

## 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  
1852 E. 39 Street  
Minneapolis, MN 55407

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 Ken Hornby at 651-552-0888

The Twin Cities Aero Historians (TCAH) meet the second Saturday of every month at 1:00 pm.

See above for the new meeting locations and directions.

Mail Newsletter material and address changes to the treasurer.

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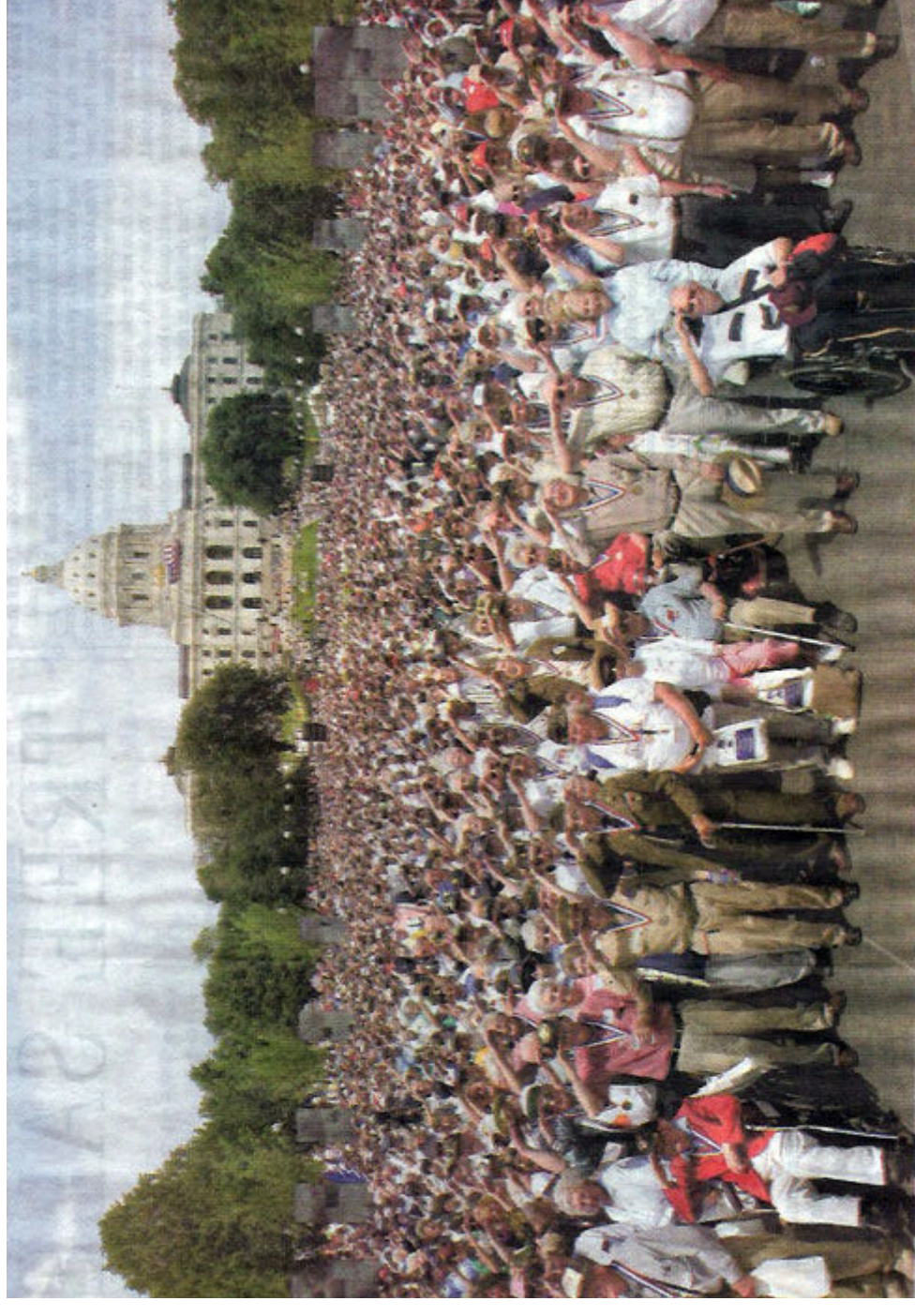
**DRAW DECALS**

