

**LISMORE  
FLYING**



**MODEL  
CLUB**

# **NEWSLETTER**

October 2016.



**Big planes, big motors, big smiles.  
Craig and Jamie with their large scale cubs.  
Enough towing power between them to pull a cow from a bog.**



**See you at our next monthly meeting,**

**TO BE HELD AT THE FIELD ON**

**SUNDAY, November 6<sup>th</sup>.**

**The usual 9.00A.M. Start.**

## News in brief.

Sage advice from Phil recently, regarding the soccer people next door. Advice we must heed. Funny though, how people knowingly move next door to a hazard, then complain that the hazard exists.

There has been quite a bit of talk, both locally and in the media, regarding the use of drones and the changes to CASA regulations. The following is taken from CASA's website.....

### Flying model aircraft recreationally

If you want to fly your drone or model aircraft for fun in Australia, you can do so without our approval - providing you follow some simple safety rules. These rules detailed in *Civil Aviation Safety Regulations Part 101* cover all recreational unmanned flight, including model aircraft, remote controlled aeroplanes and helicopters, blimps, rockets, kites, pyrotechnics and of course the ever-growing drone sector.

Flying with control - rules for flying drones and model aircraft safely

When flying drones or model aircraft recreationally, you need to follow these simple drone rules to keep everyone safe.

- You should only fly in visual line-of-sight, in day visual meteorological conditions (VMC). What does that mean?
  - No night flying (generally).
  - No flying in or through cloud or fog, and you should.
  - Be able to see the aircraft with your own eyes (rather than through first-person-view [FPV, binoculars, telescopes]) at all times, (unless you operate under the procedures of an approved model flying association. Contact the [MAAA](#) for more information about flying FPV).
- You must not fly closer than 30 metres to vehicles, boats, buildings or people.
- You must not fly over populous areas such as beaches, heavily populated parks, or sports ovals while they are in use.
- In controlled airspace, which covers most Australian cities, you must not fly higher than 120 metres (400 feet) above the ground.
- You must not fly in a way that creates a hazard to other aircraft, so you should keep at least 5.5 km away from airfields, aerodromes and helicopter landing sites.

More information about model aircraft see [AC101-3](#).

Our admiring public.



"Geez, you blokes must have \$20 or \$30 tied up in those toy aeroplanes"

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**John Morgan recently found the source of an unusual noise that he had experienced while flying his Tundra electric. John writes..**

**“The noisy flights a few weeks back with the Tundra have been sourced. This is a bit scary, the slight mark on the top of the cowl and a finger nail click to find a crack on the carbon prop (My underline. ed) pointed to a roll-over... There was a crack in the hub that was hard to find and dangerous! The vibration of the prop not running true made the noise on take off. This is a caution for small carbon props... Damage is not easily visible. An APC or similar would have just broken... Problems visible!!”**

**Perhaps some timely info from John, to check all props for damage, especially the carbon fibre variety.**

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**A new model on the building board.** (James Spencer)

**This is the Eye catcher 2, a router cut kit flying wing, from Austria.**



**The Designer/ maker is Robert Schweissgut, he is a birdwatcher, which accounts for the wing shape, (all curves) which is reminiscent of a hawk's or swift's wing.**

**Website. [robert.schweissgut@aon.at](mailto:robert.schweissgut@aon.at) to view his models and German slopes.**

**The design is a tribute to German engineering and design.**

**He cuts out kits when you order, from his site, which shows 9 different flying wings.**

**Not a straight line in the wing except for the glass fibre spars.**

**The ribs are 3-ml balsa with ply and balsa doublers, with a 2.2 metre span.**

**A small height limiter (air brake) is in the first servo box, the aileron is not yet installed .**

**The fuselage is minimum size, just large enough for a 2836 motor, of 80 grams and at least 150 watts.**



*Greg Spencer with the Eye catcher fuselage, ready for covering.*

**The fin is large and swept back, curves front and back.**

**I am finding construction difficult, no plan, and instructions in German.**

**I am really looking forward to flying this beauty.**

**October Fling round.**

<b>Contestant</b>	<b>Rd1</b>	<b>Rd2</b>	<b>Rd3</b>	<b>Rd4</b>	<b>Rd5</b>	<b>Rd6</b>	<b>Rd7</b>	<b>Rd8</b>	<b>Rd9</b>	<b>Rd10</b>	<b>Total</b>
Scott	1000	1000	581	118	816	1000	1000	1000	900	59	7474
Jim	747	832	359	1000	928	634	652	974	567	612	7305
Nigel	856	695	748	299	784	703	788	874	617	362	6706
Greg	402	835	621	538	1000	663	0	576	1000	1000	6636
Grayham	902	689	1000	186	812	658	549	363	717	332	6208

