



# Crosswinds

NOVEMBER  
2007

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## Newsletter for the SPring Area Radio Kontrol Society

Greetings to all of you modelers out there!

This is going to be a quick letter due to time restraints, but I will try to hit the highlights....



It's been another wild month for me, but I am trying desperately to keep swimming and keep my head above water!

Thanks to all who came out to last months meeting.

It was a productive one that ended with the formation of a steering committee to guide us forward in the land search for the club. I truly still think the only long term solution is to buy land. If we don't want to fork it over, then the long term prospects for keeping the club going are dim. This is a great group - we just need to see where we want to go.

Also thanks to Glenn Watson and the Pattern flyers that gave a rather interesting talk about the Nats experience. It was really informative. I just sat there thinking of the time commitment alone - much less the \$\$\$ it took to be that great! You guys are awesome!

Please note that there was NO plane of the month last meeting. Come on folks - bring em out. It's worth some freebies!!!

At this months meeting Jaime Carreon and I will bring my new KMP Tigercat and will be touching on the trials and tribulations of doing a complex ARF. Talk about a long term project!

Well, that's it for now. See you on the 7<sup>th</sup> of November!

Do good, fly safe - and meet someone on the flightline

Wally

## Highlights of the October meeting.....

Many thanks to Mark Hunt for recording the minutes in my absence...

Alan Buckner reported that Jim Greer is now out of the hospital and improving.

Field condition/safety: Field has been mowed very nicely by Ben. He reports seeing several snakes in the high grass surrounding the parking lot.

Flight Instruction: Dallas Slovak has soloed and is flying very well since. He is 11 years old and a treat to watch.

The Pattern contest will be held this weekend (10/6-7/07). Richard Lewis reported that several flyers may be practicing on Friday. Volunteer help will be appreciated very much. The entry fee will be \$25 and food will be available via the Boy Scouts. They will be taking donations rather than pricing the food. Pilots meeting will be at 8am sharp on Sat. morning.

Field owner notes: No change in the current status with the Kays. At this point, they have not accepted the contract that was submitted to them. They will keep us updated and are trying to make sure that we can get a stay of 8 weeks after the date of closing written into the contract.

New field notes: Paul Johnson has not been able to talk to Rachel about the Beltway 8 site. The Kluge road site was reported to not be very suitable as it is likely not large enough to prevent flyover issues with the surrounding housing areas. There is a possibility for a site to north of Boudreaux. Vic Baney will talk with the land owner about leasing this property. Another possible site north of the fish farm was investigated by Mark Hunt and Paul. This site is unfortunately too small and not suitable. Jim Sheffield was in attendance and reported that a Waste Mgmt. site near the horse track has distinct possibilities. He is in contact with Waste Mgmt. and waiting to hear back in order to move forward. A field search committee was formed to investigate possible sites, make a list of our realistic requirements (including size, budget, etc.). This committee consists of Paul Johnson, Vic Baney, and Alan Buckner.

Speaker/s: Glen Watson, Jim Sheffield, and Mark Hunt presented a summary of their National Championships experiences. Glen Watson also brought in the equipment (plane, radio, engine, etc.) he uses in Masters Competition for all to view.

# 3<sup>rd</sup> Annual SPARKS Pattern Contest was held Oct. 6 & 7

Submitted by Richard Lewis, Contest Director

The 3rd annual SPARKS Pattern Contest was held October 6th and 7th at SPARKS Field. There were 18 contestants from around Southeast Texas and Louisiana. With severe thunderstorms rolling through the area Saturday morning, the outlook seemed bleak, but the weather held off and we got the competition under way by 9:00 am. We were able to fly four rounds on Saturday in very comfortable mild conditions. Sunday morning, brought cooler temperatures and a low ceiling with light mist. After evaluating the conditions over a couple of hours with no relief in sight, we ended the contest based on the four rounds from Saturday and handed out awards and had a drawing for prizes. We had a very good competition in many categories. Overall the contest was a big hit based on feedback from the contestants.

## The Results are as follows:

### Sportsman

Chris Khosravi

Quintin Lacombe

Alan Buckner

Mike Pascale

### Advanced

Chuck Hockhalter

Jim Sheffield

Buddy Brammer

### FAI

Earl Haury

Todd Blose

Ron Barr

Martin Stohr

### Intermediate

Jon Martin

Matt Liprie

Glen Shepherd

### Masters

Glen Watson

Don Ramsey

Jim Thompson

Gene Maurice

I would like to thank Glen Watson for acquiring the generous donations from Morgan Fuels, YS Performance and Randy's Hobbies which were given to the contestants in a drawing. I would also like to thank Mark Hunt for being my second in command and all of the other SPARKS members who helped out.

