame
56. Machine gun muzzle
57. 700 HP M-25V radial engine
58. Oil tank
59. Backboard (bracket) for fuel tank (D/E) (intergun)
60. Exhaust exit ports
61. Engine exhaust
62. Forward fuselage
63. Canine section (rubber) top case (to top girder)
64. Wheel end

65. Fuselage front spar attachment point
66. Heelbar linkage
67. Fuselage rear spar attachment point
68. Wingroot frame
69. Wingroot rib
70. Aileron construction
71. Aileron rib
72. Backboard wing 7-1/2 inch (D/E) machine gun
73. Undercarriage strut post
74. Machine gun muzzle
75. Control wire wing section (wire end)
76. Main wheel leg
77. Leg cover
78. Starboard main wheel

79. Main wheel cover
80. Leg
81. Hinged cover flap
82. Actuating rod cover
83. Heelbar actuating rod
84. Cover flap
85. Main wheel
86. Leading edge construction steel alloy front spar
87. 3000A aluminum alloy (aluminum)
88. Aluminum alloy Rib (C/D) frame
89. KWA (KWA) mechanism
90. Aileron hinge fitting steel alloy rear spar
91. Wire control bracket
92. Wingtip construction
93. Wheelbar navigation light
94. Wingtip edging



# Walen's Most Unusual Kit of the Month

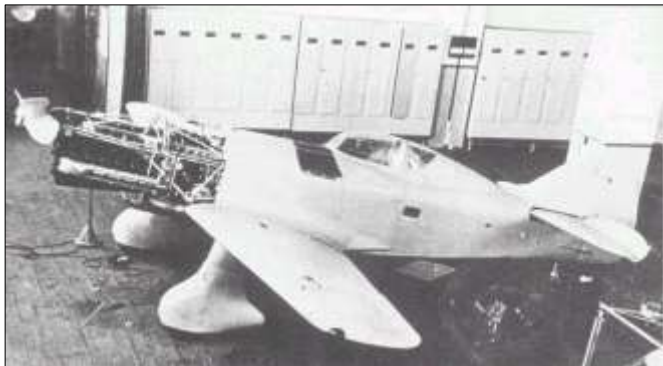


1/48 scale resin kit

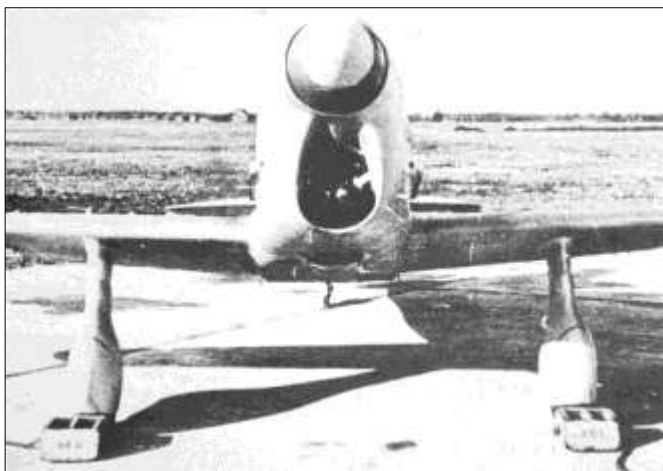
**VEF Irbitis I 16**

MX 4834

The VEF Irbitis I 16 was a Latvian aircraft, designed in 1938 by Karlis Irbitis, and was an all-wooden low wing monoplane with an enclosed canopy and non-retracting undercarriage. The aircraft was powered by the Czech Walter Sagitta I-SR engine, giving an output of 460HP.



Two Browning 7.92mm MG's positioned above the engine gave this machine its firepower, with an option to add 2 extra guns in under-wing pods. With the prototype flying in 1940, and after some initial engine issues, Latvia's troubles intensified with the Red Army entering Latvia.



A.Vercamer Profile

Immediately upon occupation of Latvia, the VEF was taken over by a small cadre of employees who were apparently members of the Communist underground. They formed a small militia which took control of security at the facility and watched over the activities of all other employees.

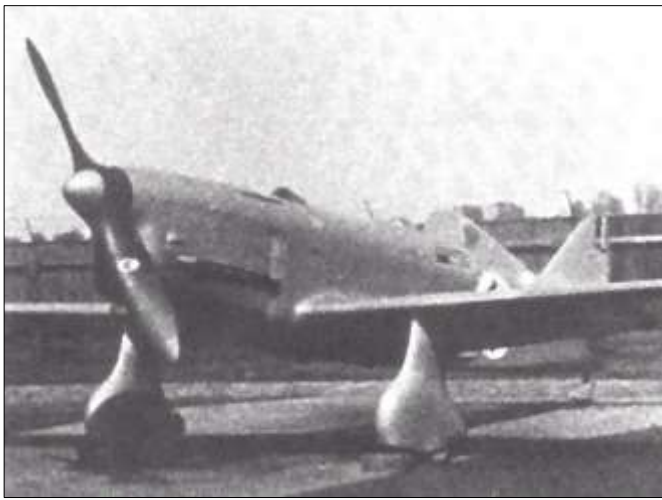
The Soviets ordered that all VEF aircraft be removed from Spilve and, a few weeks later, all fabrication and assembly work was ordered suspended pending further instructions from Moscow.

In February 1941 a Soviet official, General-Major Feodorov, became aware of the VEF designs (particularly the I-15b and I-16) which had been stored in an abandoned warehouse. In March Irbitis received orders from Feodorov in Moscow to prepare one prototype each of the I-12, I-15a, I-15b, I-16, I-17 (two variants) and I-18 to be shipped to Moscow for evaluation.

Some of these were immediately ready for shipment, but the I-16 required further engine tests before it could be sent. At about this time the Soviets began to purge VEF of 'unreliable' engineers and constructors, and one by one Irbitis' colleagues began to disappear to prison and Siberia. This, and the engine troubles, kept the I-16 in Riga until the Germans invaded in June 1941. There is no evidence that the I-16 ever wore Soviet markings.

Under the Germans, work was allowed to continue on the VEF types but, as soon as each was completed, it was claimed by the *Luftwaffe*. When the engine problems in the I-16 were sorted out test pilots Mikelsons and E.Rudzitis managed to make a few flights from the Kalnciems aerodrome before it, too, was confiscated by the Germans.

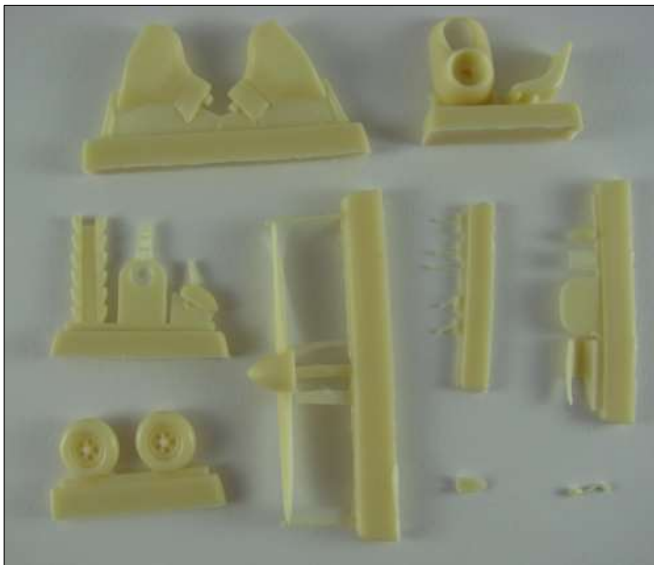




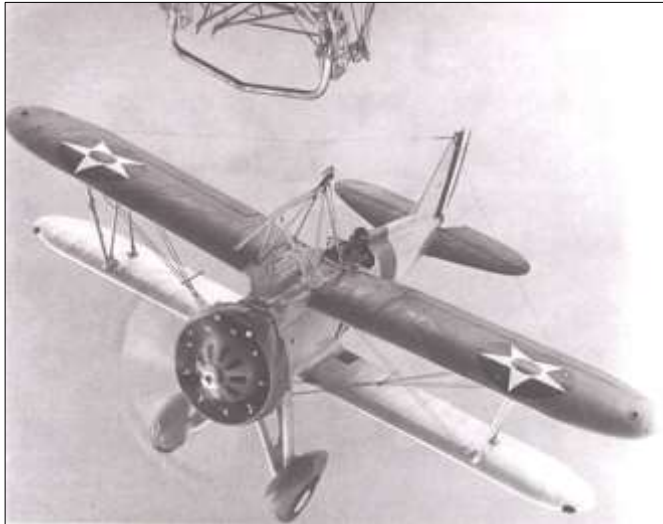
# Walen's Man Doll of the Month (Action Figure) King's Toys 1/6 Battle of Britain RAF Pilot KT-8003

Nothing further is known about the fate of this aircraft, though Irbitis reports rumours that the remaining VEF aircraft were sold to a "neutral" country. If true, perhaps they were lost in transit and therefore never appeared on the active list of this unnamed nation.

