

# The Aero Historian



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December 2001

## TCAH Meeting Place

*By Johannes Allert*

By now just about everyone has been given information about the 3 possibilities. It must be noted that the "location factor" should not be considered as either good or bad. As a club members, we are all located far and near. Members like George Mellinger, Frank Cuden, or Mark Krumrey will have to drive a great distance no matter where we decide to go. The bottom line is this. If getting together with a group of individuals with similar interests is important enough for you to come. You will come. Also, keep in mind that everything changes. What is true today, may not be tomorrow.

Airport policies change, Museums open and close, etc... To summarize, here is the information.

Bloomington Library - Cost: free. Room size is similar to the MN ANG Museum. No natural lighting. Ample parking. We are allowed to sign up 3 months in advance. The summer months of June, July and August this location is closed.

American Wings, Anoka - Cost: \$600-800 per year. Room size is larger than MN ANG Museum. Room has refrigerator. Natural lighting. Ample parking. Members are encouraged to get involved in museum projects including maintaining model displays. Suggestions were to provide links to each others websites. Plenty of aircraft on display. (Website: <http://www.americanwings.org/>)

Flemming Field, South St. Paul - Cost: \$100 per year. Room is larger than MN ANG Museum. Natural lighting. Ample parking. There is a lobby outside with vending machines. A display case is outside of the room and could use some spurring up. CAF is located down the street. In terms of meeting date & time, we would have to change to either the 1st, 3rd or 4th weekend as the second weekend is already taken by the CAP. (Website: <http://www.visi.com/~sspairport/>)

## F4U Corsair Contest

*By Johannes Allert*

December is here and now is the time to roll out the bent wing birds. We will be having the Corsair Contest this weekend. There will be a prize for 1st, 2nd and 3rd as well as a people's choice award. Winners of 2nd and 3rd will receive a trophy as well as a \$5 certificate good at Roll Models. 1st prize will receive an award and a certificate for \$10 good at Roll Models. Models can be any scale and \*must\* be built within this past year. I will need at least 3 judges to help. 5 would be great. Please let me know in advance. See you there!!

## German Luftwaffe SIG

*By Axel Kornfuehrer*

TCAH's new German Luftwaffe SIG is off to a running start. Jeff Fries hosted the first meeting on Friday, October 5. John Roll, Bernie Kugel, and Axel attended and traded primarily World War 2 Luftwaffe stories. Jeff had some unpublished photos to show and Axel brought several new books he just got from Germany. Since Bernie is working on a Stuka model in Rudel's markings, we watched a video on German dive-bombers and ground attack planes (from the 8 volume Luftwaffe set).

Bernie Kugel hosted the second meeting on Friday, November 2. John and Axel showed up as well as guest David Huffmeyer. Bernie gave us a tour of his modeling area. We also watched a documentary on the Arado Ar-234 jet bomber on Bernie's large-screen TV. Once again, the discussions revolved around the World War 2 Luftwaffe.

The next meeting is planned for Friday, January 4 (first Friday) at Axel Kornfuehrer's house (call 952-933-6742 for directions). There will be no December meeting.



## From the President

*By Steve Erickson*

Ho-ho-ho, Merry Christmas and Happy Holidays to everyone. I know this holiday season may seem a little bleak after September 11<sup>th</sup>. The economy is down and we have lost our home at the museum.

But let's look at the bright side, you re-elected me as President for another year. It was a landslide victory, I know, I counted the votes myself. It wasn't unanimous as three people circled (write in), real cute guys!

I want to thank all those who ran for office, it was a real pleasure to have to count votes for a change. I was pleased to see the level of interested increase for club officers. This is the first time in years we actually had candidates to choose from. Thanks Rick, Bob and Bernie.

We are meeting at the Oxboro library again for December; we have made arrangements to meet at Fleming field for January to see how we like it there. Watch for directions in the newsletter and website. Don't ask me cause I got left behind at the library when everyone went to look at the room.

We are going to try to setup a meeting, maybe in February for American Wings to compare and then vote on a new home. So try and make these next meetings. To all of you that don't make the meeting, Merry Christmas and see you next year!