The Boy Scout concession stand/fundraiser for Robert Lewis's Eagle Scout project was a great success and thanks to the generosity of all of the contestants and spectators, Robert raised all of the required funds to support the completion of his project.

**Aircraft wisdom** submitted by **Bill Murad**

"Though I Fly Through the Valley of Death, I Shall Fear No Evil, for I am at 80,000 Feet and Climbing."

At the entrance to the old SR-71 operating base Kadena, Japan



-----  
"You've never been lost until you've been lost at Mach 3."

Paul F. Crickmore (test pilot)

-----  
"The only time you have too much fuel is when you're on fire."

-----  
"Blue water Navy truism: There are more planes in the ocean than submarines in the sky."

From an old carrier sailor

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"If the wings are traveling faster than the fuselage, it's probably a helicopter -- and therefore, unsafe."

-----  
"When one engine fails on a twin-engine airplane you always have enough power left to get you to the scene of the crash."

-----  
"Without ammunition, the USAF would be just another expensive flying club."

-----  
"What is the similarity between air traffic controllers and pilots? If a pilot screws up, the pilot dies; if ATC screws up ... the pilot dies"

-----  
"Never trade luck for skill."

-----  
The three most common expressions (or famous last words) in aviation are: 1.) "Why is it doing that?" 2.) "Where are we?" and 3.) "Oh S...!"

-----  
"Weather forecasts are horoscopes with numbers."

-----  
"Progress in airline flying: now a flight attendant can get a pilot pregnant"

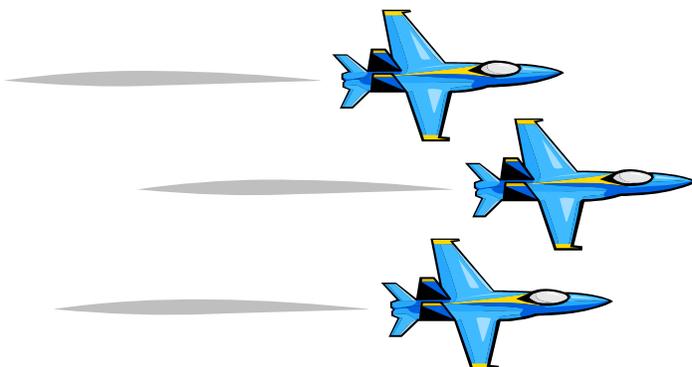
-----  
"Airspeed, altitude and brains: Two are always needed to successfully complete the flight."

-----  
"A smooth landing is mostly luck; two in a row is all luck; three in a row is prevarication."

-----  
"Mankind has a perfect record in aviation; we never left one up there!"

-----  
"Flashlights are tubular metal containers kept in a flight bag for the purpose of storing dead batteries."

-----  
"Flying the airplane is more important than radioing your plight to a person on the ground incapable of understanding or doing anything about it."



"The Piper Cub is the safest airplane in the world; it can just barely kill you."

Attributed to Max Stanley (Northrop test pilot)

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"A pilot who doesn't have any fear probably isn't flying his plane to its maximum."

Jon McBride, astronaut

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"If you're faced with a forced landing, fly the thing as far into the crash as possible."

Bob Hoover (renowned aerobatic and test pilot)

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"Never fly in the same cockpit with someone braver than you."

---

"There is no reason to fly through a thunderstorm in peacetime." -

Sign over squadron ops desk at Davis-Monthan AFB, AZ, 1970

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"If something hasn't broken on your helicopter, it's about to."

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Basic Flying Rules: "Try to stay in the middle of the air. Do not go near the edges of it. The edges of the air can be recognized by the appearance of ground, buildings, sea, trees and interstellar space. It is much more difficult to fly there."

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"You know that your landing gear is up and locked when it takes full power to taxi to the terminal."

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As the test pilot climbs out of the experimental aircraft, having torn off the wings and tail in the crash landing, the crash truck arrives, the rescuer sees a bloodied pilot and asks, "What happened?" The pilot's reply: "I don't know, I just got here myself!"

