



Crosswinds

January 2007



Newsletter for the Spring Area Radio Kontrol Society

SPARKS 2005 - 2006 Officers

Chris Fredona President	281-376-7068
Mike Rose Vice President	281-376-9311
George Terry Treasurer	281-356-4315
Diane Marson Secretary & Newsletter Editor	281-374-8915

From the Cockpit by President Chris Fredona

Welcome to the January 2007 Crosswinds newsletter.

I hope you all had a Merry Christmas and a Happy New Year and are ready for a great 2007.

2006 was a year of rebuilding for the SPARKS club as we slowly rebuilt our membership from the losses of the 2005 and refurbished the airfield following the trampling it took from the herd of cattle. In addition, we added a number of new and well qualified instructors to our already excellent team, helping to spread the instructional load.

Our goal should be to continue the rebuilding in 2007. The SPARKS club should continue to encourage new membership and growth and actively pursue alternate field locations due to the encroachment of housing to the North, West and South of our field.

As discussed at the last meeting, our club is looking for a real estate consultant that can assist us in locating a new and hopefully permanent home for our activities. We need professional help in pursuing waste management or park service land or the long term leasing or purchase of land for our airport. Although I have contacted a number of real estate people, they are all been focused exclusively at land or home sales and are paid on a commission basis. All members are asked to assist in finding an independent agent or consultant that can guide us. Please send me any contacts you may find.

In December, we had an unfortunate incident which everyone should be aware of. Jim Greer had several receivers stolen from his tool chest while he was flying his aircraft. As he did not miss the receivers immediately, he can not be sure of exactly when they were taken or by whom. All members are reminded to be aware of those around you and protect yourself and others equipment at the field. Any suspicious activities should be investigated immediately. Theft by our membership can not be tolerated.

Our next membership meeting will be on Wednesday, January 3rd at the Valley Ranch Grill. For our entertainment, I will be showing videos from the AMA archives.

Hope to see you all there.

Fly safe!

SPARKS Flight Instructors

Chief Instructor

Lee Dillenbeck 281-288-7661

Flight Instructors, Airplanes

Bob Allen 281-443-8779
Jim Greer 281-370-5615
Mark Hunt 281-290-0327
Paul Johnson 281-353-7930
Jack Jones 281-252-3159
Richard Lewis 281-351-8540
Bill Murad 281-290-8945
Nick Marson 281-374-8915
Luis Rodriguez 281-363-9134

Ground Instructor, Airplanes

Vic Baney 281-357-1357
Chris Fredona 281-376-7068
Ron Hendrick 281-583-9421
Mike Rose 281-376-9311

Helicopters

Charles Jones 832-978-3688
Warren Watkins 281-855-7830

SPARKS WEBSITE

www.sparksrc.com

mail: **SPARKS**

P.O. Box 1361

Tomball, TX 77377-1361

Highlights from the December meeting.....

Members were reminded that a guest can fly three times in the company of a member. He should join if he wishes to continue flying privileges at SPARKS. We must also monitor our over flight, especially to the north. Soon we will be surrounded by homes and we must be more diligent about our flight patterns.

Rod Kuntz updated us concerning the Boy Scouts who wish to fly a trainer as part of their Badge requirements. A definite date will be announced later. Marcelo Ayala represented our Club at the school sponsored "Discovery Imagination" group, who are also studying aviation and radio control. It is important to promote our hobby in a positive manner to the next generation of pilots.

Chris mentioned that Jim Greer reported several items missing from his flight box, including some receivers. Perhaps it is best to leave items you are not using in your car/truck.

Rumors had circulated that the Valley Ranch Grill was closing after the first of the year. Chris spoke with their management who reported the restaurant was **not** closing; in fact there are plans to build a new building near the current location.

The importance of finding another field was discussed. With the loss of the Fish Farm and the rapid building of homes near our current field, we must make an effort to secure another location soon. Various areas of flood plains and waste management sites were suggested. Several members are going to check out possible areas and report at a later date.

Model of the Month was Mark Hunt and his own designed "Pentathlon" pattern craft. There is a detailed article with photos in the December issue of the *Crosswinds*.

**December Model of the
Month
Mark Hunt and his new
design... Pentathlon**



Instructor Mark Hunt presents Jeff Giesbrecht with his Solo Pilot Certificate.

