

## Round And Around

by Don Stauffer

They are all gone now, or rest in museums. The rotary radial aircraft engine is a relic of history but it once was master of the skies. This type of engine has a stationary crankshaft, and the cylinders and crankcase rotate, with the propeller bolted to the crankcase. The rotary engine originated for the early automobile. Engineers were having a hard time with air cooled car engines. Their thermal design tools were, at that time, inadequate for the task, and air cooled engines tended to overheat in the slow moving vehicles of the time.

One solution was to add a fan. The other was to spin the whole engine, sort of turning it inside out. Most cars soon went to water cooling, and good engineering made the few that retained air cooling work adequately. No rotary engine ever graced a production car. But the idea entranced aircraft designers who were also having problems with air cooling. The Sequin brothers of France designed the first successful aircraft rotary, and introduced their Omega model in 1909. It was an immediate hit, and subsequent higher power versions played an important part in World War 1. In addition to the Gnome, there was the Le Rhone (the rights to it were soon bought by the Sequins), Clerget, and Oberusel.

There are a couple of myths about the rotary engines that we need to square away. The first said that they had such high torque reactions that they made the planes deadly to fly. A rotary engine has no more torque reaction than any engine of the same horsepower and

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rpm. The WW1 engines did have somewhat more torque than modern engines of the same horsepower, because these engines developed their horsepower at a lower rpm than modern engines. But this was true of ALL WW1 engines, rotary or not.

Rather, the handling problems were due to the *gyroscopic* effect of the large rotating mass. The gyroscopic effect acted at right angles to any sudden rotation of an axis of the airplane, so a rapid turn would cause a sudden pitch up or down, while a sudden pitch maneuver would result in a rapid turn or skid.

The other myth is that rotaries did not have a carburetor, so that the pilots controlled the engine by blipping the ignition switch. In fact, these engines did have carburetors- just not very good ones. Carburetor design in the day was primitive. In fact, autos of the period controlled speed by changing ignition timing. Carburetor design did not mature until the late 20s and the 30s. What made the rotaries unique is their large flywheel effect. In a Vee or Inline type engine, blipping the throttle risked getting a dead stick (stopped propeller) which required a dive to increase airspeed to get the prop (and engine) turning again- not a welcome

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## TCAH This Month

The monthly meeting will be held Saturday March 14, at Fleming Field, South St. Paul, beginning at 1:30 pm. Vendor baiting will begin about 12:30, so come early.

Picture your model here! Send me a photo of your model, and it'll be used to fill these little white spaces at the ends of the columns.

## From the Vice President

*by Larry Donovan*

WOW!!!! No other way to express the number of unique ideas that we assembled at the last meeting for themes for the next year. Now before I list the themes, I want to thank everyone who stayed after the break to participate in the Business meeting part of the show; just as I want to thank everyone who contributed on the discussion of show table themes. Please keep in mind that we want full "Show and Tell" tables, and with the ambitious theme list, an individual modeler may feel left out in a particular month's theme. Well, I doubt I'll have that Boulton Paul Defiant ready for the "Disasters" theme month (although I am going to give it a go----maybe I'll do the Airfix kit instead of the MPM one) but if I have a model ready, I'll bring it whether it fits that month's theme or not.

Like I said at the meeting, you should not feel like you are the Omaha Martin plant in 1944 trying to keep production up for victory over the Fascist hordes. This is a hobby. Please have fun. Stop and smell the roses (or decal setting solutions or MEK or whatever trips your particular trigger). The great thing about the show table at each month's meeting, particularly lately, has been the number and diversity of models on display. The other great thing is that everyone is very generous about sharing tips and techniques on modeling...I know I learn new things each month and am inspired by the talent on display. My point to all of this is that I want you to keep 'em coming; a full show table is a happy show table!!!!

So without further ado, here is the current list of theme's we have come up with and the tentative month:

August 2009 Flops and Disasters-here is the Defiant's category; although it could fit the Black Cats also.

October 2009 Snakes on the Plane

December 2009 Club Contest-model kit built in 2009

February 2010 Black Cats-nightfighters, intruders, and PBY Catalinas, oh my!

