



October

Minneapolis, Minnesota U.S.A.

2019

Pete Stapleton 1939 - 2019



Pete Stapleton, age 80 of Prior Lake, passed away peacefully on Monday, September 23, 2019.

Pete had been a member of TCRC, as well as other R/C clubs in the Minneapolis area for many years and R/C airplanes were a love of his life since he was very young. He was an accomplished builder and enjoyed flying his creations.

TCRC members send their heart-felt sympathies to Pete's family in the loss of their loved one.

TCRC Elections November 12th

It is already October and the year is racing past. That means that the TCRC elections are only one month away. As usual, the elections will be held at the November meeting, which this year will be Tuesday, November 12th.

All four of the officer positions are up for election this year plus two of the three at-large board seats. The board seat not up for election this year is held by Gerry Dunne.

Currently the officer positions are held by Bob Breisemeister, president; Chris O'Connor, vice president; Ken Weddell, secretary; and Tim Wirtz, treasurer. The board seats are held by Brian Johnson and Doug Elyea.

At this time it is not known who will be running for re-election.

The elections will be discussed at the October 8th membership meeting. Please consider being a candidate for TCRC office. The club needs you. Be both a voter and a candidate at the TCRC elections on November 12th. J

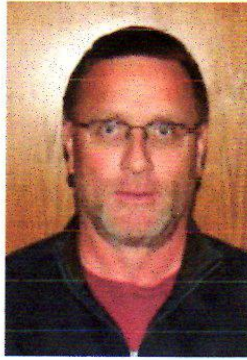
Calendar

Oct. 5	TCRC Season Finale Jordan Field Brian Johnson
Oct. 8	TCRC Membership Meeting, 7:00 PM CrossPoint Church Bloomington
Nov. 1	Building Season Arrives
Nov. 16	TCRC Annual Banquet, 5:00 PM David Fong's Restaurant Prior Lake
Feb. 1	TCRC Annual Auction CrossPoint Church Bloomington

TCRC meets every month on the 2nd Tuesday at 7:00 PM in Fellowship Hall of CrossPoint Church located on the southeastern corner of the intersection of 98th Street and France Avenue in Bloomington. Guests are welcome to attend these meetings.

A Note from The Head Wing Nut

By Bob Briesemeister



TCRC Members,

It's like Deja Vue. Last fall we recovered the field from the Minnesota River only to lose it to flooding after a month and a half. Yes, that means we have lost the field to flooding rains again. Like I said Deja Vue. If it's any consolation, very little I know, I saw a story on the wet year we are having, and we set a new record for rain fall. Over 41 inches this year beating the record set 2 years ago. For whatever reason, rainfall is measured from October 1st thru September 30th so the rain we are receiving now goes on to next year's total.

When the water recedes and we are able to do some work, there are a few items that should be done before winter. If and when that happens, I will let the members know and schedule a work day. Please continue to fly at the fairgrounds.

The second annual TCRC Swap Meet was held on September 28th at the Scott County Fairgrounds which is where we planned to have it when first planned. The turnout was a little better than last year and is something to build on for next year. Most of the sellers were from TCRC but there were pilots from as far away as Detroit Lakes and Mankato. It was a little windy but there were a few pilots that flew. The plan is to hold it the last weekend of September annually and hopefully it will grow in size.

With high winds and rain the Fall Float Fly had to be canceled. Please join us in May for the Spring Float Fly.

The season finale 'Crock Oktoberfest' will be held on October 5th. Please bring a desert or treat to share as we have food left to grill from the swap meet. Contact Brian Johnson with questions.

The membership meetings will move back to Crosspoint Church starting October 8th at 7:00 pm. Feel free to bring your projects and or completed airplanes to show.

It's not too early to think about your entry for The Ugly Airplane Contest at the November membership meeting. It must be a flyable

airplane that has been crashed, repaired or just a bad build. Please join in the fun.

The November membership meeting also brings the elections for the board. More information to follow in the November newsletter. All executive board seats are up for election and I believe two at large seats.