# The Aero Historian

Volume 41 Number 11

Website: <http://www.aerohistorians.org>

November 2007



## WWII Veterans Assembled for the Commemoration of Minnesota's World War II Veteran's Monument

### From the President by Johannes Allert

*"For anyone of you who is willing to shed their blood with me this day, shall be my brother" – Shakespeare's King Henry V*

A November meeting at TCAH is always a special time. Transition of Club Officers, the renewals of membership is occurring as well as the club auction. The meeting day also occurs around the Birthday of the U.S. Marine Corps as well as on

what is now known as Veterans Day.

The final salute - The photo was taken last June during the commemoration of the State's monument to the veterans of World War II. Ken Hornby had offered to drive our Dads to the ceremony, but I didn't think my Dad, at age 87, would be interested or able to go. However, a conversation with him the day before convinced me otherwise. I told my Dad to be ready at about 11:30am. When I arrived at

11:05am, I found him sitting on the bench of the Senior Center complete with walking cane as well as the ball cap emblazoned with "World War II Veteran" on it that we had given him years ago ( I didn't even think he had it any more...).

Ken and his father showed up at 11:30am and off we went. For the next 2 1/2 hours I was reminded once again why that generation is so special and outstanding. Now, to be honest, my father never saw

(Continued on page 2)

## TCAH Officers

**President,** Johannes Allert  
**Vice-President,** Frank Cuden  
**Secretary,** Larry Donovan  
**Treasurer,** Steve Jantscher  
**Historian,** Tom Norrbohm

## Newsletter Info

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## TCAH This Month

The monthly meeting will be held Saturday November 10, at Fleming Field, South St. Paul, beginning at 1:00 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.

## GENERAL MEETING MINUTES – October 2007

Meeting was called to order by President Johannes Allert at 1:20 PM. 38 members were present.

### Guests and New Members:

Please welcome Ray Pepin as a guest, Ray was a member of the club in the mid-1980's.

### Vendor Report:

John Roll of the Fw-190 book is not here yet. View the website for updates.

**Show and Tell:** Presented by John Dunphy, see list elsewhere in this newsletter.

**Treasurer:** Steve is taking dues for 2008 starting this month (Oct.) Remember dues are \$10.00, \$5.00 for seniors and juniors. Steve will also design a membership card with our new logo to be ready by January.

**Special Awards:** Frank Cuden presented Johannes with a new orthodontia device, which may have some use for modeling.

**Guest Speaker:** Club member, Steve Macey, a 20 year member of the US Coast Guard, talked about his involvement with the wreck of the Edmund Fitzgerald.

**Nov. Club Auction:** This years auctioneers are Larry Donovan, Bob Maderich, Merrill Anderson, and Kyle Nelson. Steve Jantscher will get bid cards and keep track of totals. Please bring kits, books, decals, tools from your Lofts of Doom.

### Officer Nominations:

Club Officers need to be IPMS members. The club pays for the membership dues. New officers are also responsible to read and sign copies of the Club Constitution and By-laws. Nominations are President: Bob Maderich and Merrill Anderson. Vice President: Larry Donovan and Dave Nelson. Secre-

(Continued on page 3)

## Vice Presidential Candidate

### Larry Donovan

**Brief Vitae:** Built first model at age 5, a Monogram Phaeton (yes, a CAR kit -- blasphemy, you say.) Became a model junkie! I remember being at the basement workbench with the high humidity/no air circulation/happily spraying my Spitfire/Bf-109/Zero with Pactra enamels and my cheap Badger airbrush. By the time I was building the "brand new" 1/48 Nichimo B5N2 Kate, I had discovered girls were lots more fun. After brief flirtations into the hobby in the mid-eighties, my latent interest in modeling came back in 2002 in a Hobbytown in Fargo. I went in for a war game, and came out with a 1/72 Academy P-40 M/N. Since we had shown our

to invite guest speakers on aviation/armor modeling and history, drawing speakers from local and regional areas.

