

Seattle Chapter News



Seattle Chapter IPMS/USA
April 2011

SHOW-NOTES



2011 IPMS Seattle Spring Show at a Glance

Saturday, April 9

Registration - 9 AM until 12 noon
Public Viewing - 10 AM until 3 PM
Judging - 12 noon until 3 PM
Awards Ceremony - 3:30 PM
Show Close - 4 PM

**Renton Community Center, 1715 Maple
Valley Highway, Renton**

Directions:

From the North: Take I-405 southbound to Exit #4 (Renton-Enumclaw). Go through the first stop light, turn left on Maple Valley Highway (South 169). This will take you under I-405. Continue about 500 feet and turn right at the first stop light. Follow the entrance driveway around the athletic fields to the large parking lot area. The Renton Community Center and Carco Theatre are adjacent to one another and the parking lot.

From the South: Take I-405 northbound to Exit #4 (Maple Valley-Enumclaw). This exit will divide, take the first exit to Maple Valley-Enumclaw (South 169). At the stop sign, at the end of the off ramp, turn right. Go approximately 200 feet to the stop light and turn right. Follow the entrance driveway around the athletic fields to the large parking lot area. The Renton Community Center and Carco Theatre are adjacent to one another and the parking lot.

Entry Fees:

\$10 for Adults (unlimited entries)
\$5 for Juniors
\$5 for Spectators
\$5 for Seminars

Registration:

To make the spring show registration as smooth and easy as possible for everyone involved, we have created both a Microsoft Word and an Adobe PDF form for people to fill out ahead of time. Please feel free to either print and fill it out or fill it out in Word and print for maximum readability. The forms can be downloaded at:

<http://www.ipms-seattle.org/Springshow/2011SpringShow/2011registration.htm>

Please note; there will be two separate lines at registration, one for pre-filled out forms and one for forms that need to be filled out at the show. **DO NOT FILL IN THE NUMBER!** This will be assigned to you when you pay your entry fee at the door. Any model without a registered number will not be eligible for judging or awards.

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Public Disclaimers, Information, and Appeals for Help

This is the official publication of the Seattle Chapter, IPMS-USA. As such, it serves as the voice for our Chapter, and depends largely upon the generous contributions of our members for articles, comments, club news, and anything else involving plastic scale modeling and associated subjects. Our meetings are generally held on the second Saturday of each month, (see below for actual meeting dates), at the **North Bellevue Community/Senior Center, 4063-148th Ave NE**, in Bellevue. See the back page for a map. Our meetings begin at 10:00 AM, except as noted, and usually last for two to three hours. Our meetings are very informal, and are open to any interested modeler, regardless of interests. Modelers are encouraged to bring their models to the meetings. Subscriptions to the newsletter are included with the Chapter dues. Dues are \$25 a year for regular mail delivery of the newsletter, and \$15 for e-mail delivery, and may be paid to Spencer Tom, our Treasurer. (See address above). We also highly recommend our members join and support IPMS-USA, the national organization. See below for form. Any of the members listed above will gladly assist you with further information about the Chapter or Society.

The views and opinions expressed in this newsletter are those of the individual writers, and do not constitute the official position of the Chapter or IPMS-USA. You are encouraged to submit any material for this newsletter to the editor. He will gladly work with you and see that your material is put into print and included in the newsletter, no matter your level of writing experience or computer expertise. The newsletter is currently being edited using a PC, and PageMaker 6.5. Any Word, WordPerfect, or text document for the PC would be suitable for publication. Articles can also be submitted via e-mail, to the editor's address above. Deadline for submission of articles is generally twelve days prior to the next meeting - earlier would be appreciated! Please call me at 425-823-4658 if you have any questions.

If you use or reprint the material contained in the newsletter, we would appreciate attribution both to the author and the source document. Our newsletter is prepared with one thing in mind; this is information for our members, and all fellow modelers, and is prepared and printed in the newsletter in order to expand the skills and knowledge of those fellow modelers.

Upcoming Meeting Dates

The IPMS Seattle 2011 meeting schedule is as follows. All meetings are from **10 AM to 1 PM**, except as indicated. To avoid conflicts with other groups using our meeting facility, we must **NOT** be in the building before our scheduled start times, and **MUST** be finished and have the room restored to its proper layout by our scheduled finish time. We suggest that you keep this information in a readily accessible place.

April 9 (Spring Show at Renton)
June 11

May 14
July 9

IPMS/USA NEW MEMBER APPLICATION			
IPMS No.:	Name: _____		
(leave blank)	FIRST M LAST		
Address: _____			
City: _____		State: _____	Zip: _____
Signature (required by PO): _____			
<input type="checkbox"/> Adult: \$25 <input type="checkbox"/> Junior (17 years old or younger): \$12			
<input type="checkbox"/> Family (Adult dues + \$5, one set magazines, 4 of membership cards required: _____)			
<input type="checkbox"/> If recommended by an IPMS member, list his/her name and member number _____ (name) _____ (IPMS#)			
		P.O. Box: 2475 North Canton, OH 44720	
Check out our web page: www.ipmsusa.org			

Spring Show Special Awards

These are the 2011 Special Awards sponsored by an individual or company. Some, like "Best Finish" are presented by IPMS-Seattle.

Best Finish/Ted Holowchuk Award sponsored by IPMS Seattle
 Best British/Commonwealth Subject sponsored by Robert Allen and Andrew Birkbeck
 Best Canadian Subject sponsored by IPMS Vancouver BC
 Best Submarine sponsored by Oregon Historical Modelers's Society
 Best Bare Metal Finish sponsored by IPMS/Tacoma Green Dragon/Les Sundt Memorial Chapter
 Best Small Air Forces sponsored by Mike Millette and Mike Medrano
 Best Pacific Theater sponsored by Tracy White
 Best American Subject sponsored by Norm Filer
 Best Fire/Life Safety sponsored by Seaside Fire Service
 Best 1/32nd Scale Aircraft sponsored by Craftworks
 Best Street Rod/Custom sponsored by IPMS/PSAMA
 Best Sci-Fi Subject sponsored by Galaxy Hobbies
 Best WWII Artillery in memorium Dale Moes
 Best French sponsored by Djordje Nikolic and Jacob Russell
 Best German sponsored by Morgan Girling and Jon Fincher
 Best Italian sponsored by Stephen Tontoni and Will Perry
 Best Japanese sponsored by Tim Nelson
 Powderpuff Award sponsored by Sabrina Fincher and Jill Moore

2011 IPMS Seattle Spring Show Seminar Schedule

We have obtained additional rooms at the Renton Community Center and will be having several seminars on modeling and modeling related subjects.

These seminars will be held away from the contest room and should be both interesting and informative.

Seminar Admission is \$5.00. One admission ticket will admit you to ALL the seminars.

Room A - Modeling Demonstrations

10:00 - 11:00 Terry Moore - Building a Vacuform Kit

11:00 - 12:00 Contest Judges Meeting (room closed)

12:20 - 2:00 Eric Christianson - Weathering Armor (Filters, Washes & Pigments, Streaking and Dry Brushing)

Room B - Video and Powerpoint Presentations

10:00 - 11:30 John Newcome - "Build a Spitfire (Make-n-Take) \$5.00 per person"

12:00 - 12:50 John Newcome - Movies & Models "Memphis Belle" (41 min. running time)

1:00 - 1:40 Tracy White - Naval Camouflage

1:50 - 2:30 Ken Murphy - Making Your Own Decals

Raffle

As in years past, we will have a raffle this year with lots of great models and model related prizes.

You will be able to buy tickets at the raffle table during show hours.

