



I t a l i a n G r i l l M o n t h



The Italian Model Review— (and We Don't Mean Gina Lolabrigda either) Hasegawa's Macchi C.202 By Johannes Allert

The Macchi 202 "Folgore" was Italy's primary fighter in WW II. Hasagawa has had their version on the market for a number of years, but Italeri has hit the market with a version of their own and it's a winner. I first saw their finished version in the July issue of "Replic" 2001. Upon buying it, I was "challenged" by Dave Pluth to build it rather than allow it to keep company alongside my 150+ kits on my own "Shelf of Doom".

The kit comes molded in nice grey plastic totaling 40 pieces on two trees. The panel lines are very well scribed and the rivet detail,

although not recessed, is the finest I've seen. Building the kit itself is pretty straight forward. Overall fit is nice and tight. I built mine O.O.B. with the exception of the cockpit where I used bits and pieces from the "True Details" after-market set originally designed for the Hasagawa kit. I'm puzzled still by Italeri's offering of "Set A and B" stabilizers. I cannot see the difference between the two. Perhaps someone with keener eyesight will be able to point out the differences to me. The only problems I encountered with the kit was the gun troughs on the upper portion of the fuselage and the section underneath the spinner. Both fit poorly at first, but with some putty and a little sanding, these are easily corrected.

Landing gear flaps are very thin. I know that there's a brass etch set out there, but I will probably pass

on using that section when I build my next one (Yes Dave, I DO plan to do another one!) After finishing up the build I used acrylic paints to the kit. The decals provided are OK - I chose to use the markings of an Italian unit stationed on the Russian Front in '43. A rare bird indeed!

Italeri has produced a proud replica of their country's primary fighter and the quality shows. Furthermore, they thought ahead and will produce the Mc 202's cousin from this version, the Mc 205 "Veltro". With such fine work, it makes me wonder how their other upcoming kit of Italy's primary Bomber, the SM 79 will look like. My hats off to Italeri for such a fine effort and my thanks to Hub Hobby, Little Canada for helping me spend my money.

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TCAH This Month

The monthly meeting will be held Saturday July 13 at Fleming Field, South St. Paul, beginning at 1:30 PM. Socializing will begin about 12:30 PM. This month we will celebrate the glories of Italian aviation, from Nieuports to Lockheed F-104s.

TCAH Calendar & Events of Interest

(All meetings take place at Fleming Field on the second Saturday of the month.)

August - "P.O.Ws". Captured aircraft

September —"Flying billboards"
Commercial airliners .
Also Members only AT-6/SNJ contest
Xxx

October - Doom Raiders. Rescue something from the Shelf of Doom, complete it and bring it to meeting.

November—Club Auction. No Theme.

December —"Linebacker II-30 year Anniversary". Vietnam era aircraft.

Do you have something to include on the club calendar? Please let us know at newsletter@aerohistorian.com!

Treasurer's Report by Tom Norrbohm

Nothing much new on the money front. Early Nordic-Con expenses are starting to show up and income to the club is slowing down until renewals start in September. Our balance as of June 17th is \$3947.34, and we have 85 members.

General Meeting Minutes

No minutes or meeting notes were submitted for the June meeting

On The Show Table June 2002

John Eian:	Hiplanes Sabre 32
Bernie Kugel:	"Civilschmitt 109" Otaki P-40
Don Stauffer:	1/144 Airfix Boeing Model 314
John Dunphy:	AMT P40K Tamiya P51B
Bob Arko:	B17 painting
Jen Jensen:	Pop Aiviation Sikorsky S-43 Junker Ju-52 floatplane
Steve Hustad:	1/72 Revell Me262A2a
Don Soderlund:	1/72 LS K5Y2 Willow
Seve Erickson:	In progress 1/48 Gavia La-7
Dennis Strand:	1/48 Monogram OS2U Kingfisher
Ellis Nelson:	1/32 Revell F4F-4 Wildcat 1/48 Mig15bis 1/48 Monogram P-51D "Psychodelic Spamcan"

From the President

By Steve Erickson

Hope by the time you read this everyone will have had a safe and happy 4th of July. With all the increased security and violent happenings going on, it emphasizes the real meaning of Independence Day. Thanks for the good attendance at the June meeting. I thought there would be less people now that it's summer. Outside of the fact that we were locked out, found out our keys to the room didn't work, and I spent a half hour trying unsuccessfully to pick the lock, it was a normal meeting.