4) Develop judge training seminars to include Club members and interested regional clubs to create a broader judging pool so "no one has to judge all the time."

5) Maintain the fun meeting atmosphere created by the previous Board members, so we can continue to exchange ideas on aviation/armor modeling and history.

I would appreciate your support for my candidacy for Vice President.

It's a hobby---Let's have fun!



cats for the previous three years, my bride said "Surely, there must be a club for plastic modelers." So, I searched the Web. Thus began my association with the Twin City Aero Historians.

**As your Vice President, I would like to share how I envision my role:**

1) Help the Club grow by developing a program where our experts can teach newbies and returnees how to build, paint and display better models.

2) Facilitate communications between our Club and other clubs in the Cities and region, as well as area hobby shops.

3) Continue the mini-seminar program started this last year and



The Fleming Field-based Miss Mitchell during the 2002 CAF Airshow at Fleming Field.

## ON THE TABLE AUGUST 2007

Modeler	Kit	Notes
John Dunphy	1/32 Hasegawa Ki-84 Frank	OOB
Frank Cuden	1/48 Monogram T-28	Lonestar and Black Box details
Kyle Nelson	1/35 Zveda Bt-7 Flamethrower	OOB
Kyle Nelson	1/35 Emhar Mk. IV Whippet	OOB
David Nelson	1/35 DML Tiger	work in progress
Bob Maderich	1/24 Trumpeter 64 Corvette	OOB
Steve Jantscher	1/35 DML T34/76	OOB
Steve Jantscher	1/35 DML Stug III	OOB

The JB-10 was constructed using Northrop's "Helicarc" welding process utilizing aluminum and magnesium. The entire 8.7 foot span center section including engine and bomb housing was built of magnesium castings, the largest ever produced up to this time. The outer wings were of welded aluminum with the alevon and wingtips being welded magnesium.

Project Engineer Don Smith had headed the previous JB-1 project and was in charge of the JB-10 also. He supervised the first launch of the JB-10 at North Base of Muroc in 1945. Further test launches were carried out at Eglin Field, Florida. The Northrop history states 24 JB-10's were completed while the Smithsonian book "Winged Wonders" states only 11 were built. The program was terminated at the end of the war but in 1946 Northrop was awarded another contract to develop a missile of intercontinental range. The first testbeds flew in 1953 and in 1960 the Shark became the first on line intercontinental guided missile.

While the JB-10 bore no immediate fruit, the more than 1,000 sleds Northrop built were used to test many of the ground launched vehicles of the era including the many JB-2.s

**References:**

1. Northrop, An Aeronautical History; Fred Anderson, Northrop Corporation, 1976.
2. Rockets and Missiles, The Illustrated Encyclopedia of the World's, Bill Gunston, Crescent Books, 1979.
3. Winged Wonder, E.T. Wooldridge, Smithsonian Institute Press, 1985.

Reference 1 offers several pages of material on every MX number that made it to flight and a few that didn't. JB-10 covers two pages, one photo and 3-view. A must for a Northrop enthusiast.

Reference 2 covers nearly every missile tested by category and then alphabetically by country, (i.e. surface-surface tactical, strategic) US section in S-S tactical starts with the Kettering Bug. JB section includes a column of type and five photos. White and red JB-2 on Northrop launcher at Eglin, JB-2 under B-17 wing, JB-3 under A-26 wing, head on of JB-1 on launch rails at Eglin and JB-10 on launch sled at Eglin. A must reference for missile buffs.