Sadly, more photos of the I-16 in German markings exist than when it was still marked as a Latvian aircraft.







## Greetings

Now that the holidays are over maybe things can settle down?

Good news is that the Model T Mail truck in 1/48 is finished and available. This is a conversion for the RPM kit. It is an easy conversion with less than 20 parts and a small decal sheet.

The 1/48 O2U and Sparrowhawk are also done and those that had one on order will be receiving them soon.

Care to join my Jumper Cable effort? Yeah I know, what the heck is this? Well I figured no one would get their shorts in a wad over that name, could not call it QuicK start. In an effort to raise some capital I am asking for you, my customers and friends for help.



*The all-blue Command plane for the Commander in Chief of the U. S. Fleet in the Oakland Airport Lagoon in June 1939.*

I do not qualify for Quick Start or other such similar programs and I do not want to take out a loan, so I am doing something on my own. I am asking for a \$10.00 donation from you. If you are willing, please send via Pay Pal, marked as Jumper Cable and as a Gift. Make sure you have your address on it too. I will be doing something for you in the future as well and will keep these in a separate file for that. So thank you in advance.

Next up: 1/48 SOC-3 Seagull



*Curtiss Model 71E, the SOC-3.  
83 built by Curtiss, 44 built by the NAF as the SON-1*

Many of you have been waiting patiently for this one. I had told some that had inquired that it would be released this year. It is scheduled for the later part of the first quarter of 2014 (late March)

This kit will retail at \$40.00. I do not plan any decals for it. There are some available from Yellow Wings decals. You also may be able to buy a sheet from who ever now owns Wings 48?

You can preorder one now for \$30.00.



### Martin MS-1

In keeping with my love of float planes and flying boats I will be releasing a 1/48 Martin MS-1 floatplane (Submarine launched scout) and the long awaited new Felixstowe this year too.

NOTE!!! Prices shown in this newsletter do not include S&H.

PS. If responding to this News Letter, PLEASE!! Omit it when you write to me. Don't include it as part of your e-mail. I wrote it, I do not need to read it again.

Also feel free to share this news letter with your friends. I can add them to the mailing list.

## Hints and Tips

### Making fabric covered wings or control surfaces

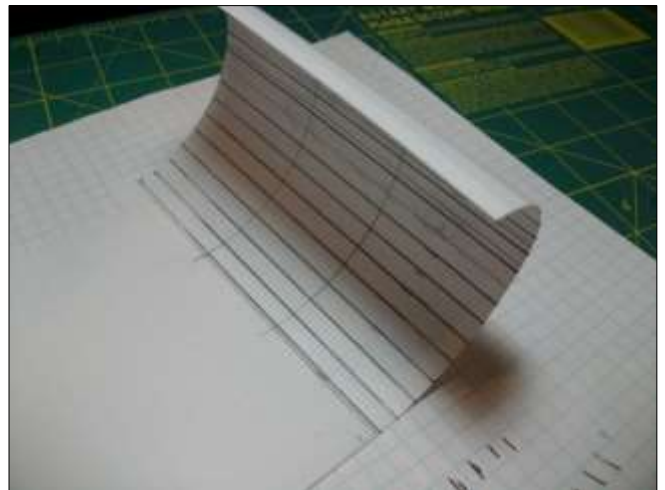
Start by making a wing core from thin Bass wood. You can pick this up at most craft stores and even some home improvement stores should you not have a hobby shop close by. Carefully feather the trailing edge down pretty thin and 1/16" narrower than the actual wing chord.

Shown below is a simple constant chord wing for the 1/48 Martin MS-1 kit. Rib locations have been marked and will be used to layout the wing skin details on .010 thick plastic sheet.



*Note!! use both hands! I had to hold the camera with the other for this photo.*

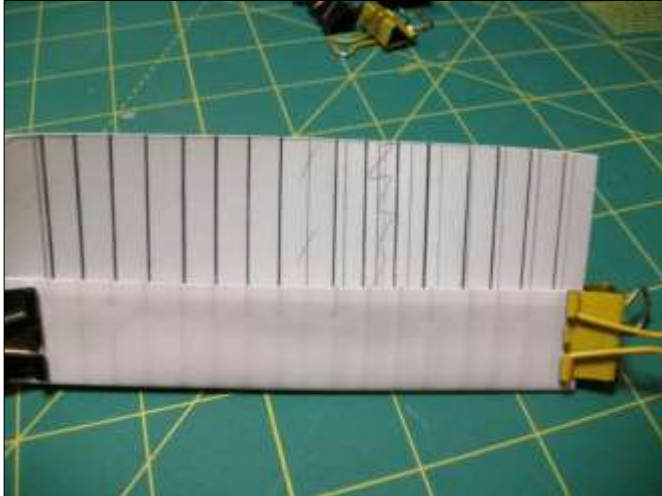
Using a square lightly draw on all rib, riblet and aileron/flap locations. This will be the interior surface of the wing so be mindful you are drawing a mirror image of the exterior. Also I have found that a Bic type ball point works best. Use medium pressure with the plastic on a tablet of paper.



When finished the plastic will curl up a bit but no worries the wing core will fix that. Note the two perpendicular lines across the ribs. These are just layout lines for the trailing edge and leading edge fold point.



Spread some thick slow acting superglue on the plastic wing lower surface and clamp the wing core to it with small spring clamps of clothes pins. I like to leave extra plastic extended out past the trailing edge. Once this step dries, finish feathering out the trailing edge. With the core glued onto the plastic you are now able to feather it to almost nothing.



Now carefully fold over the top surface. Note that my lines do not match? This is why you must make sure all is square when drawing them on, they will not line up as they should! When all is corrected repeat the glue and clamp step for the top surface. Once all is dry; trim and sand the trailing edge to the correct chord.



This view shows the wing almost finished. The ends and chord need to be trimmed and ailerons scribed.

This same technique can be used to correct fabric details on a wing or inaccurate control surface details you may have with an injection molded kit.

A few more new kits coming out soon:

One on many modelers want list, a 1/48 Cletrac aircraft tug.