Our thanks to Don Soderlund for holding this years' Banzai bash – more gory details next month. The Commemorative Air Force will have their open house soon, see Bernie for details. He is also having a TCAH table and may need some help.

There is not much else in the way of business or news. See you after the fireworks.

Contest Calendar

7-31 through 8-3-2002	IPMS/USA National Convention Virginia Beach, VA Contact: Bill Brickhouse Billbipms478@aol.com
9-7-2002	Nordicon Thunderbird Hotel & Convention Center Bloomington, MN Contact: Steve Hustad
9-21-02	Mid Iowa Modelers Expo Dallas County Fairgrounds Hwy 169 Adel, Ia Contact Kevin Lutzeler 515-280-7533 gbproweld@mxhsi.com
10-19-02	IPMS GLUE/CREW Wausau National Guard Armory 633 S. 17th Street Contact Pete Samolinski 715-675-2085 peteski@charter.net
9-26-27-2003	R-5 Con Bloomington, MN Contact Steve Hustad



The Gavia Lavochkin La-7 By Steve Erickson

Dos vedania, Tavarich's. I'm sure George will love this spelling, sort of like a Russian saying taco. The point being I got my hands on the new Gavia 1/48 Lagg 7 this weekend. "Verry Interesting". It is really quite nice, especially since Gavia is a new limited run company. I think this is only their third release. Rumor has it they are tied in with Eduard; maybe, but Gavia isn't quite up to the newest Eduard kits as far as quality goes. The new Eduard P-39 and Albatros D-5 are state of the art, right up there with Tamiya and Hasagawa. The La-7 is nice but more on a par with an old Otaki kit. It has a very nice surface detail and a simplified cockpit. This certainly is a better effort than the Hobbycraft kits of the La5/7. That was more La-7 than 5, but would up being neither. It was also off dimensionally, and had very heavy detail for the fabric control surfaces. Gavia got the shape and size right. The La-7 was wood and had limited surface detail after sanding. It was really a very basic airplane and Gavia's kit captures this correctly. The cockpit and interior are very simple but usable. The very early Eduard La-7 photo etched set fits well and adds a great deal, especially the instrument panel. The one detail I didn't care for at first was that the bottom

of the cockpit was integral with the top wing. The La-7 didn't have a floor per se, they used the top of the fuel tank. The model has a u-shaped cut out with a block tank in the middle, but it fits well and looks OK in the end. The parts tree had two big J shaped parts. Since real men don't read instructions, it took me a long time to realize that these were the ducting for the supercharger intakes that run through the wheel wells – nice touch. The fan-like cooling louvers just behind the prop are poor, way too flat and the exhaust stubs are just engraved circles. I cut little brass tubes for added detail. Not only can't you see them but they rolled everywhere. It's a good thing I had a lot of tube. There are a lot of after market decals available to make some very colorful birds. The sad part of this kit is while it's colorful there is not a lot of surface because of the wood construction. Mr. Norrbohm will have a tough time adding those little extra details we usually add with pencil or ink. They just aren't there. We'll see how things go and maybe you guys can judge for yourselves soon.

An Editorial Response By George Mellinger

The Dose be on ya', also Steve. This is what happens when kids play without adult supervision. First of all, Russians would have no trouble whatsoever in saying "tako"; they just wouldn't know what it is, since Ronald Reagan and Ollie North kept them out of Central America. But if you made a Tako with cabbage, potato, and lots of pickles, they'd probably figure out how to eat it along with the vodka.

As for the Gavia kit, we are glad to get Steve's review and tips, and officially designate him a good "tovarishch". But if we can manage Steve's pronunciation and swallow that *tako*, there is one thing we choke on. The LaGG line ended with the LaGG-3. Starting with the La-5, Gorbunov & Gudkov went away somewhere, and Lavochkin got sole credit.

