



AMA Chapter #3798

# Chino Valley Model Aviators

## Official News Letter



September 27, 2016

Volume 19 Issue 9

www.chinovalleymodelaviators.org

*"To create an interest in, further the image of, and promote the hobby/sport of radio controlled aircraft"*

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## CVMA 2016 JET MEET



Photo by Marc Robbins

### Occam's Razor

A Principle in philosophy:

*Of the many explanations for an occurrence, the simplest one is usually correct.*

Support Our Local Hobby Shop



The Safeway Center

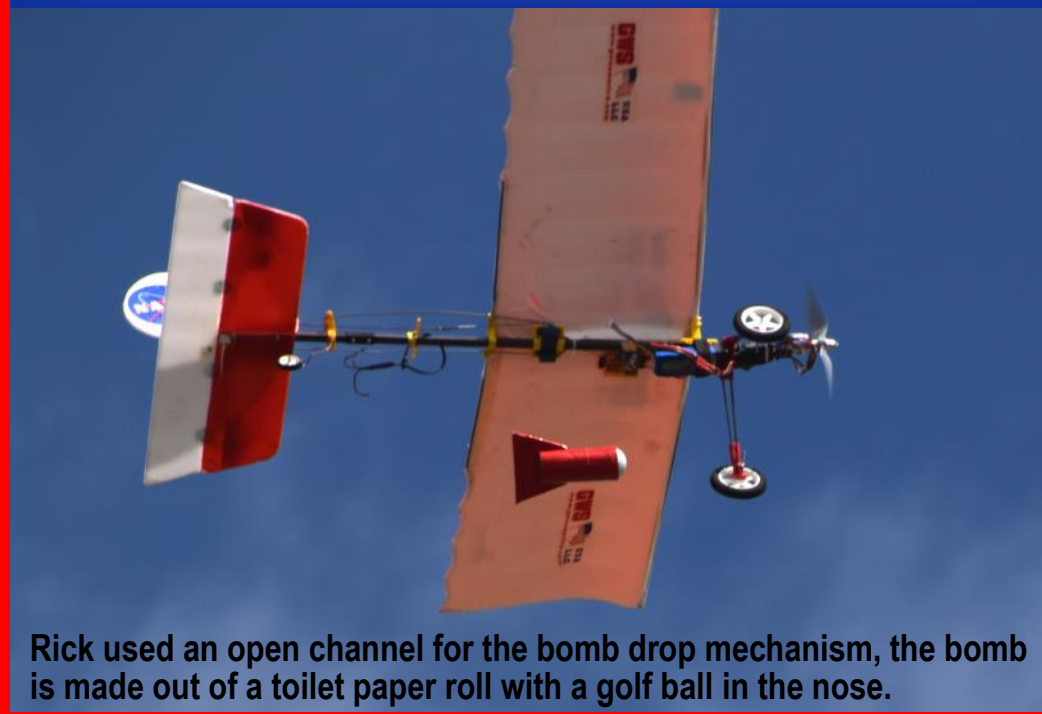
Prescott Valley, AZ

MAX & CINNAMON BANDY

THEY SUPPORT OUR CLUB

Please support them as well.

### RICK NICHOLS SS-1 BOMBER (SLOW STICK-1) A BOMB RUN OVER OUR NEWLY OILED RUNWAY?



Rick used an open channel for the bomb drop mechanism, the bomb is made out of a toilet paper roll with a golf ball in the nose.



## Field Chatter from CVMA President Michael Kidd: No Kidding!

### Greetings Fellow Pilots

If you did not come out for the Jet Fun Fly you missed some really awesome planes. We had over 20 signed up with almost as many ducted fanjets as turbine jets. Some great display of flying was shown by both types of planes.

We only have one event left and that is the Electric fly next month. This is a fun fly and all electric pilots are welcome to sign up and fly. So come on out and sign up and fly or just watch. This is an event

that requires the pilot to pay and sign up in order to fly.