Attributed to Ray Crandell (Lockheed test pilot)



A tip of the wings to the following contributors to this issue of *Crosswinds*...

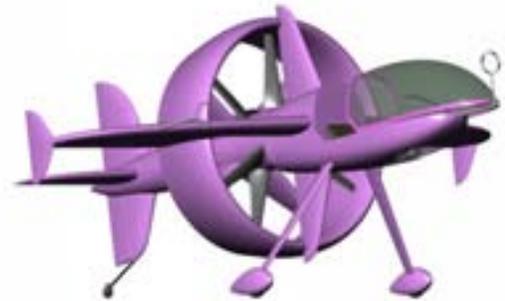
**Alan Buckner, Chris Fredona,  
Rod Kuntz, Richard Lewis, Nick Marson,  
Bill Murad, and Mike Rose**

I appreciate the great response to my plea for material for the newsletter. Remember, it's only as good as the contributions of article, photos, websites, humor and "good stuff" you submit.

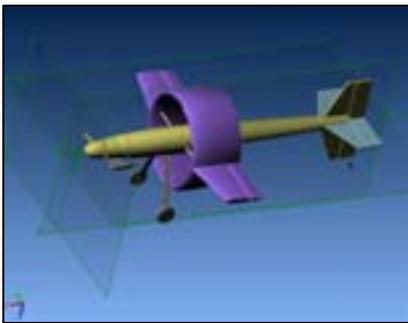
Please send to me at [dqmarson@earthlink.net](mailto:dqmarson@earthlink.net) Thanks, Diane

# Saturn Rising submitted by Chris Fredona

The annular wing idea has been around for many years and has been looked at by a number of different companies. On searching the internet, I came across several instances of this design in actual and proposed aircraft as well as wind tunnel data for this configuration. A few examples are shown below including a French fighter design, a conceptual airline design and a potential design for a full scale aerobatic aircraft.



As I was looking for something different and challenging to do in modeling, I decided to design and build an annular winged aircraft. After collecting information from various sources, I calculated the design parameters for the Saturn first pass design. These varied somewhat throughout the building process to accommodate different ideas and to resolve problems encountered. The aircraft was then developed in a 3D modeling package, Alibre Design. Since I had never used a 3D modeling application, learning the application was one of the many interesting challenges in this project. The production design is shown below.



The initial design was for an aircraft having 550 Sq Inches of wing area, 45" in length, and an overall weight between 5 – 6 pounds. I later changed the engine to a .60 for extra power.

The next challenge was how to build a round wing. After several months of thought and the very valuable assistance of Mark Hunt, I was able to cut the necessary pieces from foam and assemble them into the annular wing. Mark was able to cut the twelve wing segments with his computer controlled foam cutting machine. These twelve pieces made up three rings of four pieces each which were glued together and sanded to final shape, as shown below: Note: Polyurethane glue was used to join the foam pieces but I found that it dries very hard and was difficult to sand relative to the foam, so sanding had to be done very carefully to avoid over sanding the foam areas.



## Saturn Rising con't

This annular wing was then covered with one layer of 0.75 oz fiberglass and one layer of 2 oz fiberglass using ACP EZ-LAM 60 Epoxy Resin. No balsa skin was used. Several people had mentioned problems with non-balsa covered foam being dissolved by spray paint solvents even when covered in fiberglass. Some experimentation determined that water based PolyAcrylic applied to the foam before glassing would protect against these solvents.

Mark also cut the small outer wing panels from foam. These panels were balsa covered and fiber glassed with 0.75 oz cloth and shaped to match the curvature of the annular wing.



The next step was to construct the fuselage from foam and fiberglass. I prepared a block of foam 5x5x45 inches and cut it at each location that a firewall or bulkhead would be installed.

From the 3D model, I extracted the firewall and bulkhead patterns and cut these from plywood.

The bulkheads were glued to the foam block in the appropriate positions. Once the glue was dry, the fuselage was ready for shaping.

The fuselage plug was installed in the frame shown below. Long screws at front and rear supported the plug and allowed it to rotate. Templates for the fuselage shape were attached to the sides of the frame. A hot foam cutting wire was then pulled over the templates from front to rear, the fuselage rotated and the cuts repeated until the fuselage was rough cut to the proper shape. It was then final sanded to shape. The landing gear support plate was also installed at this point.





The fuselage was then covered with three layers of 3 oz fiberglass and sanded smooth. At this point, the engine cowl was separated from the fuselage. The fuel tank and radio compartment covers had been cut from the foam before fiber-glassing and glassed separately.