Tales of the Luftwaffe SIG by Bernie Kugel

On Friday night, June 21 we held a meeting at Jeff Fries' house in Brooklyn Park. In attendance were Jeff Fries, Bernie Kugel, John Bernier, John Roll, Phillip Scott, and making a rare appearance Dave "Hueff Daddy" Hueffmeier. We started the meeting discussing aircraft colors during the battle for France. John Bernier brought in an excellent resin figure of Eric Hartmann. The two Johns discussed WWI German heavy bombers. And then we ogled over Phillip Scott's 1/32 Fw-190D and Bf-109s. We then explored Jeff's book and model collection until we realized it was almost 2 AM, and we had to go home.

I'd like to thank Jeff for holding the meeting and supplying the Krispy Kremes.

TCAH Memories by Tom Norrbohm

July 1992: Editor John Valo will handle the newsletter through August, when Lowell Andrew will take over. Club Auction will be in October. TCAH mugs and Annuals are still available. Bob Steinbrunn received congrats for a recent article in Fine Scale Modeler. The Midwest Airliner Expo will be on August 8th. The USAF Thunderbirds were parked across from the museum on the Air Force Reserve ramp. Both Dave Galbraith and Ed Kueppers talked about their B-24 ride. Officer's: President- Mark Copeland; Vice President- Don Soderlund; Secretary- Bill Halvorson; Treasurer- John Roll; Editor- John Valo.

New Member

Let's all welcome our newest member, joining us at the June meeting: Tom Schutorp of Eden Prairie. We hope to see you at many more TCAH meetings. Happy landings Tom.

Russian SIGnals

By George Mellinger



It is sad when you have to slam a book by someone you know, someone who generally does definitive work. But the new *Polikarpov's I-16 Fighter, Its Forerunners and Progress* by Yefim Gordon and Keith Dexter is not just a bad book, it verges on fraudulent. A basic trouble is that Yefim Gordon is an aviation engineer. He is interested mainly in the design and development, particularly prototypes and obscure variants. He really lacks interest in the service use and the pilots, and this emphasis always shows up, even in his best work. Not that there is anything necessarily wrong with that; there are other writers who focus on the pilots and service use, or on old-timer restoration and flight. Gordon's interests are also centered on jets and recent aviation. Again, nothing wrong with that. But in combination it means he is particularly ill-suited to write a book about the I-16. And in fact he barely has done so. It appears that greed got the better of Gordon and his publishers and they decided to foist a book on the market by hook or crook. Of the book's 101 pages of photos and text, only 72 are about the I-16. Ten pages are about "The Ancestors", meaning the I-1, designed in 1923, and a couple of other early experimental types which seem to have little relation to the I-16, but do help take up space. Another 19 pages are devoted to the I-180 and I-185, unsuccessful designs intended as replacements for the I-16, but bearing only a vague resemblance. Imagine a book about the Messerschmitt 109 which devoted almost a quarter of its pages to the Me-209! Obviously there is an attempt to cover for short-sheeting in the main text. Gordon's chapter distinguishing the subvariants of I-16 is clear and competent, but hardly more enlightening than what Squadron-Signal gave us several years back. While

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AIRLINE CHATTER

By Terry Love

Cathay Pacific is actually going to hire about 1300 employees this year, while all other airlines laid off employees after September 11th. Most airlines have called some back, but not all of the laid off employees. This call back by Cathay Pacific and expansion, includes the hiring of 235 pilots, around 1000 flight attendants.

U S Air is near bankruptcy. They are seeking aid, asking for worker concessions and sacrifices.

Airbus Industries will deliver only around 300 airliners this year.

Boeing is considering a replacement design for the Boeing 757 and the Boeing 767 series of airliners.

Ariana - the Afghan airliner - returned to the air on May 12, 2002 in one of their two Boeing 727s.

Japan Airlines lost \$285 million in the first quarter of 2002.

British Airways lost \$200 million last year. This was their first loss since 1987.