If you have kits you would like to donate as raffle prizes, please contact the raffle coordinator, Eric Christianson, at **modelereric@comcast.net**

Ticket Prices:

1 ticket
\$1

6 tickets
\$5

15 tickets
\$10

Upcoming Shows

Here are the known shows and events for 2011:

4/9 Renton IPMS Seattle
 4/10 NNL Portland
 5/1 Puyallup MCS 22
 6/11 Fort Worden NOPMS 6
 7/22-24 Puyallup Good Guys
 8/3-6 Omaha IPMS Nationals
 9/17 McMinnville OHMS
 9/24 Lynnwood Galaxy Sci-Fan
 ???????? Silvana 5th Annual
 10/1 Moscow ID Bring out Good Stuff
 10/8 Burnaby IPMS Vancouver

Thanks to Chellie Lynn.

2011 IPMS Seattle Spring Show Categories

Here is an updated list of the categories for this year's Spring Show.

Note: * Indicates categories eligible for Out of Box award

JUNIOR:

(Ages through 17. At their discretion juniors may enter senior classes)

- 001. Aircraft *
- 002. Armor *
- 003. Automotive *
- 004. Space Fact/Experimental/Future Technologies/Sci-Fi. *
- 005. Prefinished (any subject. must have some modification from out of the box)
- 006. Miscellaneous (incl. figures, dinosaurs, naval) *

BEST JUNIOR AWARD

AIRCRAFT:

- 101. 1/73rd and smaller; all subjects *
- 102. 1/72nd single prop, turbo prop and gliders *
- 103. 1/48th single prop, turbo prop and gliders *
- A. Axis *
- B. Allied *
- 104. 1/72nd multi prop, turbo prop *
- 105. 1/48th multi prop, turbo prop *
- 106. 1/32nd and larger prop, turbo prop and gliders *
- 107. 1/72nd single jet *
- 108. 1/48th single jet *
- 109. 1/72nd multi jet *
- 110. 1/48th multi jet *
- 111. 1/32nd and larger jet *
- 112. Airliners, civil, sport, racing, airships; all scales *
- 113. Rotary wing *
- 114. Biplanes/Vintage Types *
- A. 1/72nd and Smaller *
- B. 1/71st and Larger *
- 115. Miscellaneous; scratchbuilds, vacs and conversion.

BEST AIRCRAFT AWARD

MILITARY VEHICLES and WEAPONS:

- 201. 1/35th and larger, closed top through 1945 *
 - A. Axis *
 - B. Allied *
 - 202. 1/35th and larger, closed top after 1945 *
 - 203. 1/35th and larger open top AFV, half-tracks and self-propelled guns *
 - 204. 1/36th and smaller, all eras and subjects *
 - A. 1/36th and smaller (except 1/48th), all eras and subjects *
 - B. 1/48th all eras and subjects *
 - 205. Soft-skinned, all eras and scales *
 - 206. Towed artillery and missiles, all eras and scales *
 - 207. Miscellaneous; scratchbuilds, and conversions
- ### BEST MILITARY VEHICLE/WEAPONS AWARD

FIGURES:

(Horse and rider, mounted or dismounted are a single figure. Two figures on base are a diorama.)

- 301. Smaller than 54mm (excluding 1/35th)
 - 302. 54mm (including 1/35th)
 - 303. Larger than 54mm
 - 304. Sci-fi, Fantasy Figures and Creatures, Real Space
- ### BEST FIGURE AWARD

SHIPS:

- 401. Powered - 1/700th and smaller *
 - 402. Powered - 1/699th to 1/350th *
 - 403. Powered - 1/349th and larger *
 - 404. Unpowered, all scales *
 - 405. Submarines *
 - A. 1/73rd and smaller *
 - B. 1/72nd and larger *
- ### BEST SHIP AWARD

AUTOMOTIVE:

(All scales; non-military)

- 501. Factory Stock *
- 502. Hot Rods *
- 503. Custom *
- 504. Pick-up trucks *
- 505. Commercial Truck, Van, Fire and Rescue, Misc *
- 506. Competition - Closed Wheel *
- 507. Competition - Open Wheel *

- 508. Large scale autos/trucks, all subjects, 1/19th and larger *
- 509. Motorcycle *

BEST AUTOMOTIVE AWARD

SPACE FACT / EXPERIMENTAL / SCI-FI VEHICLES

(all scales)

- 601. Space Fact *
- 602. Aerospace Testbeds and Record Breakers *
- 603. Sci-fi, Vehicles *

BEST SPACE FACT / EXPERIMENTAL / SCI-FI VEHICLES AWARD

DIORAMA / VIGNETTE:

(all scales) A diorama is two or more models relating to tell a story.

- 701. Aircraft
 - 702. Automotive
 - 703. Armor
 - 704. Space facts/ Future Technologies/ Fantasy (Including dinosaurs)
 - 705. Naval
 - 706. Figure
- ### BEST DIORAMA / VIGNETTE AWARD

OTHER CLASSES:

- 801. Collections (5 or more related models)
- 802. Flights of Fancy/Hypotheticals (all scales)
- 803. Animals/Dinosaurs
- 804. Group Builds
- 805. Miscellaneous (anything not covered above)
- 806. Mentored (Built by one adult and one Junior)
- 807. Modelify, "Best Fin-ish" Any 1950s style car with fins built as something different than a car. The fins from the car must be included.

Museum of Flight Model Display: "50 Years of Human Spaceflight"

by Tim Nelson

The NorthWest Scale Modelers (NWSM) club has partnered for close to 20 years with the Museum of Flight (MoF) in Seattle. NWSM - the majority of whose "members" are also IPMS/Seattle members - puts on an annual model show in exchange for use of a room for its monthly meetings. In recent years, that collaboration has expanded to include a full time presence in the MoF, featuring quarterly themed model displays near the entrance to the Personal Courage Wing.

Stephen Tontoni, claimed to be an evil mastermind by Scott Kruize, has been the primary ringleader of these displays. IPMS/Seattle members have been key contributors to the exhibitions, which since 2006 have included:

Movie Aircraft

Liftoff! (50 years of space exploration)

Blue Angels & SeaFair

Dogfight! (WW2 aircraft)

Small Air Forces

Come Fly with Me! (Airliners)

Maximum Effort! (WW2 US Bombers)

50 Years of NASA

The Great War in the Air

Spanish Civil War

Naval Aviation

Bent Throttles! 100 Years of Air Racing

Fantastic Voyages: Hardware of Science Fiction



Firsts/Record Setters

Strangers in a Strange Land (captured aircraft)

Summer of Titans: The Battle of Britain

Korean Air War

With April 12, 2011 marking the 50th anniversary of Yuri Gagarin's flight aboard Vostok 1, the first human spaceflight, Ron Hobbs of the MoF asked NWSM to stage a display commemorating the event and its aftermath. Stephen approached me, dubbed "RocketMan" by Scott Kruize, to organize the display. Planning and recruiting began in early 2010 and the display was installed on February, 3, 2011.