We will see you at the next meeting. **J**

Building Season Just Around The Corner

The cool air has arrived with the advent of October, and that should serve as a reminder to all that the building season is almost here.



Pictured above, Cullen Wirtz-Dwyer decided he wasn't going to wait for the official start of the building season as he worked hard on the wing of his newest plane-to-be. **J**

Dave Andersen Published Again

Long time TCRC member Dave Andersen has had another article published in an R/C magazine.



The article is titled “Wood Carving Basics For Scale Models” and was published in *Model Airplane News Scale Special*.



Dave has been in the hobby for many, many years and is renowned for his fantastic scale planes he has scratch built.



Back in the years that *RC Modeler* magazine was being published monthly, virtually every time Dave built a new plane, his detailed construction article for that plane would be in the magazine with a picture of the plane gracing the cover. His construction articles were always full of great pictures of the building process.

Congratulations to Dave for yet another article being published. J

Fall Float Fly Cancelled

TCRC’s Fall Float Fly, which was scheduled for Saturday, September 21st, had to be cancelled this year because of rain and high winds.

Chair for the event Steve Meyer reminds everyone to plan on being at the Spring Float Fly scheduled for next May. J

2019-2020 AMA Dues Statements

Most older TCRC members should have received their 2019-2020 dues statements in the mail in September from the Academy of Model Aeronautics. Newer members renew on the anniversary of the month they joined.

AMA 2019 dues are the same as the previous year. They are:

- Adult (19-65) \$75
- Senior (65 and up) \$65
- Under 19 Free or \$15 with MA

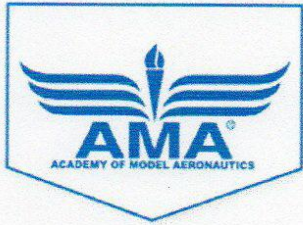
Your AMA membership gives you \$2.5 million in personal liability coverage, \$25,000 in medical coverage and also a subscription to *Model Aviation* for the year.

To belong to TCRC, you must have a valid membership for the year in AMA.

Please note that AMA also has a Park Pilot membership that has a cost of \$38 per year, but that membership is not valid for membership in TCRC.

To renew your membership in AMA, the Academy gives you four methods: at the AMA website, www.modelaircraft.org; by fax at (765) 741-0057; by phone at (800) 435-9262; or by returning the renewal form you received in the mail in the supplied envelope.

Deadline for paying your 2019 AMA dues is December 15 to avoid a lapse in membership services. J



ACADEMY OF MODEL AERONAUTICS
The largest model aviation association in the world!

In the Academy of Model Aeronautics elections in 2019, there are three very qualified candidates running for AMA President. Those running for that office are:

- Randy Cameron of Springfield, Missouri. Randy is currently the AMA Executive Vice President.
- Rich Hanson of Scottsdale, Arizona and Fishers, Indiana. Rich is the incumbent AMA President.
- Eric Williams of Schenectady, New York. Eric is the AMA District 2 Vice President.

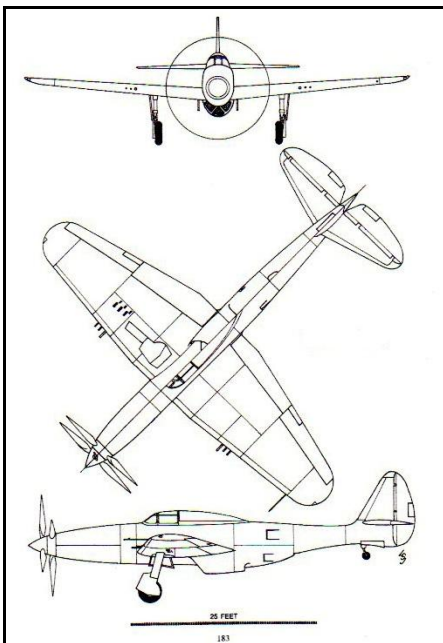
All current AMA members should have received their ballots in the mail beginning in September. Each candidate's campaign statement was included with that ballot. Please take the time to review the credentials for each one of these candidates. Your ballot must be postmarked no later than November 12th.