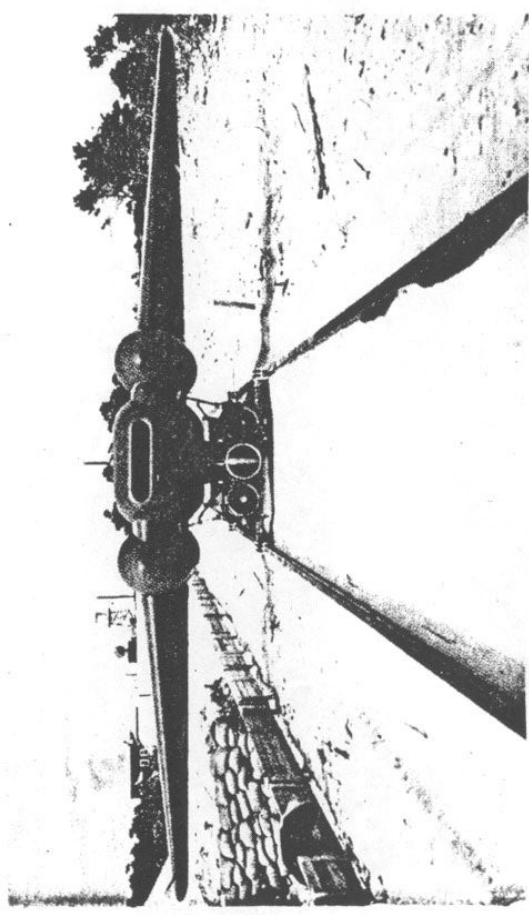
Reference 3 offers less than a page of text on both JB models but provides half page photos of JB-1 manned and bomb version and two photos of JB-10, one the photo from ref. 2 the other an aft view of a JB-10 on a sled at Eglin. Great summary of all flying wing programs and includes restoration photos of N1M.

On one of the many "Wings" TV episodes on A&E there was a short (few seconds) shot of a JB-10 launch and in cruise.

**Painting:**

As displayed in the factory the entire aircraft should be a metallic dark grey (magnesium) except the outer wing panels top and bottom and the forward foot or so of the central fuselage tube.

As tested at Eglin it appears that the JB-10's were given the typical OD upper surface and I ASSUME the light grey lower surface although one can not see the demarcation on the intake. So one could go either way, all OD or OD/Grey. There appears to be no national insignia or serial number on any of the photos.



A JB-1 sits on one of the 1,000+ Northrop designed launchers on a 50 foot track at Eglin AFB, Florida. The central intake housed two small jet engines with separate exhausts on either side of the vertical fin. Pods on each wing housed 1,000 lb bombs. The JB-1 vehicle first flew as a manned powerless glider. The JB-1 program was terminated because of problems of engine-aircraft compatibility. The outer wing sections were then used with the new ramjet powered center section to create the JB-10. (Ref.2)

(Continued from page 2)

Thankfully, my "Spoiled Brat Generation" took time to put down the cell phone and the Starbucks Double Mocha Latte long enough to come to that same conclusion. The time for honoring these men & women was long overdue. In the end, the State managed to pony up the 'jing' as well as come up with a design appropriate to honor them.

Part of the ceremony that day involved a group photo of as many veterans that could get in the picture. As with all events, there were some SNAFU's, and at one point my Dad declined to get up one more time to the hurry-up-and-wait routine, but then I said "Look at it this way Dad, you'll be in the paper and it won't be on account of you dying or being arrested.." He then laughed, and said "OK, help me up and let's give it another go." The photos were taken, and on the last shot, they requested that on the count of 3, the veterans render a salute. As the countdown began, I noticed my Dad hesitate for a moment, then quickly shift his cane from his right to left hand. He suddenly stood slightly more erect, then his right arm came up and snapped a salute that Eisenhower or MacArthur...or even my wife (AKA the "Iron Major") would have been proud of. I knew I was.

I could tell that the noonday sun and all that walking were taking its toll, and my father conceded that it probably was a good time to leave. Ceremonies continued on throughout the remainder of the day, and as we left my Dad noticed one of the plaques of the memorial had a picture of a B-24. He pointed at it with his cane and said "That's my baby! I really loved those ships!"

When we got back to the Senior Center, we said our goodbyes—always using the "Mr. Hornby" or "Mr. Allert" (somehow I can never picture either of us calling each other's Dad by their first names.) —our fathers both thanked us for taking them to the ceremony. As I got

into my car, it occurred to me... they were thanking us. No Dad, Mr. Hornby, and the other 14 million. Thank you!

(Continued from page 2)

Treasurer: Bernie Kugel. Treasurer: Steve Jantscher. Larry will make up ballots which will have blank spots for write-in votes.