Horizontal and vertical cuts were made in the rear fuselage to accept the horizontal and vertical stabilizers. The vertical stabilizer and rudder were originally designed to be of equal area above and below the fuselage for uniform response in any attitude.

The final major component to build was the landing gear. Due to the clearance required by the annular wing, an off the shelf landing gear was not available to use. A landing gear male and female form was built from wood and covered with epoxy release film. Eight layers of 1 inch wide, carbon fiber tape were then layered on to the female form and coated with EZ-Lam 60 epoxy. The male form was then inserted and the form taped together while the epoxy dried. After drying for 24 hours the form was opened, the carbon fiber gear removed, shaped, sanded and the mounting bolt holes drilled to match the blind nuts installed in the fuselage landing gear plate.

With all the major components built, the aircraft assembly and radio installation and flight testing could begin. These activities will be discussed in next month's article.

The Saturn aircraft as presented at the Sparks meeting is shown in the picture below.



The Saturn finally flew on September 12, 2007 – but more about that later.

Chris Fredona

## Awesome B-2 Spirit photos and descriptions by renowned aviation photographer, Richard Seaman

Contributed by Mike Rose

Here is a website with the fantastic photos by Richard Seaman...

<http://www.richard-seaman.com/Aircraft/AirShows/Edwards2005/B2/index.html>

Here is some background from <http://www.af.mil/factsheets/factsheet.asp?fsID=82>  
the Official website of the U. S. Air Force.

*"The B-2 Spirit is a multi-role bomber capable of delivering both conventional and nuclear munitions. A dramatic leap forward in technology, the bomber represents a major milestone in the U.S. bomber modernization program. The B-2 brings massive firepower to bear, in a short time, anywhere on the globe through previously impenetrable defenses.*



*Along with the B-52 and B-1B, the B-2 provides the penetrating flexibility and effectiveness inherent in manned bombers. Its low-observable, or "stealth," characteristics give it the unique ability to penetrate an enemy's most sophisticated defenses and threaten its most valued, and heavily defended, targets. Its capability to penetrate air defenses and threaten effective retaliation provides a strong, effective deterrent and combat force well into the 21st century.*

*The revolutionary blending of low-observable technologies with high aerodynamic efficiency and large payload gives the B-2 important advantages over existing bombers. Its low-observability provides it greater freedom of action at high altitudes, thus increasing its range and a better field of view for the aircraft's sensors. Its unrefueled range is approximately 6,000 nautical miles (9,600 kilometers).*

*The B-2's low observability is derived from a combination of reduced infrared, acoustic, electromagnetic, visual and radar signatures. These signatures make it difficult for the sophisticated defensive systems*



*to detect, track and engage the B-2. Many aspects of the low-observability process remain classified; however, the B-2's composite materials, special coatings and flying-wing design all contribute to its "stealthiness."*

*The B-2 has a crew of two pilots, a pilot in the left seat and mission commander in the right, compared to the B-1B's crew of four and the B-52's crew of five.*



## Background

*"The first B-2 was publicly displayed on Nov. 22, 1988, when it was rolled out of its hangar at Air Force Plant 42, Palmdale, Calif. Its first flight was July 17, 1989. The B-2 Combined Test Force, Air Force Flight Test Center, Edwards Air Force Base, Calif., is responsible for flight testing the engineering, manufacturing and development aircraft on the B-2."*

*"Whiteman AFB, Mo., is the only operational base for the B-2. The first aircraft, Spirit of Missouri, was delivered Dec. 17, 1993. Depot maintenance responsibility for the B-2 is performed by Air Force contractor support and is managed at the Oklahoma City Air Logistics Center at Tinker AFB, Okla."*

*The combat effectiveness of the B-2 was proved in Operation Allied Force, where it was responsible for destroying 33 percent of all Serbian targets in the first eight weeks, by flying nonstop to Kosovo from its home base in Missouri and back. In support of Operation Enduring Freedom, the B-2 flew one of its longest missions to date from Whiteman to Afghanistan and back. The B-2 completed its first-ever combat deployment in support of Operation Iraqi Freedom, flying 22 sorties from a forward operating location as well as 27 sorties from Whiteman AFB and releasing more than 1.5 million pounds of munitions. The B-2's proven combat performance led to declaration of full operational capability in December 2003."*

Here is another link for a recent mission over Guam, just this month.....also from the USAF website

<http://www.af.mil/news/story.asp?storyID=123072193>

*"10/17/2007 - ANDERSEN AIR FORCE BASE, Guam (AFPN) -- B-2 Spirits recently deployed here from Whiteman Air Force Base, Mo., are scheduled to fly their first missions over Guam in mid October as part of a continued bomber presence in the Pacific region."*

*The B-2s are at Andersen AFB to enhance regional security, demonstrate the nation's commitment to the Western Pacific and focus on integrated training opportunities. "*

You can also visit this site for more facts and photos...