March 2010 I Was There-now where did I put those pictures I took during the open house days at Offut AFB in the late seventies...

April 2010 Minneapolis-St Paul International Airport- anything stationed there or flew through---- includes the Air Guard and Ft. Snelling

June 2010 NASA/NACA- X-planes, Y-planes and some just weird stuff. Can someone explain to me what the heck a "lifting body" was????

While I am in a "list mode", here are the upcoming seminars I have planned for the next several months. Please remember that these gentlemen are being generous with their time and talent, so we need to be flexible on the schedule.

March 2009 Don Stauffer and the Gnome Rhone engine bench operation

April 2009 Annual Awards Meeting

May 2009 Bob Friskney "Ditching Airliners"

June 2009 (tentative) Mark Krumrey "Vietnam 1975"

July 2009 (tentative) The Nelsons (no, not them, but our own Dave and Kyle) "Intro to Armor Workshop"

So guys lots of reasons to build and more importantly lots of reasons to have fun with our hobby. Now if I can just thaw this X-Acto knife off the workbench in the

*(Continued on page 3)*

## Airline Chatter

by Terry Love

Southwest Airlines earned \$156 million for the year of 2008. However, they did lose \$56 million in the last quarter. Thus, Southwest Airlines will halt their expansion plans for the time being.

United Airlines passenger traffic was down 9.6% in 2008. United Airlines lost \$1.3 Billion in the fourth quarter of 2008.

American Airlines lost \$340 million in the fourth quarter of 2008.

Delta Airlines inherited Northwest Airlines contract with Minnesota for the \$245 million loan in 1992, and to keep the airlines headquarters in Minnesota. A new deal was made about the last item, but expedited payments to Minnesota to pay off the loan by 2016 – early. The new deal keeps a minimum of 10,000 jobs in Minnesota. 12,000 are presently employed in Minnesota.

Boeing will be the only bidder for a new Air Force One. It will obviously be a Boeing 747-800. Also, there is not just one Air Force One. Thus, a minimum of two, maybe three will be purchased.

Boeing will layoff 10,000 employees eventually since orders for airliners are very slow.

Boeing has delayed the 787 Dreamliner by almost 2 years due to various reasons. One customer cancelled its order for 15 Dreamliners. Boeing expects more cancellations to follow.

Sichuan Airlines of China will take delivery of the first Chinese-built Airbus A-320 in July.

Ryan Air, the Southwest Airlines of Europe, started charging \$40.00 per carry on bag!! And that includes laptops!! Your purse, or even your lunch bag!! No “personal items” is the new rule. Since you can take on

ONLY ONE carry-on, if you pay, everything must fit into one bag, fit the overhead bin, and weigh less than 22 pounds. If you try to sneak something on board, double the charges!! American airlines are watching very closely!!

Korean Airlines ordered two more Airbus A-380s, bringing their total to ten.

Airbus now has reached the 200 order mark from 16 customers for the Airbus A-380. As of March 1, 13 Airbus A-380s have been delivered to Singapore Airlines, Qantas Airlines, and Emirates Airlines.

Continental Airlines has now installed blended winglets on 270 airliners, including all Boeing 737s and Boeing 757s. Continental says its savings will be \$164,000 in fuel costs per aircraft per year.

Aerolineas Argentinas bought 12 Boeing 737-800s.

Delta Airlines is dropping some 170 airport gates nation-wide as part of its merger process with Northwest Airlines. All ticket counter and airport operations will be merged by the end of 2009.

Air Tran Airlines will be adding a second route to Branson, Missouri. This time it will be from Milwaukee. The first was from Atlanta. Branson, Missouri has the only private commercial airport in the United States.

Delta Airlines consolidated all of its regional carriers that operate in conjunction with Northwest Airlines and Delta Airlines, into a new position – the Regional Handling Service. It will be headquartered in Minneapolis. This is part of the deal with the state of Minnesota to keep its headquarters in Minnesota. It will include Mesaba Airlines, Compass Airlines, Comair, etc. The new RHS will be headed by Comair's President.

Boeing's best seller is the Boeing 737. Airbus's best seller is the

Airbus A-320. The Boeing 737 has been around since the mid-1960s. The Airbus A-320 has been around since about 1980. Even though both are still in production with large backorders, both manufacturers are working on replacements.