Jeff passed the FPE and earned his Solo Certificate back in October.
His Instructor was Jim Greer.
Congratulations, Jeff !



Message from the Treasurer:

"SPARKS 2006-2007 Membership Stickers for your 2007 AMA Cards" have been mailed (12-28-2006) to members who did not receive their sticker at the November or December meeting or from me at the flying field. By having the 2006-2007 sticker on your 2007 AMA card, other members will know you are a current member.

Remember, you can not fly in 2007 if you do not have a 2007 AMA membership card.

New members should look in the metal box by the peg board for their SPARKS name tags. If you can not find your name tag or if you need a new one or if you lost your name tag, please e-mail me and I will order you a name tag.

Thank you,

George Terry

gfterry@hal-pc.org

Thermoteknix's MIRICLE on Board QinetiQ's Zephyr



QinetiQ's Zephyr High Altitude Long Endurance (HALE) solar powered Unmanned Aerial Vehicle (UAV) has achieved its longest flight to date during a set of flight trials at the White Sands Missile Range in New Mexico.

The surveillance aircraft is manned with numerous sensors and Qinetiq selected Thermoteknix' MIRICLE® 110K high performance miniature infrared camera to collect thermal imagery. The MIRICLE® 110K video output now offers 384 x 288 resolution in NTSC and RS170 formats as well as in PAL and CCIR. This gives 44% more pixels when compared to 320 x 240 pixel cameras resulting in a wider field of view for the same focal length lens, or a smaller focal length lens to match the FOV. This leads to smaller and lighter optics and improved FOV to weight ratio, ideal for portable and UAV applications.

MIRICLE® is also available as a 640 x 480 unit and both models ship either as OEM cores/engines or as fully built sealed cameras with a choice of optics. A choice of digital and analog outputs complete the package to meet application needs. Zephyr is an ultra-lightweight electrically powered aircraft, with a wingspan of up to 16 metres

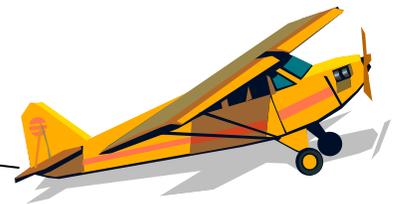


but weighing less than 30 kg. The aircraft uses a combination of solar array and rechargeable batteries and, when fully developed, is expected to operate for months at a time at an altitude above 50,000 feet providing a sustained and persistent earth observation platform. Zephyr flew with MIRICLE® on board at an altitude over 50,000 feet for 18 hours, including 7 hours in the dark.

"Palm-sized" MIRICLE 110K

WS: <http://www.qinetiq.com>
WS: <http://thermoteknix.com>

Many Thanks



A tip of the wing to the contributors of this first
Crosswinds issue of 2007....

Nick Marson, Bill Murad and Mike Rose

Please continue to send me articles, tips, websites,
just interesting stuff for future issues.

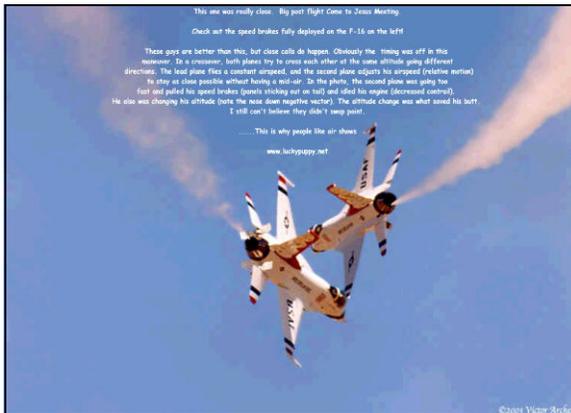
Diane Marson dgmarson@earthlink.net

Mike's recommendations for some great websites to browse

Editor's note: **Mike Rose** finds some of the most interesting sites !

"Mad Dog's Airshow "is a collection of Military videos, stills and links to everything aviation

<http://www.angelfire.com:80/hi/luckypuppy2840/MADSHOW.html>



This one is actual WWI I P47 footage and links to many others.

<http://video.google.com/videoplay?docid=4368250464023128830&pr=goog-sl>

Ok, we need to give equal time to the Navy with these.