From the beginning, it seemed appropriate and more important, really cool, to include models of every flown human spacecraft in a common scale. 1/72nd was really the only choice there, driven by the very large space shuttle orbiter. This collection turned out as planned - really cool - and fills one of the two display cases. It consists of the following models:

Mercury (USA) - Bill Glinski

Vostok, or "East" (USSR) - Don Conrard

X-15A (USA) - Bill Glinski

Voskhod, or "Dawn" (USSR) - John Summerford

Gemini (USA) - Bill Glinski

Soyuz, or "Union" (USSR/Russia) - Morgan Girling

Apollo Command / Service Module (CSM) (USA) - Bill Glinski

Apollo Lunar Module (LM) (USA) - Paul Peterson

Space Shuttle Orbiter (USA) - Don Conrard

Shenzhou, or "Divine Craft" (China) - Don Conrard

SpaceShipOne (USA) - Bill Glinski

The human spaceflight story is more than just these spacecraft, however. The visions of people like Robert Goddard, Wernher von Braun, Willy Ley, Chesley Bonestell, and others are represented by a



diverse collection of rockets, space stations, and other varied vehicles in (and above!) the other display case. This collection consists of the following models:

Goddard Rocket 1/72nd - Jim Schubert

V-2 (A-4) 1/72nd - Jim Schubert

3-Stage Rocket (Von Braun) 1/265th - Neil Makar

Soviet LEK Lunar Lander 1/72nd - Scott Kruize

Boeing / USAF X-20 Dyna-Soar 1/48th - Ralph Braun

USAF Manned Orbital Laboratory 1/144th - Tim Nelson

Space Station (Collier's Magazine) 1/350th - Terry Moore

Space Station (Disney) 1/300th - Steve Hilby

Convair Atlas Space Station 1/98th - Steve Hilby

Space Station 1 Salyut, or "Salute" and Soyuz 11 1/144th - Tim Nelson

Space Station Mir, or "Peace" 1/144th - John DeRosia

Orion (Constellation) 1/72nd - Ron Hobbs

Skylab (hanging overhead) 1/144th - Tim Nelson

International Space Station (hanging overhead) 1/144th - John DeRosia

Thanks to all of the modelers whose hard work made this display a success. Bill Glinski in particular, did yeoman work to build five models specifically for this display. What more can be said about John DeRosia's spectacular ISS (quite a bit, as it turns out - see John's article). It was a treat to have the MoF's Ron Hobbs contribute a model.

You have until May 5, 2011 - the 50th anniversary of Alan Shepard's 15-minute sub-orbital flight aboard "Freedom 7", as it turns out - to come enjoy the exhibit.

Looking ahead, future committed NWSM displays at the MoF include the following:

Barbarossa: The Eastern Front

100 Years of U.S. Navy Aviation

Sword->Ploughshares->Swords

Pacific War: The Beginning (Pearl Harbor emphasis but including China, AVG, Coral Sea, Midway, etc.)

Air War Falklands/Malvinas (1/72nd)

Air War Western Desert (WW2)

Yellow Peril! (Training Aircraft)

The Boeing Company

Conquistadors of the Sky; Latin American Aviation

Fighters of the Axis (WW2)

Bump Cows and Wheel Pants: Aviation's Golden Age (mixed scales)

Arab/Israel Wars (1967 and 1973)

Please see the Evil Mastermind or RocketMan if you'd like to participate or have great display ideas.

References

Wikipedia, http://en.wikipedia.org/wiki/Human_spaceflight

Museum of Flight, Seattle, WA <http://www.museumofflight.org/>

1/72nd Scale Goddard 1 Rocket - World's First Successful Liquid Fueled Rocket

by Jim Schubert

This model was built as part of NorthWest Scale Modelers' Museum of Flight display, "50 Years of Human Spaceflight". The Goddard 1926 rocket was of course unmanned, but of great significance to future spaceflight as the world's first successful rocket using highly energetic liquid fuel. - Tim Nelson

Early on March 14, 1926 Physics professor Robert H. Goddard, his wife Esther, his aunt Effie and Henry Sachs, his assistant from Princeton University where he taught, took his No. 1 rocket to Effie's cabbage patch. They fueled it and set it up in its launching frame. Sachs lit a wick atop the combustion chamber then lit a small burner under the oxygen tank to increase its pressure, which pressure was used to propel both the gasoline and the liquid oxygen up the pipes from the tanks to the combustion chamber. When the fuel and oxygen hit the burning wick the device took off with a great whoosh and flew into history.

It rose only 41 feet (12.5 meters) but of far greater importance than the altitude it reached was the fact that this "tractor-rocket" was the world's first successful liquid fueled rocket; the beginning of all space flight. Goddard used the awkward tractor arrangement as a quick, cheap way to get directional stability.

Esther made the, oft reproduced, pre-launch photo showing bundled up professor Goddard standing next to his creation.

This scratchbuild was made for a special display by the NorthWest Scale Modelers (NWSM) honoring the 50th anniversary of manned spaceflight in the lobby of The



Museum of Flight (TMOF) in Seattle. When display coordinator Tim Nelson gave me a drawing of this machine he opined it could probably be made from one paper clip. Well, not quite but the finished 1/72nd scale model does stand only 1-7/8 inches (25.4 mm) high. Maybe a big paper clip would do. The combustion chamber, at the very top of the stack, is a length of stainless steel surgical tubing with a Lavall nozzle turned from brass rod in my Dremel motor tool. The conic heat shield for the gasoline tank was similarly turned from styrene rod. The tank itself is two diameters of aluminum tubing. The oxygen tank is another length of stainless tubing. The fuel and oxygen pipes are black iron wire as is the launch frame. All these odds and ends of materials came from my boxes of saved scrap and parts accumulated over he last 50 years. All joints were made with alpha cyano acrylate – Super Glue.

The figure of professor Goddard was modified from a figure included in one of



Frog's old Pioneer Series of kits; I don't remember which one. I made his cap from a bit of filler and a bit of styrene sheet.



Denoument (1)

On Thursday February 3, 2011 we installed the display in two cases in the lobby of The Museum of Flight.

Denoument (2)

As a result of seeing photos of my model on the Wings of Peace (Yahoo) group forum Neil Gaunt, owner of Aircraft in Miniature, is preparing a photo-etched and cast white metal kit of this device, including professor Goddard. I have no idea when he will release it.

References:

1. *Rockets of the World*, by Peter Alway, (2nd edition), Saturn Press
2. Several web sites found through Google. NB I was also heavily influenced by the 1944 book *Rockets - the Future of Travel Beyond the Stratosphere* by Willey Ley and its references to Goddard's work.

1/72nd A4, No. V-4 - World's First Extra Terrestrial Vehicle From Condor's A4/V2 kit

by Jim Schubert

This model was built as part of NorthWest Scale Modelers' Museum of Flight display, "50 Years of Human Spaceflight". Just as important as the A4 missile itself was the technical and management experience gained by the cadre of German engineers - who later played instrumental roles in the American and Soviet space programs. - Tim Nelson

From about 1930 through 1934 the German Society for Spaceship Flight (VfR) began experimenting with rocket engines at their Raketenflugplatz (Rocket Flying Place) near Tegel a bit northwest of Berlin in an, essentially, abandoned since 1875, German Army artillery firing range and storage facility. This group of underfunded, dedicated amateurs was subsumed in 1934 by the German Army's Ordnance Branch under the command of Captain Walter Dornberger with the charge of, inter alia, developing a very long range artillery rocket missile that could reach London from German soil. As the test engines grew in size the Raketenflugplatz became too small for safe test firings and the whole operation was moved to Kummersdorf, south of Berlin. The Aggregat rockets A1 through A4 were developed here. Kummersdorf was too small and too close to built up areas of population to actually launch an A4. So a new test facility was built in 1940 at Peenemunde on the Baltic Sea directly north of Berlin. After many agonizing failures, including some spectacular explosions on the launch pad, the Army finally had a success on October 3, 1942 with the fourth test flight model of the A4 numbered V-4, the V standing for Versuchs (test). The bird rose about 50 miles (~ 80 kilometers) at its apogee in a flight northeast into the Baltic. This vehicle is the subject I modeled. The rest of the history of the A4/V2, V for

Vergeltungswaffe (Vengeance Weapon), is too well known to repeat here.

As a "BTW" I should note that as a sop to the still enthusiastic spaceflight enthusiasts on his team, now Colonel, Dornberger let them make a test shot with fuel and oxidizer replacing the payload to see how high they could get their baby to go. It apogeed at 112 miles (180 kilometers).