Your vote is important! Vote today!

J

October Mystery Plane

For Sale



President Bob Breisemeister has some very nice airplanes for sale.

Bob's planes range from small electric ARF's up to 1/3-scale sport planes. Some planes are still in kit form, and some are entirely completed.

The prices of the various planes are very moderate and any one of the aircraft would be a great value for the money.

If you are interested, give Bob a call at 612-964-8877, or see him at a meeting.

J

THE TCRC FLARE OUT Monthly Newsletter



TWIN CITY RADIO CONTROLLERS INC.

Purpose: To preserve, encourage, and further develop the hobby of building and flying radio controlled model airplanes.

2019 Officers

President	Bob Breisemeister 612-964-8877
Vice President	Chris O'Connor 612-619-5471
Secretary	Ken Weddell 952-500-3446
Treasurer	Tim Wirtz 952-941-5357

TCRC Flare Out

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 & Mike Timmerman 952-496-1631

Website: <http://www.tcrconline.com>

Lock The Gate!

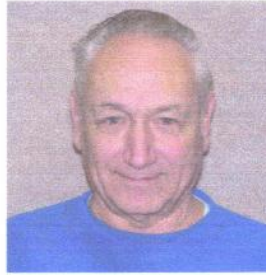
It is very important that the gate to the field be kept locked at all times when there is no member present.

It is every member's job to lock the gate when her/she is the last one at the field. It doesn't matter the time of day or how nice the weather is. This simple rule is to keep the gate locked to prevent theft, vandalism and the unauthorized use of our land from occurring.

J

Safety At The Field

By Larry Couture



Well here it is the end of September and the field is under water again. It is due to come back out of water in the first week of October but drying up at this time of year will probably be very slow. It will need cleaning so when the time comes let's all pitch in again and make a large job go away fast.

I am repeating last month's story of playing with the wind: One of the things I like to do is play with the wind and most of the time it is fun to see the plane stop or slide backwards. But last week I was doing this at the fairgrounds and when the plane stopped the wind gusted and sent the plane straight down. I opened the throttle and the plane responded. I missed the ground, but the direction of the plane was at that point up but directly at the trees and that is where it is today! So sometimes having fun can sure be spoiled by Mother Nature.

Now this month the story continues. Club president Bob got the plane out of the tree and I took the parts home and fixed it. Now the story becomes a safety problem.

I fixed the plane, ran the engine and everything seemed great, so back to the fairgrounds for another round of flying. I started the engine, took off and got it re-trimmed, and put in one good flight. Now I refilled the fuel tank and put the starter to the engine. The spinner, nut, washer and prop hit me right in the chest when the engine backfired. I now have a new scar. This could have been avoided had I did a better inspection on the motor. The engine is a 91 Saito four stroke and I had not noticed that one of the push rod tubes was bent. This caused the exhaust valve to stick closed when it started and then backfired throwing the spinner, nut, washer and prop right into my chest. That took the wind out of me and it really hurt. So always check very closely an engine that has been crashed before restarting it. What's a safety officer for?

Remember to keep the rubber side down and all landings from which you can fly again are great but not graceful.

P.S. just doing my job.

(Editor's Note: I don't think your job description says you have to try out each accident so you can write about it!)

TCRC Apparel For Sale

TCRC's club apparel is available for sale at most membership meetings.

The apparel is pretty nifty looking.

Club treasurer Tim Wirtz has been organizing the order of the club apparel and now has for sale:

- TCRC Hats \$12.00
- TCRC Hatbands \$5.00
- TCRC Gray Sweatshirts \$18.00
- TCRC Gray T-Shirts \$12.00

The dark blue hatbands are to be worn on broad brim straw hats and should look pretty neat.

Tim has plenty of the hats and shirts in an array of sizes. See him at a meeting to get your new TCRC shirt or hat. J

18304

If someone were injured at the TCRC flying field and you had to call 911, what would you tell the operator for the location of the emergency? You would tell the operator the fire number for our field: 18304.