1/48 U.S. B-57 A conversion for the Airfix B-57 kit  
All new nose section with full interior, fishbowl canopy and wheel well plus decals for the Arkansas Air National Guard



1/48 Pfalz D.VIII

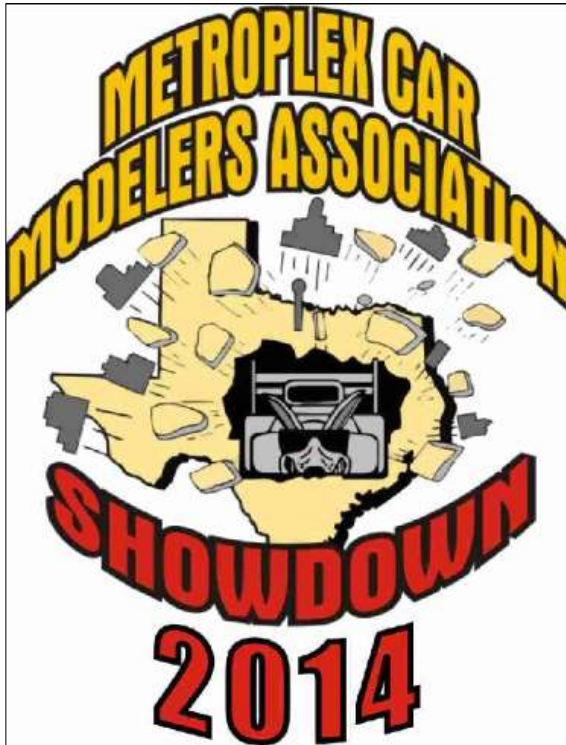


Mostly a resin kit with geared counter rotating 11 cylinder motor.

Mike

[www.lonestarmodels.com](http://www.lonestarmodels.com)

## Upcoming Contests



**March 8, 2014**

### MCMA 2014 Showdown 24 Model Car Contest

<http://www.themcma.net/>

IPMS Metroplex Car Modelers Association  
Dr. Pepper Star Center  
12700 North Stemmons Freeway  
Farmers Branch, Texas

**March 8, 2014**

### RiverCon III

Theme: "D" Day

IPMS Red River Modelers

[www.ipmsredrivermodelers.org](http://www.ipmsredrivermodelers.org)

Clarion Hotel Shreveport  
1419 East 70<sup>th</sup> Street  
Shreveport, Louisiana



**March 20-22, 2014**

### 2013 Lone Star Figure Show

[www.lonestarfigureshow.com](http://www.lonestarfigureshow.com)

Lone Star Military Miniature Society  
Renaissance Hotel  
2222 Stemmons Freeway  
Dallas, TX 75207

**March 29, 2014**

### Great South TigerFest XXI

IPMS New Orleans Flying Tigers Scale Model Builders  
St. Jerome K.C. Hall  
3310 Florida Ave  
Kenner, Louisiana

**March 29, 2014**

### Tulsa Modelers Forum Contest & Show

IPMS Tulsa  
Bixby Community Center  
211 N. Cabaniss  
Bixby, Oklahoma 74008



**April 26, 2014**

### Model Mania 2014

IPMS Houston

<http://www.ipms-houston.org/>

Stafford Center  
10505 Cash Road  
Stafford, Texas



**May 16 - 17, 2014**

### 2014 Region VI Convention

IPMS Air Capital Modelers

<http://www.aircapitalipms.org/>

Marriott Hotel & Convention Center  
9100 Corporate Hills Drive  
Wichita, Kansas



**May 31 - June 1, 2014**

### WonderFest

[www.wonderfest.com](http://www.wonderfest.com)

Crowne Plaza Louisville Airport Hotel  
830 Phillips Lane  
Louisville, Kentucky 40209



I.P.M.S.



North Central Texas

**May 31, 2014**

**ScaleFest 2014**

IPMS North Central Texas

<http://ipmsnct.net/>

Grapevine Convention Center

1209 South Main Street

Grapevine, Texas 76051



**June 19-21, 2014**

**Squadron EagleQuest XXIII**

Theme: The Need For Speed

<http://www.squadron.com/eagle-quest-registration-s/2946.htm>

Embassy Suites Dallas

DFW Airport North Outdoor World

2401 Bass Pro Drive, Grapevine, Texas 76051



**August 2, 2014**

**HAMS 8<sup>th</sup> Annual Model Car Show and Contest**

IPMS HAMS <http://www.ipms-hams.org/>

Cypress Creek Christian Community Center

Annex Building Gym

6823 Cypresswood Drive

Spring, Texas 77379

Fort Worth



Scale Modelers

**September 14, 2014**

**SuperCon 2013**

<http://www.fortworthscalemodelers.org/>

IPMS Fort Worth Scale Modelers

Bob Duncan Community Center

Vandergriff Park

2800 S. Center Street

Arlington, Texas

**October 4, 2014**

**ASMS Capital Classic**

IPMS Austin Scale Modeler Society

<http://www.austinsms.org>

Norris Conference Centers

2325 West Anderson Lane

Austin, Texas



## Local Events of Interest



**March 2, 2014 (Sunday)**  
IPMS MCMA <http://www.themcma.net/>  
Monthly Meeting  
Heritage Park, 217 South Main,  
Irving, Texas 75060



March 5, 2014 (Wednesday)  
Lone Star Aero Club  
[www.lonestaraeroclub.org](http://www.lonestaraeroclub.org)  
TBD  
DFW Airport at Hyw 360 & FAA Road  
American Airlines C.R. Smith Museum  
Fort Worth, Texas 76155



**March 8, 2014 (Saturday)**  
OBA / FACM / VMAP  
2<sup>nd</sup> Saturday Work-Party 9:00 am to 2:00 pm  
<http://www.b-36peacemakermuseum.org/>  
<http://www.ov-10bronco.net> <http://www.facmuseum.org>  
3300 Ross Avenue  
Meacham Airport  
Fort Worth, Texas



**March 10, 2014 (Tuesday)**  
EAA Chapter 34 Meeting <http://www.eaa34.org>  
TBD  
UTA Campus Room 100, Nedderman Hall  
416 Yates Street,  
Arlington, Texas



**March 11, 2014 (Wednesday)**  
Marauder Men of the Metroplex  
<http://webspaces.webring.com/people/oj/jobiz/>  
Business Meeting  
Spring Creek Barbecue  
3608 South Cooper Street,  
Arlington, Texas 76015



**March 15, 2014 (Saturday)**  
The League of World War I Aviation Historians  
DFW Chapter Meeting  
<http://www.overthefront.com/>  
Cindy Boeke: Der Vormarsch der Flieger abt. 27 in der  
Ukraine (The advance of Flight Squadron 27 in the Ukraine)  
Frontiers of Flight Museum  
<http://www.flightmuseum.com/>  
6911 Lemmon Avenue Dallas, Texas



**March 17, 2014 [Monday]**  
IPMS Fort Worth Scale Modelers  
<http://www.fortworthscalemodelers.org/>  
Frank Landrus: Legos as a Modeling Tool  
Baptist Church of Benbrook  
1015 McKinley Street  
Benbrook, TX 76126

## Local Events of Interest



**March 18, 2014 (Tuesday)**

B-36 Peacemaker Museum

<http://www.b-36peacemakermuseum.org/>

*Lt Colonel John H. Yuill: "From a B-58 to a B-52 to a Prisoner of War"*

UNT Health Science Center Room 124, West Building  
3500 Camp Bowie Blvd., Fort Worth, Texas



**March 19 - 23**

Frontiers of Flight Museum

<http://www.flightmuseum.com/>

Wings of Freedom Tour: 25<sup>th</sup> Anniversary

Boeing B-17 Flying Fortress "Nine O Nine"

Consolidated B-24J Liberator "Witchcraft"

North American P-51C "Betty Jane"

Bell UH-1E Iroquois

6911 Lemmon Avenue

Dallas, Texas



**March 22, 2014 (Saturday)**

Tyler Historic Aviation Memorial Museum

<http://www.tylerhamm.org>

**Ret. USAF Col. Bob Brewster - F-111 Pilot**

Tyler Pounds Airport, 2198 Dixie Drive

Tyler, Texas 75704

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Red River Modelers Presents

# RiverCon III

## 2014

Scale Model Contest

Theme... "D" Day

Saturday March 8th

9:00am—4:30pm

Clarion Hotel Shreveport  
1419 East 70th Street  
Shreveport, Louisiana

**E-Mail [derrellt@comcast.net](mailto:derrellt@comcast.net) or [maraderdriver@live.com](mailto:maraderdriver@live.com)**



Just a quick note about the upcoming meeting and related matters:

1. The courtesy of an RSVP is greatly appreciated - either by return email reply or calling me (Gregory Rydquist) at (831) 234-5016. This will help the museum determine which room and projection system to let us use. (The room is graciously offered free to us, but everybody will have to pay their own admission to the museum).
2. We are particularly fortunate to have a special guest speaker and presentation (see info below). The subject is particularly interesting and topical given the current events in the Ukraine involving many of the very same areas involved 100 years ago. This might be a good meeting for which to invite a friend and introduce them to WW1 aviation!
3. Note that there is a Tumblr blog site for our DFW chapter. You may subscribe to it and automatically receive posts such as the most recent one one (shown below) below in order to stay current on group activities. Those that use Facebook may want to check on our meetings and activities in the Facebook Events section from time to time.
4. Rather than break up the day and go out and back for lunch please plan on bringing your own lunch or ordering off the menu of a local sandwich shop the morning of the meeting as a group and we will have the orders delivered.
5. Given we will be viewing a Sopwith Pup and a JN4 in particular, people may wish to bone up on these two aircraft and share their knowledge.