It is election time again. Where does the time go? We have nominations for most positions, however we need someone willing to be the clubs Contest Director. Don Ferguson has done an

awesome job and is not running for next year. When you see Don give him a big thanks you for the outstanding job he did this year. If we can not get anyone to be our Contest Director the club may have to do just one event, The Steve Crowe Fun Fly next year and no AMA sanctioned events. We can not have sanctioned events with out a CD. We are also looking for pilots willing to be a "Member at Large", if interested please let me know. If you have no idea what the position entails I can explain what you do as

a Member at Large. The club is in need of Instructors. We have a lot of great pilots in this group and it would be great if a few would step up and volunteer as an instructor.

For those that did not attend the meeting this month I am taking inventory of who has a key to the Hanger. If you have one please let me know so I can put your name down as having key.

Speaking of the Hanger, there was a kit glider that was donated as a raffle prize for the October Electric Fun Fly.

It has gone missing. If you know where it went I would like to have it returned, "No Questions Asked". If you notice kits in the Hanger just know they are for raffle prizes and not up for grabs.

Well that is all for now.

Safe Flying,

*Thanks and Safe Flying*  
**Michael T Kidd**  
*President, Chino Valley*  
*Model Aviators*



**Win a HobbyKing  
Estrella Sport/Aerobatic  
50E ARF**  
*Come to our October Meeting*



## CAN YOU NAME THIS PLANE?



See Page 9

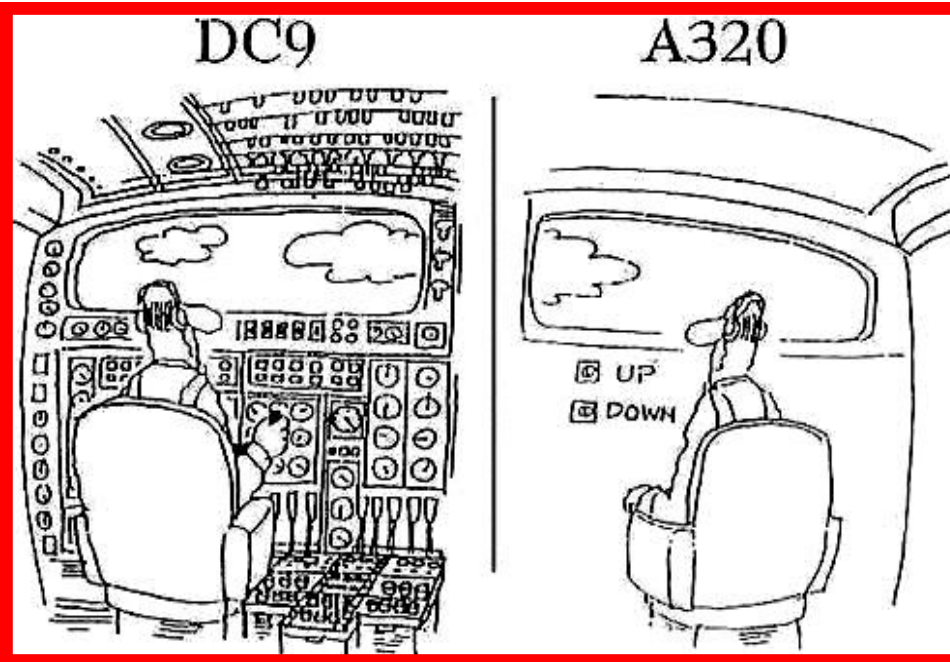
## CVMA NEWSLETTER

Published Monthly



AMA Chapter # 3798

President — **Mike Kidd**  
Vice President — **Dennis O'Connor**  
Treasurer — **Don Crowe**  
Secretary — **Bob Steffensen**  
Safety Officer — **Charlie Gates**  
At Large Members — **Bob Noulin**  
**Randy Meathrell,**  
**Walt Findley**  
Newsletter Editor — **Bob Shanks**  
Activities Director — **Don Ferguson**  
Chief Flight Instructor — **Steve Shephard**



**MARK YOUR CALENDARS**  
**CVMA 2016 FLYING EVENTS**

- Oct. 21-22 CVMA Electric Festival Fun Fly
- Dec 3 CVMA Christmas Party



Club meetings:  
 Third Wednesday of Each Month  
 Time: 7pm.  
 Prescott Airport Executive Building

# BORN IN A BARN?



IF YOU ARE THE LAST ONE TO LEAVE THE FIELD:  
PLEASE REMEMBER TO LOCK THE GATE.  
 SPIN THE LOCK A FEW TIMES AFTER FASTENING TO INSURE  
 IT IS FASTENED, AND NOT ON THE OPENING NUMBER.