## Notes From The Treasury

Since work is picking up six fold because of the white stuff this will be brief. Thank you to all who voted for me to be vice-president, hopefully I'll be of some use to the club. Congrats to Mark Copeland on the birth of his and Monica's daughter. Thanks to Tom Norrbohm for his help during the club auction, which netted \$1,047.00. Thanks to all those who participate and/or donated. Currently we have 5,682.64 in our local money laundering operation...what...not supposed to say anything about that!!!! -Patrick Butler

## TCAH Officers

**President**, Steve Erickson  
763-521-9948

**Vice-President**, Pat Butler  
612-915-1569

**Secretary**, Ken Sallman  
763-753-3783

**Treasurer**, Tom Norrbohm  
612-881-5763

**Historian**, Tom Norrbohm  
952-881-5763

## Newsletter Info

*Article Submission Deadline: 22nd of each month.*

### Editors

**Dave Pluth** (dpluth@j-aircraft.com)

112368 Eitel Circle  
Chaska, MN 55318

H:952-448-4795

Fax: 952-448-9510

**Johannes Allert** (norway\_331@yahoo.com)

19380 Swallow St. NW

Oak Grove, MN 55011

H:763-213-0370

### Distribution Editor

**Jim Kaltenhauser**

(Kaltenhauser@yahoo.com)

8219 Emerson Ave. S.

Bloomington, MN 55420

H:952-346-8460

### Send articles to:

Via E-mail: newsletter@aerohistorian.com

Via Snail-mail:

Dave Pluth

Atten: TCAH Newsletter

112368 Eitel Circle

Chaska, MN 55318

Fax: 952-448-4795

## TCAH Calendar & Events of Interest

*(Note Dates and locations after January are to be determined as a meeting spot is still not nailed down)*

**December 8—TCAH Meeting.** Early Jets. Heinkle, Whittle, Bell, Yak, prototypes or production.

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**January 19** (note change in date!) - "Heavies" Heavy bombers, transports, etc.

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**February TBD—**"Red Torches", Soviet Jets

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**March TBD—**"Coming out of the Closet", Other hobby interest

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**April TBD- Club Contest** (tentative)

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**May TBD—**"Weekend Warriors". ANG and Reserve Aircraft

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**June TBD—**"Floats". Float planes and amphibians

\*\*\*

**July TBD—**"Olive Garden Specials". Italian aircraft

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

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**September TBD—**"Flying billboards" Commercial airliners October TBD

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**November TBD—**Club Auction. No Theme.

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

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

## Air Guard Museum News

*By Noel Allard*

As the Aero Historians liaison with the Air Guard Museum, I have information from the Air Guard Board meeting of November 10, 2001 that will be of some interest.

Let me begin by saying that the Air Guard Museum Board wants TCAH to know that they are deeply sorry that we have lost our home. We all know that we are doing our part by "soldiering", along with the Air Guard Museum Board and volunteers, side by side with the military, by doing whatever our country needs to be done. In this case, by allowing the Air Guard on short notice to takeover our facility. This is nothing more than what was done across the country at the beginning of WWII. And, though we have all been displaced, we can live with it.

As of now, the most valuable models and artifacts from the museum are safely locked aboard the C-97. The C-97 will continue to remain on the ramp, thanks to it being so heavy that it cannot just be pushed onto the ground in some obscure corner. The remainder of the museum's displays are locked in

the "quonset" that was recently built behind where the G130 was located.

The Air Guard was storing maintenance equipment in the quonset, but moved it out so the museum could use that for temporary storage. As a result, the Air Guard will be renting space from the Bureau of Mines in the old red building on the crosstown for that equipment, and possibly providing a place for the Jenny to continue to be worked on through the winter in the Mines building.

In the meantime, some of the display aircraft have been dispersed onto the base due to the fact that part of the display aircraft ramp was in the way of F-16s taxiing around the end of the hangar to re-enter the alert hangers (the former Museum hangars) from the backside. Instead of backing the jets into the hangars, they now can simply taxi around and re-enter the hangar from what used to be the parking lot side.

As to when this is going to be over, no one knows, that will depend on the world situation, but it is the guess of Adjutant General Andreotti that it is a 3-5 year situation. So, I am inferring that the Museum will not be going back into the old building at all. In three to five years, the Museum plans to have a new home. One of the really exciting things to come from the meeting is the possibility of obtaining from MAC the old VoTech school that can be seen from the crosstown at 34th Avenue. A perfect spot. You all can think of the marvelous possibilities of obtaining that facility. Off the military base, still accessible by taxiways so planes could be brought in, large enough for meeting rooms, libraries, resotation, etc.

So, please don't cross off the possibility of returning to the Air Guard museum someday as its lead guest group. My resignation from the Air Guard Board was not accepted, so as you can see, I will remain as a resource for you with the Museum. I can field any questions and help out in any way between the groups.