Blue Skies!

The League of World War I Aviation Historians, DFW Chapter meeting

Saturday, March 15, 2014, 10:00 am Frontiers of Flight Museum 6911 Lemmon Avenue, Dallas, Texas 75209

\*\* Special guest presentation: Der Vormarsch der Flieger abt. 27 in der Ukraine (The advance of Flight Squadron 27 in the Ukraine)\*\* An Overview of Rare German Photographs from the Eastern Front, World War I, by Cindy Boeke, Digital Collections Developer, Central University Libraries, Southern Methodist University.

\*\*WWI Ambulances \*\*Museum and model shop tour Walkarounds: Sopwith Pup (factory drawing replica) JN4 (restored)

The DFW chapter of the League meets the third Saturday of odd numbered months. For more information please visit, [www.overthefront.com](http://www.overthefront.com) or email [gregoryrydquist@gmail.com](mailto:gregoryrydquist@gmail.com) or call (831)234-5016. All are welcome!



27th Annual

# Tulsa Modelers Forum Contest & show

Saturday, March 29th, 2014  
Bixby Community Center  
211 N. Cabaniss, Bixby, OK 74008

[tulsaipms.org](http://tulsaipms.org)



**FREE To The Viewing Public  
REGISTRATION  
9AM-12 NOON**

\$10 – First Entry (IPMS members \$8\*)  
\$2 – Each Additional Entry  
\$2 – Display Models  
FREE – Intermed. & Junior Modelers

**Raffle Drawings  
10:30 a.m. – Every Half Hour**

**GRAND PRIZE DRAWING  
2 p.m.**

**AWARDS PRESENTATION  
3:00 p.m.**

\*must show current IPMS membership card  
to get discount

## **MASTER AWARDS**

- Best of Show
- Best Aircraft of Show
- Best Military Vehicle of Show
- Best Figure of Show
- Best Fantasy & Sci Fi of Show
- Best Ship of Show
- Best Misc. of Show
- Best Automotive of Show

## **SPECIAL AWARDS**

- Judge's Choice
- Modeler's Choice
- Best Foreign Car of Show
- Best Oklahoma Military of Show
- HobbyTown USA Award
- *Mystery Award*
- And More

## **INTERMEDIATE/NOVICE AWARDS**

- Intermediate/Novice Best of Show

## **JUNIOR AWARDS**

- Junior Best of Show

Tulsa Modelers contest & show is a family event  
Nudity and risqe modeling subjects are prohibited

For more information visit [www.tulsaIPMS.org](http://www.tulsaIPMS.org)  
(printable registration forms and model categories)

E-Mail [tulsamodelers@cox.net](mailto:tulsamodelers@cox.net)

### **VENDOR TABLES AVAILABLE:**

\$30 First Table, \$20 Each Additional Table

# IPMS Region 6 Convention Wichita, Kansas

May 16-17, 2014

Marriott Hotel & Event Center

## **PRAIRIE WIND 2014** **"INVASION STRIPES!"**



*"The Air Capital of the World"*



# EAGLEQUEST XXVIII NEED FOR SPEED XXVIII

Squadron would like to cordially invite you to participate in EagleQuest XXVIII Model Event.

**June 19 thru June 21**

GRAPEVINE, TEXAS

[Click Here to Download Full Details & Pricing](#)

- ★ DOOR PRIZES
- ★ WELCOME PARTY
- ★ RAFFLES
- ★ COMMON ROOM
- ★ SEMINARS
- ★ AWARDS CEREMONY

## Model Categories (from all eras)

AIRCRAFT



ARMOR



SHIPS



VEHICLES



FIGURES



SCI-FI/FANTASY



**To order Event Passes and Awards Ceremony tickets, call Richard Poulsen at 1-800-527-7427 Ext. 1060.**



# HAMS

Contact Rob at [robert.mcquown@sbcglobal.net](mailto:robert.mcquown@sbcglobal.net) with any questions and for vendor tables. See the club webpage for updates and map of show location:

[www.ipms-hams.org](http://www.ipms-hams.org)

## Eight Annual Model Car Show and Contest

Supported by Cypress Creek Christian Community Center

# Remembering Orphaned Marques

### Schedule

8:00 AM to 9:30AM Vendor set up only  
9:30 AM to 5:00PM Show open to public  
9:30AM to 1:30PM Contest area open  
1:30PM to 3:00PM Contest area closed for Judging  
3:30PM to 4:00PM Awards Ceremony  
4:00PM to 5:00PM Display and vendor break down

**Admission:** \$1 donation includes first door prize ticket

### Contest entry fees:

Adults (18+) \$10 for first 2 entries, \$2 dollars each per additional entry.  
Teens (13-17) \$5 for first 2 entries, \$1 each per additional entries.  
Junior (under 12) \$1 for all you may enter.

**Make N Take for the kids starting at 12 noon**

*Any car no longer in production such as AMC, Nash, Packard, Hudson, Stanley, and many others that have become obscure in today's world. All out of production American and foreign manufacturers are eligible.*



**Vendor tables will be available on first reserved basis at \$20 per table space. Last day to reserve is July 25, 2014.**

**Categories:** Include; Box Stock, Street Rod, Street Machine, Factory Stock, Competition open-wheeled, and closed-wheeled, Foreign, Large and small commercial vehicles, large and small scale, Curbside, Miscellaneous, Custom, Diorama, Slammers, Motorcycles, Low riders. See club web site for details.

**Awards:** 1st, 2nd, 3rd will be presented in 21 categories. There also will be special awards for Best Paint, Engine, Interior, '32 Ford, Short track car and the Contest Theme.

**Food and drink will be available at a nominal cost.**

**Saturday August 02, 2014 9:30AM to 5:00PM**

**Cypress Creek Christian Community Center  
Annex Building Gym  
6823 Cypresswood Drive  
Spring, Texas 77379**

# Babe Of The Month

## Natalie Dormer



**Natalie Dormer** (born 11 February 1982) is an English actress. She is best known for her roles as Anne Boleyn in the Showtime series *The Tudors* and as Margaery Tyrell in the HBO series *Game of Thrones*.

Dormer was born in Reading, Berkshire. She attended Chiltern Edge Secondary School before moving to Reading Blue Coat School, an independent boys' school that admits girls in the sixth form. She grew up with her stepfather, mother, sister Samantha, and brother Mark.

At school, Dormer was head girl, a straight-A student, vice-captain of the school netball team, and she also got



to travel the world with her school's public speaking team.

During her school years, Dormer trained in dance at the Allenova School of Dancing. She describes herself as the "academic hopeful" of the family and hoped to be offered a place to study history at Cambridge; but, in her A-level History exam, she did not achieve the A grade she needed to attend. Dormer decided she would audition for drama schools and decided to train at the Webber Douglas Academy of Dramatic Art in London.

Six months after graduating from the Webber Douglas Academy of Dramatic Art, Dormer won the





role of Victoria in *Casanova*. This was her film debut and it was released in 2005.