CFM International is designing a new engine for the replacement of the Boeing 737 and the Airbus A-320. So is Pratt & Whitney. Airbus has been running wind tunnel tests. Airbus is looking at unconventional aircraft designs. Neither manufacturer's design would be ready before 2020.

Singapore Airlines will cut capacity by 11% due to a large downturn in bookings. They will not park their new Airbus A-380s, though.

Air Canada is close to bankruptcy.

Alaska Airlines says that they are open to merger talks.

Airbus will cut production rates for their A-320 series of airliners in October, and not change the production rate of the A-330 series. They had previously announced that they were increasing the production rate for the A-330. The A-330 production rate increase was scheduled for June.

Delta Airlines approved 2100 more employee early retirements mainly due to relocation of employees. Employees do not want to move to Minnesota or to Atlanta.

Boeing delivered its first Boeing 777 freighter to Air France. Twelve customers have ordered 73 Boeing 777 freighters.



(Continued from page 2)  
frozen vastness of the garage I'll be good to go! See you at the March meeting!!



**Meeting Minutes  
February 2009**  
by Merrill Anderson

The meeting was called to order by VP Larry Donovan, at 1:30 PM. One visitor, Chuck Bauer, was in attendance. Vendor and Treasurers Reports were given.

Old Business: the Annual Club Awards were discussed; the following nominations were made and seconded:

For Modeler of the Year: Sean Brzozowski, Bernie Kugel, Steve Jantscher, Kyle Nelson

For Historian of the Year: Mark Copeland, Bob Steinbrunn

For Newsletter Article or Presentation of the Year: Noel Allard, for "History of the Mohawk Aviation Co." and Bob Friskney for "50<sup>th</sup> Anniversary of the Jet Age"

Nordicon: Proposed scheduling for Sept. 19<sup>th</sup>, at the Knights of Columbus Hall.

Theme for Nordicon was discussed, suggestions were "Weekend Warriors", (NG and Reserve), and "60's Space Age", suggestions are still open.

Two new Challenges were made; for February 2010 "Black Cats" night intruders, fighters or bombers, at least part 'black' schemes. And for August 2009, "Flops" Aircraft, Ships, Cars etc, that did not succeed or meet expectations.



*(Continued from page 1)*

maneuver when the pilot was low on final approach. The rotaries, however, would rotate, even at slow airspeed, for a long time with no ignition, so it was safer to blip the ig-

nition with a rotary.

There are, of course, many models of aircraft that used rotary engines. However, Williams brothers made nice models, in 1:8 scale, of two rotary engines, the LeRhone and the Clerget. The former kit is back in production.



**See and Hear a Rotary Engine**  
by Don Stauffer

The Minnesota Air & Space Museum will hold a public static run of its 1909 Gnome rotary engine to celebrate the centennial of its manufacture. The run will be on the 2 and 3 of May, 2009. There will be three runs each day, at 11AM, and 1 and 3PM. The run will be held at the ramp of the American Wings Museum at Blaine Airport (Janes Field). The museum is just to the west of the control tower. The Museum opens at 10AM. Admission to the museum is \$5 for adults, \$3 for children 8-16. Admission to the museum on those days entitles you to view (and hear) the engine run.



**Check Six**  
by Johan Allert

The Monogram Model Company was a power house in its day rivaling counterparts Revell and Aurora. Established in 1945 in Chicago, IL, Monogram first started out as a manufacturer of balsa wood model kits. Following Revell's lead in the 1950's, Monogram gradually shifted to using plastic instead of balsa wood. Plastic's ability to be molded quickly and cheaply in a huge variety of shapes made it a good choice. In addition, plastic models were easier and quicker to build and could include more detail. By the mid 1950's, plastic kits eclipsed all other materials in the modeling industry.

While Revell was bolder and explored other areas of the plastic hobby (slot cars, etc.), Monogram remained conservative and focused on the basics with an eye to detail. By the 1960's, Monogram had revolutionized the military model industry.