## TCAH Memories

by Tom Norrbohm

**December 1972:** It's the first club meeting after our highly successful Marriott Show (later to be called the Mini Air Expo) the first of many. This show and all future shows would be held on Thanksgiving weekend and we had over 700 models on display in several rooms. Local media reports by TV and newspapers would bring the crowds out on Sunday. Total attendance would surpass 5000 people.

At the December Mini-Meeting held at Jack Muga's place, Volunteers for a Program Committee were accepted.

The matter of proposed amendments to the TCAH Constitution was discussed. It was agreed that as drafted in 1969, the Constitution was sound, but that certain articles could be better stated. Both regular and mini-meeting status and membership procedures were discussed and provisions made for the general membership to vote on.

Next years Marriott Show was discussed and all agreed that the show must go on! To provide operating funds for the next show, each participating club will be requested to donate \$100.

A club patch or decal was also discussed. Ken Ring volunteered to look into this project. Signs promoting TCAH will again go up in area hobby shops. Ron Ennis is looking into having a TCAH Dinner to involve the wives of members in more club activities. A proposal for a regional IPMS convention and contest is being studied by Jack Muga. Raffles and/or door prizes were suggested for occasional meetings as a way to increase attendance.

Harold Johnson won the Best in Show award in the TCAH Contest for his Scratchbuilt P6E Hawk. A \$150,000 lawsuit was filed against Testors Paints for increasing the price of model paints by a 13 year old from New York state. Claimed the increase violates the Economic Stabilization Act. The price of Testors Paints had been increased by 4 cents on bottled paints and 10 cents on spray cans, increases of 26% and 14% respectively.

**Club Officers:** President- Jack Muga; Vice President- Harold Johnson; Secretary- George Minarik; Treasurer- George Minarik; Editor- Chuck Mayer.



## Twin Cities Aero Historians General Meeting Minutes

By Ken Sallman  
& Bernie Kugel

### 10 November 2001

November meeting was held at the Ox-borough Library in Bloomington. This is a temporary site until a permanent spot can be located.

#### Club Elections:

The annual elections for club officers were held. The candidates for each position were as follow:

Nominated:

President: Steve Erickson

Vice President: Bob Fierra  
Pat Butler

Treasurer: Tom Norrbohm  
Rick Ruble

Secretary: Bernie Kugel  
Ken Sallman

**Results:** President: Steve Erickson  
Vice President: Pat Butler  
Treasurer: Tom Norrbohm  
Secretary: Ken Sallman

#### New Business:

- Mark Copeland and wife Monica have been blessed with a baby daughter, Emily Ann who weighted in at 5-lbs. 10 oz. Mother and child are doing fine; the jury is still out on Mark though.

#### Old Business:

- Corsair Contest: Johanne Allert reminded everyone about the upcoming F4U corsair contest to be held next month. All scales and all aftermarket/scratch built modifications are allowed. Only rule is the model is to have been built in 2001 by the person entering it.
- Dave Gawboy presented a summary of venue locations for the annual banquet. The recommended location is the Hilton in Eagan and recommended a date of 23 February 2002. Estimated cost to be \$25.00 per person.
- Two locations have been identified as candidates for the permanent

meeting site. The first is the American Wings Museum at Anoka County Airport in Blaine and the second is Fleming Field in St. Paul. Both sites have advantages and disadvantages.

### Auction

The annual club auction was held with \$1045.00 raised.

## Twin Cities Aero Historians Business Meeting Minutes

By Ken Sallman

### 17 November 2001

The November business meeting was held at Ken Sallman's home. Attendees were Patrick Butler, Johannes Allert and Dave Gawboy.

### 2002 Meeting Themes:

(Editors note: Themes are now listed on page 2 of the newsletter and in the interest of space, we have not included them here)

### 2002 Banquet

Dave Gawboy reported plans for the annual banquet.

- Proposed date: 23 February 2002
- Location: Hilton Garden Inn (Eagan)
- Menu selections: Steak or Walleye (Hotel will accommodate special dietary requirements)
- Projected cost: \$25.00 per person
- A vote will be taken at the December General meeting to determine interest.

### Constitutional Review

Johannes Allert proposed convening a special committee (composed of officers past and present) to review the club's Constitution and by-laws. This committee will be chosen at either the December General Meeting or the January Business Meeting. Purpose of this committee will be to review the existing constitution and by-laws.