For safety reasons, it is very important every member knows our fire number. Hopefully we will have the fire number prominently displayed in the shelter at the field in the very near future. J

Safety Always Comes First!

AWN (Assistant Wing Nut)

by Chris O'Connor



To say that this year was challenging for finding a place to fly is an understatement! Luckily, we have two alternative flying sites along with the two fields in Owatonna. Hopefully you have had plenty of opportunities to fly. I know I have been at the SMMAC (Tim Johnson) flying field for the entire summer flying.

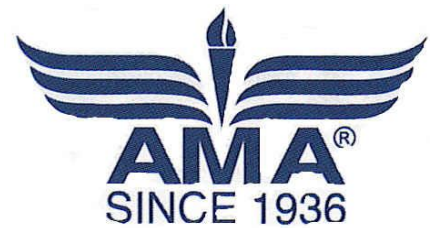
So, I was thinking about flying and what can fail, and the two most common failures are switch's and batteries. Here's one place you should not skimp on. In my opinion, Hobby King is not the place to buy batteries or switches. With today's technology, nicads and nimh batteries should be a thing of the past. Lithium type batteries are more reliable and provide plenty of power. Lipos, Lithium ion, LiFE, and A123's are what should be used.

With an all-electric airplane, the obvious choice is Lipo's. The downside is they can catch on fire if you're not careful. I always charge my Lipo's outside.

If you are flying a plane that is glow-powered or gas-powered, the best choice in my opinion is LiFE or A123 batteries. They are very similar in chemistry and use, a lot like nicads and nimh batteries are. LiFE batteries are lithium iron phosphate and A123 is lithium nano phosphate. I can't comment on LiFE, but A123 are very reliable and durable. They are the original A123/life battery. One of the big advantages over LiPo is they are safe and don't have the fire issue. The two places we buy A123s are Electro Dynamics and also Bob's Batteries. Bob's Batteries can be found at Hangtime Hobbies website along with tons of info on batteries.

So, you guessed it -- at the meeting on Tuesday the program will be on batteries, mainly A123s.

We will see everyone this Tuesday, October 8th at Crosspoint Church for our monthly meeting.



FAA Safety And Knowledge Test

By Tyler Dobbs

AMA Government Affairs Director

Congress recently mandated that the FAA, I consultation with UAS stakeholders, create an aeronautical knowledge and safety test. After it is implemented, recreational UAS users will be required to take the test and provide proof of passage to the FAA or law enforcement upon request.

Although the knowledge and safety test is not currently available, it will likely be rolled out at the end of 2019 or early 2020. AMA has been working closely with the FAA through the entire testing process, even maintaining a seat on the test question review board.

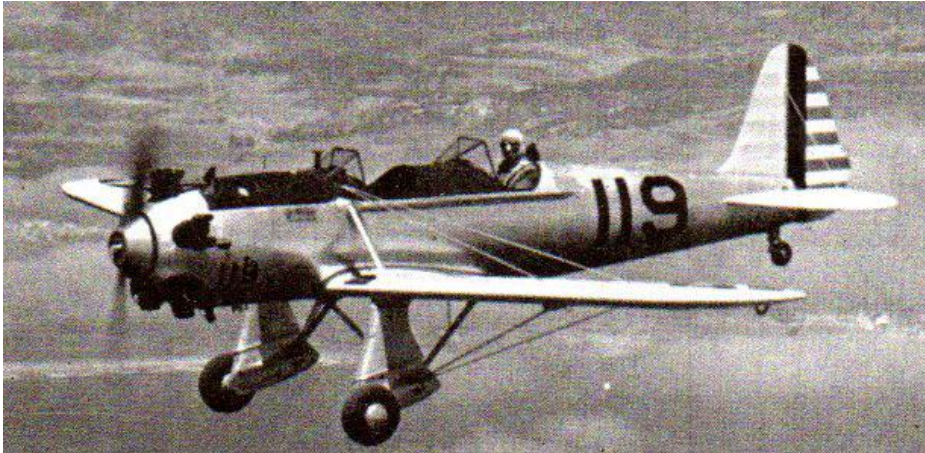
The test will provide education to all UAS operators and will show that AMA members have been demonstrating safe and responsible operations. It will provide knowledge of the FAA regulations and requirements pertaining to the operations of unmanned aircraft. Although these topics might seem like a steep threshold to meet, the recreational knowledge and safety test will actually be presented at a basic level.