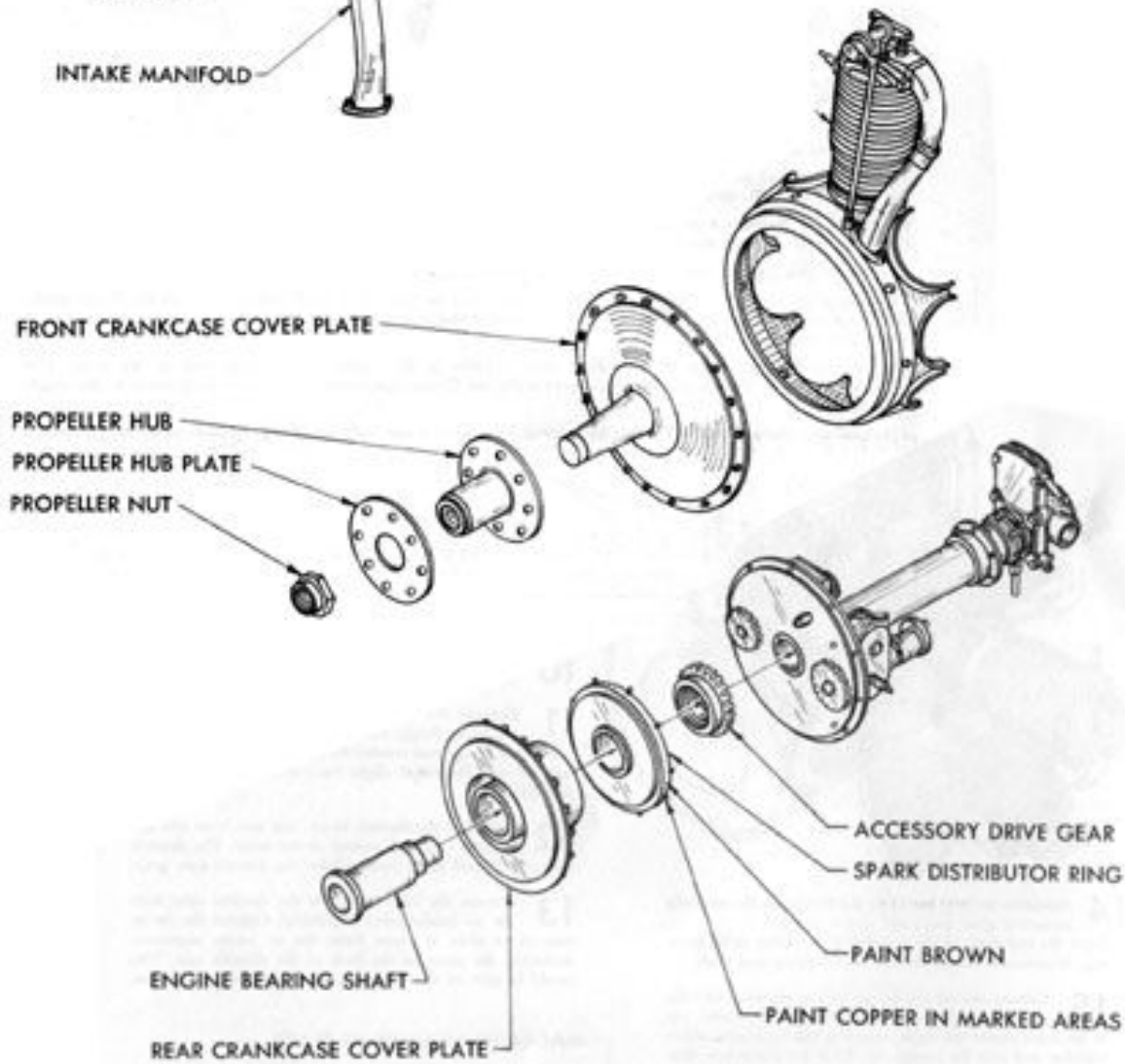
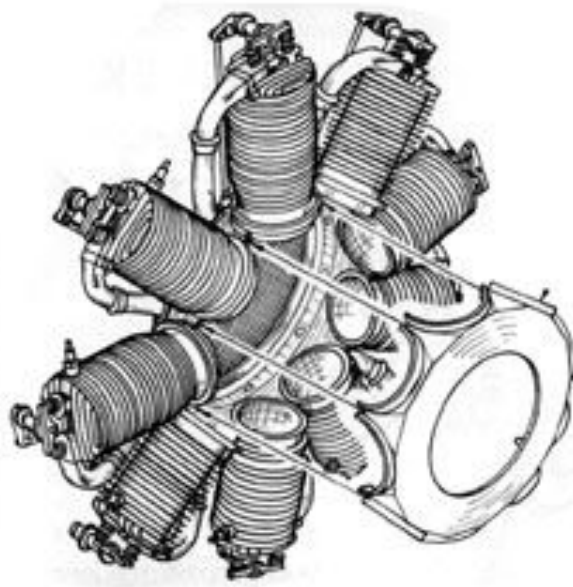
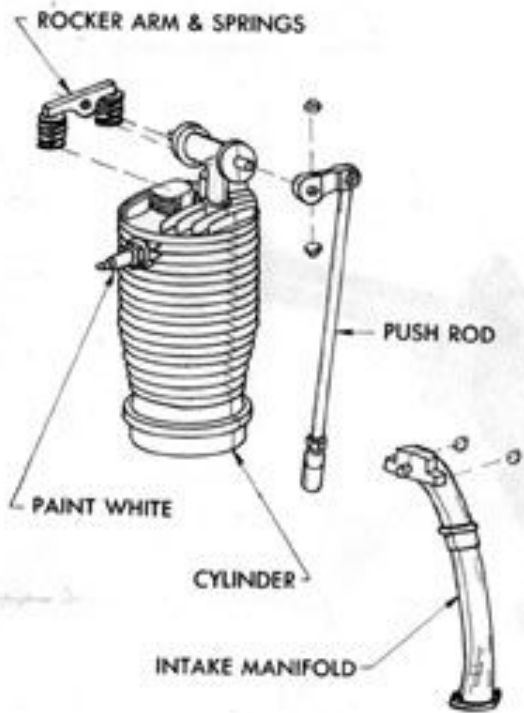
In 1968, Monogram introduced its first "Snap-Tight kit" which was aimed toward younger children. These models required no toxic glues for assembly. (Parental concerns over toxic glue had become a P.R. nightmare -- most of us can remember the 'lemon-scented' glue from Testors which proved to be worthless!) These new "Snap Tight kits" would be a top seller for the next 30 years.