<http://science.howstuffworks.com/stealth-bomber.htm>





## Gathering of Mustangs and Legends submitted by Mike Rose

Over 150,000 Spectators Share in a Once in a Lifetime Aviation Celebration. Thousands of spectators from across the globe descended on Rickenbacker International Airport in Columbus, Ohio for the Gathering of Mustangs & Legends. Beautiful weather, non-stop action and an incredible array of aircraft and performers - led by the P-51 Mustang - combined to produce an exceptional air show that created memories that will never be forgotten.

Here is an awesome Power Point display by Larry Wilcox

<http://www.riversiderclub.org/GatheringofMustangsandLegends2007.pps>

These sites offer more details and background on the show:

<http://www.airportbusiness.net/calendar.htm>

<http://www.aero-news.net/index.cfm?contentBlockId=a61fa569-dbf3-4370-b3a9-fd8ed627875e>



# Flying Around the World

By Alan Buckner

For the past 10 days, I've been in Singapore for business. This weekend, I thought I'd check out the RC hobby here and compare it with the US. I found the differences and similarities to both very interesting, so on my 30 hr trip back home, I thought I'd type up what I learned and share that with you SPARKS members. I'll start with a quick introduction of Singapore for those who don't know anything about this small gem of a country, then tell you a little about their flying fields and local hobby shops.

## About Singapore

Singapore is a city-state (both a city and a country) located at the southern tip of the Malaysian peninsula, only about 100 miles north of the equator. This oval shaped tropical island is only about 25 miles by 15 miles, but has a population the size of Houston – 4 million locals and 1 million ex-pats (many Europeans and Australians). Formerly a part of the British Empire, the now independent Singapore (42 yrs old) hosts the busiest sea port in all of Asia. As a result, everyone speaks English and they have one of the highest standards of living in Asia. Of all the cities I been in (both domestic and abroad), this is the cleanest and safest of all – by far!

## Hobby Shopping

I started my weekend by checking out the local hobby shops. They have six to my knowledge, of which I visited five. There were a few difference from our LHS, many of which I liked:

4 hobby shops were located in the Fook Hai building about one block south of the China Town MRT (subway) station. That made shopping VERY convenient.



Every shop had their specialty along with the basics. One specialized in radio equipment ([www.JetHobby.com](http://www.JetHobby.com)), another looked like a Tower Hobby outlet (see picture 1), another was the country's MK dealer ([www.SingaHobby.com](http://www.SingaHobby.com)) and had many

balsa kits which are difficult to find in the US, one imported Precision Aerobatics from Australia including the very efficient Thrust motors not available in the US ([www.SkyHobby.com](http://www.SkyHobby.com)), while another was for helis. If you need any of these difficult to find items, they mail internationally.

Almost all of them have an Internet site with online sales. I found that what they showed online was in their retail store. Their inventory of airplanes and parts was amazing, especially packed in their relatively small shops! That is probably because of the distance from most suppliers as well as acting as their Internet inventory.

Car racing is also popular, but those were found in separate hobby shops.

In general, the prices for name brand items was about the same as in the US, and slightly higher for US goods. I didn't find many real deals, but generic items were priced well. Note that I asked about local, low-cost batteries, but they all suggested name brands (they really like Kokam & Hyperion) due to issues they had encountered with non-name-brands. I guess you get what you pay for... Note that one person told me that jet equipment was much cheaper in Singapore than the US, but I didn't check that out.

## Flying

Singapore has their own AMA equivalent organization called Aeromodeling Federation of Singapore ([www.afs.org.sg](http://www.afs.org.sg)) and they fly in Mode 1. The government requires that they register their transmitters for \$25 but many don't. If they are caught, their TX is confiscated and not returned – ever. They have their own national contests and send representatives to FAI contests around the world. I met the father of one of their champions who had traveled with his son to compete in Argentina a few years back.