## SAFETY: ALWAYS A CRITICAL ISSUE

The cartoon in this column underscores the importance of propellor safety. We have had several members with a variety of prop cuts over the years. If you read the safety column in our AMA journal *Model Aviation* you will find several discussions from time to time on various incidents involving encounters with propellers.

If you are running up a liquid fueled engine you must have a prop on the engine of course, but make sure you have a place where you can insure your plane is safely secured before starting your engine. Also always be aware of your neighborhood and excessive noise issues.

Electric driven planes require extra precautions but NEVER, NEVER check out your electric plane with the prop on in your workshop. Take off the propeller first before arming your system for an engine check run up. That's what's nice about electrics, the prop doesn't have to be on the plane for an engine run up test.



# CLUB PILOTS AND THEIR FLYING MACHINES



Randy Meathrell's F-117



Marc Robbin's demonstrates the correct launching procedure. His large electric Roc Hobby V Tail glider.



Bob Shanks' little twin delta wing.



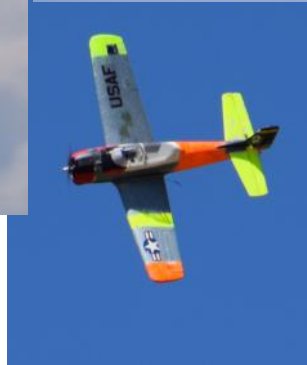
Bob Noulin with his profile Extra.



Willie Hermann on the new club mower.



Lou Yanni's colorful T-28 racer.



Bob Wurth's Super Dimona motor glider from Taft Hobbies.



Greg Daebelliehn's P-51 racer.



# CLUB PILOTS AND THEIR FLYING MACHINES



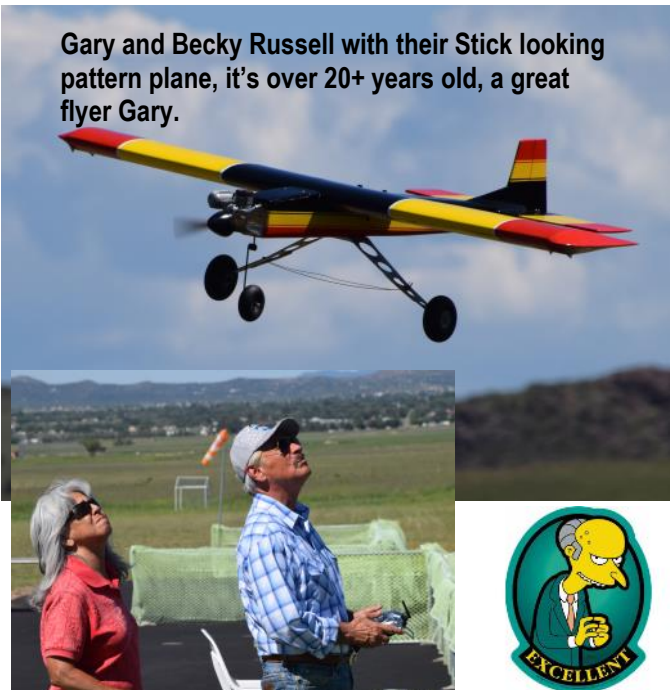
*Bob Wurth's Apprentice /Cessna. He didn't want it to look like the Apprentice so bashed it into a Cessna looking bird!*



Left to right: Rick prepares toilet paper roll bomb, heads for altitude and the moment of release with it on its way down in the last picture. Very creative Rick!



Marc Robbins loves to do close to the ground hovering maneuvers.



Gary and Becky Russell with their Stick looking pattern plane, it's over 20+ years old, a great flyer Gary.