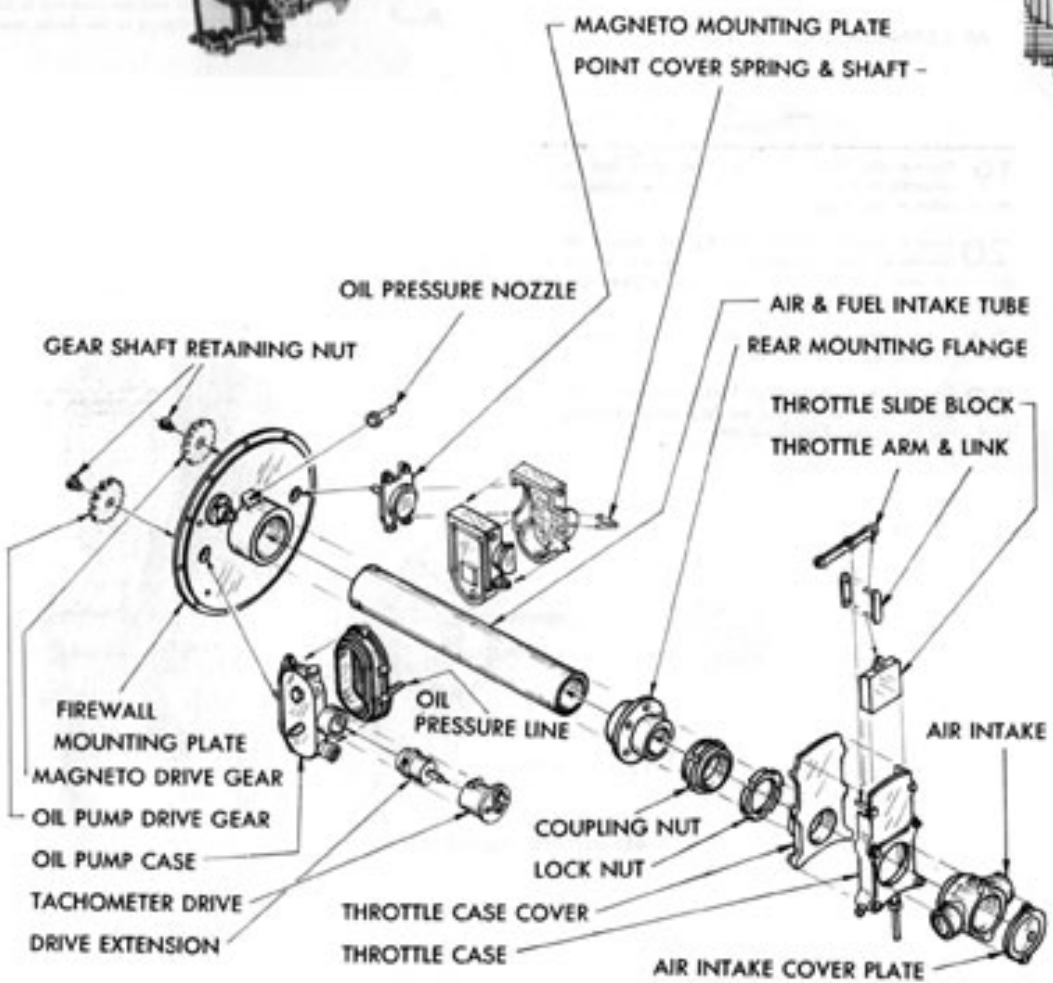
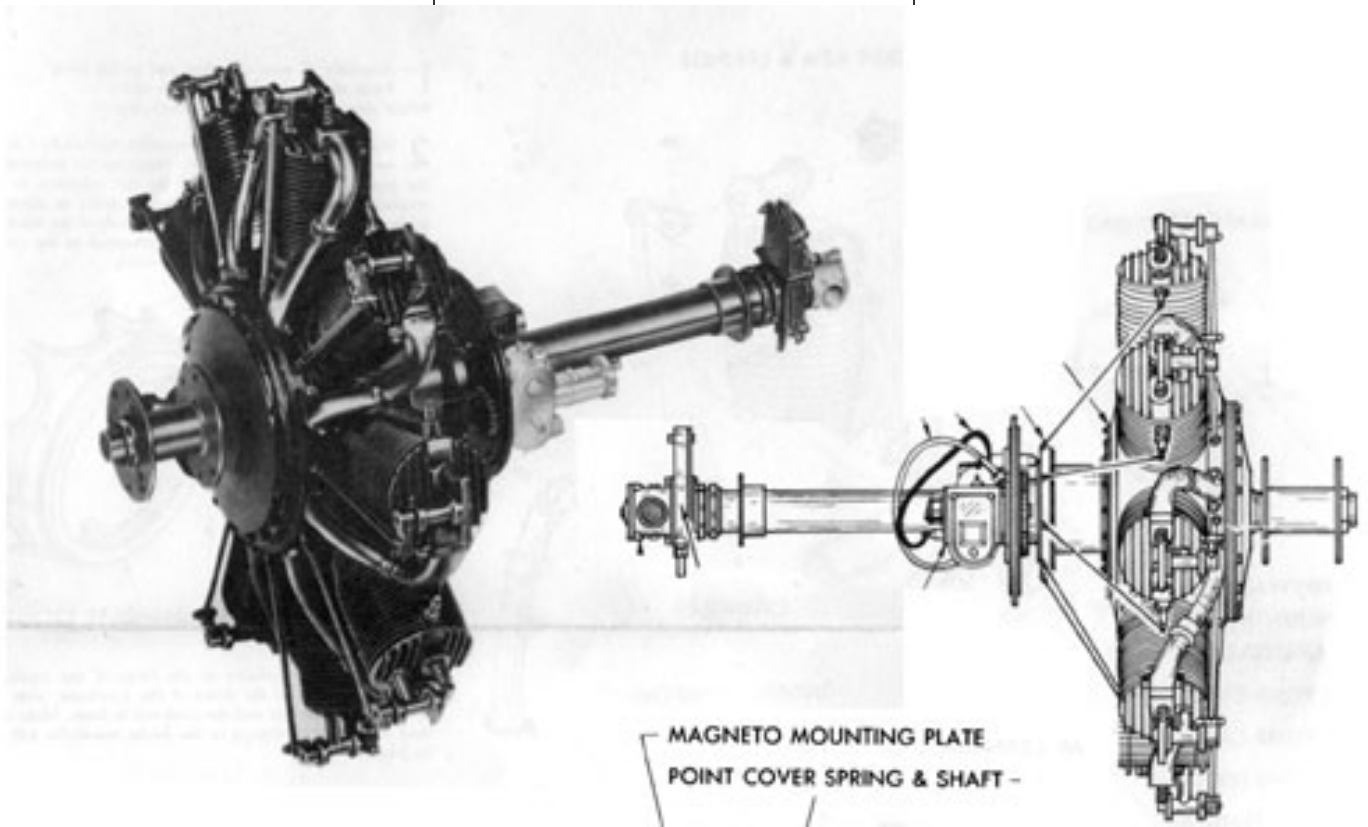
The 1960's was the peak of model building. What was to follow was a slow but steady decline in model purchasing. Baby Boomers grew older and moved on to adult pursuits. Children's interests shifted from models to video games and computers. Faced with the changing economic times, Monogram and Revell joined forces in 1986 to become the largest modeling company in the world. Although they tried to gain market share against high tech companies in 1991 with the development of interactive CD ROM racing car game called "Power Modeler", they eventually lost \$4 million. In 1994, Revell-Monogram was sold to Hallmark.