### Suggested Project

Ken Sallman suggested a club project for everyone's consideration:

The 100<sup>th</sup> Anniversary of heavier than air flight is 24 months away. As our club is composed of not only modelers,

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(Continued from page 3)

but artists, writers and historians, and the name of our club is **AeroHistorians**, this is a unique opportunity for all of us to come together and contribute. The suggested project is to compile a list of the most influential aircraft of the last 100 years. This list should be at least 25 aircraft, and once identified, members could determine what aircraft on the list have already been modeled, what can be modeled and which ones could be represented by paintings, photos, etc. Aircraft selected can be of all nationalities and scale should be optional as trying to include everything from the Wright Flyer to a Boeing 747 in constant scale (though interesting) would be difficult. Once the collection is assembled, possible sites for display could include the local libraries, either Fleming or the Wings museum, Nordicon 2003 and dare I say, even Oklahoma City at the Nationals as a club display. Please think about this and we'll discuss it at the next meeting

## **U.S Army Reconnaissance Aircraft in Vietnam**

*By Terry M. Love*

The use of reconnaissance aircraft during the Vietnam War was very wide spread. Each branch of the U S military had various types of aircraft that they used for their own specific needs. The U S Air Force utilized the magnificent Lockheed SR-71 Blackbird that flew over Mach 3 at altitudes of over 80,000 feet.

The USAF also made use of the Lockheed U2 - the high flying photo spy plane. In addition, widely used was the McDonnell RF-4C Phantom over all areas of Southeast Asia, and earlier in the conflict, the RF-101C Voodoo was utilized.

The U S Navy used the Douglas EA-3 Skywarrior, and the North American RA-5C Vigilante. The U S Marines made use of the McDonnell RF-4B Phantom, and the Douglas F-3D S k y k n i g h t .

The U S Army widely used the Grumman OV-1 Mohawk - the supreme battlefield surveillance aircraft. For the full story on the Mohawk, see Vietnam Magazine, issue XXXXXXX, available in back issues. Almost everybody knows of these aircraft, BUT the U S Army also

made use of various othe types of aircraft for their intelligence-gathering needs. They mostly used code names for systems, and were very highly classified. Information on these programs are just now being revealed.

In the early 1960s, the United States Army Security Agency (USASA or ASA) was assigned the letter strings LEF, LAF, CEF, and CAF in identify some of its reconnaissance projects. The word QUICK meant that project originated at Headquarters, Army (HDQA), like the QUICK LOOK project for the OV-1 Mohawk. GUARDRAIL was originally a National Security Agency (NSA) development. After ASA-type aircraft were replaced by SEMA (Special Electronic Mission Aircraft) in the mid-1970s, it seems that the code names have been mostly replaced with acronyms, although the ARL-L program has used the term CRAZY HAWK, and, of course, GUARDRAIL still exists.

Since the early 1960s, the U S Army operated a varied fleet of highly modified utility helicopters, utility aircraft, observation aircraft and cargo aircraft to perform deeply classified TELINT (telephone intelligence), COMINT (communications intelligence), ELINT (electronic intelligence), as well as visual (PHOTINT), infrared (IR), emitter locating (SIGINT or signal intelligence), and radar surveillance missions. Later on, in the mid-1970s, these type of aircraft became known as SEMA. All of these earlier aircraft systems were developed by a combination of the ASA, the Electronics Warfare Laboratory (EWL) of the U S Army Electronics Command, the Signal Corps, and various private contractors similar to E-Systems in Texas. Also their successor organizations were involved.

The exceptions to this development were the Grumman OV-1 Mohawk, and the Lockheed YO-3A and their associated sensors, that were developed by the basic airframe contractor and sub-contractors. Photo, infrared, and radar surveillance missions were completed by the OV-1A (photo), OV-1B (radar), OV-1C (photo and infrared), and the OV-1D (combination of all). The YO-3Awas used for visual and infrared reconnaissance missions during the

Vietnam War.

In the early 1960s, EWL developed an ARDF (airborne radio direction finding) electronic gear and equipped it into three deHavilland U-6A Beavers, and re-designated them as RU-6As. It does not appear that any code names were applied to these aircraft at this time. These three RU-6As were assigned to the Vietnam Flight Detachment of the 3rd Radio Research Unit in March of 1962, and were the first Army reconnaissance aircraft in Vietnam. In December of 1962, the first six Grumman OV-1 Mohawks arrived, but they were almost immediately transformed into armed gunships, and not the reconnaissance missions that they had been designed for. They were followed in early 1963 by seven more RU-6As. These were code-named SEVEN ROSES. These were joined, also in 1963, by two RU-8Ds and one RU-8F aircraft.