United Airlines is going to be making some drastic changes to further avoid their hemorrhaging of money and losses. This will happen fairly soon.

Boeing has laid off 1500 more employees due to the slowing of aircraft production.

China Airlines has been taken control of by the Taiwanese government after the recent crash of a China Air Boeing 747-200 that killed 225 people. The government owned 71% of the airline.

Alaska Airlines ordered two more Boeing 737-700s for around \$100 million. This will make 19 of the 737-700s that Alaska Airlines has in operation.

KLM will not buy the Airbus A-380 super jumbo jet. But they are negotiating to purchase 10 Boeing 777s and three more Boeing 747 freighters.

Boeing Aircraft delivered 33 new airliners in May.

Most airlines' load factors are higher, indicating that passengers are returning, but revenue is still down indicating a pricing problem - too many cheap fares out there.

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Airplane -- Air Plane?

By Don Stauffer

Have you ever wondered about the meaning of the term "airplane?" The English term aircraft, meaning a craft or vessel for navigating through the air, is pretty clear. But *airplane*?

There are a number of dictionaries that claim that the second syllable, plane, comes from plane as a synonym of glide. I would argue that point. Rather, the term when used to mean glide, comes from an earlier and more fundamental use of the term plane. Note that we also refer to a boat in hydroplane mode as planing.

But then why do we say, monoplane, biplane, or triplane? Obviously, we are not referring the number of glides. We are referring to the number of wings. In these examples, it is clear that we are using the term plane as a synonym for wing. And we do not call a glider a planer.

Indeed, the term wing when speaking of the lifting surface of an airplane came considerably after the dawn of flight. In the early days, *birds* had wings, heavier-than-air aircraft had planes. But why were they called planes?

They were called planes in the sense of a flat surface. We plane a board flat. In physics we have plane waves, and orthogonal planes in geometry. In the mid-Eighteenth Century the discovery that a curved wing generates more lift than a plane one was still somewhat in the future.

Rather, aeronautical experimenters of the time had arrived at a standardized form of the fundamental question of flight. 'That was to determine what lifting force a plane generated at a given angle with respect to the wind at a given velocity. The relatively correct assumption that the lifting force on a plane should be proportional to area was assumed. I say relatively correct because we now know that aspect ratio does have some effect on lift, as does Reynold's number. These two effects were not yet known -- the effect of aspect ratio began to

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Messerschmitt Bf 109K and Messerschmitt Bf 109K: Camouflage and Markingbook reviews

by Steve Jantscher

Let me start out by saying that these two books from JaPo are the best '109 books out there for the modeler. Only the Schiffer book *Messerschmitt Bf 109 F, G & K Series: An Illustrated Study* by Jochen Prien and Peter Rodeike may be as good for general layout and variant information, and of course covers the most numerous '109 variants, the F and G types as well as the K. However, for those interested in the penultimate version of the Me-109, these books are without a doubt priceless.

Both of these books are published by JaPo in the Czech Republic. *Messerschmitt Bf 109K* by Ales Janda and Tomas Poruba is a 94 page soft cover book published in 1997. Included are 100 black & white and 7 color photographs; 23 color and four black and white profile drawings; and about the equivalent of thirteen pages of line drawings of aircraft variants, details and other areas of interest.

This book is published in the Czech language with English photo captions and a complete English translation of the body of the text at the back of the book. While this may "put off" the average buyer, it shouldn't. The full text of the book is included and it loses nothing by being placed at the back of the book. The text covers the origin and development of the Kurfurst, the Rüstsätze (retrofit sets) available for the series, DB 605 power plants, serial number distribution, production and assembly, Bf 109K characteristics, operational use (divided by fronts, west, east, other units and foreign service), and a final two pages of very small type dedicated to camouflage and markings.

Almost the first third of the photographs are close up shots of the aircraft. These, combined with the scrap drawings provide the modeler with all he or she needs to detail the 'K. About two thirds of the photographs are of various birds parked

during and after the war. There is only one known (non-gun camera) photograph of the Kurfurst in flight. These have adequate short captions, but nothing as extensive as the captions found in the next book.