The director, Lasse Hallström, was so impressed with Dormer's comedic timing that he had the script writer expand her part. On the strength of her audition for the role and her performance, she secured a three-film deal with Touchstone Pictures, which was never exercised. In 2005, Dormer had a small part in *Distant Shores*. After the filming of *Casanova*, Dormer was out of work for nine months and has said that "it was the best lesson I could have had in the first 12 months of my career". In 2006, she guest starred as Phillippa Balfour in the *Rebus* episode "The Falls".

In 2007 and 2008, Dormer played Anne Boleyn in the first two seasons of *The Tudors*, for which she received highly positive reviews.



Robert Abele of *LA Weekly* wrote: "Natalie Dormer presents a painterly exquisiteness and complexity in her portrayal of Anne Boleyn... her enigmatic, time-halting loveliness is a boon for *The Tudors*, and damn near worth losing your head over." After her character's death at the end of the second season, *The Boston Herald* noted: "Dormer gave Anne Boleyn life, making her not just a beautiful schemer but a rebellious, defiantly independent tragic hero in the tradition of *Rebel Without a Cause* and *Cool Hand Luke*... her departure from *The Tudors* leaves a tremendous void."

In 2008, Dormer played Moira Nicholson in *Agatha Christie's Marple*: "Why Didn't They Ask Evans?" and appeared in a number of films such as *Fence Walker*, *Flying Lessons*, and *City of Life*. Dormer's *Marple* appearance aired in the US in the summer of 2009 as part of the PBS *Masterpiece Mystery* anthology series.





Also in that year, she appeared in *Incendiary*, but her scenes were cut from the final film. In March 2010, she made her stage debut at the Young Vic theatre in London as Mizi in the play *Sweet Nothings*.

In *The Observer*, theatre critic Susannah Clapp praised the performances of the cast and wrote: "Natalie Dormer is lissome as a dirty, delightful gadabout, pushing aside an entire chess game in order to put down her hat." After six months of playing Mizi, Dormer went on to film some new roles, including the Duchess of York in Madonna's film *W.E.*, Pvt. Lorraine in *Captain America: The First Avenger*, and Niamh Cranitch in the BBC court drama *Silk*. She then went on to her next stage role of Pat in *.45* at Hampstead Theatre in November 2010.



She returned to *The Tudors* as Anne Boleyn in a dream sequence for the fourth and final season in mid-2010. This was confirmed when the first promotional picture of the season showed Anne on the cover.

In June 2010, she was cast in the film adaptation of the Peter Straub novel *Shadowland*. In June 2011, Dormer joined the cast of the HBO fantasy TV series *Game of Thrones* as Margaery Tyrell of the noble House Tyrell. In March 2012, she returned to the Young Vic to play the title role in *After Miss Julie* by Patrick Marber.





Her performance received critical acclaim, with reviews describing her as "little short of sensational", "outstanding", and "the perfect Miss Julie".

The online theatre magazine *Exeunt* wrote that her portrayal of Miss Julie contained "all the anger, desire, wit, loneliness, merriment, melancholy and desperation of the casts of several plays together... Dormer has still more presence and eerie beauty than is apparent from her appearances on-screen, and she shape-shifts almost supernaturally between seductress, child, and tormentor." In March 2013, she played the Lady Door in the radio play of *Neverwhere*, based on the novel by



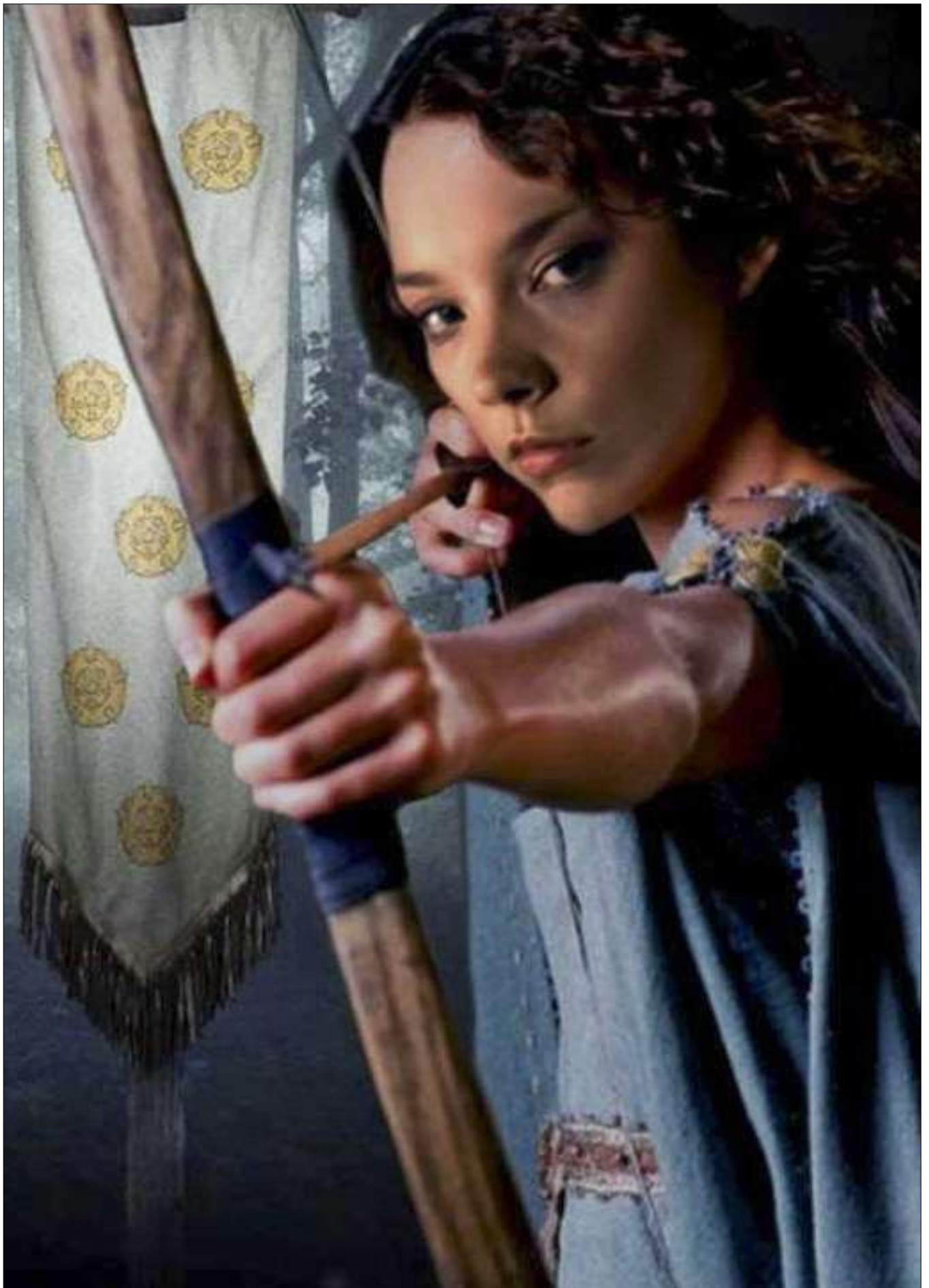
Neil Gaiman.

Later that year, she appeared in the car racing drama *Rush* and the thriller *The Counselor*. She will appear in *A Long Way From Home* and *Rubicon*. In April 2013, it was announced that Dormer would star in three episodes in the CBS TV series *Elementary* as Irene Adler. In August 2013, it was announced that Dormer was cast as Cressida in *The Hunger Games: Mockingjay – Part 1* and *Part 2*.

Dormer has been engaged to Irish director Anthony Byrne since 2011,<sup>1</sup> whom she met in Dublin whilst filming *The Tudors* in 2007. A self-proclaimed poker lover, Dormer took part in the 2008 PartyPoker.com Women's World Open in London, where she came in second to Emma Kennedy in the Celebrity Heat. Dormer has stated that Cate Blanchett has been an influence in her career as an actress. On the subject of supernatural beliefs, she was quoted as saying, "I've got an open mind. I say I'm an atheist but I wouldn't mind being visited by a ghost."