The RU-6A crews carried parachutes. These aircraft had armor protection, also. The RU-8Ds had neither.

The DF (direction finding) performance of the RU-8F was not satisfactory. Later that year, seven more RU-6A SEVEN ROSES and ten more RU-8D CHECKMATE aircraft arrived.

The last group of RU-6As and RU-8Ds were later called WINE-BOTTLE and/or CEFISH PERSON, and totaled forty-one RU-8Ds and a few RU-6As. Also early arrivals included the one-of-a-kind RCV-2B Caribou called PATHFINDER, serial number 62-4147, one RU-1A CAFÉ GIRL and two RU-1A LAFFING OTTER systems (originally called HAPPY NIGHTS). All of these systems represented the first generation of ARDF aircraft used in Vietnam.

The fixed-wing Army utility aircraft used in Vietnam were very wide spread. First of all, there was the rugged deHavilland U-1A Otter, a very slow, fixed landing-gear aircraft. The reconnaissance Otters were re-classified as RU-1As LAFFING OTTERS. These were assigned to the 146th Aviation Company (Radio Research or RR). The Radio Research nomenclature was used to explain all of the extra and numerous antenna on the aircraft. The RU-1A was withdrawn from service in January

of 1971, as America began pulling out of Vietnam. The main difference between CAFÉ GIRL and LAFFING OTTER was that LAFFING OTTER had a second on-board operator position. The CAFÉ GIRL aircraft was later refitted with a second operator position. At least three aircraft were converted.

They were U-1As 55-3271, 55-2977, and 58-1714. RU-1A, 55-3271, was shot down over Cambodia on February 12, 1969. The crew members were Maj. Querin Herlik, CW2 Laird Osbourn, SP5 John Fisher and SP5 Robert Pryor. The aircraft was hit by a "large caliber anti-aircraft round." Maj. Herlik and CW2 Osbourn were able to crash the aircraft into a rice paddy, and after a 30 minute gun battle, they were captured by the North Vietnamese. The NVA turned over CW2 Osbourn to the Cambodian government immediately since he was badly wounded, but held the others for two additional days for interrogations before turning them over to the Cambodian government for "violating" Cambodian airspace. President Nixon was forced to apologize to the Cambodian government in order to secure their release one month later.

U-1A, 57-1714, was converted into SORE THUMB. SORE THUMB was the first attempt at a 360 degree VHF Direction Finding using a "spinning Adcock array" antenna. This test system was a predecessor to the LEFT JAB DF system. SORE THUMB was not that successful.

PATHFINDER was a one-of-a-kind HF (high frequency) DF (direction finding) system in the RCV-2B. This Caribou was also assigned to the 146th Aviation Company (RR) until it was turned over to the USAF in April of 1967. The aircraft was later transferred to the South Vietnamese Air Force (VNAF).

Another Caribou electronic conversion was SURE THING. It was an in-house effort by the EWL in October of 1965 in reaction to an ASA request. The goal was to configure a CV-2 Caribou (61-2600) to provide ELINT coverage of the cycles 250 MHz to 26 GHz and COMINT coverage from 20 MHz to 2 GHz using off-the-shelf parts and electronic gear. However, this Caribou was

sent to Germany in April of 1966, and was never sent to Southeast Asia. So there were other electronic Army reconnaissance aircraft that were not in Vietnam, other than the OV-1 Mohawks stationed in Germany.

A group of ARDF Beavers were known as SEVEN ROSES, and consisted of seven RU-6As. These aircraft. These aircraft went to the delta region of Vietnam in 1964. Sometime before 1966, three RU-6A aircraft, equipped with the same ARDF equipment as the U S Army, were given to the South Vietnamese Air Force. These systems worked so well that more Beavers and U-8Ds were converted into CHECKMATE. They utilized the AN/ARD-15 surveillance equipment for Vietnam service.

Next came WINEBOTTLE and CEFISH PERSON RU-8D aircraft conversions. This group of reconnaissance aircraft totaled forty-one RU-8Ds and thirty-four RU-6As. Most were assigned to the 156th Aviation Company (RR). A total of about 54 RU-8Ds were configured. These systems were not, strictly speaking, true ARDF aircraft. They had the capacity of "homing in" on a transmitter, but this made actual emitter locations difficult as the Army aircraft would have to fly over the actual location before a location could be computed. RU-6A operations ceased in Vietnam on April 27, 1972 when the 156th Aviation Company (RR) stood down and was relocated to Fort Bliss, Texas. RU-6A, 51-16862. Along with two other RU-6As were given to the South Vietnamese Air Force at this time.