Messerschmitt Bf 109K: Camouflage & Marking by Tomas Poruba and Kees Mol was published in 2000, and is also a soft cover book. This must be seen as the companion volume to the first, as it expands the few pages in the first book devoted to paint schemes to 132 pages of English and Czech text (this time the body of the book is in English, with the Czech text in the back). If you're just a modeler, and not as interested in the aircraft history and in super detailing (which the first book helps with more) this is the book for you. Included are 98 black & white and 27 color photographs; 16 pages devoted to one color profile per page, usually collocated with a nice photograph of the actual subject. There are over 35 black & white profiles accompany their respective photographs. Finally, the authors conclude with a discussion of photographic interpretation. Mention is made of the very few color photographs extant, and the differences between the two types of black & white film in use during WWII. If you've ever had questions about late war Luftwaffe camouflage, especially on Me 109s, this book is for you.

Both of these books offer in one place just about all the period photographs to be had of this most rare '109. Recent years have seen a trickle of new, never before seen in the west, WWII era photographs coming out of the old eastern bloc countries. We modelers and aero historians are the beneficiaries of this new wealth of information.

I bought both my copies from John and Mary at Roll Models.

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be appreciated late in the century, the effect of Reynold's number not until the second decade of the Twentieth Century.

The fact that the lifting force should be proportional to the square of the velocity should have

been known. Fluid dynamicists had already determined this. However, many of the Nineteenth Century aeronauts were poorly grounded in fluid dynamics. Others merely wanted to confirm the fact (it was well confirmed by the end of the century).

On the other hand, the effect of the angle of the plane to the wind did not lend itself to theories of the time. Much has been made of Newton's writings on the subject (in fact there are those today who incorrectly apply Newton's law to air molecules hitting a wing.). Newton himself, though he derived a form of fluid mechanics, knew himself that his theory was full of holes, and cautioned others that the ideas had so many restrictions that they should not be relied upon. Indeed, this early Newton equation of lift is only true where the mean free path of the air molecules is on the order of the chord of the wing. Only in medium orbit around Earth is this true, and aerodynamicists can indeed use these simple laws to compute forces and drag on a satellite. In effect, Newton's theory is only applicable to a non-viscous fluid, which is not the real world. But the problem was that the mid-Nineteenth Century aeronautical researchers had *no* theory that told them that a curved lifting surface would be superior to a flat (plane) one. Some experimenters did notice that bird's wings did have camber, and that led some of them to experiment with lifting surfaces shaped like birds wings.

In any case, the vast majority of experiments with whirling arms and wind tunnels in the second half of the Nineteenth Century were on plane lifting surfaces. The experimenters were determining how much area would be required to lift a given gross weight of aircraft at a given velocity, and how much drag, and hence horsepower, would be required to propel the craft.

As a result, the plane was the thing. The majority of experimenters didn't worry much about the rest of the aircraft. Thank goodness for the exceptions, however, who did

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the I-16 played critical roles in the fighting over Spain, China, Mongolia, and Finland, and remained the most important VVS fighter in 1941, seeing active combat until the middle of 1943, we get only a cursory 22 pages devoted to service use, and that is misleading since only about four and a half at most of those pages are text. And here is where the book borders on fraud. Most of the book is photos. But are they good or interesting photos? Emphatically no! Far too many are of indistinguishable prototypes, too often of poor quality, revealing little detail or character. With few exceptions they are familiar to anyone who has any other I-16 book. Do we really need 52 pages of photos of I-16s in postwar Spanish Nationalist markings? Particularly when other photos of VVS and Chinese I-16s get short shrift? And now for the worst. Almost all of the photos are printed in extra-big format, only two photos taking up an entire page. These are photos which other books publish at a quarter the size. Not that the big format makes any detail any clearer. But it does take up space and turn what would have been perhaps a 35 or 40 page 6x8 profile into an expensive and gaudy 82x11 book. Following are several pages of side view drawings - which appear to be scaled not so much for modelers as for taking up page space. Next follow 16 pages of color views - of which an entire page is given over to 4 examples of the I-1 (12 built), and four more pages to Spanish I-16s. Once again Russian I-16s are slighted. Oh, there are also 2 1/3 pages devoted to color of the I-180 and I-185 (metal or dark green) including the only top plan views of anything in the entire text. And most of the color drawings are obviously borrowed from previously published western books, even to the errors. I-16 White 13 is produced with the red cowl and spine as portrayed in the notorious *Fighting Polikarpovs*. In the black and white photos of this aircraft it does not appear to me that these areas are red - nor does Maslov's Russian book on the I-16 regard them as red. In another