<http://www.pacom.mil:80/exercises/vs2006/imagery060619e.shtml>

<http://www.pacom.mil/exercises/vs2006/index.shtml>



Neat Video "R/C Concorde"

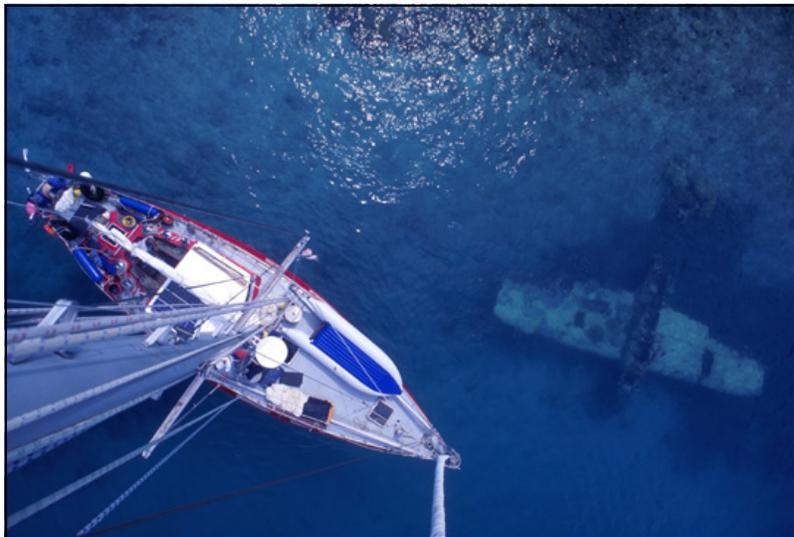
Amazing video footage of a radio controlled Concorde jet aircraft, along with 2 fighter escorts. These R/C planes sure are getting complicated. Looks like the real thing.

<http://video.yahoo.com/video/play?vid=090c3bbef175fe5d3025122dde3cd323.808896>

Odd Photos....
submitted by
Bill Murad



Above right is a picture taken directly above these camels in the desert at sunset. It is considered one of the best pictures of the year. Look closely, the camels are the little white lines in the picture. The black you see are just the shadows !!



The photo to the left is a submerged Japanese warplane near the Solomon Islands.

Photographer **GEORGE STEINMETZ**, a graduate of Stanford in Geophysics, dropped out for two and a half years to hitch-hike through over 20 African countries. His work appears regularly in **National Geographic**, **GEO Magazine** and **Condé Nast Traveler**.

To see more of the unusual photography of George Steinmetz, go to

<http://www.georgesteinmetz.com/>



Article from RC Universe

Submitted by Nick Marson

Lots of folks at RCU have had questions about soldering, so we thought we'd give you a "How To" on the basics. Before we begin, I would like to say that this is not an all-encompassing bible on soldering, but for 95% of what we modelers do, the basics are all that is required. I'm not even going to start off with the typical "What is Soldering" topic, because most of you don't really care about the technical details anyway, you just need to get your pushrods or landing gear together, or you need to add a new end to your Servo, so I will cover both Electrical, and Mechanical Soldering.

One thing I will point out, since so many have asked, is which type of solder to use. Regular rosin-core solder should be used for Electrical connections. It will also work fine for most Mechanical connections. Silver Solder will work better on Mechanical connections, and I would recommend it for high-stress applications, but for most of what we do, plain 'ol solder will do just fine.

For now, all you need to know are the three basic rules to a good solder connection.

They are:

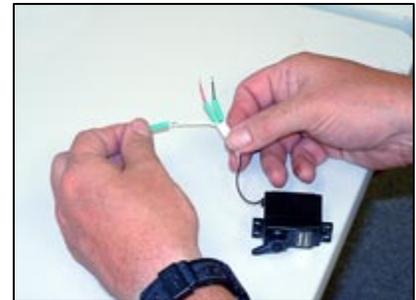
- 1) Clean - Your metal surfaces **MUST** be clean.
- 2) Flux - Flux allows the solder to flow and adhere better to the metal.
- 3) Proper Heat - The metal must be hot enough for the solder to adhere to it, but not so hot that it damages the metals properties (for example, if you let landing gear wire get red hot, it will remove the spring-like properties of the metal, and your gear will bend every time you land!)