Radio "fingerprinting" equipment, known as SHORT SKIRT, and later as LEFAIR KNEE, was installed on about twelve RU-8D aircraft. Most were assigned to the 509th Radio Research Group, but several were assigned to a "Transportation Company" for awhile. Some RU-8D aircraft used the Side-Looking Airborne Radar (SLAR) equipment that was later used on the OV-1B Mohawk.

The second generation of ARDF Army aircraft reconnaissance systems were LAFFING EAGLE and LEFT JAB. These were the most sophisticated ARDF systems in the Army in Vietnam at the time.

LAFFING EAGLE was a RU-21D air-

craft that was a logical development of the RU-8D equipment. The frequency coverage was extended and a second operator was added. The U-21 had a much larger interior capacity than the RU-8D. In addition, an AN/ASN-86 Internal Navigation System (INS) replaced the AN/ASN-64 Doppler navigation system used on the RU-8Ds. This INS system was very difficult to maintain. It required factory representatives, and forty foot trailer full of test equipment. Later, a system known as V-SCAN, which gave 240 degree DF coverage centered around the nose and tail, was added to the RU-21Ds. These aircraft arrived in Vietnam in December of 1968 and were used extensively after that.

After the withdrawal of American forces from Vietnam, the RU-21Ds worked so well, that several were transferred to the Aviation Detachment of the 7th Radio Research Station at Udorn AFB, Thailand. On July 15, 1974, operations were transferred to Utopao AFB, Thailand until May of 1975, when they were all relocated to the United States (CONUS). Once back in America, about 16 RU-21As were updated to LEFT FOOT RU-21E standards.

In 1970 EWL finished development of the LEFT JAB system for the JU-21A (it is not known why these were called JU-21As and not RU-21As) aircraft, which was the first Army airborne system to give 360 degree DF coverage. They utilized some electronic equipment from the LEFT BANK project. In addition, LEFT JAB (AN/ARQ-38) was the first Army system to combine the use of a digital computer to store DF calibration tables and to take aircraft position from the INS in order to compute the locations of hostile emitters. At least three JU-21As (67-18063, 67-18065, and 67-18069) were built and all were assigned to the 138th Aviation Company (RR). The first LEFT JAB mission was flown in Vietnam on January 9, 1971. On March 4, 1971, JU-21A, 67-18065, call sign VANGUARD 216, was shot down over North Vietnam, killing the entire crew of five. On February 16, 1973, LEFT JAB aircraft flew the last ASA mission in Vietnam.

A more evolved version of the LAFFING EAGLE system, called LEFT FOOT, combined the LAFFING EAGLE "V-Scan" DF system with the LEFT JAB type of computer, and added a display so that the operator could view the DF "cuts" on a cathode ray tube (CRT). In addition, the operators faced forward rather than sideways for crew comfort. This system redesignated the aircraft as an RU-21E.

Sixteen RU-21Es were built. There was no external differences from the RU-21D LAFFING EAGLE, and the RU-21E LEFT FOOT. The RU-21E serial numbers were 70-15875 through 70-15890. However, the Radio Research units were being withdrawn from Vietnam at the time that they were ready for deployment, so the system was probably never deployed, although it was planned. Some sources say that a few aircraft did go to Vietnam. Some of these aircraft and missions were so classified that it may never be revealed.

CEFIRM LEADER was an early attempt to build a completely integrated airborne intercept, DF, and jamming system, and was previously known as CRAZY DOG. This project covered the development of a very complex airborne communications intercept, DF, and jamming system for the 2 to 80 MHz frequency area. After an extensive study by TRW in 1967, a set of specifications were written for the system by ASA.

The complete system, called V-SCANARDF, with AN/ULQ-11 and comprised of nine aircraft of three different types. RU-21As (67-18112,

## The Koga Zero Part II

By Dave Pluth



Koga's Zero arrived in Seattle on August 1<sup>st</sup>, 1942. It was immediately transferred to a Navy transport ship

and made its way to North Island in San Diego. Security was extremely tight. A twelve-foot stockade was built around the area where the Zero would be rebuilt and two Marine guards were posted on 24-hour watch.

After an initial evaluation, it was determined that it would take six weeks to rebuild the Zero. While initial reports said that the Zero was lightly damaged, further inspection brought many more problems to light, all of which had to be fixed before the first flight of the aircraft. After the repairs, the aircraft was decked out in standard US Navy markings of Blue/Gray over Light Gull Gray for its testing.