**Klyde Morris** by Wes Oleszewski

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www.klydemorris.com

# 2016 War Bird Races Rained Out!



One Visitor Flew Some Test Laps with his P-51.

We h  
usual  
but o  
bette



Our CVMA 2016 War Bird races were much anticipated but came to no avail, Mother Nature intervened and dumped a steady rain on the festivities so a decision was made to cancel the races. Had we waited another 45 minutes it did clear up but many of the flyers had long distances to drive and needed to leave by late afternoon.

This year, as in our past 3 years of hosting this event, we had flyers from Kingman, Utah and the Phoenix area. This was CD Bud Mellor's third and final year as CD. He was awarded a very cool beer mug engraved by Rick Nichols.

Member Steve Shephard drove his truck out with the pylons for set up and after setting up the final pylon promptly got stuck in the mud. About six members added weight to the truck brought out some lumber for traction. Finally he was towed out by Marc Johnson with a long nylon strap.

Where we had laid down gravel, the parking area held up well. As a possible future project, more gravel added to the parking area and road would really make our field. No complaints were heard from any of the flyers or members despite the rain, the very sudden weather change was not forecast and really unexpected. No complaints from any of the many spectators who showed up either, almost to the individual the weather was a complete surprise!

Do we have a great club or what?



All the tables were filled with flyers and planes as they were assembling and preparing for at least three racing heats. A light drizzle began falling but soon turned into a steady down pour.



# Rain Cancelled War Bird Races!



The parking lot was full folks ready to race.



The runway was recently oiled, restriped and was ready for some racing fun!



Steve Shephard's truck got stuck as members put up one pylon.



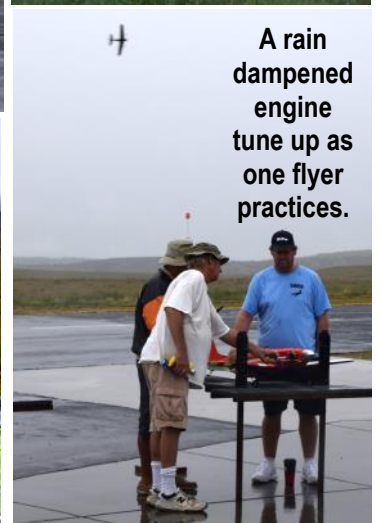
Practice laps in light drizzle.



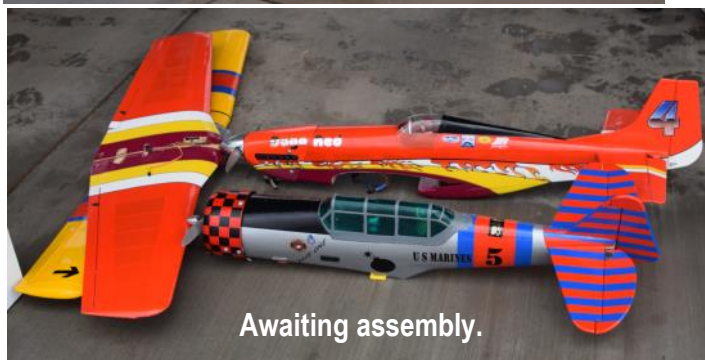
One cold wet racer tries to stay dry but patiently for the rain to stop.



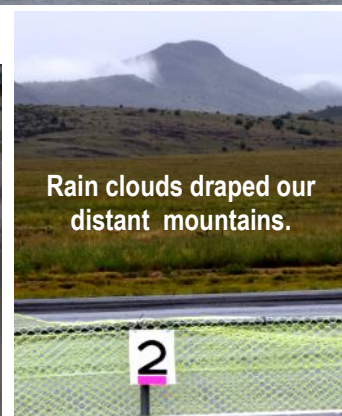
Two flyers do a few test laps.



A rain dampened engine tune up as one flyer practices.



Awaiting assembly.



Rain clouds draped our distant mountains.

# Thunder In Chino Valley: Jet Fun Fly



Photo by Bob Steffensen



Our CVMA Jet fly was a great success.