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Ryan PT-22

by Conrad Naegele

The September Mystery Plane was the Ryan PT-22.



When the United States started a massive expansion of the Army and Navy forces in 1940/41, 43 companies were designated to produce a primary and basic trainer. Ryan, Stearman and Vultee were chosen.

The Ryan (PT-20), and the final, the PT-22 were almost directly developed from an earlier plane, the well-known Ryan ST (sport trainer). Now, the PT-22 was the final result, starting with the PT-20.

The PT series were all-metal, aerobatic and proved very easy to fly. The basic design could very well be classified as a basic trainer as well. During its short production period it underwent a staggering number of different engine selections, and model numbers, but basically remained true to the original model, the PT-20! Main airframe changes were to the landing gear (spats removed) and strengthening the cockpit area.

The PT-22 remained in production until 1942 in its primary form (one model, the ST-M was produced as a fighter, but sold to several foreign countries).

The PT-22 had a wingspan of 30 feet, a weight of 1,100 pounds (max 1,600 pounds) and a speed of 128 mph. It was powered with a number of engines, both inline and radial, with the most common being a Kinner R-540, which developed 160 horsepower.

(Author's Note: This was my first airplane. War surplus, costing \$400. I went halves with a friend who was a future 747 pilot. This plane burned a lot of fuel – 20 gph, for two guys working at Minneapolis-Moline. It was a real delight to fly. We actually had two, but that's another story.

TCRC Banquet November 16th

It's not too early to start thinking about the TCRC Annual Banquet. It is scheduled to be held starting at 5:00 PM on Saturday, November 16th at Fong's Restaurant in Prior Lake at the intersection of Highway 13 and County Road 21.

The banquet is always a very enjoyable time with TCRC members and their families coming together to partake of a great meal, indulge in camaraderie with both old and new friends, to see a recap of the club's 2019 events, and to be a part of some fun games with nice prizes for the winners.

Mark your calendars and plan on being a part of the fun at the TCRC Banquet on Saturday, November 16th. J

FAA Safety Test

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In addition to working with the FAA on the creation of the test, AMA plans to be a testing administrator. This designation would give AMA the opportunity to provide the test to our members and prevent them from having to go to a third party to meet the requirement.

AMA understands that there is much uncertainty and confusion surrounding the upcoming testing requirement, but we will continue to update you with any new information when possible. Although the testing requirement will be redundant to many who have operated safely in our community for years, it might help educate some in the general public that there are rules for the airspace. Q

Great Inexpensive Battery Charger/Balancer

by Jim Cook

I am just a novice when it comes to electric flight. All of my years of experience in R/C has been in glow engines. However, everyone needs at least one electric airplane, so I do have a few. That being said, I am very inexperienced with the batteries, the chargers, and the general operation.



I needed a lipo battery charger and didn't want to spend an arm and a leg to get one. Looking on the internet, I came across the Tenenergy TB6B Multifunctional Balance Charger. The cost was very reasonable – just \$64.95. This charger will do NiMH, Nicad, Lipo and LiFe battery backs. It also comes with its own power supply.

Up to this time I did have a very old charger – the little red and silver Triton. It needed a separate power supply and didn't have any cell balancing abilities.

The Tenenergy is a nice small compact unit – maybe 5 inches by 4 inches and an inch thick. The absolute, most impressive thing about it however, is that it comes with an octopus harness that has connectors for Traxxas, Tamiya, Mini Tamiya, JST, Hitec, EC3 (E Flite) and Deans. There is no need to solder an adapter for any reason! It also comes with a balancing clip that handles 3, 4, 5, 6 and 7 pin balancers. The unit can be used either AC or DC.