Despite long-standing internet rumors that Dormer is related to historical lady-in-waiting Jane Dormer, who served Queen Mary I, they have no familial connection. On this subject, Dormer stated, "There was a woman, called Jane Dormer, in the Royal Court who happened to have the same family name as me, but I think that's as far as it goes





## Museums

### American Airlines C. R. Smith Museum

<http://www.crsmithmuseum.org>

Fort Worth, Texas 76155



### Cavanaugh Flight Museum

<http://www.cavanaughflightmuseum.com>

4572 Claire Chennault

Addison, TX 75001



### Cold War Air Museum

<http://www.coldwarairmuseum.com/>

Lancaster, Texas 76106



### Corsair (Goodyear FG-1D), Commemorative Air Force

[www.caf-corsair.com](http://www.caf-corsair.com)

Lancaster Municipal Airport

630 Ferris Road, Lancaster, Texas 75115



### Dallas-Fort Worth Wing, Commemorative Air Force

<http://www.dfwwing.com/>

Lancaster Municipal Airport

630 Ferris Road, Lancaster, Texas 75115



### Flight of the Phoenix Air Museum

[www.flightofthephoenix.org](http://www.flightofthephoenix.org)

Hanger One, Gilmer Texas 75644



### Frontiers of Flight Museum

<http://www.flightmuseum.com/>

6911 Lemmon Avenue Dallas, Texas

## Hangar 10 Flying Museum

### Hangar 10 Flying Museum

<http://www.hangar10.org/Site/Home.html>

1945 Matt Wright Lane

Denton Municipal Airport

Denton, Texas 76207



### National WASP WWII Museum

<http://www.waspmuseum.org>

Sweetwater, Texas



### OV-10 Bronco Museum

<http://www.ov-10bronco.net>

3300 Ross Avenue, Meacham Airport, Fort Worth, Texas



### Ranger Wing, Commemorative Air Force

[www.rangerwingcaf.com](http://www.rangerwingcaf.com)

Blackland Aircraft Corp. Hanger

Airport Blvd., Waco, Texas



### Silent Wings Museum

[www.silentwingsmuseum.com](http://www.silentwingsmuseum.com)

6202 North I-27 Lubbock, Texas 79403

BG John C. L. Scribner



### Texas Military Forces Museum

Camp Mabry

Austin Texas

### Texas Military Forces Museum

<http://www.texasmilitaryforcesmuseum.org>

Camp Mabry, Austin, Texas



Tyler Historic Aviation Memorial Museum

<http://www.tylerhamm.org>

Jake Smith Exhibit Hall Tyler, Texas

## Vintage Flying Museum

Featuring "Chudde" one of the few remaining flying B-17's in the world

### Vintage Flying Museum

<http://www.vintageflyingmuseum.org>

505 NW 38TH ST. Hangar 33 South, Fort Worth, Texas

## Local Plastic Emporiums



### M-A-L Hobbies

<http://www.malhobby.com>  
108 S. Lee St., Irving, TX 75060  
(972) 438.9233

### HobbyTown USA Fort Worth



[http://www.hobbytown.com/Fort\\_Worth-TX/](http://www.hobbytown.com/Fort_Worth-TX/)  
677 Sherry Lane  
Fort Worth, TX 76116  
(817) 735-0021

### HobbyTown USA Dallas



The Corner Shopping Center  
<http://hobbytown.com/TXDAL/>  
8041 Walnut Hill, Suite 870  
Dallas, TX 75231  
(214) 987-4744

### HobbyTown USA Arlington



<http://hobbytown.com/TXARL/>  
4634 South Cooper St  
Arlington, TX 76017  
(817) 557-2225

### HobbyTown USA Plano



<http://hobbytown.com/TXPLA/>  
3303 N. Central Expressway  
Plano, TX 75023  
(972) 424-8493

### HobbyTown USA Hurst



746 Grapevine Highway  
Hurst, TX, 76054  
(817) 581-1027

### HobbyTown USA Tyler



French Quarter Shopping Center  
<http://hobbytown.com/TXTYL/>  
4566 S. Broadway  
Tyler, TX 75703  
(903) 509-3000

### Mason's Hobby Lobby



6905 Grapevine Hwy.  
Fort Worth, Texas 76180  
(817) 284-0264

### Roy's Hobby Shop



1309 Norwood DR.  
Hurst, TX 76053  
<http://www.royshobby.com/>  
(817) 268-0210

### Wild Bill's Hobby Shop



535 East Shady Grove Rd.  
Irving, Texas 75060  
(972) 438-9224



# New Ware

## 1/144

### Antares - Cygnus Launch Vehicle

By Sven Knudson, IPMS 32490

[www.ninfinger.org](http://www.ninfinger.org)



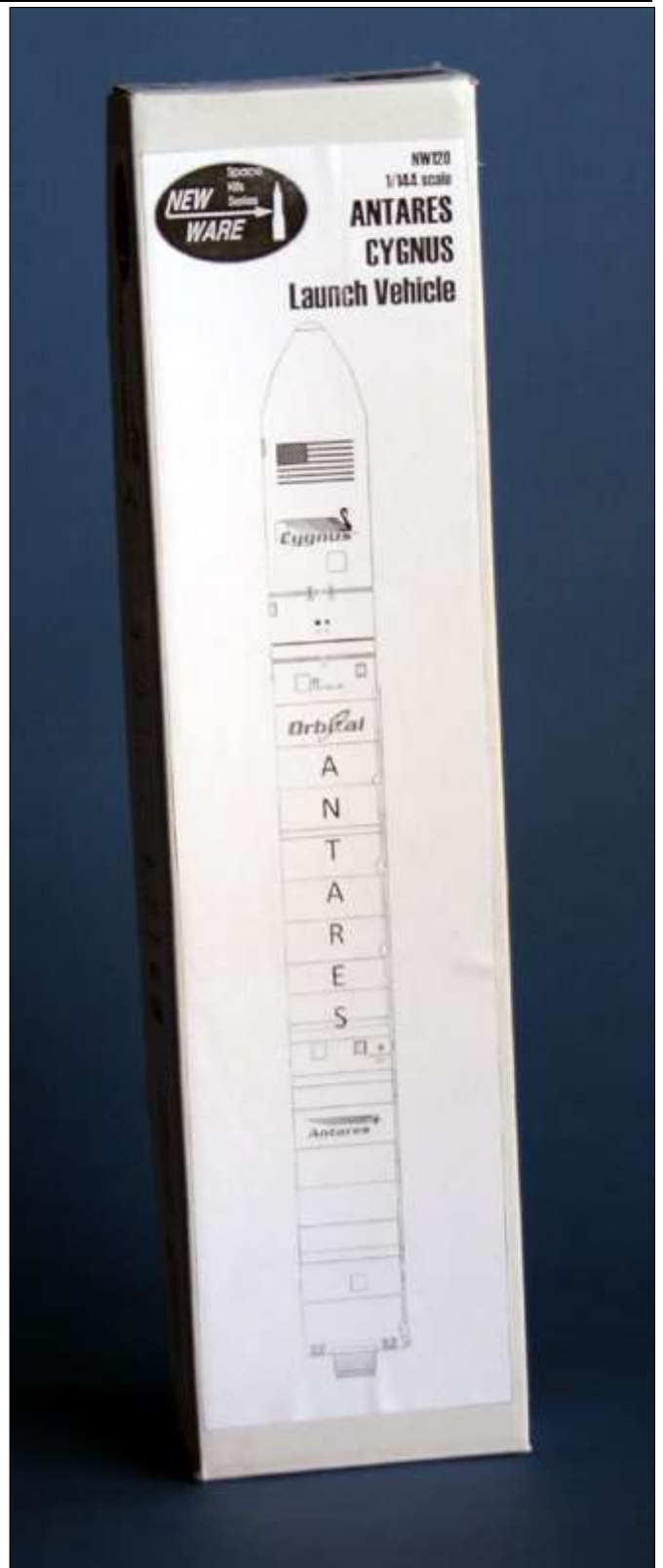
*The Antares rocket for Orbital Science's A-ONE inaugural mission is hoisted inside Wallops' Horizontal Integration Facility for placement on its transporter. It will be moved to the launch pad on the morning of Saturday, April 6, 2013.*

#### Background

Antares, known during early development as Taurus II, is an expendable launch system developed by Orbital Sciences Corporation. Designed to launch payloads of mass up to 5,000 kg (11,000 lb) into low-Earth orbit, it made its maiden flight on April 21, 2013. Designed to launch the Cygnus spacecraft to the International Space Station as part of NASA's COTS and CRS programs, Antares is the largest rocket operated by Orbital Sciences.