We had a total of 21 pilots, 12 turbine pilots (two pilots did not fly), of the 21 pilots, nine flew EDF's.

We had two pilots from California, eight from Phoenix, one from New Mexico, one from Las Vegas, one from Mesquite NV., one from Lake Havasu, six from Prescott, and one pilot traveled to our field from Tucson!





# September General Meeting Highlights



Ray Stone's Curtiss Pusher

The General Membership meeting began at 7pm and opened with Pledge lead by President Mike Kidd. Membership stands at 127; 28 were in attendance tonight.

Minutes of previous meeting were read by a few on the email list and approved with a few corrections and one nay from Jay Riddle.

There is a glider kit missing from the shed. If you or someone you know removed it....please return it for future raffle prize it was intended for. No questions asked.

If you have a key to the shed please let Mike Kidd know so he can put together a list for a little key control.

This year's nominating committee consisting of Bob Shanks and Larry Parker and with input from members nominated the following for: President – Mike Kidd; VP – Marc Robbins and Terry Steiner; Secretary - Bob Steffensen; Treasurer – Don Crowe; and for Safety Officer – Charley Gates. Additional nominations and elections will follow next month...be there or you many get elected!

Jet Fun Fly...thanks to all who came out and special thanks to Dan Avila and Don Ferguson for their work to put on a fine event. Christmas Banquet plans are set for Century Club (Prescott Golf Course) December 3. Prime rib is \$32 and

Chicken Marsala is \$26. This will be a nice sit down dinner with cash bar. Get your tickets and money (cash or check) to Don Crowe not later than November 16. If you would like us to display one of your great looking planes please let Bob Steffensen know you can provide.

An AMA rep at Jet Fun Fly told us about "Leader Club" program which we are going to looking into to see if we qualify and at what level. George Walker related a story of recent jet crash that resulted in a small grass fire .and suggested that we have review of fire equipment ready for daily use as needed. The Board will take for discussion and action.

Steve Shepherd told of a couple of recent crashes were due to reversed control surfaces...pre-flight checks always a great idea. Treasurer Don Crowe presented monthly Treasurer's Report which was approved.

CD Don Ferguson noted the work day on October 6 for the Fun Fly the following weekend. Join us for many great raffles prizes, food and much flying fun. The Jet Rally had a great turnout with 18 paid registrations and many nice jets challenging the sky. Thanks to Dan Avila and Don Ferguson for a really great jet fun fly.



Randy with his Volantex Ranger pusher foamie to be used for search rescue.



Don Ferguson with the Tower Hobbies Kaos he won at a past meeting.



Terry Steiner won the door prize, a 3 bladed prop and glue.



Don Crowe and the DLE-20 powered Redwing RC Edge 540 profile.



Marc Robbins, left, with his Super Slo 28

The lovely Mrs. Jay Riddle, right, assists Dennis O'Connor in pulling raffle tickets.



Bob Steffensen with his Park Zone Sport Cub.

Rick Nichols, right, is all smiles holding up his VQ Models Super Cub raffle prize, one lucky guy.



## Name That Plane: Miles M-39 Libellula

Role: Bomber

Manufacturer

Miles Aircraft

Designer: Ray Bournon and George Miles

First flight; 22 July 1943

Primary User: Royal Aircraft Establishment

Number built: One

The M.39B Libellula (from Libellulidae, a taxonomic family of dragonflies) was a Second World War tandem wing experimental aircraft built by Miles Aircraft Company designed to give the pilot the best view possible for landing on aircraft carriers. A scale version of the M.39 design was proposed by Miles to meet Air Ministry specification B.11/41 for a fast bomber. The M.39B was used by Miles to generate data from which the M.39 design was improved, but the M.39 project was cancelled and the B.39B broken up.

### Design and Development

Though it had some problems, the earlier M.35 proved sufficient to show the idea had merits, and the larger M.39 was drawn up as a twin-engined design prepared to meet Specification B.11/41 which had been issued by the Air Ministry for a high speed bomber. The specification had been written for the P.1005 proposal by Hawker, powered by two Napier Sabre engines, estimated to achieve 400+ mph at 25,000 ft and deliver a 2,000 lb bomb load over 1,600 miles. The P.1005 was cancelled after several delays on behalf of the Air Ministry and before Miles submitted his design to the Ministry in July. [3] In November 1943 a full-size prototype (to use the serial RR910) was ordered, but not built.