Lt. Commander Eddie Sanders was chosen to test fly the Zero for the first



time. Sanders was a Navy test pilot at Naval Air Station, Anacostia. Sanders would make a total of twenty-four flights in the Zero. But, his first flight set forth several ideas that would help allied pilots in the Pacific to fight the Zero.

Sanders wrote that the Zero had "superior maneuverability, but only at lower speeds." He found that the Zero also had a very short turning radius and excellent aileron control at low speeds. Two of the more useful things that he found were that the ailerons froze up at speeds over 200 knots and that the Zero rolled much easier to the left than to the right. He also found that because of the float type carburetor, the engine had a tendency to cut out when under negative acceleration.

Several tactics based on this information were developed. When a Zero got on their tail, pilots were instructed to dive and get speed, roll sharply 90 degrees to the right and pull moderately. The Zero would simply fly by them unable to follow them with the poor aileron handling characteristics at high speed. P-38 pilots were instructed to stay above 300 mph and always break hard right and up.

The captured Zero also provided insight into one very important physical

aspect of the aircraft. There was a 38 gallon fuel tank located between the pilot and the engine that made an excellent target, as well as two wing tanks that lacked self sealing capabilities. If a pilot was able to hit any of these three tanks, his opponent was finished.

It was very obvious from the Navy's initial study that the construction of the Zero was excellent. Most of the Zero was hand fitted. This meant that few parts were interchangeable between aircraft which made field maintenance far more difficult. The aircraft was an extremely tight fitting machine that gave pilot protection a much lower priority than lower overall aircraft weight and maneuverability. Maneuverability was the king of the skies in the Pacific and China, at least for the Japanese.

A fully loaded Zero weighed 5,555 pounds. Compare this with the F4F-3 at 7,450 pounds, the F6F-3 at 12,139 pounds, the P-51B at 9,800 pounds, the Spitfire at 6,172 pounds, the P-47D at 17,500 pounds and the 109G-6 at 7,500 pounds and you'll see that the Zero was the king of the lightweights.

After the initial flights in San Diego, the Koga Zero was transferred to the Technical Air Intelligence Center in Anacostia, Washington DC for further evaluations. I believe that the aircraft was stripped down to bare metal with simple stars and bars markings at this point in time and a TAIC 1 on the tail. This would be the way that it remained for the rest of its service career in the US.



Once the TAIC was finished with its evaluations of the aircraft, it sat unused. In San Diego, fighter training officer William Leonard arranged for the Zero to be sent back to San Diego to be used in training exercises. The aircraft gave recruits a chance to face the enemy before going into battle. It also gave them a chance to fly the Zero and really get a feel for their soon to be aerial opponent.

The end of the Koga Zero would

come in February of 1945. While the Zero was being taxied into take-off position, a Navy Helldiver ran it over from behind. The aircraft was torn up from the tail to just behind the cockpit. The decision was made that the aircraft was to be scrapped.

Today, very little remains of the Koga Zero. Leonard managed to salvage a manifold pressure gauge, and airspeed indicator and a folding panel from part of a wing tip. He later donated this to the Navy Museum at the Washington Navy Yard in Washington DC where it can still be seen today. The main ID plate for the aircraft was salvaged and sent to the National Air and Space Museum. Two smaller ID plates were taken off when the crash site was found. These plates were donated to and are on display at the Alaska Aviation Heritage Museum in Anchorage Alaska.

While Koga may not be a household name and there may not be any specials about it on the History Channel, it was one of the most important finds of the war for the US and it's allies in the Pacific. The ability for recruits to fly and train against a Zero before going into combat was invaluable. The intelligence that was gathered and the tactics that were developed saved countless allied lives. That single aircraft was indeed a very important find.

*(All photos courtesy of the National Archives)*

## J-news—December 2001

*By Dave Pluth*

This year has been a great year for Japanese enthusiasts. The 1/32<sup>nd</sup> scale Zero as well as numerous books and references have made 2001 great!

In the coming month, we'll see even more great stuff. In 1/72<sup>nd</sup>, Tamiya has announced (and will release in December) that they are scaling down their 1/48<sup>th</sup> scale Mid-Wing George! This is good news on several fronts. First, in 48<sup>th</sup>, this is an excellent kit, so it should be very good for all you non-hamfisted-guys as well. Second, this is an older Tamiya kit, which means that they may be true to their word of producing their entire 48<sup>th</sup> scale line in 72<sup>nd</sup>. Could a new Rex be next? Maybe a G4M1 Betty? Or better yet, how about just the -1a and Birdcage Corsair? It would appear that 2002 will be pretty

good as well!