Of course, nothing can be all positive. This is the same for the Tenenergy TB6B. The operating manual is absolutely useless! Obviously written by someone without a good command of English, and extremely complicated and hard to follow. But I didn't despair. This is the electronic age. I simply went to YouTube and found several good videos on setting up and using the Tenenergy. They made it very easy to use.

I have been very pleased with this charger. I feel it is an excellent value for the money spend, and certainly exactly what I needed. I did go to the web and look at what other hobbyists had to say about the TB6B. Virtually every review was highly positive, but again, every review mentioned the terrible operator's manual.

If you're in the market for an inexpensive lipo charger, take a look at the Tenenergy TB6B. You may be pleasantly surprised. J

TCRC Has Fuel For Sale

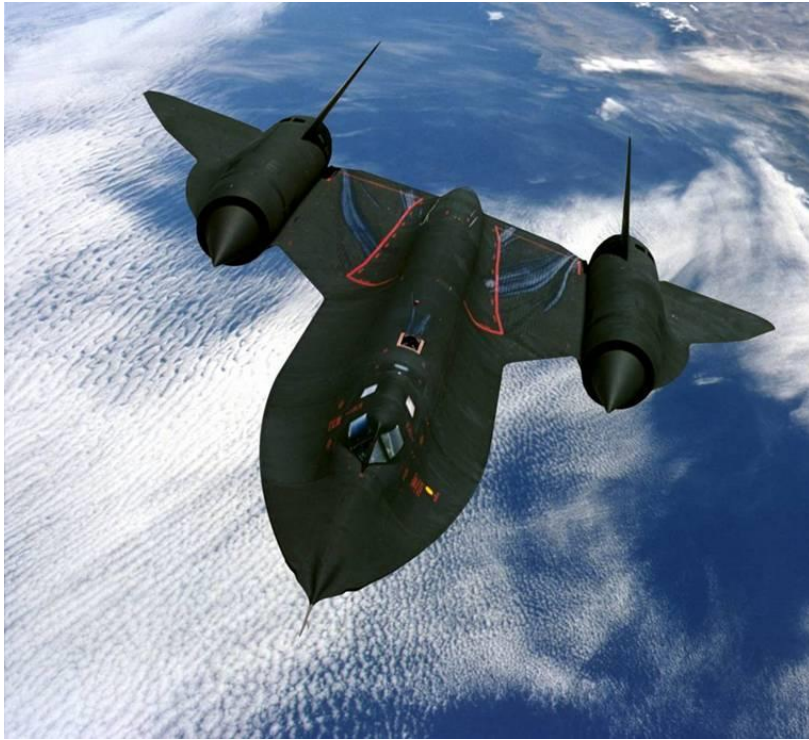
TCRC has a few gallons of 10% fuel for sale. Price is \$15/gallon.

If you are interested in purchasing a gallon, see Tim Wirtz or Bob Breisemeister at a membership meeting. J



SR-71 Blackbird--An amazing story - told by the pilot

by Mike Folker



In April 1986, following an attack on American soldiers in a Berlin disco, President Reagan ordered the bombing of Muammar Qaddafi's terrorist camps in Libya.

My duty was to fly over Libya, and take photographs recording the damage our F-111's had inflicted.

Qaddafi had established a 'line of death,' a territorial marking across the Gulf of Sidra, swearing to shoot down any intruder, that crossed the boundary.

On the morning of April 15, I rocketed past the line at 2,125 mph.

I was piloting the SR-71 spy plane, the world's fastest jet, accompanied by a Marine Major (Walt), the aircraft's reconnaissance systems officer (RSO). We had crossed into Libya, and were approaching our final turn over the bleak desert landscape, when Walt informed me, that he was receiving missile launch signals.