**Nordic Con recap:** Successes were number of models present (323). Club made money. Vendors were very happy with their sales and traffic. Key opportunities for next year: we need more space. Bernie and Bob are looking into K of C hall in Anoka as an alternate site. Site has more room, opportunity for food and beverage service on site. A second opportunity is more space for the vendors, as we had a waiting list for the last show. Thirdly, we will need to look at lighting if we go to a different venue. Advertising the event needs to be better. Finally, on-line registration needs to be streamlined and user friendly.

**2008 Nordic Con suggestions:** Bob's proposal: The 2008 show should be non-judged with winners decided by popular vote. The top three models in each of the regular categories we have used in the past will win the category.

Johannes pointed out that a lot of the older club members are getting burned out by always having to do a large part of the Con, especially judging. Popular vote may ignore the best model for something "flashy." Johannes also suggested that we get feedback from other clubs.

Don made the point that a modeler could build for the particular type of judging if he/she knows the method in advance.

Johannes asked Bob Maderich to write an article for the newsletter

on the proposal. The Club will vote at the December meeting with regards to theme and judging method.

**Meeting was adjourned at 3:30 p.m.**

**Airline Chatter**  
by Terry Love

Northwest Airlines will increase capacity only 1% next year, rather than the planned 2%. NWA will trim domestic flying by 30% - this will go to Mesaba Airlines and Compass Airlines. However, NWA will expand their international flights.

Lufthansa ordered 20 Airbus A-321s, 4 Airbus A-320s, and 6 Airbus A-319s for Lufthansa's domestic European operations. Lufthansa owns Swiss Airlines so Lufthansa ordered 2 Airbus A-320s, and 9 Airbus A-330s airliners for them.

Compass Airlines will construct a maintenance hanger and facility in Louisville, Kentucky. The hanger, et. al., will cost almost \$11 million. It will create 70 new jobs. Hanger should be completed in about a year. Last month, Mesaba Airlines announced that they will build their own hanger in Des Moines, Iowa.

Sukhoi is going to manufacture their 100 seat Superjet regional airliner. They plan to sell 1,000, with 70% being exported.

Delta Airlines will start Atlanta, Georgia to Shanghai service in 2880.

United Airlines will start San Francisco, California to Guangzhou service in 2008.

American Airlines will start Chicago, Illinois to Beijing service in 2008.

Continental Airlines will start Newark, New Jersey to Shanghai (Continued on page 4)

(Continued from page 3)  
service in 2008.

Northwest Airlines will start Detroit, Michigan to Shanghai service in 2008.

U S Airways will start Philadelphia, Pennsylvania to Beijing service in 2008. All of these route awards are a result of direct Chinese and American government talks.

Airbus delivered its 100th Airbus A-320 ABJ - Airbus Business Jet.

U S Airways ordered 92 Airbus aircraft. This order is for 22 Airbus A-350s, 10 Airbus A-330s, and 60 Airbus A-320s.

Wizz Air, a lowcost airline in eastern Europe, ordered 50 Airbus A-320s.

Boeing has announced that deliveries of the new Boeing 787 Dreamliner will be delayed by 6 months. This is big news since Airbus delayed their Airbus A-380 by almost 2 years, and Boeing made a big deal out of it.

Singapore took delivery of their first Airbus A-380 on October 15, and their first revenue flight on October 22.

Midwest Airlines lost \$3.9 million in the third quarter of 2007.

Delta Airlines earned \$363 million in the third quarter of 2007.

Southwest Airlines earned \$162 million in the third quarter of 2007.

U S Airways earned \$117 million in the third quarter of 2007.

Continental Airlines earned \$241 million in the third quarter of 2007.

Alaska Airlines earned \$85.8 million in the third quarter of 2007.

American Airlines earned \$175 million in the third quarter of 2007.

United Airlines earned \$334 million in the third quarter of 2007.

Jet Blue earned \$23 million in the third quarter of 2007.

Northwest Airlines earned \$224 million in third quarter of 2007.

Northwest Airlines has the largest fleet of Airbus A-330s in the world. NWA has 32 of them. NWA has the youngest fleet used for trans-Atlantic operations of any carrier.