The Condor kit is a mediocre quality injection molded styrene kit conventional in all respects comprised of 43 parts with detail that is a bit soft. Apart from the launching table, which appears to be pretty accurate, the vehicle assembles quickly and easily. The only changes I made to the kit were to sharpen the vehicle's nose and replace the radio antennae on the fins.



After the halves of the body had been joined I cut the nose off at a point where the diameter matched a sewing needle that I had at hand. I drilled a hole of the diameter of the needle in the, now flat, nose. The needle was glued into this hole at the proper depth and faired into the body with putty. The styrene antennae were similarly replaced with lengths of sewing needles to make them thin and sharp. The rest of the work was in the

painting. Dave Miller, co-webmeister of the Wings of Peace web site (<http://wingsofpeace.net/>) gave me a link (<http://www.v2rocket.com/>) showing the specific markings of V-4 and a pre-launch photo. I used these as my guide to the masking, a real bear of a job, and the painting, a breeze, of this beastie.



The model was an easy build as noted with few changes made. The research was a lot more fun and interesting than the building.

References:

1. <http://www.v2rocket.com/> noted above.
2. V2 (Bantam war book series), Ballantine, by Walter Dornberger
3. *Scale Models* magazine, February 1978, article by P. Jenkins



1/72nd RealSpace Soyuz TM

by Morgan Girling

This model was built as part of Seattle-based NorthWest Scale Modelers' Museum of Flight display, "50 Years of Human Spaceflight". The Soviet/Russian Soyuz spacecraft is a true workhorse of human spaceflight. - Tim Nelson

The Soyuz (Union) spacecraft series, designed by the Korolyov Design Bureau, has been in service since the first manned launch in 1967. Today they serve as the International Space Station's lifeboat, and with the retirement of the Space Shuttle, the crew and resupply vessels. RealSpace Models' 1/72nd resin offering is of the 4th generation Soyuz TM.

The kit arrived in a sturdy end-opening cardboard box with a photo of the finished model on the outside. Inside were two major resin castings for the orbital module and re-entry/service modules, and a separate plug containing the various antennae and struts. There was also a sturdy photoetch for the solar panels and a few greeblies, and a small sheet of self-adhesive "solar panel" material. A single-sided instruction sheet completed the package.

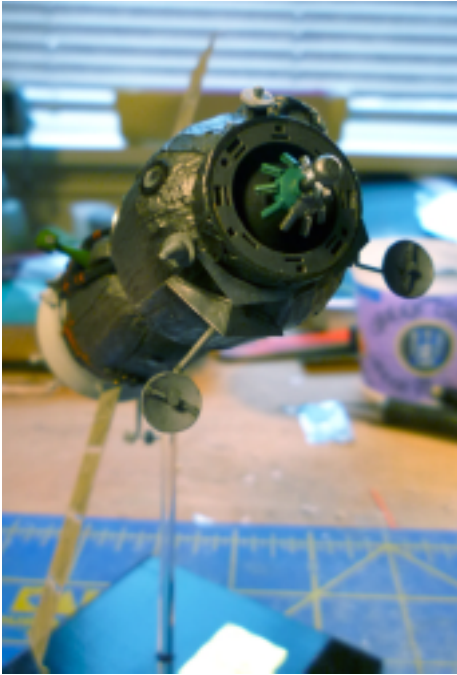
My initial impression of the finished model artwork and the major resin pieces was frankly underwhelming, though this was entirely my own fault. My memory of what a Soyuz was supposed to look like dated back to Gatland's books and the illustrations of the Apollo-Soyuz mission, both from the early 1970s. In that alternate universe, the spacecraft had a smooth skin and was predominantly a forest green. What lay before me looked like a prune, albeit one of about the right shape, with the cover art showing it predominantly dark grey. A quick troll with Google showed me the error of my ways: the spacecraft is covered in thermal blankets, which explained the wrinkled appearance. It also showed that, like Soviet cockpit

green/blue/whatever, the thermal blanket color depends greatly on the angle of the light and which mission it was on. It has a strong retroreflective quality and generally looks silver-grey, not unlike spandex-lycra, but sometimes appears green, blue, dark grey or dirty tan. I also believe that the actual color has changed over the years, with the early ships being more of a teal green.

The instruction sheet is fairly typical of earlier resin kits, showing a numbered callout of the parts, a drawing of the finished model, and showing vaguely where the parts go, and a full size template for cutting out the solar panel material.

The kit is much cruder than contemporary resin offerings from the likes of Czech Master or New Ware, but it can be built up into a nice representation of a Soyuz without resorting to heroic measures. The wrinkle effect for the thermal blankets is understated, being more random waves than the sharper wrinkles seen in reference photos. Admittedly, it's hard to model and cast wrinkled fabric, as one can see by comparing Heller's Breitling Orbiter against photos, but it was nonetheless underwhelming. Some of the cast-on maneuvering thrusters looked like they had been dipped in sand, and required some clean-up. Other thrusters were represented by small divots in the cluster housing – these I drilled out and replaced with brass tubing, reamed to approximate the inside of the bell. Other than these problems, the main body went together with very little cleanup. Five-minute epoxy applied to the butt-joint between the modules was sufficient. There was enough surface area that I didn't see a need to also pin to the joint.

One of the difficulties with this subject is that spindly delicate things poke out from every side making it virtually impossible to assemble and paint without breaking something. I found that by leaving the conical antennae subassembly off the rear rim of the service module until it was mounted on the stand, I could at least stand it upright throughout the build. I took the opportunity to add a series of



what look like deelybobbars around the rim of the base of the service module, using glass seed beads on bits of brass wire.

The plug containing the various antennae was compromised by major air bubbles, which eliminated the box structure on top of the periscope, the docking probe and most of the struts. Luckily, these were easy enough to replace or fix using some Evergreen rod and strip. Glenn, the owner of RealSpace Models, is very helpful with replacing defective parts and the likes, but I had put off this build until the last minute, so it was quicker to build the replacement bits. The two parabolic docking antennae are somewhat oval, but clean up adequately with some judicious filing. There are two conical antennae which mount on a strut at the rear of the spacecraft and look a bit like witch's hats. They were cast as simple cones with an overly-thick ground plane, but in real life the cones look more like milk bottles. I compromised and used the conical parts with some thin styrene ground planes. Their strut was a microblob, which I replaced with strip styrene and brass wire.

Up front is a petaled docking adapter, looking like a cross between a Dalek and a cocktail umbrella. As mentioned above, the

ball-on-a-stick docking probe was a goner, so I substituted a glass bead and some brass wire. The kit part for the petaled piece is at best highly asymmetric, and even if one succeeds in removing it from the plug and cleaning it up, it still looks very, very wrong. I salvaged the center portion and added strip styrene petals.