blunder the artist portrays Boris Sa-fonov's I-16, with proper markings, but makes it a machine gun armed Type 24, when it actually was the cannon-armed version. Yet again, the artist portrays one of the Spanish Republican aircraft as being natural metal, except for a black cowling, a black 7, and a black stripe on the tail. Now this seems impossible! Aside from the fact that I have seen neither photo nor reference to metal colored I-16s in Spain, substituting a black tail band for red markings would have been beyond unthinkable. Black was the color of the Spanish Anarchist Party, and the Anarchists and Communists, though both on the Republican side were at least as hostile to each other as they were to the Nationalists. Hell, they even fought a civil war within the civil war, a factor which contributed greatly to Franco's success. The commissars who accompanied Red aid everywhere during the 1930s would never have handed over to the Anarchists the latest Soviet fighter, nor would Soviet pilots have used such a color. And everyone associated with this book should have known better. Finally there is a drawing of a Chinese UTI-4 trainer in black and green camouflage. We know from photo evidence that the Chinese did paint some of their trainers in a two-tone camouflage. We cannot tell if it was black and green, or some other color combination. Black and green was introduced as a camouflage pattern by the VVS only in mid 1941, and for aircraft hiding amongst the meadows and pines of central and northern Russia it makes sense. It is less clear that such a camouflage pattern would make sense in China. It is most likely that this camouflage pattern was of local origin, and thus not necessarily according to Soviet practice, particularly future practice. A combination of green and brown, in this case would be as good or even better a guess. But in truth we don't really know. With all these problems, it comes as an additional burden that Gordon continues his obnoxious practice of printing syllables of Russian words in bold type to coach the dummies on how to

pronounce the words as they read. But then, anybody who would willingly read more than a few pages of this unfortunate waste of a tree, probably does have to speak out loud as he reads very slowly with big difficulty. Maybe that's why they need such big photos.

On a cheerier note, Roden has announced a 1/72 scale kit of the An-12BK Cub, which is expected to be available any day. Also a 1/72 scale Polikarpov I-5, the N-strut biplane which preceded the I-15. One of those "classic '30s" biplanes, there will be a variety of versions, and colorful markings. I'm mentally already committed to at least three kits..

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UAE ordered \$1.5 Billion worth of new airliners. They want to be a "world player" in the airline market.

Embraer sold 22 EMB-145 regional jets to Chantanea Airlines who has become a Delta Airlines carrier.

Embraer also sold \$350 million of EMB-145 regional jets to Wexford airlines of England.

NWA will lay off 80 more pilots in October after the busy summer season slows down.

Champion Airlines has 13 Boeing 727-200s and 136 pilots.

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bring us practical ideas on the rest of the aircraft. But as a result, everyone worried, and talked about, the form of the plane. A plane surface worked fine on a kite, didn't it?

The main lifting plane became known as the air plane, and gradually the term came to mean not what we call the wing today, but the whole aircraft. However, before that happened, the referencing of the number of lifting surfaces identified the number of supporting main surfaces, giving us monoplane, biplane, triplane, quadraplane, and others. Incidentally, as a quirk of supersonic research there are supersonic airfoils made of plane facets, sort of elongated diamonds or rhomboids. What goes around comes around!