Northwest Airlines has 108 Douglas DC-9s in operation also, with an average age of 35 years.

IFLC - the largest airline leasing company in the world - ordered 20 Airbus A-350 airliners. The A-350 is in direct competition with the Boeing 787 Dream liner.

Embraer delivered its 300th jet airliner. Who to? NWA's Companion Airlines! It was an Embraer 175. Embraer delivered their first jet airliner in March of 2004. So far, Embraer has 712 firm orders and 756 options for their airliners.

#### From the Vice President by Frank Cuden

All good things must come to an end and as another TCAH year passes, so does a part of the Administration, namely ME, your Vice-President. I can still remember the phone call I initiated to Johan all those months ago, perhaps in a moment of weakness, saying that if he ran for President, I would be his running mate as VP. I liked his ideas and he evidently liked mine so I guess it was just one of those things - not necessarily a moment of "weakness", but rather, a realization that with him at the helm, the two of us could have some fun and make it a fun year for the member-

ship. Conventional Wisdom at the time dictated that there was a cumulative desire to spend down some of the Treasury and we both agreed that we could do that, not by leaps and bounds, but by a few things that would benefit the club overall. We also wanted to involve more of the membership, as such involvement would eventually lead to the future of the club's existence and I'd like to think we accomplished that. Hence, the partnership began with our winning the election. Uh,oh, now what! Another fine kettle of fish you got me into, Ollie! (You younger guys won't get that reference and we'll keep it to ourselves....)

Well the year progressed and it seemed like we were having fun, involving people, modeling, and having even more fun. To sum up, I guess it worked. I suspect that Johan and I will continue our random phone calls, discussing modeling, what we hope to see the club become in the future, and maybe a little of nostalgia from this year's events. They were good times for us. To our Guest Speakers, thank you for sharing your knowledge and experience with us all. To our Committee chairmen, a big thanks for your help. A big thank you to those who readily said "Yes" when I asked you to "do Show 'n' Tell." To our membership, thank you for your support and acceptance - and, literally, for being there and occasionally laughing at my pithy attempts at humor - it's been a lot of fun. To Steve and Larry thank you for your dedication and responsibility in your positions as Treasurer and Secretary. And finally, a very warm thank you to Johan for taking the reins and riding herd on all of us'ns. Thank you very much for the memories. It's been a great year!

## 12 SQUARED

### THE NORTHROP JB SERIES by Rick Koehn

(Editor's Note: Rick has given TCAH permission to reprint the histories he compiled for the Twelve-Squared line of kits released in the 1980s and 90s. This is the second in a series.)

With the advent of the German V-1 'buzz bomb' against England, the US stepped up efforts to develop its own basic pilotless bomb or cruise missile. This series of weapon developments were given the JB designation.

In late 1943 Northrop was awarded an Army Air Force contract to develop the JB-1 which was to be a small flying wing with a central nacelle housing two small jet engines, with two outboard bomb containers. The Northrop designation was MX-543. They first built a unpowered manned glider version nicknamed the "Bat", to test the aerodynamics. (Both versions will be released as separate models in the near future.)

The JB-2 was a direct copy of the V-1 using a Ford built pulse jet and put into mass production by a coalition of auto manufacturers. Intended to be used against Japan, they never saw combat, although 300 were built by wars end. They were used in missile tests primarily at Eglin AFB in Florida as well as becoming the first US submarine based missile. (Kit 2-17 is the JB-2 and includes decals for several colorful US models.)

The JB-3 Tiamat like many early missiles had many variations for test and evaluation. The basic model resembled a drop tank with three equally spaced long fins every 120 degrees around the air third of the vehicle. It was intended to be an air to air rocket with a semi-active seeker. For testing it was air launched from A-26's.