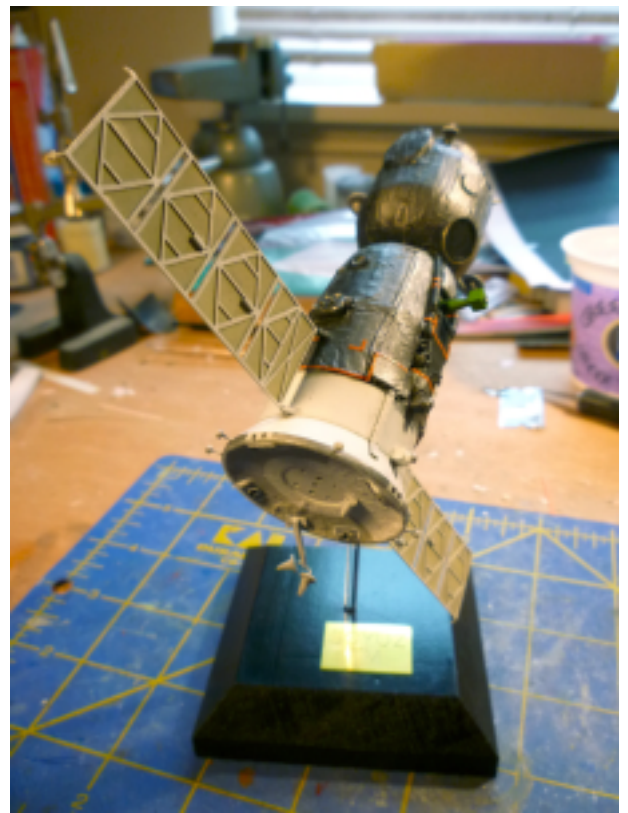
The PE fret is very thick, which makes for sturdy solar panels, and docking collar, but is hopelessly thick and stiff for the shields in front of the dish antennae. I cut duplicate shields from a disposable pie pan and torted up the strut work on the solar panels with some more bits of Evergreen strip.

I simulated the thermal blankets' reflectance properties by painting on the shadows. The wrinkle texture is too subdued and lacking crevices to lend itself to using a wash. Instead, I sprayed Alclad duraluminum on the sunny side, with a bit of bright aluminum for the highlights, and Alclad dark aluminum on the shadow side for the blanketed portions. Matte white and light grey sufficed for the bare portions of the service module. I picked out a few panels of aft face of the service module with light gull grey to match the reference photos (though I suspect that they're all the same in real life and that the variation was due to the differing angles). The Soyuz has several prominent seams in the thermal blanket which appear to be sealed with Space Duct Tape™ in black and bright orange. Simulating these with painted decal strips really improves the appearance. The solar panels are radome tan with matte white braces on the braced side, and matt white on the solar cell side. The iridescent self-adhesive solar panel material looked depressingly toy-like until cut out and applied. While very wrong as scale duplicates of the Soyuz panels, they give a surprisingly good impres-

sion of the solar panels. (First impressions can be misleading.)

The parts and finished model generally look a lot like a Soyuz, though the orbital module seems a little long and cylindrical rather than melon-shaped. A few access panels are not quite where they belong, but the thermal blanket texture makes moving them impractical. The base of the service module should flair out to a sharp edge, but the model chamfers the edge. Again, it is impractical to fix, but doesn't detract from the overall effect. The bracing strut pattern on the inboard bay of the panels is completely wrong and can't be fixed by adding strip styrene – it will bother you but not the viewers. Note that the positions of the two parabolic antennae and their brackets are swapped in the instruction sheet.

Overall, it makes a credible addition to one's spacecraft collection, and apart from the problems caused by the bubbles in the small parts pour, should go together fairly smoothly.



New Ware 1/144th U.S. Air Force Manned Orbiting Laboratory (MOL)

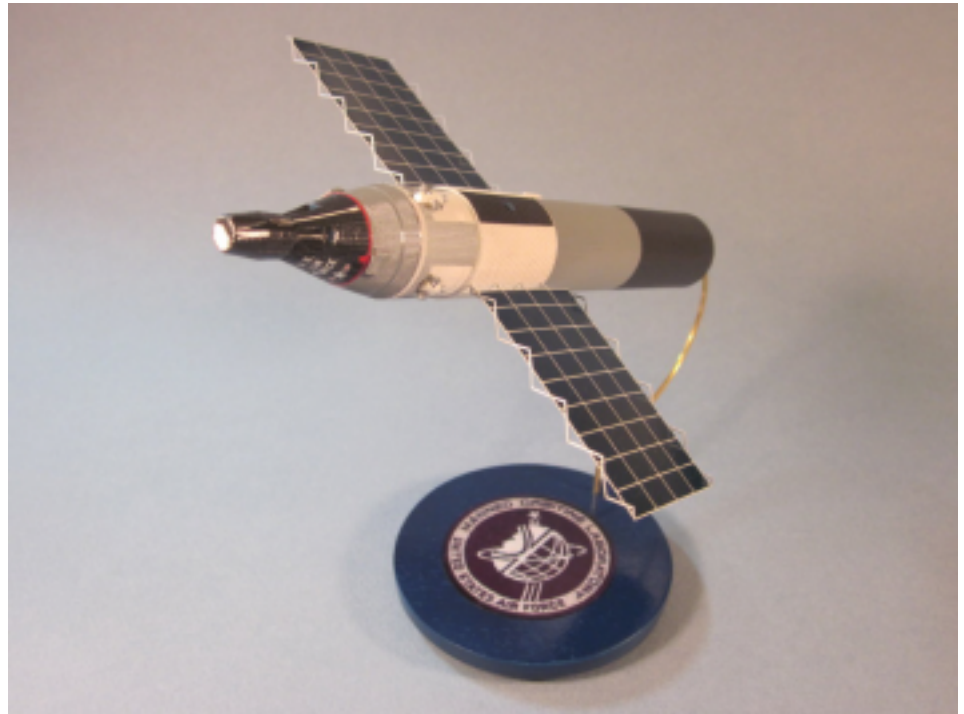
by Tim Nelson

This model was acquired to be part of NorthWest Scale Modelers' Museum of Flight display, "50 Years of Human Spaceflight". Although only an unmanned, boilerplate version of the MOL ever flew in space, the project was quite serious during the period 1963-69. This model, along with a 1/48th Collect-Aire Boeing X-20 Dyna-Soar by Ralph Braun, represented a military perspective in contrast to the mostly civil focus of human spaceflight.

A concise history of the stillborn MOL can be found in the reference.

New Ware is a small Czech enterprise devoted to resin kits and photo-etch detail sets of factual spaceflight subjects. All products are ordered directly from the New Ware site (see references), using PayPal for payment. The only difficulty, a small one at that, is that New Ware has to provide you with a quote in Czech Koruna before you submit payment. Your models will arrive a few weeks later.

The primary cylinder representing the bulk of the MOL spacecraft (Gemini crew return capsule, and attached laboratory section) are molded in one resin piece. The delicate and crisp detail captured in this resin mold is among the most impressive I have ever seen in approximately ten years of building various and sundry cottage industry resin kits. Other smaller items such as two blisters and the reaction control system (RCS) thruster assemblies are provided as separate resin parts. A particularly nice touch is that the RCS thruster bells are in fact molded as bells, with very little cleanup needed. All of the resin parts are completely bubble-free. From this and other New Ware castings I have seen, it is easy to say that superb resin casting is characteristic of this company's offerings.



MOL design variations included a version with solar panels, which are provided in this kit in the form of photo-etched brass sheets and separate "zig-zag" deployment/support struts. The bending strength of the panels is enhanced by a fold at the attachment struts. The zig-zag segments feature a very clever, and much appreciated, centerline notch to facilitate attachment to the main solar panel sheets. The PE fret appears to be designed to facilitate easy removal of the parts; my usual process of using a curved X-Acto blade pressing against masking tape on glass, worked nicely with little post-separation cleanup required. Panel assembly, finishing, and installation is still a delicate operation given the fragility of PE parts, but all of these features are examples of thoughtful engineering that is too often lacking in model kits - particularly in the limited run genre.

Instructions are relatively straightforward for this minimal part-count kit, with a single page of part location information and assembly guidance. The back side of this page contains five views as a guide to painting. Since the actual vehicle never flew, some license can be applied here

based on review of various 1960's artist's concepts. I chose to adopt the kit paint scheme for as good a reason as any - it looks cool.

The decals are well printed and thin, and provide small USAF markings, as well as solar panel photo-voltaic cell treatment. Duplicate decals are provided, a nice touch that alleviates a bit of stress during decal application. The decals worked fine with Micro Set and Sol treatment.