ELECTRICAL

For Electrical Connections, you'll need some Rosin Core Solder, Flux, and a Soldering Iron (or Gun). You will also need something to insulate the bare wires with afterward. Electrical Tape can be used for this, but I prefer to use Heat Shrink Tubing, which can be purchased at your Local Hobby Shop, or at a place like Radio Shack. (Note: If you do some Internet searches, you can find Heat Shrink Tubing in bulk)

The first rule in Soldering is Cleanliness. This is usually pretty easy to achieve with an electrical Connection, because most of the time, the wires will be protected inside their insulation. If you are planning to solder a wire that has been previously stripped of its insulation, I recommend cutting the wire, and stripping the insulation from a fresh section.

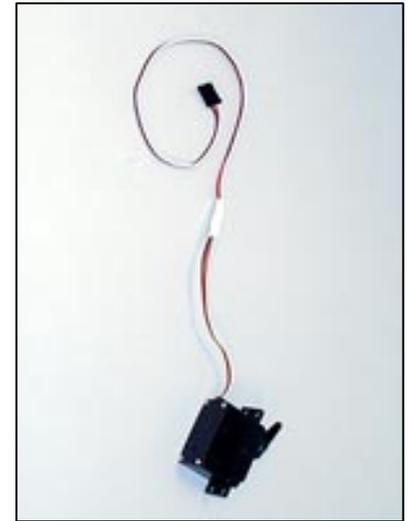
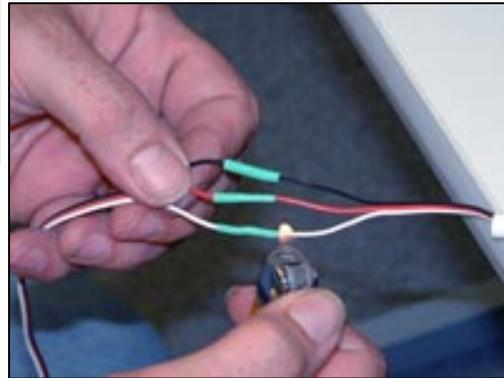
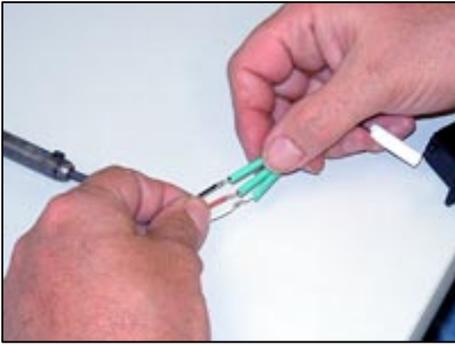
You can purchase special pliers to strip insulation, but I find that they are really not needed unless you do it on a daily basis. For the small wires that we work with, I just carefully nick the insulation about 1/4" from the end with a razor blade, then strip off the insulation with my thumbnail.



Once the individual wires have been stripped, twist the strands together to keep the ends neat. Now we're going to impregnate them with solder in a process that is called "Tinning". To do this, first I dip the bare ends of the wires in Soldering Flux to coat them. Next, touch the solder to the tip of the iron until it starts to melt. Allow a small amount of solder to accumulate on the tip. Then one by one, touch the ends of the wire to the tip of the iron long enough to heat the wire to the point where the solder will "wick" its way into the wire (if you are doing several wires, you may need to add more solder to the tip of the iron after you have tinned a few).

Once the ends are tinned, slip the Heat Shrink Tubing over the wires. I like to put one large tube over all of the wires, then a smaller one on each.

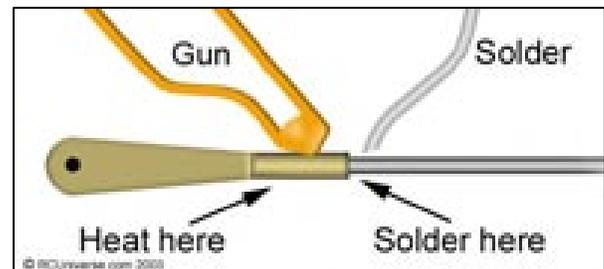
Now, hold the two wires together as you apply the heat. In most cases, the solder that is "Tinned" on the wire will be sufficient to join the two wires, and additional solder is not needed.