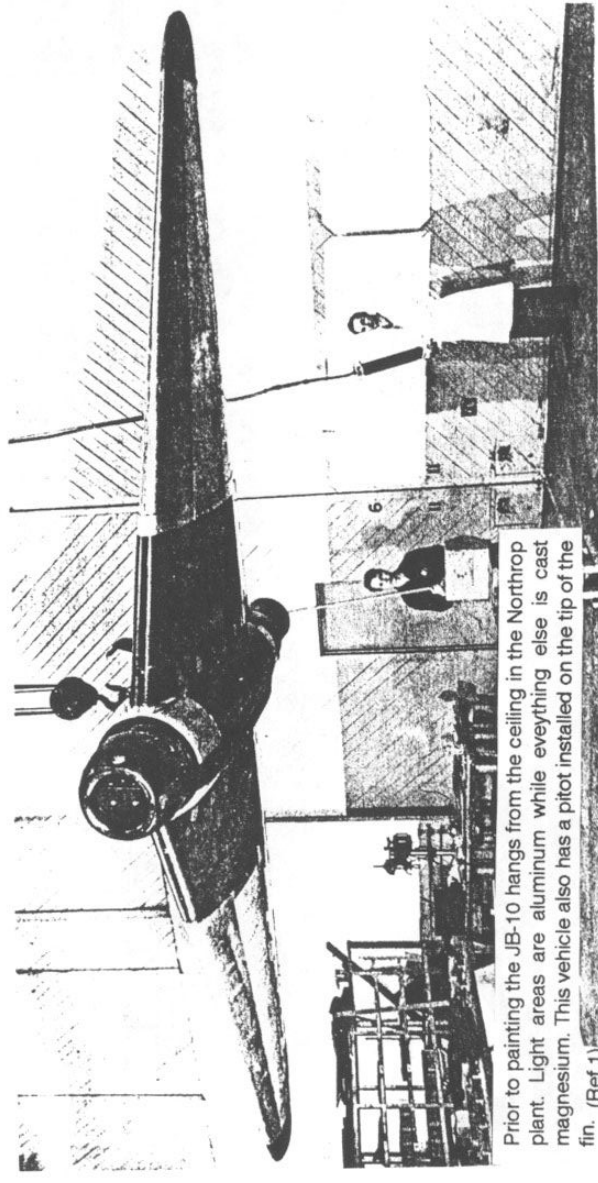
The JB-4 was a pulsejet of 3,000 lbs with a range of 75 miles and top speed of 445 mph. The JB-5 was a wingless rocket of 650 lbs and a range of 4 miles. The JB-6 was a supersonic rocket using spin stabilization for control. The JB-7 was a pilotless turbojet powered bomber of 9,700 lbs and range of 400 miles.

Pleased with Northrop's work on the JB-1 and encourage by the new Ford pulse-jet engine the Army in late 1944 awarded Northrop a contract to develop another flying wing bomb. It was a top secret project known only as 'Project 16' until the end of the war. The inhouse designation was MX-544 while the official military nomenclature was JB-10.

Northrop considered the hardest part of the program as devising a reliable launch system. They first experimented with sleds that would fit standard railroad tracks and take up to 300 feet for launch speed to be reached. That would limit the flexibility of the missile and restrict it from mobile trucks, LST's and the like. The US Navy was just putting into use a new air to ground rocket nicknamed the 'Tiny Tim'. Northrop took a 14 foot long aluminum tube of 1 foot diameter supported on each end with a crossbar and runners to fit a new light weight 50-foot track. With four 'Tiny Tim' rocket motors mounted on the rear, it would be able to get the JB-10 up to the 220 mph it required for ignition of the pulse jet by the end of the track.

Once launched the JB-10 would accelerate to 426 mph. With a wing span under 30 feet it would be hard to see as it flew out to its 185 mile range. Guidance was preset and rather basic, time-distance-heading, at which point it would dive into its target detonating its warheads.

The top outline of the JB-10 was basically similar to that of the JB-1 with the elimination of the outboard bomb carriers, and in fact used the outer wing sections of unfinished JB-1's. The center section would house the larger Ford pulse jet with two warheads carried in the wing, one 1,825 lb charge on either side of the engine. (History continued on back page.)



Prior to painting the JB-10 hangs from the ceiling in the Northrop plant. Light areas are aluminum while everything else is cast magnesium. This vehicle also has a pitot installed on the tip of the fin. (Ref.1)