NASA awarded to Orbital a Commercial Orbital Transportation Services (COTS) Space Act Agreement (SAA) in 2008 to demonstrate delivery of cargo to the International Space Station. For these COTS missions Orbital intends to use Antares to launch its Cygnus spacecraft. In addition, Antares will compete for small-to-medium missions. On December 12, 2011 Orbital Sciences renamed the launch vehicle "Antares" from the previous designation of Taurus II, after the star of the same name.

**Kit contents:** 15 resin parts  
15 photoetched parts  
decals  
instructions



*The kit box has a line drawing of the launch vehicle.*

#### Comments

The main rocket body is one solid resin part molded with crisp details, engraved panel lines and a slick surface finish. The two engine bells are hollowed. No airholes are visible in my parts. All resin parts are still on their pour plugs.



*Here's what you get in the kit.*

Some of the tinier resin and photoetched parts are included as extra parts, just in case.

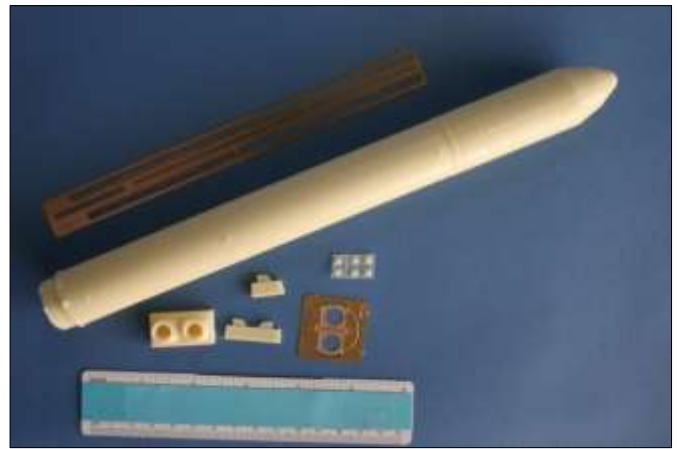
The instructions include a short program history, a three view and wraparound assembly drawing. Photoetched parts are identified by numbers etched next to each part and subsequently called out on the assembly drawings. Likewise, decals are also identified by number, making placement easy with the four view painting and decal guide.



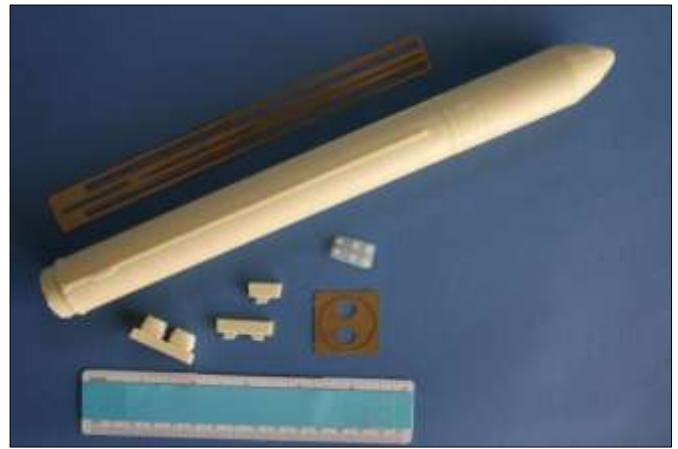
*Here's a closer look at the fairing portion of the main rocket part, showing the nicely engraved detail.*

**Order from:** New Ware  
ing. Tomas Kladiva  
Klimkova 5  
710 00 Slezska Ostrava  
CZECH REPUBLIC  
email: [tom.nwkits@seznam.cz](mailto:tom.nwkits@seznam.cz)  
web:  
<http://www.mus.cz/~ales/newware/>

**Price: \$ 69.00**  
<http://www.ninfinger.org/>



*Here's a closer look at the parts.*



*Here's the flip side of the parts.*



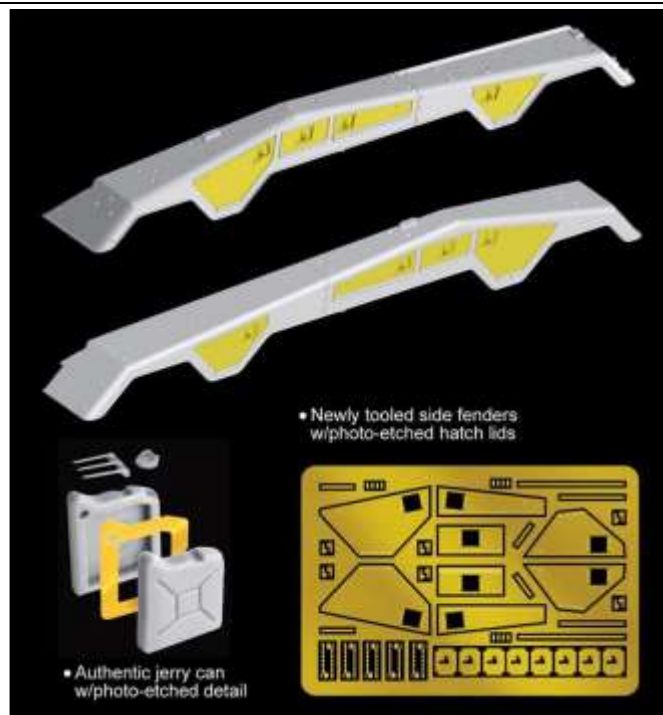
*The Orbital Sciences Corporation Antares rocket is seen as it launches from Pad-0A of the Mid-Atlantic Regional Spaceport (MARS) at the NASA Wallops Flight Facility in Virginia, Sunday, April 21, 2013. The test launch marked the first flight of Antares and the first rocket launch from Pad-0A.*

# Dragon 1/35 Sd.Kfz. 234/3 Premium Edition

By Cookie Sewell



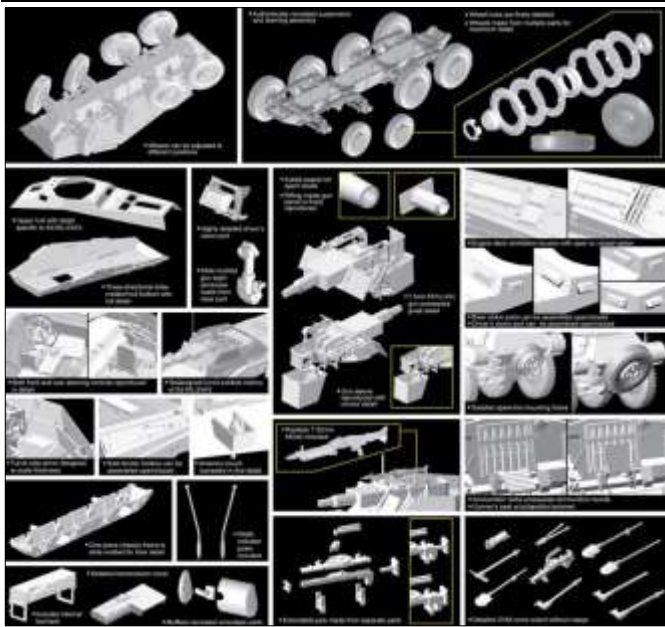
- Kit Number:** 6786
- Media:** 643 parts (541 in grey styrene, 72 etched brass, 22 clear styrene, 8 pre-bent steel wire)
- Pros:** New, well detailed and very complete kit of this popular vehicle completes the series; complex driveline appears to be fully replicated; updated version now includes adjustable eight-wheel steering; detailed fighting compartment interior
- Cons:** Engine bay will be difficult to open up
- Recommendation:** Highly Recommended to all German armor and wheeled vehicle fans.
- Price:** US \$ 56.95