They fly a great variety of planes/helis:

- Electric park flyers are by far the popular and flown during the low-wind seasons (most of the year). They fly 30 inch foamies to 40 size scale planes in nearby open land, parks, etc. Most of these flyers are new to the hobby (< 5 years) and are teens to young thirties. With unstructured frequency control ("Anyone using channel 33?"), I was surprised that only ~20% had 2.4GHz transmitters. There are a few reasons park flying is so popular here:
  - o Most people don't have cars (the government taxes them greatly to reduce traffic) so they must use public transport or walk/bike. Traveling to the remote areas where

there are fields is not practical. By the way, I picked up some clever ways of transporting park flyers on the back of bicycles or back-packs...

- o Vacant land is scarce, so parks are generally smaller. Imagine the population of Houston crammed in a 25x15 mile oval... However, I did



- o Sail-planes are popular during the high-wind season around December. Being on the equator, they can fly year round in 86-92 degree temperatures... One guy told me that he got his electric sailplane (actually, an EasyStar) up to 2.1 km but lost it to a speak – along with his GPS system...
- o Though I didn't see any Pylon racing posts, a few people mentioned it and I saw a contest brochure (which was first class – I brought home a copy if you want to see it) that showed a Pylon racing contest.



- o Pattern flying was popular at the Radio Modelers Singapore club, the oldest club on the west coast. They really love OS engines and swear by them! One of the teenagers had a \$7,000 USD Oxai plane which was beautiful. I hear it flies well, , too... ☺

- o 3D flying is popular in the north and east, but I was not able to visit those clubs – maybe next time...
- o I was told that very few people had giant scale planes though I saw a few. The reason is that almost everyone lives in small, high-rise apartments, so finding room for them is a challenge. One guy told me that they measure the elevators before buying their planes!!
- o Helicopters were actually the most popular. Electric ones were flown in their small parks and gas at their club fields. One club attempted to break the world record for the number of helis on a field back in 2006. I don't know if they succeeded, but I saw a picture and the number was impressive. They have a number of heli contests which appear to be fun – obstacle courses and "pattern" style flying.

Most interesting was the "Remote Control Kite" invented by a Singaporean. It is made of kite material with a prop, elevator, rudder, and embellished with bright LEDs for night flying. The government is very proud of Singapore innovations and actually had about a dozen of these flown in their National Day (their July 4<sup>th</sup>) celebrations before fireworks which I was fortunate to see. I couldn't find any real good pictures, but here's a [video](#) .

Most flyers fly in parks (vs. clubs) but are joined together through [www.DaddyHobby.com](http://www.DaddyHobby.com), which is like RC Groups but for Singaporeans. In addition, Singapore has had about 4 actual clubs with flying fields. They do a great job of encouraging children to go into aviation related fields and have a youth flying club that includes both RC and full-scale flying as well as non-RC modeling.

### RC Cars

I went to a local mall called Millenia Walk where they were hosting the Asian Championships for RC racing sponsored by Tamiya.. The race I saw was a 3hr team marathon. I met the 2 time Asian champion (yep, a teenager) and his parents. (photo below)

He's headed to Spain to compete for the world championship.



### True Modeling

While in Millenia Walk, I found no less than 4 modeling shops. I'm not talking RC, but plastic glue-together models, pre-assembled metal "collectors" models, etc. This included planes, tanks, cars, etc. Tamiya also hosted a modeling cost and you can see some of the winners below. This seems to be VERY popular.



As you can see, I really enjoyed my weekend, even though it did rain about half that time (of course, the weekdays were beautiful!). One thing I didn't mention yet, but must, is how genuinely nice everyone was. I had no less than three different people proactively offer me rides to places.



One person I met in a hobby shop for only 5 minutes and he offered to take me to another hobby shop, introduce me to the owner as "his new friend", showed me around, etc. Everyone at the parks and fields were VERY open and friendly. If you ever get a chance to visit Singapore, I would highly recommend it.