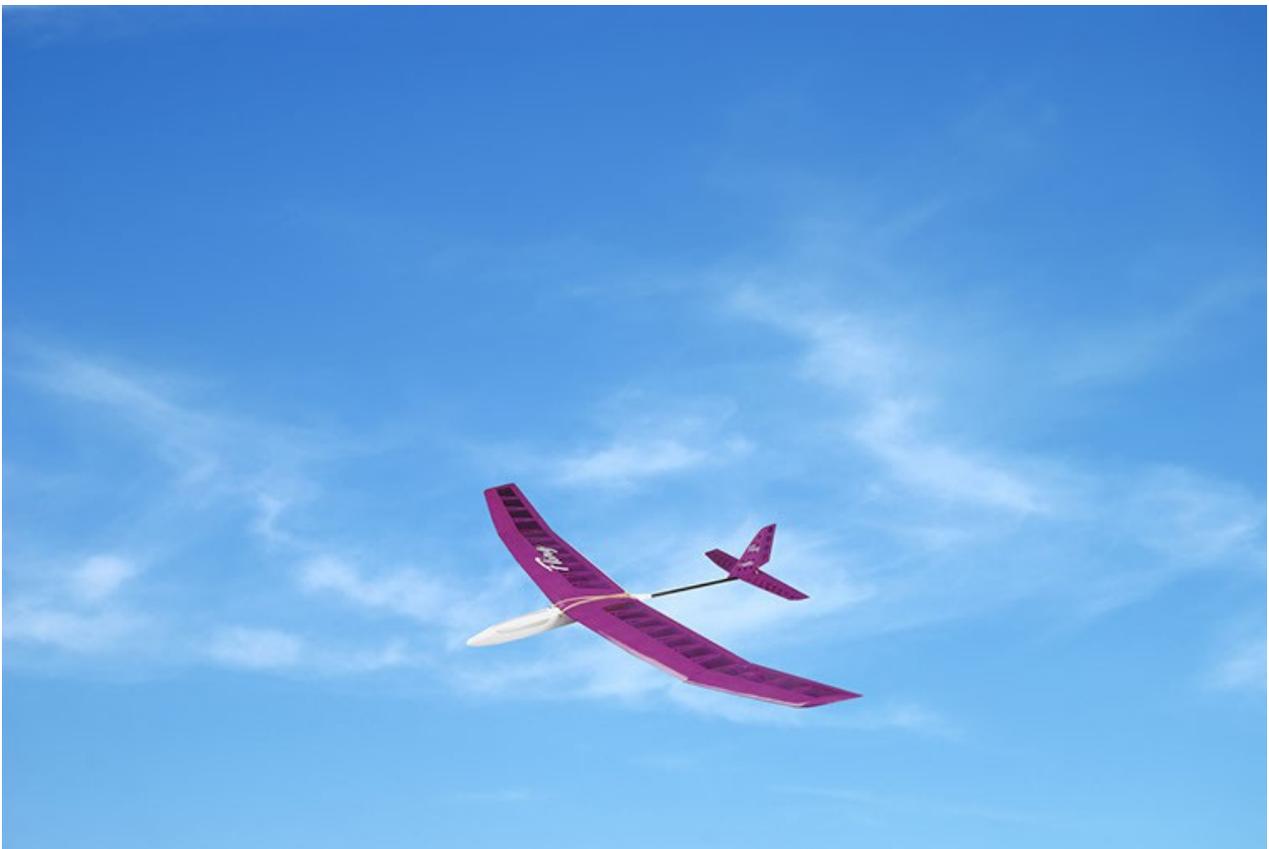
**A bit of a breakaway in the Fling competition or, as Jim puts it.....**

*Oh what a beautiful Spring morning*

*Oh what a beautiful Fling day*

*I've got a horrible feeling*

*Everything's going Scott's way (J.R.)*



## ***The Good old days-The birth of R/C***

The very First example of radio control was demonstrated in New York City in 1898. Its inventor—Nikola Tesla—was a 43-year-old immigrant who was duly awarded U.S. Patent no. 613,809 on November 8, 1898. It was only one of 113 U.S. patents that this prolific genius received during his lifetime. Many electrical engineers and historians regard his basic inventions as the foundation of the 20th century as we know it. In the decades that followed, the military and its suppliers attempted to implement Tesla's work in various R/C projects—including boats and aircraft—without very much fanfare.