One of the things I remember most about Monogram was their series of U.S. Aircraft from the "Golden Age of Aviation". Released in 1968, the 1/72 scale series consisted of the Curtiss F11C-2 Goshawk, the Curtiss P-6E Hawk, and the F4B-4 Boeing "Bipe". There was a local convenience store in St. Paul Park where I grew up called "Kokels" which seemed to only get Monogram kits (I had to take a bike ride to Cottage Grove and go to Snyder's, if I wanted a Revell kit).

I truly enjoyed these kits. They

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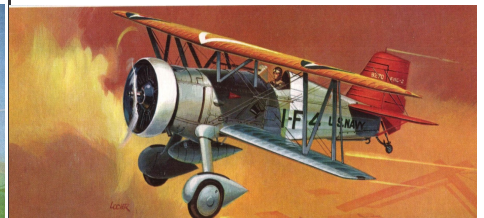


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actually went together—especially remarkable since they were biplanes. For a kid, a biplane could be an adventure, and many times my attempts at constructing other



This past year, they released a 2-in-1 box of the F4B-4 and the P-6E under “Air Combat Legends” (Did either of these 2 aircraft actually see any combat other than in a “King Kong” Movie?).



things truly never change! Fortunately, “Golden Wings” an aftermarket decal company, has come to the rescue to provide alternate markings for at least the F4B-4.

Recently, Olimp released a newer kit of the P-6E Hawk, but after comparing it to the Monogram’s, I put the Olimp kit out on the sellers table. Granted, not every kit Monogram designed was a homerun, but with the re-release of the F4B-4 and P-6E, everything once old is new again! Now, if only someone will re-release the F11C-2 Goshawk....