You are on your own to come up with a suitable base to display this fragile model.

Construction was routine for the most part. The main cylinder has a minor pour plug that requires removal, and the smaller resin bits need some trivial cleanup. I attached the side blisters (I don't know exactly what they are but suspect they are thermal radiators) at this stage to fill small gaps and paint the white mid section as a unit.

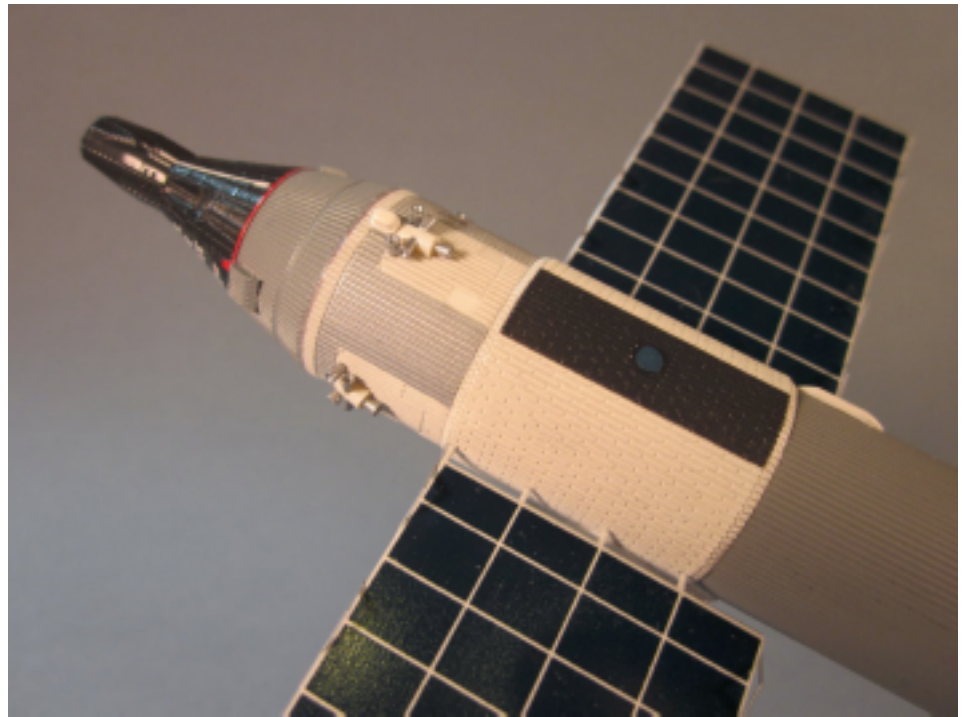
Painting is mostly an exercise in planning ahead and masking skills, the trickiest part being the very thin circumferential red stripe on the base of the Gemini crew return capsule. After priming in white and

establishing white as the overall base coat, I airbrushed the top section red for the purpose of this stripe. Very thin tape was then applied to mask the areas to remain red. The remaining progressively dark areas of gray and black (I use Floquil Weathered Black or Engine Black for this purpose, a very dark gray) were accomplished with the appropriate masking. The key when masking the subtle corrugated surface is to burnish the tape to prevent bleed-through.

I used a punch and die set to punch "window" disks for the two small flat areas that are mid-body on each side (between the solar panels). Some illustrations show these portholes in the laboratory section, and again the "looks cool" criterion won the day. These and the Gemini windows were hand-painted a very dark blue and hand-glossed with Future at the very end of the build. (It should be noted that the small flat "porthole" area is molded on one side, but must be (carefully) ground/sanded off the other; I'm not sure why this wasn't done in the mold but perhaps it was noticed too late. Careful masking off of the appropriate small square area allows you to gently scrape away the corrugation and smooth the surface without collateral damage.)

I used a couple of wooden disks that I think I bought at a Michael's craft store for the base. Some filling, sanding, smoothing, and priming, and it was ready for a USAF blue paint treatment. I found a MOL program patch image on the internet that I printed on photo paper and attached to the base. Thin brass rod, shaped to put the model at a rakish angle, connected model to base; the rod is a bit more flexible than I'd like so the model bobs undesirably if disturbed. I applied four rubber feet underneath for some stability.

I spent 15 enjoyable hours building the MOL and its custom base. I have other New Ware kits in the stash, have my eye on some others to order, and look forward to building these interesting and well-designed kits. My thanks to myself for purchasing this kit directly from New Ware.



I'll note that in my stash, I have the 1/144th RealSpace Titan III/MOL launch vehicle (see References). That will someday make a nice companion to this New Ware on-orbit representation of the MOL.

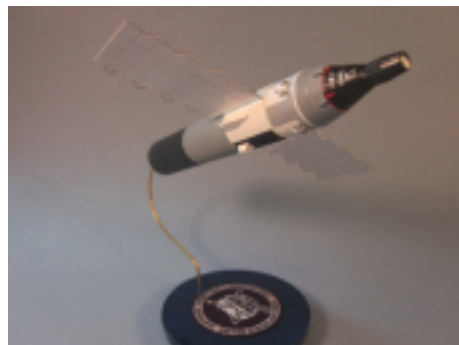
References

Wikipedia, http://en.wikipedia.org/wiki/Manned_Orbiting_Laboratory

New Ware (home page), <http://mek.kosmo.cz/newware/>

New Ware (MOL kit NW072 details), <http://mek.kosmo.cz/newware/nw072.htm>

RealSpace Models (Titan III/MOL kit), <http://www.realspacemodels.com/html/mol.htm>



New Ware 1/144th Salyut 1 Space Station with Soyuz 11

by Tim Nelson

This model was acquired to be part of NorthWest Scale Modelers' Museum of Flight display, "50 Years of Human Spaceflight". The subject was doubly significant for this display: Salyut 1 is considered the world's first space station and its occupants, the crew of Soyuz 11, tragically perished as they were returning to Earth.

A concise history of Salyut 1 and Soyuz 11 can be found in the online references. Readers wishing to gain an in-depth understanding of the world's first actual space station, the three week stay of its ill-fated crew, and the impact of the crew's deaths on the Soviet people and space program, are referred to the Ivanovich book.

The three crewmen of Soyuz 11 who lost their lives were:

Georgi Dobrovolski: http://en.wikipedia.org/wiki/Georgi_Dobrovolski

Vladislav Volkov: http://en.wikipedia.org/wiki/Vladislav_Volkov

Viktor Patsayev: http://en.wikipedia.org/wiki/Viktor_Patsayev

They were not wearing spacesuits when the spacecraft inadvertently depressurized during re-entry preparations, and they are the only humans to have perished in the vacuum of space. Their remains are buried in the Kremlin Wall in Moscow.

New Ware is a small Czech enterprise devoted to resin kits and photo-etch detail sets of factual spaceflight subjects. All products are ordered directly from the New Ware site (see references), using PayPal for payment. The only difficulty, a small one at that, is that New Ware has to provide you with a quote in Czech Koruna before you submit payment. Your models will arrive a few weeks later.

Salyut and Soyuz assembly is broken down into several major modules, and added detail parts, mostly represented in superbly cast resin. Various antennae, supporting structures, and the six solar panel assemblies are represented by photo-etched brass. You will need to supply 0.5 mm diameter rod for several antennae; I used music wire for this purpose. The photovoltaic surfaces of the solar panels are emulated with decal, which are designed with clear areas that assume the underlying panel is white.

Instructions consist of two double-sided black and white pages, one devoted to detailed part location information and assembly guidance, and another containing many multi-view illustrations for painting and decals. Color versions can be found on the New Ware site, which is helpful. The drawings appear to agree with the very skimpy photo references of Salyut 1, and most known photos are shown on the New Ware site as well as included in the Ivanovich book.