By the middle of the 1930s, miniature aeroplanes were just beginning to be powered by very small gasoline engines. An R/C contest event was even scheduled for the 1936 model aircraft Nationals in Detroit. It was a little premature; not one entrant showed up! The following year however, must be regarded as the true beginning of R/C.

Several men who were active in amateur radio became interested in the possibility of controlling model planes by radio. Two of these early pioneers were Ross Hull and Clinton DeSoto. Both were officials of the American Radio Relay League (ARRL), which is the governing body of ham radio operators. Hull was a very gifted radio designer whose achievements include the discovery and eventual explanation of the tropospheric bending of VHF radio waves. Since his youth in Australia, Hull also happened to be an avid modeller. Hull and his associate DeSoto successfully built and flew several large R/C gliders in the first public demonstration of controlled flights. Their sail planes made more than 100 flights. Tragically, Hull died one year later in 1939 when he accidentally contacted 6,000 volts while he was working on an early television receiver. DeSoto died a decade later.

## **COMPETITIVE FLIGHT**

The 1937 Nationals R/C event attracted six entrants: Walter Good, Elmer Wasman, Chester Lanzo, Leo Weiss, Patrick Sweeney and B. Shiffman. Lanzo won with the lightest (6 pounds) and the simplest model plane, although his flight was a bit erratic and lasted only several minutes. Sweeney and Wasman both had extremely short (5-second) flights when their aircraft took off, climbed steeply, stalled and crashed. Sweeney, however, had the distinction of being the first person to attempt an R/C flight in a national contest. The other three entrants weren't able to make any flights at all.

## **BIRTH OF THE REED**

One of them—Weiss—was an 18-year-old aeronautical engineering student who had constructed a very large, 14-foot-wingspan RC model. He and an electrical engineering student—Jon Lopus—had devised a very sophisticated, innovative RC system consisting of six tuned reeds that reacted to audio tones.

The reed-control system became widely accepted in the 1950s. During the 1937 Nationals, however, Weiss wasn't able to start his plane's Ferguson twin-cylinder engine. He went on to successfully operate an avionics manufacturing company.

## **R/C EVOLVES**

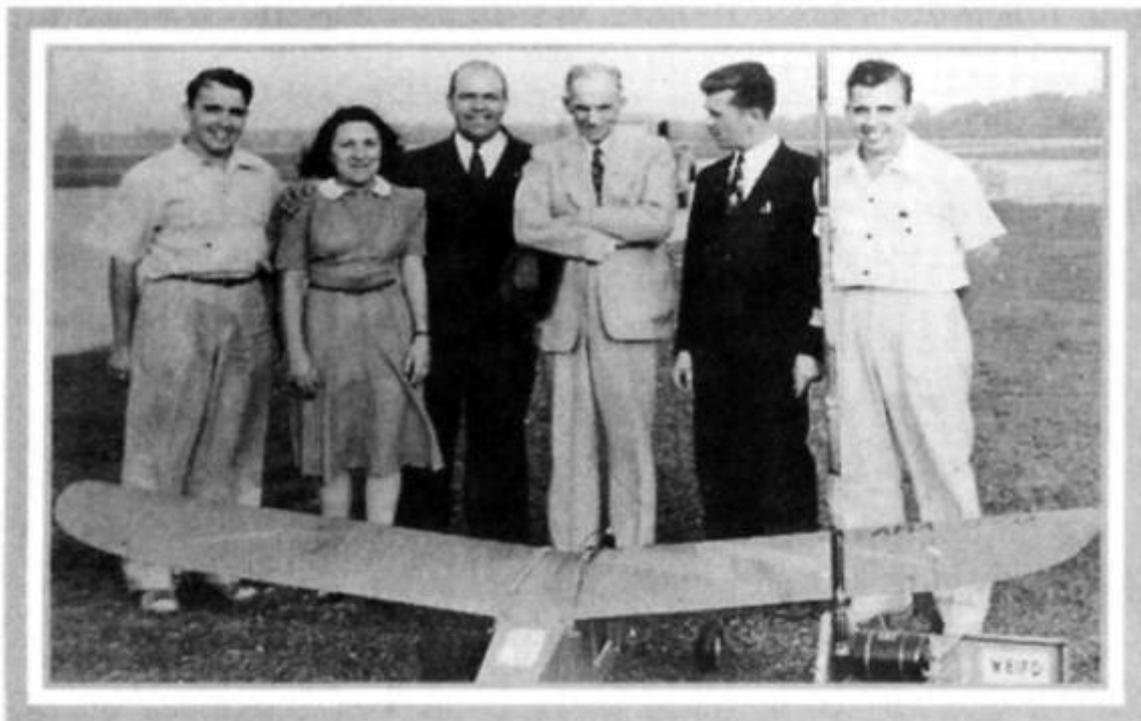
The 1938 Nationals were once again hosted by the "Motor City." Although the R/C entry list had grown to 26 entrants, only five fliers showed up on the field. One of the newcomers was DeSoto, who entered a 14-foot wingspan, 25-pound, stand-off-scale model of a Piper Cub that was powered by a Forster twin-cylinder engine. Each of the four separate receivers on board used a gas-filled Raytheon RK-62 tube in a super regenerative circuit to activate its own sigma relay. His plane placed second, but it isn't clear whether or not it actually flew. Oddly enough, these first contests required only that contestants demonstrate their R/C systems in a static position on the ground to win a runner-up award.