Until the intended (three) Power Jets W.2/500 turbojets were available the M.39 would have had two Rolls-Royce Merlin 60 inline or Bristol Hercules VIII radial piston engines. The M.39 would have a crew of three in a pressurized cabin. As well as the bomb-bay amidships, the M.39 would carry two fixed 20 mm cannon in the roots of the forward wings.

To prove the concept Miles designed and built a 5/8th scale version, the M.39B, which flew on 22 July 1943, showing no "undesirable handling" characteristics. It coincided with interest by the authorities in unorthodox designs for large aircraft. The rear wing was higher than the forward one to avoid downwash and give ground clearance for the propellers. The M39 design had inboard flaps and outboard ailerons on the rear wing and the front wing had an auxiliary aero-foil/flap/elevator device, which could vary the wing area without changing lift coefficient.

The Ministry of Aircraft Production agreed a development contract and purchase of the M.39B. Miles continued testing, generating more flight data and submitted an improved M.39 design in early 1944. Meanwhile, the sole M.39B passed to the Royal Aircraft Establishment at Farnborough in 1944, where it carried the serial SR392, being damaged and repaired after two accidents, only to be broken up with the full-sized bomber project's cancellation.

### Performance

Maximum speed: 102 mph;

Stall speed: 59 mph ( flaps down

Rate of climb: 1,100 ft/min

Wing loading: 11.2 lb/sq. ft



An unknown RC Version



Data from Wikipedia

# F-117A Mission Planning History: One Person's View

by Randy Meathrell

My love for aeronautics began when I was not yet old enough to know how to spell it. It has continued to this day, now more than a decade after my career as an aerospace engineer ended with my retirement. It all began in the 1970's - the era of the planning, design, and prototyping of the B-1A bomber, which the military envisioned would replace the B-52 bomber. North American Rockwell in El Segundo, California had been awarded the contract to develop and produce 123 of the new aircraft and hired me to work in their "B-1 War Lab". Our mission was to plan sorties against Russia using target and threat locations provided by SAC (Strategic Air Command). The B-1A program came to an abrupt end on June 30, 1979 when President Carter cancelled it. I, along with many others, was forced to find employment elsewhere .

My experience at North American Rockwell proved to be invaluable. Soon thereafter, George Arnold of Lockheed, asked me to join him as one of only two Operations Analysts in their Skunk Works division. I accepted the position doubting that funding for it would last for more than a year. However, the opportunity to gain more experience at the Skunk Works coupled with that from North American Rockwell would give me a solid foundation for future employment in the event that my new position would only be short lived. Several years later, I was still employed at Lockheed and was in charge of a select group of radar analysts providing mission planning products for the F-117A stealth fighter.

My journey with the F-117A began shortly after I was hired and my security clearance had been forwarded to Lockheed. George Arnold took me to meet Ben Rich , an imaginative genius and Director of the Skunk works. What an exciting experience that was, meeting such a wonderful, positive and energetic man. After discussing several of the ongoing programs, Ben took me to see the Have Blue mockup. WOW is the only word I can think of.

Using my experience from the B-1 War Lab, I produced detection templates for the proposed F-117A aircraft against one of the Russian Surface to Air Missile systems (SAM), sized to fit a selected Map scale. I then produced a clear overlay of the map with threat locations depicted on the map, and flew the F-117A Radar Cross Section (RCS) vehicle and a Non - Stealth vehicle against the threat locations. The difference in detection times between the Stealth and Non-Stealth vehicle was tremendous. My boss invited Warren Gilmore and Milt Jantzen, his superiors, to review my findings. They were impressed with the presentation and had me write a classified White Paper describing this work. Additional threat radar systems were modeled and evaluated against the predicted F-117A RCS. F-117A manual mission planning using clear plastic templates was now possible against government provided threat locations. The next big task was to computerize the process. Working with Lockheed's computer genius Paul Zank, we solved this problem and the Mission Data Processing System (MDPS) was created. This computerized system digitized the templates we produced and determined the best route to penetrate enemy radar defenses.