As with the first three kits, the Germans continued their prewar designs throughout the war, and the Sd.Kfz. 231 heavy eight-wheeled armored car series was replaced by the Sd.Kfz. 234 series beginning in September 1943. Four different vehicles were produced in this series:

- Sd.Kfz. 234/1 (Geraet 95) 200 built 2 cm cannon/7.92mm MG in open turret (built Jun 44 - Jan 45)
- Sd.Kfz. 234/2 (Geraet 93) 101 built 5 cm gun/7.92mm MG in closed turret (also called the Puma) (built Sep 43 - Sep 44)
- Sd.Kfz. 234/3 (Geraet 94) 88 built 7.5 cm L/24 in open mount (built Jun 44 - Dec 44)
- Sd.Kfz. 234/4 (Geraet 96) 89 built 7.5 cm Pak 40 in open mount (built Dec 44 - Mar 45)





The “Stroke 3” was designed for use as a heavy armored that would at least have sufficient firepower to deal with most unfortunate encounters. But by that stage of the war, and even with the advent of hollow charge ammunition, it was too light to have much effect on enemy forces. Ergo it was quickly replaced in production by the very heavy Sd.Kfz. 234/4 with the long-barreled PaK 40 7.5 cm antitank gun.

As with all of the 234s the “Stroke 3” was fast (80 kph/48 mph), moderately well armed, and had a long range (900 km/560 miles). Armor provided proof against small arms of 7.62mm caliber and shell fragments. Since its Tatra 103 engine was a 12-cylinder air-cooled diesel, it had a major advantage over other nations’ armored cars.

Six years after DML released their ultimate Sd.Kfz. 234 series armor car kit (No. 6257) they have now re-released it with new parts as a “Premium Edition” kit. This one now comes with alternate position doors for the fender bins and also adjustable eight wheel steering so the wheels can be posed as per the actual vehicle.

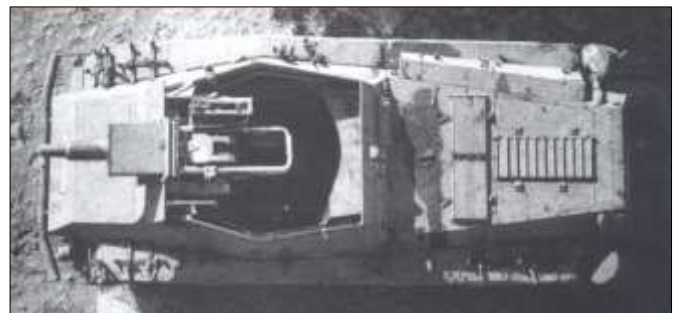
They are not linked (e.g. each axle must be set individually) but anyone wanting to pose the vehicle now has the option. New lower link arms, ball joints, wheel mounts and steering arms are provided.

As it retains most of the 2008 kit, Dragon used “mix and match” with it offering more than 90 new or replacement parts to convert the kit basic parts to the “Stroke 3;” they have also tweaked some of the other molds from earlier kits. The gun here comes from their recent line of Pzkw. IV tanks (Ausf. B-E) and provides the basics for the gun, with new moldings adapting the L/24 gun to the 234 chassis. A new sprue of clear parts from one of the other recent kits (alas, I forget just which one) provides the periscopic sight as a clear part for the L/24 gun.

Also new to this kit is a set of three “street” tires with sectional tread, using the now optional DML “sandwich” method of assembly to get sufficient tread depth. Six sections are used to create each tire, and these tires can then be used to replace the stock tires that have been used in the other three kits. These are featured on the box art and they offer some variety in the model.

The etched brass has been increased for this kit and adds a new fret of 55 parts for the fender doors and locking chains among other parts. The original fret is still here but provides either tie-down fasteners or the centers for the six “jerry” cans. There are no brass parts for the engine access vents.

The suspension and interior are beautifully rendered and this version even includes the “jump” seats for the gun crew which can be built as folded up or down.





Ammo racks with separate rounds are provided for the interior. As before, this project was supervised by Hirohisa Takada, with technical drawings by Shin Okada and technical assistance from Tom Cockle and Gary Edmundson.

Finishing options are provided for three vehicles: 226. Aufklarungs Abt., 116th Panzer Division, Normandy 1944 (tricolor patches); "Ulrich von Hutten" Division, Germany 1945 (tricolor patches); Unidentified Unit, Normandy 1944 (tricolor spray). A single small Cartograf decal sheet is provided with generic crosses and registration number plates and numbers. No registration numbers are given, however.

Overall this is a nice upgrade to a good DML kit and should be popular, especially with diorama or base fans as it can now easily be posed.

Thanks to Freddie Leung for the review sample.

### Sprue Layout

- A 3 234/1 upper hull components
- B 69 x 3 234 generic wheels and tires
- C 19 234/1 interior details
- D 43 x 2 234 suspension components
- E 77 234 Generic details - engine/transmission
- F 1 234 Generic Lower hull
- G 1 234 Generic Running gear spine
- H 34 234/3 interior parts and shield
- J 36 234/3 gun and ammunition parts
- J 10 clear styrene
- L 19 Pzkw. IV L/24 gun parts
- K 18 234 Generic "highway" tires
- W 6x2 Clear styrene
- Z 8x2 Working steering components
- MB 55 Etched Brass
- MA 17 Etched brass
- MF 8 Pre-bent steel wire
- TF 10 German Tools (fender poles)
- TG 10 German Tools (shovels and fire extinguishers)
- TH 14 German lights and jack
- TJ 6 German Tools (jack)

*Cookie Sewell*



# Spitfire Image of the Month



*Supermarine Spitfire Mk. Ia. IWM Duxford*

# Naval Nostalgia



*Enlisted men's berthing area on armored cruiser USS Brooklyn (circa 1900)*

## Rat of the Month



Two-seat I-16 UTI trainer version, with Finnish markings on display in the Finnish Aviation Museum in Vantaa, Finland



## Red Ball Express Image of the Month



**Truck Convoy in France**

# Art for Art's Sake



**“A Bluestocking for ‘Camilla’; De Havilland Mosquito PR.XVI (USAAF F-8); NS569; 654<sup>th</sup> BS; 24” x 36” oil on canvas, 1995, © Gerald Asher**

# Tail Shot



**Boeing 787-8 Dreamliner B-2730 Hainan Airlines (cn 34943)**  
Photo © by Jay Miller, IPMS #45, Proud IPMS-NCT member since 1964

## IPMS North Central Texas

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IPMS North Central Texas meets on the second Sunday of every month. Door opens at 1:00 p.m.; meeting begins at 1:30 p.m. See *Coming Events* for which facility the current meeting is being held.

The FlakSheet is a monthly publication of IPMS-NCT and is used to communicate chapter news, functions, contest information, and other events or items of interest on the local, regional, and national scenes. Subscriptions are 460 Kronor annually for an electronic subscription via email.

The views and opinions expressed in this newsletter are those of the authors and should not be construed as the views or opinions of IPMS North Central Texas or IPMS/USA.

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**Deadline for submissions to the *FlakSheet* is the 25<sup>th</sup> of the month prior to month of issue. Please submit as a WORD or ASCII text file on compact disc at the meeting or as an attachment via email to your editor.**