***Walter Good launches Guff at the 1947 Nationals. Bill is at the controls; his feet are behind Walt.***

Walter Good was the only contestant who attempted a controlled flight in the face of the 20mph winds. Even though it ended in a crack-up, Walt was awarded first place. A truly convincing demonstration of R/C flight by a powered miniature aircraft would have to wait until the following year. Eleven R/C fliers showed up at the 1939 Nationals at the Detroit Wayne County airport. For the first time, the judges adopted a 100-point system. Points were given for craftsmanship, actual R/C operation in a static pre-flight mode on the ground and a variety of flight manoeuvres.

## The Good flyers



*The Good brothers give a flight demonstration for Henry Ford Sr. (age 80) in 1940.*

That was a rewarding year for Walter and William Good—23-year-old twins from Kalamazoo; MI. Bill was a licensed ham-radio operator with the call letters W81FD.

Their aircraft—named K-G—was a slightly modified, high-wing monoplane.

Their radio and control mechanisms were the essence of simplicity. At a time when all of their competitor's planes carried receivers with 3- and 4-tube circuits, the Good brothers' radio



*In Walt's shop in Florida, the 75-year-old Good twins work on a spectrum analyzer that was built by Bill.*

receiver was a one-tube affair with a minimum of electrical components. Their home-made relay was so sensitive that it could be activated by a current change of 1/2 milliamp! They also designed and made their 1 -ounce, rubber band powered escapement mechanism. Before going to the Nationals in 1939, the two brothers had accumulated over 60 controlled flights in southern Michigan. Their diligent efforts paid off with a first-place score of 89 points; the second-place winner scored only 11 points. The Good brothers repeated their first place win in the 1940 Nationals and once more after the end of WW II, in 1947.

Their historic R/C model aeroplane, which they affectionately named the "Guff," was presented to the National Air and Space Museum in Washington, D.C., in May 1960, where it can be seen today. Both brothers continued their education and subsequently earned doctorates in physics. After pursuing careers in electronics research and teaching, they retired, but they're still very active in electronics. Walt lives in Florida, and Bill resides in upstate New York. They communicate constantly with each other using their ham radios.

## **JOSEPH RASPANTE**

No story on the early days of R/C would be complete without recognising the work of Joseph Raspante. Unlike most of the early pioneers of R/C, who were basically model aeroplane builders teamed up with ham-radio specialists, Joe Raspante was a superb designer and builder of early gas models as well as a competent electronic technician. His R/C system was unique in that he used a telephone dial to select various control functions. He placed second in the 1939 R/C Nationals and third in the 1940 event. Raspante was generous, and he shared his knowledge with young builders in years that followed. Walter Good remembers that when thieves stole his brother's R/C transmitter from their hotel the day before the 1940 Nationals, Raspante offered the use of his own



*Here's Joe Raspante with his R/C Super Buccaneer at the NY Mirror Meet. Note the car trunk that's full of transmitter equipment (circa 1946).*