The decals are well printed and thin, and provide white Cyrillic "Zarya" markings, as well as solar panel photo-voltaic cell treatment. Duplicate decals are provided, a nice touch that alleviates a bit of stress during decal application. The decals worked fine with Micro Set and Sol treatment. Why "Zarya", you ask? The station was intended to be named Zarya (meaning "dawn") until a last minute change (one of the reasons being that mission control had historically been given that designation). When the name "Salyut" (meaning "salute") was selected, no one bothered to repaint the Zarya markings already applied to the station.

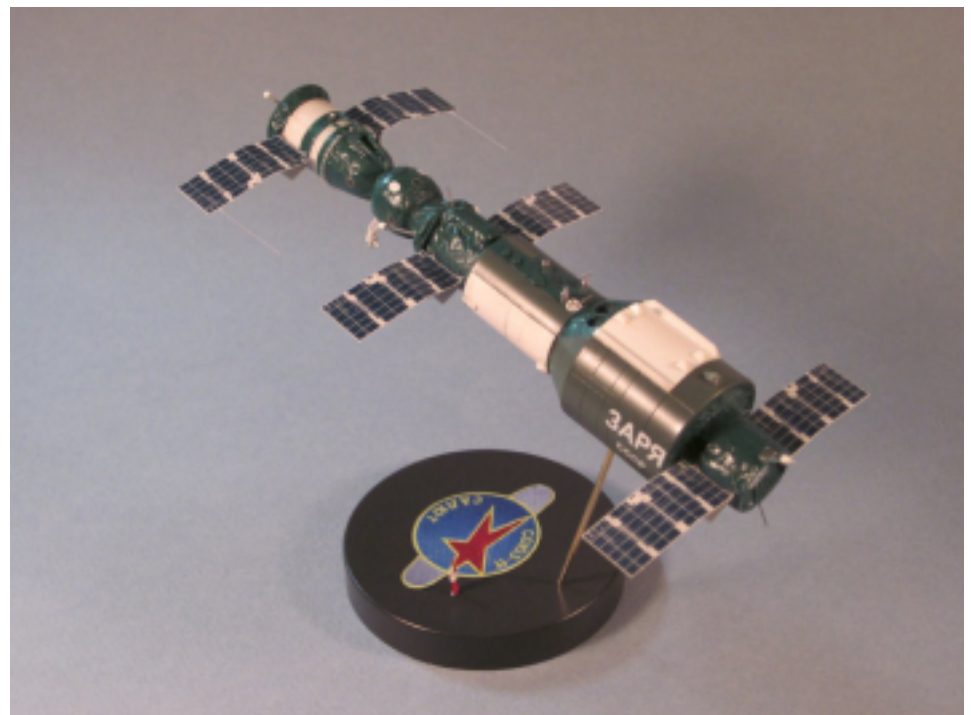
You are on your own to come up with a suitable base to display this fragile model. I recommend you construct your base, or at least a temporary version, early on in the build; it will be a great help in the final assembly stage when it becomes almost impossible to find a way to set the model down without breaking something. I used a jar lid from my stash, augmented with fishing weights and a laminated sandwich of styrene layers to accept a brass rod.

The build process for what is essentially a series of cylinders flying in very close

formation is mostly a challenge in maintaining alignment. First step is to clean up the pour plugs and use a sanding block to develop flat mating surfaces. I carefully marked the center of each mating circle, hand drilled a hole for brass rod, and dry-fitted each join multiple times before attempting any bonds. Working with a square grid is a great aid to keep the model on the straight and narrow. I drilled several holes on each side of all mating surfaces as cavities for excess glue to flow during the join. To maximize strength but give me some working time, I used 5-min epoxy for each bond.

Fit of the parts is decent, my main challenges coming from two areas:

- There is an area mismatch between the Salyut mid-section, and the adapter for the largest Salyut section (this is the adapter with the two largish windows). The rib detailing around the mid-section perimeter in this area makes any attempt to sand a bit risky. The only real putty I needed for the project was used in this area, immediately smoothed down with a bit of solvent to avoid subsequent dry sanding.



- Fit of part R3, the Soyuz umbilicals, is vague. Quite a bit of filing was required on the underside of the umbilicals, as well as the small Soyuz hump where they overlie, to obtain a flush fit.

Painting is a series of painting/masking/painting sequences to obtain the white and two-tone green color scheme. The online New Ware color illustrations render the greens a bit garishly, but the specified Humbrol colo(u)rs look reasonable and consistent with the rare photos that are available. I painted most of the small bits separately and applied them at the end with either CA glue or white glue, depending on my level of courage.

After consideration of the fragility of the PE solar and radiator panels (cleverly engineered as a single PE part for each of the six panels), I painted them with Floquil Reefer White, and applied a Duracryl lacquer gloss finish, all while still on the fret. Decals were then applied and also sealed with gloss, before separating the panels from the fret. A tiny bit of touchup was required to finish them off. The final stage of solar panel sub-assembly is a delicate series of bends, explained diagrammatically in the instructions, to achieve the proper geometry when viewed fore and aft. A PE bending tool, patience, and a systematic approach is recommended to get through this process. You then carefully mount them to the Salyut and Soyuz holes you hopefully drilled earlier per the instructions; maintaining alignment here is tricky and again, patience is called for. If necessary, you can make final alignment tweaks after installation with careful bending at the root. (Note: there were variations in the orientation of solar panels on early Soyuz spacecraft, including some intended for short flights that had no panels at all. The Soyuz 11 configuration apparently had solar panels inverted relative to most of its predecessors, in order to align with the Salyut 1 panels in the intended docking configuration. The New Ware instructions and illustrations, as near as I can tell, accurately reflect the right orientation. This, like many aspects of early Soviet spaceflight,

is not 100% definitive. As Winston Churchill said about Russia, "It is a riddle, wrapped in a mystery, inside an enigma...")

All that was left was to mount the finished model to my base, and then try to touch it as little as possible.

New Ware is to be commended for producing this seemingly accurate and well-engineered kit of a historically significant subject. It is not a good choice for your first resin or PE venture, due to fragility and alignment challenges, but modelers with a little experience with these media will find it eminently buildable. I spent 28 enjoyable hours building Salyut 1 /Soyuz 11 and its custom base. My thanks to myself for purchasing this kit direct from New Ware.

References:

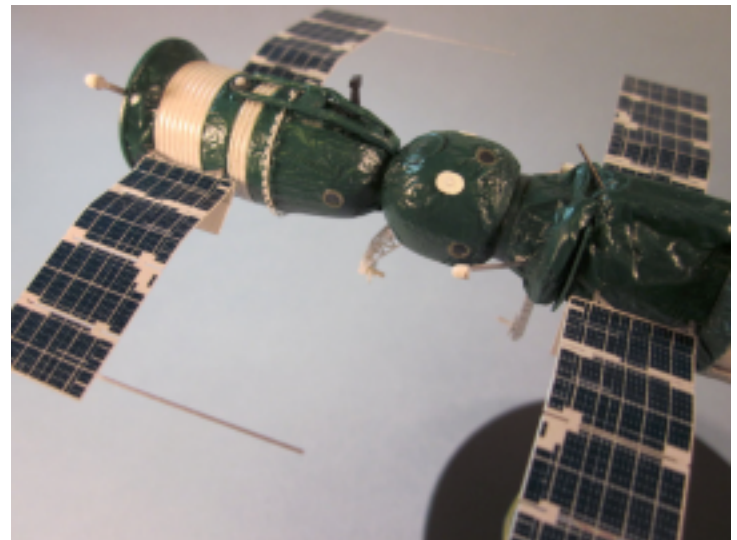
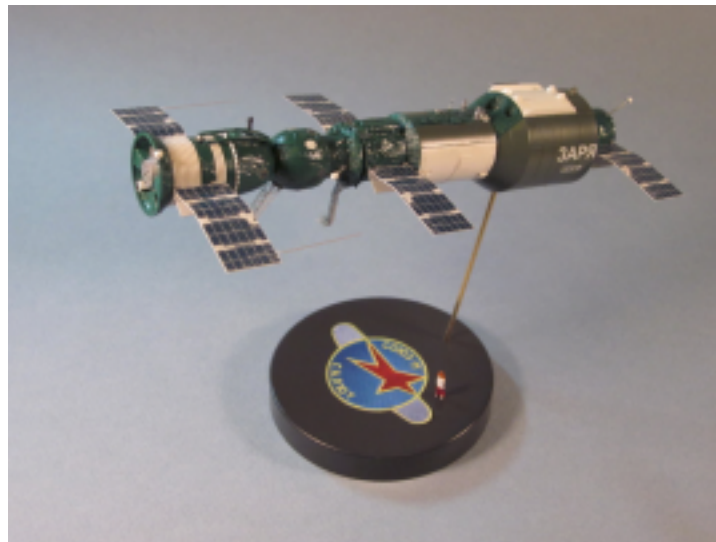
Wikipedia, http://en.wikipedia.org/wiki/Salyut_1