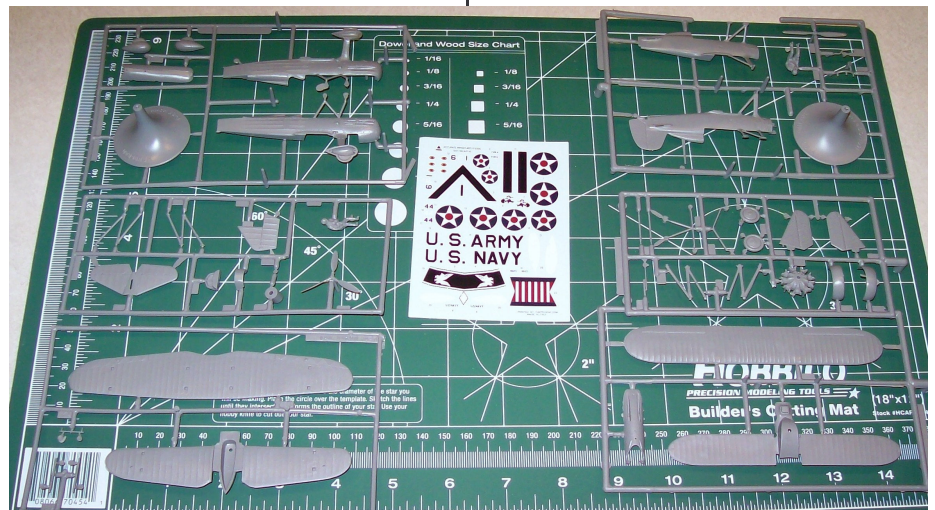
P.S. – For all you jet-heads out there, Accurate Miniatures also plans to re-release Monogram’s venerable 1/72 F-4 Phantom as well!



biplane kits became a lesson in futility.

Monogram’s box art was always simple and straightforward. There were never any ‘guns-a-blazin’ scenes and the focus was on the subject in the box. The P-6E Hawk came in all yellow plastic while the other two kits came in standard grey and silver-grey plastic. Monogram’s instructions were always clear and detailed. I can’t recall having any problems with their decals, but like most other models in that day, you only got one choice of markings. When I returned to the hobby in 1987, I found that the supply of those particular kits had dried up. The only way to obtain one was through TCAH auctions, Scale Model Supply on Lexington, or EBay.

Well, 40 years after the original release of these kits, Accurate Miniatures has come to the rescue.



Time has been kind to these little gems. When opening the box, I was pleased to see that Accurate Miniatures used a high grade of grey colored plastic as well as cleaned up the molds. There was only the slightest bit of flash on one of the sprues...and STILL only one set of decals for each kit! Some



## Directions to the Club Meeting Location

**Where: South St. Paul Municipal Airport, a.k.a. Fleming Field,** located on the southern extremity of South St. Paul, south of I-494, west of Concord Street and East of Highway 52.

### If coming from the western Twin Cities going east on 494:

- Exit at the 7th and 5th Avenue exit (Exit No.65)
- Turn right (South) on 7th Ave and go approximately .6 miles to a 4-way Stop sign. This is South Street W. To your left there will be a McDonald's; to your right front there will be a Walgreen's.
- Turn left (East) at the 4-way Stop onto
- South Street W and go approximately .6 miles. Along the way you will encounter three more Stop signs—the third Stop sign (Henry Avenue) will be a "T" intersection. At the "T" intersection on your left will be homes and on your right softball fields.
- Turn right (south) onto Henry Ave. and go approximately .2

miles toward the Fleming Field airport terminal building.

### If coming from east Twin Cities on westbound 494:

- Exit at the 7th and 5th Avenue exit (Exit No.65)
- Turn left (South) on 7th Ave and go approximately .6 miles to a 4-way Stop sign. This is South Street W. To your left front there will be a small strip mall; to your right there will be an Amoco station.
- Turn left (East) at the 4-way Stop onto
- South Street W and go approximately .4 miles. Along the way you will encounter two more Stop signs—the third Stop sign (Henry Avenue) will be a "T" intersection. At the "T" intersection on your left will be homes and on your right softball fields.
- Turn right (south) onto Henry Ave. and go approximately .2 miles toward the Fleming Field airport terminal building.

The terminal is on the right with parking available.

Twin City Aero Historian  
**Rick Schmierer**  
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Return address requested

The Aero Historian is published monthly by the Twin City Aero Historians, Inc., a joint chapter of the American Aviation Historical Society and International Plastic Modelers Society/USA, for members and readers as part of their annual dues or fees.

The group is open to aviation enthusiasts from teenagers on up who are interested in aviation modeling, photography, collecting, art and writing. For more information contact Dave Nelson at 651-765-1914.

The Twin Cities Aero Historians (TCAH) meet the second Saturday of every month at 1:30pm.

See above for the new meeting locations and directions.

Mail Newsletter material and address changes to the treasurer.

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