Once all of the wires are joined, slide the heat shrink tubing over the bare wire, and heat with a heat gun or, carefully (and quickly) run a flame under them (Note: In the picture above, it looks as though the first wire is being cooked! Actually, in that picture, I am heating the middle (Red) wire, and the heat is nowhere near the first). After shrinking the tubing, slide the large tubing over the other three, and shrink it to make a nice neat package.

MECHANICAL

For simple mechanical joints, like soldering a Clevis onto the end of a Push Rod, the rules are the same: Clean, Flux, Proper Heat



So first, clean the end of the Push Rod with sandpaper, then, dip the end into the can of flux, and insert it into the clevis until you can see the end of the rod is either flush with the other end of the hole, or protruding slightly. Now, heat the Clevis (not the pushrod). Allow the heat to transfer itself from the clevis to the rod. (Note: If you are using a Soldering **Iron**, this may take some time. A Soldering **Gun** would be better suited to these larger jobs.) Then apply the Solder to the joint where the Push Rod meets the Clevis, when the temperature is right, it will melt the Solder, which will "Wick" its way into the joint.

BIG JOBS

When it comes to the larger jobs, you will usually find that an iron or a gun will not heat the metal sufficiently. This is where a propane torch will almost always be a necessity. The one thing you must be careful of (aside from the obvious hazard of working with an open flame), is that a torch can quickly overheat the metal.

Some metals, like the spring steel used in Landing Gear, are "Tempered" or heat treated during their production. Without going into a metallurgy lesson, let it suffice to say that you never want to let the metal get RED hot. This will destroy the Temper of the metal, and remove its "Spring-like" tendencies, leaving it about as soft as a thick wire coat hanger. But don't let this scare you. As long as you keep the flame moving, and heat it up a little at a time, you will reach the soldering temperature long before the metal gets too hot.



For this demonstration, I am soldering the Main Landing Gear on a 1/4 scale Piper Cub. The Plans require you to solder three wires together into a bundle. The first step is the same as before - Clean all 3 wires with sandpaper. Once they are clean, I wrapped all three together with soft copper wire, keeping the winds neatly aligned .



Once the wires are wrapped, coat the joint with Flux. Now it's time to apply the heat. Moving the torch back and forth, slowly heat the joint. After a few passes, stop, and touch the solder to the wires to see if it will melt, if not, remove the solder and apply more heat. Continue these steps until the joint is hot enough to melt the solder. Once it does, feed enough solder into the joint to sufficiently coat it (applying more heat if necessary). Once the wires have a nice coat of Solder, remove the heat, and let cool.

It is recommended to remove all traces of flux after the job is complete, using alcohol and a brush. Flux residue is corrosive, this is more important with electrical connections.

Please support our local hobby shops

Randy's Hobbies
Remote Control Airplanes, Boats & Cars
Sales and Service



Randy Ritch
18706 Tomball Pkwy
Houston, TX 77070
281-469-7000

Kirk Massey

New Creations
R/C Electric Flight

9735 County Line Road
Willis, TX 77378

936 856-4630
newcreations-rc.com

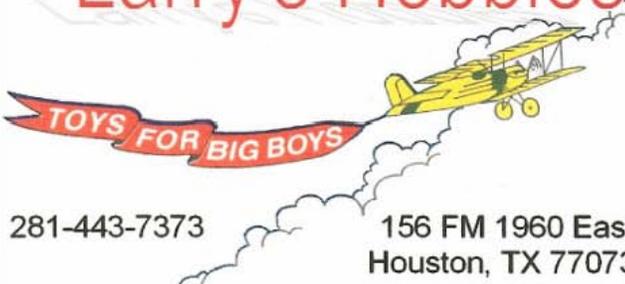
MIKE'S HOBBY SHOP
A Complete Train Shop Specializing In Everything From "G" to "Z"
Trains· Planes· Cars· Boats· Helicopters
Mon-Fri 10-6:30 • Sat 9-6 • Sun 1-5
281-354-7240
Website Address: www.mikes-hobbyshop.com
Email: mikeshobbyshop@aol.com

21768 E. Knox Dr. Porter, Texas 77365

HobbyTown USA
Portofino Shopping Center
(exit Research Forest)

19075 I 45 N. 936 271 4818
Shenandoah, TX 77385
www.shenandoahtx.hobbytown.com

Larry's Hobbies



281-443-7373

156 FM 1960 East
Houston, TX 77073