NORTHWEST AIRLINES FLEET RETIREMENT

By Terry Love

Between January 1, 2002 and March 31, 2002, Northwest Airlines retired the following aircraft:

Type	N Number	Fleet Number	Hours	Cycles	Destination
DC-9-30	N952N	9902	83,000	99,700	Roswell, NM
727-200	N201US	2201	57,000	36,400	Roswell, NM
727-200	N202US	2202	58,000	36,200	Seattle, WA
727-200	N297US	2297	58,000	36,900	Roswell, NM
727-200	N298US	2298	45,400	27,900	Roswell, NM
727-200	N718RC	2714	62,300	35,200	Roswell, NM
DC-10-40	N141US	1141	80,600	29,100	Greenwood, Miss
DC-10-40	N144US	1144	76,900	28,400	Roswell, NM
DC-10-40	N147US	1147	82,400	29,300	Greenwood, Miss
DC-10-40	N151US	1151	74,200	30,100	Roswell, NM
DC-10-40	N155US	1155	75,500	30,300	Roswell, NM
DC-10-30	N220NW	1220	117,800	27,400	Roswell, NM
DC-10-30	N226NW	1226	92,300	19,700	Roswell, NM
DC-10-30	N228NW	1228	99,200	24,100	Roswell, NM
747-251	N614US	6614	107,100	22,400	Roswell, NM

At Roswell, New Mexico, the aircraft are parked in outdoor storage. The logos and the name Northwest are removed. A diagonal white stripe is added to the tail fin. At Greenwood, Mississippi, the aircraft are scrapped; after all useable items are removed. At Seattle, Washington, the aircraft are being "traded in" to Boeing Aircraft for testing use or resale or other purposes. Note that Douglas DC-10-30, N220NW, fleet number is the present high-time aircraft in the world now. It may be surpassed in the near future, as there are several aircraft approaching that figure. There are various reasons for scrapping or storing or trading in an aircraft, even though it may still have some life left on the airframe. These include leasing terms and options, heavy maintenance; manufacture warranty, time change items, etc.

NORTHWEST AIRLINES HIGH TIME FLEET

Aircraft with over 100,000 flight hours on the airframe in the Northwest Airlines fleet are as follows:

TYPE	N NUMBER	FLEET NUMBER	HOURS	CYCLES
DC-10-30	N211NW	1211	113,400	21,400
DC-10-30	N221NW	1221	115,800	27,400
DC-10-30	N223NW	1223	114,400	26,600
DC-10-30	N224NW	1224	113,400	26,400
DC-10-30	N225NW	1225	112,000	25,700
DC-10-30	N227NW	1227	102,100	23,200
DC-10-30	N229NW	1229	112,100	27,200
DC-10-30	N230NW	1230	112,200	27,000

These are all still current and actively flying the line as of April 1, 2002. Note that all cycles and hours are rounded off to the nearest 100. Most of the above DC-10-30s were obtained from European air carriers like KLM, SAS, etc. which operated their DC-10s over long-haul routes from Europe to South America and Asia, which is what the DC-10 was designed for. Therefore, the airframe has lots of hours on it, but relatively low number of cycles. This is the way a DC-10 was designed to operate - long-haul route where the capacity of Boeing 747 was not quite needed. Note the comparison that most NWA DC-10-40s were utilized in the much shorter domestic markets such as Minneapolis to Milwaukee or Detroit, resulting in a very high number of cycles but relatively few flight hours. It is a known fact that an airline makes more money on long-haul flight compared to short-haul flights.

Directions to the Club Meeting Location



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Richfield 6416 Penn Ave. S. Richfield, Mn 55423 (1 blk S of LUNDS)
Little Canada 92 Minnesota Ave. Little Canada, Mn 55117 (Hwy 36 & Rice St.)

Where: South St. Paul Municipal Airport, a.k.a. Fleming Field:

Fleming Field is located on the southern extremity of the city of South St. Paul, on the bluffs above the Mississippi River, south of I-494, west of Concord Street and East of Highway 52.

If you are 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 4way 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 in front, with more parking available to the left near the line of hangers across the street.

Since the streets form intercity boundaries between South St. Paul and Inver Grove Heights, the street names change at the corners where you will be turning.

Twin City Aero Historian
Atten: Bernie Kugel
2080 Ivy Avenue East
St. Paul, MN 55119

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 Steve Erickson at (763) 521-9948

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 editor.