I quickly increased our speed, calculating the time it would take for the weapons, most likely SA-2 and SA-4 surface-to-air missiles, capable of Mach 5 - to reach our altitude. I estimated, that we could beat the rocket-powered missiles to the turn, and stayed our course, betting our lives on the plane's performance.

After several agonizingly long seconds, we made the turn and blasted toward the Mediterranean. 'You might want to pull it back,' Walt suggested. It was then that I noticed I still had the throttles full forward.

The plane was flying a mile every 1.6 seconds, well above our Mach 3.2 limit. It was the fastest we would ever fly.

I pulled the throttles to idle, just south of Sicily, but we still overran the refueling tanker, awaiting us over Gibraltar ...

Scores of significant aircraft have been produced, in the 100 years of flight, following the achievements of the Wright brothers, which we celebrate in December.

Aircraft such as the Boeing 707, the F-86 Sabre Jet, and the P-51 Mustang, are among the important machines, that have flown our skies. But the SR-71, also known as the Blackbird, stands alone as a significant contributor to Cold War victory, and as the fastest plane ever, and only 93 Air Force pilots, ever steered the 'sled,' as we called our aircraft.

The SR-71, was the brainchild of Kelly Johnson, the famed Lockheed designer, who created the P-38, the F-104 Starfighter, and the U-2.

After the Soviets shot down Gary Powers U-2 in 1960, Johnson began to develop an aircraft, that would fly three miles higher, and five times faster, than the spy plane, and still be capable of photographing your license plate.

However, flying at 2,000 mph would create intense heat on the aircraft's

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SR-71 Blackbird

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skin. Lockheed engineers used a titanium alloy, to construct more than 90 percent of the SR-71, creating special tools, and manufacturing procedures to hand-build each of the 40 planes. Special heat-resistant fuel, oil, and hydraulic fluids, that would function at 85,000 feet, and higher, also had to be developed.

In 1962, the first Blackbird successfully flew, and in 1966, the same year I graduated from high school, the Air Force began flying operational SR-71 missions. I came to the program in 1983, with a sterling record and a recommendation from my commander, completing the weeklong interview, and meeting Walt, my partner for the next four years.

He would ride four feet behind me, working all the cameras, radios, and electronic jamming equipment.

I joked, that if we were ever captured, he was the spy, and I was just the driver.

He told me to keep the pointy end forward. We trained for a year, flying out of Beale AFB in California, Kadena Airbase in Okinawa, and RAF Mildenhall in England.

On a typical training mission, we would take off near Sacramento, refuel over Nevada, accelerate into Montana, obtain a high Mach speed over Colorado, turn right

over New Mexico, speed across the Los Angeles Basin, run up the West Coast, turn right at Seattle, then return to Beale. Total flight time: Two hours and forty minutes.

One day, high above Arizona, we were monitoring the radio traffic, of all the mortal airplanes below us. First, a Cessna pilot asked the air traffic controllers to check his ground speed. 'Ninety knots,' ATC replied. A Bonanza soon made the same request. 'One-twenty on the ground,' was the reply.

To our surprise, a navy F-18 came over the radio, with a ground speed check. I knew exactly what he was doing.

Of course, he had a ground speed indicator in his cockpit, but he wanted to let all the bug-smashers in the valley, know what real speed was, 'Dusty 52, we show you at 620 on the ground,' ATC responded.

The situation was too ripe. I heard the click of Walt's mike button in the rear seat. In his most innocent voice, Walt startled the controller by asking for a ground speed check from 81,000 feet, clearly above controlled airspace. In a cool, professional voice, the controller replied, 'Aspen 20, I show you at 1,982 knots on the ground.' We did not hear another transmission on that frequency, all the way to the coast.

The Blackbird always showed us something new, each aircraft possessing its own unique personality. In time, we realized we were flying a national treasure.

When we taxied out of our revetments for take-off, people took notice.

Traffic congregated near the airfield fences, because everyone wanted to see, and hear the mighty SR-71.

You could not be a part of this program, and not come to love the airplane.

Slowly, she revealed her secrets to us, as we earned her trust.