## 'Hunter-killer' UAV takes to Afghan skies submitted by Nick Marson

October 17, 2007 9:00 AM PDT



*"Meet the younger, meaner sibling of the MQ-1 Predator unmanned aerial vehicle: the MQ-9 Reaper.*

*Whereas the older UAV was designed for operations such as surveillance and reconnaissance, the primary mission for the aptly named Reaper is to be a "persistent hunter-killer" drone, the first such device at the Air Force's disposal.*

*The Reaper has just begun a tour of duty in Afghanistan--that's where it is in this picture from*

*October 1, and where it has flown daily missions since the last week of September. Despite its grim moniker, as of Friday the Reaper had yet to fire a weapon, according to the Air Force.*

*The Reaper outperforms the Predator in a number of ways. The MQ-9 can fly twice as high and nearly nine times farther, and carries a bigger munitions payload, the Air Force said. Both aircraft are built by General Atomics Aeronautical Systems.*

*The propeller spins during an inspection in Afghanistan on October 1. Note the armaments under the wings. The Reaper can carry a combination of AGM-114 Hellfire missiles, GBU-12 Paveway II bombs and GBU-38 Joint Direct Attack Munitions, to a total of about 1.5 tons. (The Predator, by contrast, can carry just 200 pounds, or a pair of Hellfire missiles.)*

*The Air Force used a Predator to track Abu Musab al-Zarqawi, a key al-Qaida leader in Iraq--but it was bombs from an F-16 that killed al-Zarqawi in 2006. Now, the Reaper can do both the surveillance and the strike of an elusive quarry--it "is ideal for that type of target," Lt. Col. Gregory Christ, director of staff at Creech, said in an August 27 article in USA Today.*



*The Reaper may be unmanned, but it does have a pilot--on the ground. The remote ground station for the UAV is a half a world away, at Creech Air Force Base in Nevada (the locale in the picture here). From the outside, the ground control station isn't much to look at.*

*Training missions for the Reaper crews began there in March. At the moment, the Air Force has nine Reapers in its inventory; it didn't reveal how many are in Afghanistan*

" This is the "cockpit" for the pilot and the Reaper's other crew member, a sensor operator. Targeting tools aboard the Reaper, according to the Air Force, include Raytheon's MTS-B multispectral targeting system, electro-optical and infrared cameras, laser designator and rangefinder, and synthetic radar aperture capability. The pilot uses a color camera on the nose of the Reaper for flight control.



Here's another look at the ground control station, also used for the earlier Predator generation. (A next generation is due in 2009.) The Creech AFB unit that oversees the Reaper is the 42nd Attack Squadron. It is the first of three Reaper units the Air Force wants to establish within the next 10 years."

"The Reaper--also known as the Predator B--in flight, in a photo from 2006. The 900-horsepower turboprop engine can push the Reaper to a speed of 200 knots, an altitude of 50,000 feet and a flight time of more than 20 hours, the Air Force said. The aircraft is 36 feet long and has a wing-span of 66 feet (compared with 27 feet and 48 feet, respectively, for the Predator). Its range is about 3,600 miles, versus 450 miles for the Predator. Photo to right



One distinguishing characteristic is the upturned V of the rear wings, compared with the inverted V of the older, smaller MQ-1 Predator shown here to left."

Credit: General Atomics Aeronautical Systems

Credit: U.S. Air Force

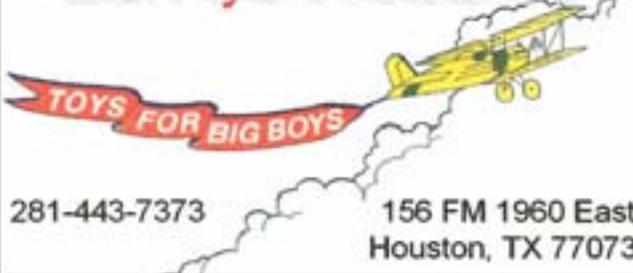
The entire article and other photos are found at...

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## Rescued Airplanes

by Rod Kuntz

Sometimes I feel like the SPCA of RC airplanes. I can't seem to let people throw airplanes away if there is a chance they can be put back together and flown. Now, I may well crash them, but better that than never being in the air at all.



About 18 months back, I made contact with a fellow that said he had a Citabria with a Super Tigre on it he wanted to get rid of. Making a long story short, I bought it because he said he was going to throw the airplane in the garbage because it looked terrible.

Meeting him and picking it up, he threw in a great field stand, and I promptly sold the Super Tigre engine, leaving me with a really beat up, well built but badly covered (missing parts as well), Bud Nosen 108" Citabria. See picture. Looking a bit better now, primed, for final first coat of paint, Qudra 52 installed (a story there as well)...anyway, once done will finalize the rescue story.