**transmitter. This gesture was especially meaningful, because the Good brothers had defeated him in the 1939 Nationals. Raspante finally won the first place he yearned for at the 1946 NY Daily Mirror contest at Grumman airfield. With the advent of the transistor and the integrated microcircuits, today's R/C builder hardly has any of the frustrations of the early pioneers.**



***Joe Raspante launches his R/C model at the 1946 NY Mirror Meet at Grumman Airport in Long Island, NY.***

**In retrospect, however, we see that most of the pioneer's dedicated efforts were largely foiled by overly complex electrical designs. But without their perseverance, I doubt that R/C flight would have progressed as quickly to where it is today.**

**(Reprinted with permission from Model Airplane news.)**

## Warren Coull's Great Planes Cosmic Wind



**Wingspan = 36"**

**Fuse length = 31 5/8"**

**Flying weight = 1lb,14oz**

**Fibreglass fuse, ply formers, painted.**

**Wooden build up wing and tailplane, heat shrink film covered.**

**Rimfire 10 brushless outrunner motor.**

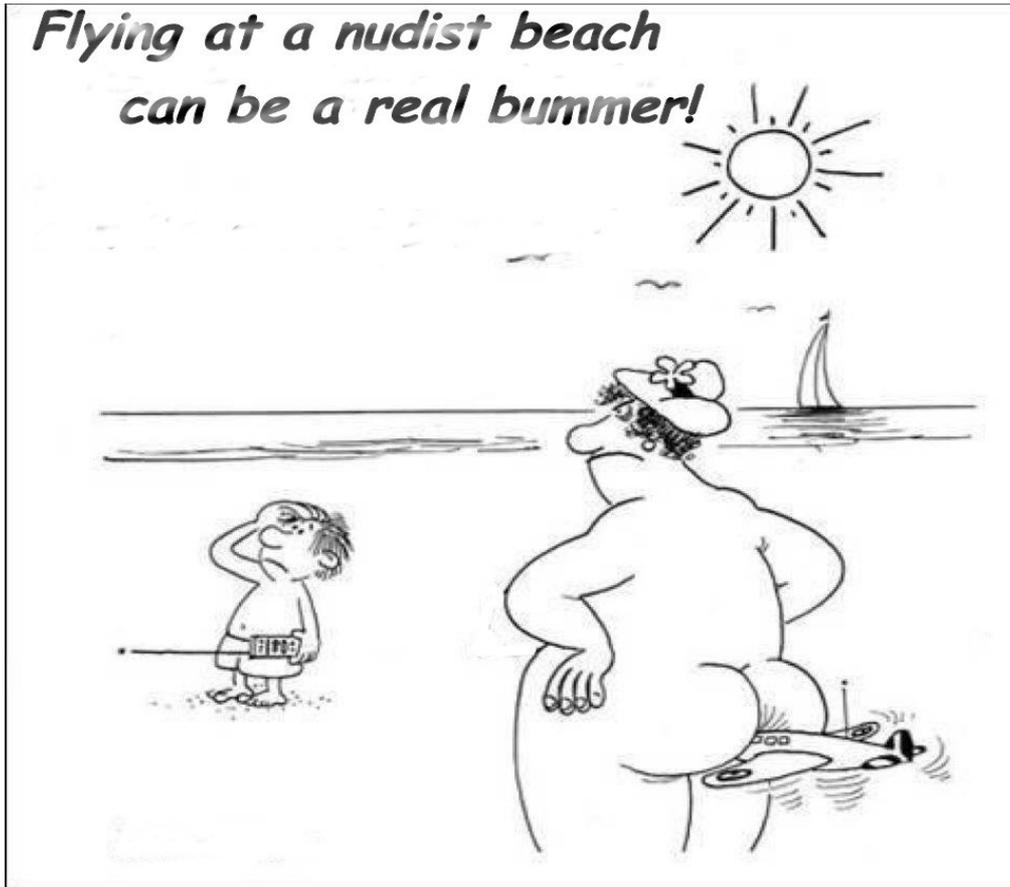
**Electrifly SS-25 ESC.**

**8" x 8" propeller.**

**1.9Mah 30C 3S battery.**

**4x mini servos with Spektrum DX6 mode 1 radio.**

*Flying at a nudist beach  
can be a real bummer!*



*And always remember....*

*If the shoe fits, get another one just like it.*



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