One moonless night, while flying a routine training mission over the Pacific, I wondered what the sky would look like from 84,000 feet, if the cockpit lighting were dark.

While heading home on a straight course, I slowly turned down all of the lighting, reducing the glare and revealing the night sky. Within seconds, I turned the lights back up, fearful that the jet would know, and somehow punish me.

But my desire to see the sky, overruled my caution, I dimmed the lighting again. To my amazement, I saw a bright light outside my window.

As my eyes adjusted to the view, I realized that the brilliance was the broad expanse of the Milky Way, now a gleaming stripe across the sky. Where dark spaces in the sky, had usually existed, there were now dense clusters, of sparkling stars. Shooting stars, flashed across the canvas every few seconds. It was like a fireworks display with no sound. I knew I had to get my eyes back on the instruments, and reluctantly, I brought my attention back inside.

To my surprise, with the cockpit lighting still off, I could see every gauge, lit by starlight. In the

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SR-71 Blackbird

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plane's mirrors, I could see the eerie shine of my gold spacesuit, incandescently illuminated, in a celestial glow. I stole one last glance out the window. Despite our speed, we seemed still before the heavens, humbled in the radiance of a much greater power.

For those few moments, I felt a part of something far more significant, than anything we were doing in the plane.

The sharp sound of Walt's voice on the radio, brought me back to the tasks at hand, as I prepared for our descent.

The SR-71 was an expensive aircraft to operate. The most significant cost was tanker support, and in 1990, confronted with budget cutbacks, the Air Force retired the SR-71. The SR-71 served six presidents, protecting America for a quarter of a century.

Un-be-known to most of the country, the plane flew over North Vietnam, Red China, North Korea, the Middle East, South Africa, Cuba, Nicaragua, Iran, Libya and the Falkland Islands.

On a weekly basis, the SR-71, kept watch over every Soviet nuclear submarine, and mobile missile site, and all of their troop movements. It was a key factor in winning the Cold War.

I am proud to say, I flew about 500 hours in this aircraft. I knew her well. She gave way to no plane, proudly dragging her sonic boom through enemy backyards, with great impunity.

She defeated every missile, outran every MiG, and always brought us home.

In the first 100 years of manned flight, no aircraft was more remarkable. The Blackbird had outrun nearly 4,000 missiles, not once taking a scratch from enemy fire.



On her final flight, the Blackbird, destined for the Smithsonian National Air and Space Museum, sped from Los Angeles to Washington in 64 minutes, averaging 2,145 mph, and setting four speed records. J



And of course the SR-71 Blackbird has been modeled and flown by many R/C pilots. J

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Andersen Designs

Hawker Hurricane MkII
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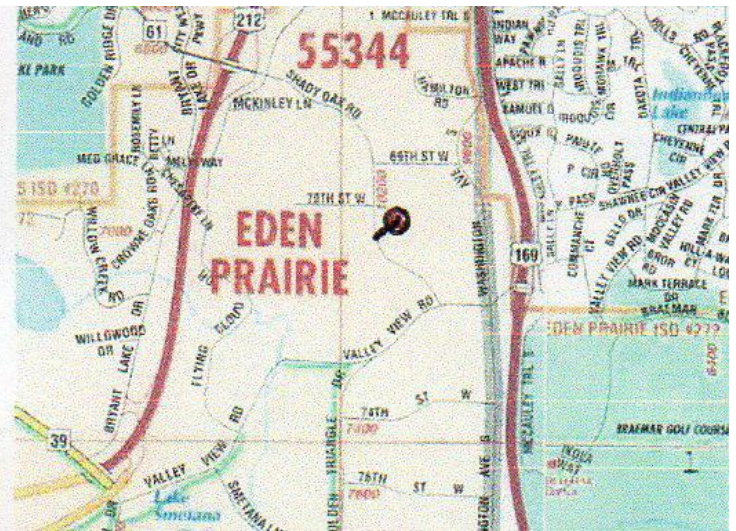
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