Fine Molds is reissuing their 1/72<sup>nd</sup> R2Y1 Keiun kit (2000 yen). This was an end of war mid-engine design. The kit is a bit of a challenge, but will end up looking like a Keiun (which frankly, no one will know what it should look like anyway!).



On the book front, Model Art has a new book, **Nihon Rikugun Aikokugo Kenoki** (*Japanese Text*) - Japanese Army planes donated by patriotic organizations, No.599. Previous to the WWII, Japanese citizens and corporations would donate the funds to purchase an aircraft. In exchange, a name would be put onto the side of the aircraft. This book documentation of many of these aircraft. The price is about 2700 yen (about \$22).

Another new book is from Gakken. This book is their second volume on the Zero, Mitsubishi Zero Fighter Vol. 2 (*Japanese Text*). Ok, so what the heck can these guys write (or show in photos) about the Zero that already hasn't been done? Well, two things. First is a complete set of drawings (from the original factory drawings) for the A6M1 Zero, as well as several different fuselage layouts that were rejected for the Zero. The second thing is better documentation on the A6M8. Even though two A6M8s were captured after the war, very few accurate drawings were

ever done of it. I'm not sure where these guys are finding this stuff, but it's all excellent and at 1800 yen (about \$14.60), it's a steal!

So, where do I find these books? Basically about the only place in the world that carries a wide selection of this is Hobbylink Japan ([www.hlj.com](http://www.hlj.com)). Hobbylink is a company that was started by an American living in Japan and caters to those outside of Japan. Basically it isn't your typical mail order house. Orders normally take 2-6 weeks to ship (you can't be in a big hurry when ordering from these guys) and take about a week in transit via UPS. You also have to figure about \$5 per item for shipping. Which considering the prices are about half of what you'd pay here for any book (if you can find it), it's not a bad deal. Ordering kits from them is not that great a deal for most kits as you can find them cheaper locally after figuring in the shipping.

## Websites of the Month

*by "Texas" Terry Love*

[WWW.VOUGHT.COM](http://WWW.VOUGHT.COM)

This was forwarded to me by Bob Steinbrunn. Thanks, Bob. It is about all Vought aircraft - everything that you ever wanted to know.

[WWW.AERO-DYNAMICRECORDINGS.COM](http://WWW.AERO-DYNAMICRECORDINGS.COM)

What is better (well, almost better, anyway) than the deep-throated sound of a huge radial engine or a Merlin or Allison engine running? Not much. This web site has the choice of the engines and aircraft that you want to hear!! So, take your time, close your door to your room, turn off the TV or radio, turn your volume UP on your computer, sign in, and set back and LISTEN!!

[WWW.SAVEACONNIE.ORG](http://WWW.SAVEACONNIE.ORG)

This is the home page for the "Save A Connie" organization down in Kansa City. They are mostly retired TWA mechanics who maintain and fly about the only flying Connie left in the world.

[WWW.AERO-WEB.ORG/MUSEUMS](http://WWW.AERO-WEB.ORG/MUSEUMS)

This web site is for locating various aviation museums around the world. Not too bad for browsing.

# Directions to the Club Meeting Location

With the recent events, the Minnesota Air Guard Museum is closed to the public. With that, our meeting place has moved to the Oxboro Public Library in Bloomington. Here are the directions.

## DIRECTIONS TO NEW MEETING PLACE:

**Where: Oxboro Public Library, 8801 Portland Ave. So. in East Bloomington.**

If you are heading east on 494 from 35W, take the Portland Avenue exit and turn right onto Portland. If you are heading west on 494 from Eagan/St. Paul, take the 12th Avenue/Portland Avenue exit. 12th Ave. is at top of

ramp at light, continue straight ahead on frontage road to the next stop light at Portland Avenue, turn left onto Portland. Hwy 494 is approx. 78th St. and the Library is at 88th. Heading south on Portland you will pass a stop light at 86th St. You will pass a trailer park on your left, and take the next left at Bischoff Lane. The Library is on the southern boundary of the trailer park at 8801 Portland Ave. So. We are in the meeting room on the left when you enter the Library. Any questions on getting to the Library give Tom Norrbohm a call at 952-881-5763.



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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.

Twin City Aero Historian  
Atten: Jim Kaltenhauser  
8219 Emerson Ave. S.  
Bloomington, MN 55420

Return address requested