Job number one for my group of radar performance experts was to keep the F-117A survivable. Three radar range equations were developed to represent three different types of radar emissions: Pulse, Pulse Doppler and Continuous Wave or (CW). These equations (and modifications) determined the detection and engagement ranges for various radar and SAM systems against the F-117A RCS. The Mission Flight Planning Guide (MFPG) was the result and consisted of four products :

**ONE** - The **RED BOOK**. This document provided technical descriptions of all the radar systems modeled. Technical data from the Foreign Technology Division at Wright Patterson AFB was used, along with the results from testing certain assets, to develop the book. The RED BOOK was produced at the Secret level, and saw wide distribution within the radar community. It was used by the EF-111 and EA-6B jamming aircraft to determine how best to use their available jamming power. The Red Book also was used in early development of the F-22 Raptor. The final product contained over 200 different threat listings.

**TWO** - F-117A RCS. Book two provided the squadrons with the predicted average RCS used to develop detection and engagement templates. The RCS numbers consisted of measured and predicted values averaged over the entire F-117A fleet at selected threat radar frequencies. It also listed the predicted Infrared (IR) signature of the airplane. These values were produced by the Lockheed Special Technology group and the data was termed "NMerge 5 through NMerge 11".

**THREE** - Plastic templates were generated for all threat systems. These templates were generated at selected threat penetration altitudes. They were sized to work against specific scale maps. A clear plastic wedge was used to represent the aircraft and several templates could be mounted on the wedge and flown across the map. This product provided a manual backup to computerized mission planning systems.

**FOUR** - Data tapes were generated that provided the planning system with computerized descriptions of the threat templates. These data allowed USAF mission planners to define the threat laydown, determine air refueling points, time on target and other planning restrictions, and identify the most survivable route to and from the target.

Continued on next page...

**More on F-117 History...**



**DESERT STORM**

When the threat deployment in Iraq was identified there were numerous radars that my group had not yet modeled. They consisted of several Chinese and French systems. During Desert Shield my group produced three quick reaction responses to requests from mission planner Major K. D. Boyer at King Kalid Air Base. I personally delivered all three packages by first hitching a ride to the test site, then riding a helicopter to Tonopah for delivery of the needed material to the 4450th. Both manual and MDPS routes were generated during Operation Desert Storm. It was a hectic time but worth the extra effort. Following Desert Storm, my group received a nice thank you letter from Brigadier General John F. Miller Jr. Commander 49th Fighter wing.

**OPERATION ALLIED FORCE**

The shoot down of VEGA 31 on March 27, 1999 showed that even the best efforts can be thwarted by a determined enemy. Post event analysis showed that the modified SAM system used by the Serbian forces did have some limited capability against the F - 117A under the right conditions. F-117As continued to fly against targets in Serbia until hostilities ceased with no further aircraft losses. I was not in charge of the MFPG support during that period; however I was quickly reassigned to that task. I continued to support the Mission Flight Planning Group until retiring in 2005.

**FINAL THOUGHTS**

It is only natural to look back and wonder if you made a difference. At my retirement party I received two framed pictures of the F-117A, one from each squadron, signed by all the current F-117A Pilots with their Bandit call signs. I also received a nice letter from the commander of the 49th Fighter Wing with a hand written note at the bottom that said, "On behalf of Nighthawk pilots from all the conflicts we've been used, Thanx for all you've done to bring us back alive!! Kurt A. Cichowski Brigadier General USAF, Commander.

The success of the F-117A in combat was the direct result of the hard work and dedication of all the Air Force and Lockheed professionals involved. All the individuals who participated in the F-117A Mission Planning success should be proud of their accomplishments.

*Randy Meathrell*

***Alaskan Bear Smelled Fishing Bait in Piper Cub  
Five Cases of Duct Tape Later it Flew Home***