Wikipedia, http://en.wikipedia.org/wiki/Soyuz_11

Salyut - The First Space Station: Triumph and Tragedy, G. S. Ivanovich, Springer Praxis Books, 2008

New Ware (home page), <http://mek.kosmo.cz/newware/>

New Ware (Salyut 1 / Soyuz 11 kit NW033 details), <http://mek.kosmo.cz/newware/nw033.htm>



ISS Model for the Museum of Flight Display 2011

by John DeRosia

This model was built as part of NorthWest Scale Modelers' Museum of Flight display, "50 Years of Human Spaceflight". The ISS is one of the pinnacle achievements of human spaceflight, and perhaps the most successful international technical collaboration in history. – Tim Nelson

When the call went out for volunteers to build/display any of the real space hardware models – I was honored to step up to the plate.

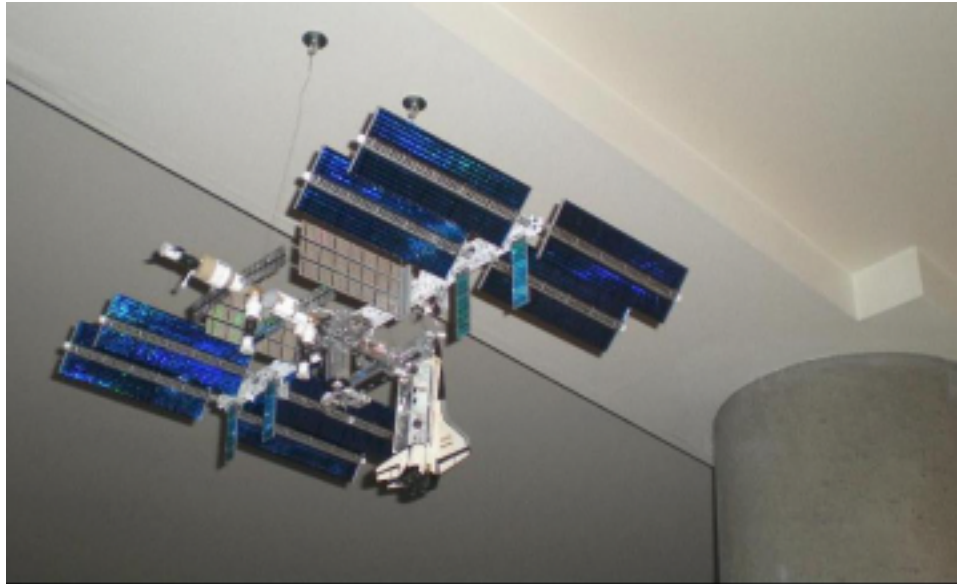
The model of the International Space Station (ISS) was still needing a volunteer – so I decided I could do that. In the back of my mind, I knew I had a model of the 1/144th scale ISS from Revell and the 1/125th scale ISS from Heller. Time to build some more stored models.

We had well over nine months notice – so I knew I had plenty of time for the project. Right!

I have tons of huge boxes with dozens of unbuilt models in each. Do I have an organized method of knowing what models are in what box? Of course not! Could I find the 1/144th ISS-NO! I found the Heller one - but this would mean major modifications and additions. Oh well - time for improvising. I was asked to build the ISS as accurately as possible with what is actually floating up in space at this time.

And so the research began. Two notebooks full to be exact. Pictures, articles, and of course details of all modules and the huge solar arrays. Page after page of the actual build sequence by NASA.

So now all of a sudden I am down to just a couple of months until the display at the beginning of February 2011. Where did the time go? By pure luck- Revell decided to re-release (in late 2010) their 1/144th ISS so I ordered another one.



ISS hanging at the Museum of Flight Feb 2011

To their credit - Revell did a tremendous job years ago with the known information at the time of what the ISS was suppose to actually have. Of course, the reality of what actually ended up floating above our heads due to budget cuts and such came after the model was released the first time.

I'm glad I did the research. A lot of the modules in the kit were not used. Others

had to be re-positioned. And a few scratch built items had to be made (experiment packages etc...).

Then, while building, I always had in the back of my mind the transportation issue. This was a huge built-up model covering half of a normal dining room table. I purposefully wanted it to be easily torn apart and made easy to transport. With



ISS shown in the case in the major pieces.

about 24 total solar arrays - eight of them HUGE - how could I make sure they stayed on if not glued while being displayed?

In the end, I made the eight huge solar arrays detachable with the other smaller ones being glued to their respective modules. The main ISS truss was also made detachable. All the main living modules were glued together as one long configuration.

The painting was straight forward. A lot of artistic merit was used due to the fact that when looking at the ISS in space - depending on the lighting (sun) and shadows - a lot of the modules were shining like chrome when in fact they were not made of chrome at all. The solar arrays were covered in different colors of prismatic paper to 'simulate' their colors under the same space conditions.

Aluminum foil was also used to give the impression of the chrome effect of the sun shining on the modules. I added three astronauts for a scale comparison as well as a 1/144th space shuttle docked to the ISS.

Lastly, a custom case was made for the ISS. The case was about 20 inches wide by three feet long by about 24 inches high. (See picture)

This would not only serve the transportation to and from home-but also as a storage case when it was time to go into semi-permanent storage at home. This of course brings to mind the movie *Raiders of the Lost Ark*, when at the end of the movie they stored the found 'Covenant' in the HUGE warehouse that went on for acres and acres...laugh laugh...



This was a most enjoyable project and probably used about 80 hours total give or take. Just don't tell me that we are really going to stop the U.S. Space Shuttle flights...

Meeting Reminder

From the North: Take I-405 southbound to Exit #4 (Renton-Enumclaw). Go through the first stop light, turn left on Maple Valley Highway (South 169). This will take you under I-405. Continue about one block and turn right at the second stop light. Follow the entrance driveway around the athletic fields to the large parking lot area. The Renton Community Center and Carco Theatre are adjacent to one another and the parking lot.

From the South: Take I-405 northbound to Exit #4 (Maple Valley-Enumclaw). This exit will divide, take the first exit to Maple Valley-Enumclaw (South 169). At the end of the off ramp, turn right. Go approximately one block to the second stop light and turn right. Follow the entrance driveway around the athletic fields to the large parking lot area. The Renton Community Center and Carco Theatre are adjacent to one another and the parking lot.

April 9 Spring Show

**Renton
Community
Center
1715 SE Maple
Valley Highway,
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