The Flypaper

Newsletter of the Radio Control Flying Club of Toronto, est. 1957, inc. 1967

Assisted by Yuri Agayan, Jack Humphries (with hat) prepares to fire up his gas turbine powered Hanger 9 Ultra Stick, at the RCFCT Fun Fly, June 21. Note the aluminum covered fin to protect against the hot exhaust. The sight and sound of this plane in the air was simply awesome. More club associated events on page 3.

Summer Edition, 2003

In this Issue:

Meetings are held in the Cafetorium of the Alexander Mackenzie Senior Public School, 33 Heather Road, Agincourt, *usually* on the first Friday of each month, Oct to May (subject to change – check the Flypaper) Meetings start at 8:00 PM

For the latest club news, photos and other points of interest please check out our web site at: http://www.rcfctoronto.ca

Weather Forecast: Memo to the weather gods: there's been enough rain, thank-you very much.

……Breaking News……Breaking News……Breaking News……Breaking News (sort of)……

Maynard Hill Flies R/C Model Across the Atlantic

(Aug. 11) An FAI world record was established when a team, led by multiple model aviation record holder Maynard Hill, successfully flew an R/C model airplane from Cape Spear, Newfoundland, to Round Stone Bog, Ireland. The plane landed within 35 feet of the intended landing point, after covering a total distance of about 1900 miles. The landing site was where Alcock and Brown, flying a (full sized) Vickers World War 1 bomber, landed in 1919 after completing the first trans-Atlantic flight.

The airplane, named *Spirit of Butt's Farm*, has a 6 ½ ft wingspan, is constructed of balsa wood, and is covered in red Monokote. Of the take-off weight of 11 lbs, 5.5 lbs was fuel, which was consumed at about 2 ounces per hour. The engine was a highly modified O.S. .61 four stroke fitted with a spark ignition, and the fuel was composed of white gas (Coleman fuel) supplemented with a "special lubricant"(?).

Flypaper readers might recall a brief piece about Hill's Atlantic crossing efforts last summer (May 2003 issue), which contained a picture of the airplane. There were three unsuccessful attempts that summer; the recent successful flight was the second attempt this year. The plane is launched and flown in the normal R/C manner to an altitude of 500 feet, after which an autopilot using GPS signals and assisted by gyros takes over. On-board telemetry data, including position, speed, and altitude, is linked by satellite to the ground crew. When visual

contact was made by the crew waiting in Ireland, the airplane was flown manually to a landing. FAI rules state that to qualify as a record, the model must touch down within 500 meters of a previously declared landing site.

As if this accomplishment wasn't enough, the 77 year old Mr. Hill is legally blind, and partly deaf. To quote the man himself: "One of my personal goals in this project is to deliver a message to handicapped or impaired people of any age…do all you can with those abilities you still possess". For more information, internet users can check out the web site: http://tam.plannet21.com/news.htm.

The President's Message: Richard's message will return in the next issue….vacations and the power failure sort of messed things up this time.

Radio Control Flying Club of Toronto

2002-2003 Executive positions

President	Richard Staron	416-288-0569	*rstaron@eol.ca*
Secretary	Steve Horwat	416-439-7084	*s.u.horwat@sympatico.ca*
Treasurer	Guy O'Reilly	416-443-1299	*joulavert1@aol.com*
Field Officer	David Parton	905-430-0913	*dparton@rogers.com*
Membership Officer	Paul Battenberg	416-694-4414	*paulbat@sympatico.ca*
Wings Officer	Curt Jones	416-221-3300	*airsport@attcanada.ca*

Meetings and other Events

- Hopefully, there'll be a Fun Fly in late September.
- The first Fall club meeting will occur in early October; details in the next *Flypaper*.

Non Executive positions

Editor/Publisher	John Riley	416-469-3990	*jcmriley@sympatico.ca*
Fun Fly Director	Hans Paule	905-837-2664	*hpaule@rogers.com*
Refreshments	Romeo Ramos	416-441-0134	*romepamela@AOL.com*
Program Director	*Vacant*		

From the Wings Officer:
Curt Jones

A mid summer update of the wings program : The wings program has been under way for a couple of months now, but we had a lot of bad weather in the spring, which held us up in training . Everybody knows the problems we had , coming out and finding it raining. As we moved into summer the there was less rain, but July wasn't that great. So much for the weather, I guess we all just have to live with it. However, we have had a few students gain their wings this year, and the other students are progressing nicely. I hope that we will have a few more graduating soon .

Editor's note:
John Riley

Welcome to the summer edition of *The Flypaper*, which is a relaxed version of the regular rag, hopefully suitable for enjoying a cold beverage with…. Normal publication resumes in the first week of October, hopefully in time to announce the first Fall club meeting (actually it might be sent out earlier this year due to some business travel I'm expected to take). As always, the management and the editorial board (*a surprisingly small group*) of *The Flypaper* welcomes your suggestions, submissions, likes/dislikes, and so on – don't forget, it's your newsletter, meant to serve RCFCT members.

Recent Events….

2003 Beauty Show : Members brought their creations to the Beauty Show, held at the May club meeting. In a time where good quality ARF models are increasingly prevalent, it's great to see the building aspect of the hobby on display. Here's a list of the winners; their smiling faces can be seen posted on the club web page:

Gord Schlinder took Best of Show and 1st place, .50-1.00 cu. in. category with his beautiful Taube

0.50 cu. in. and under: 1st, Gord Schlinder, Slow Poke; 2nd, Jim Wilson, Revolution II; 3rd, Yuri Agayan, Pitts Special
0.50 – 1.00 cu. in.: 1st, and Best of Show, Gord Schlinder, Taube; 2nd, Gerry Steckling, Beaver; 3rd, Shawn Chisholm, Extra 300S
over 1.00 cu. in.: 1st, Curt Jones, Antonov 14 (glider)

Best unfinished: David Summers, Supermarine Walrus

June Fun Fly : This well attended event, on June 21, was blessed with pretty decent weather. The prizes were better than ever, there were no major crashes, and tasty burgers were served from the grill. A highlight was the gas turbine Ultra Stick, pictured on the front page. Jack said that he used about 1/3 throttle for most of the flight. Details are somewhat fluid at the moment, but there are plans for another Fun Fly in September.

Team Arrow at the Quinte Air Show: The Quinte International Air Show was held on June 21& 22 at CFB Trenton, and on both those days, successful demonstration flights by Team Arrow of the Avro Arrow were given. Flown by owner Bernie Lehman, the 1:12 ducted fan scale plane exceeds 150 mph – as Bernie likes to point out, that's about Mach 3 (scale speed), and no windows were shattered…. Congratulations to Bernie and the team, not only for keeping alive an important part of Canadian aviation history, but also for being classy public representatives of the R/C model aviation community. Team Arrow has some pretty cool T-shirts for sale, the proceeds from which will go towards purchasing a gas turbine engine for the plane. The air show itself was also really good, with a variety of (full scale) jets (F-86 Sabre, F-18 Hornet, F-16 Falcon, Snowbirds), as well as aerobatic piston planes (Pitts Special, Yak 55, CAP 232), and even a *really* fast fire truck, powered by dual jet engines.

Justifiably stoked and proud, Team Arrow poses right after the June 22nd flight. Bernie Lehman, right of center, handled the sticks.

More action at the Quinte Air Show: Left: *An F-16 makes a reassuringly loud low pass.* Right: *Among the static displays was this enormous C-5 Galaxy, one of the largest aircraft in the world.*

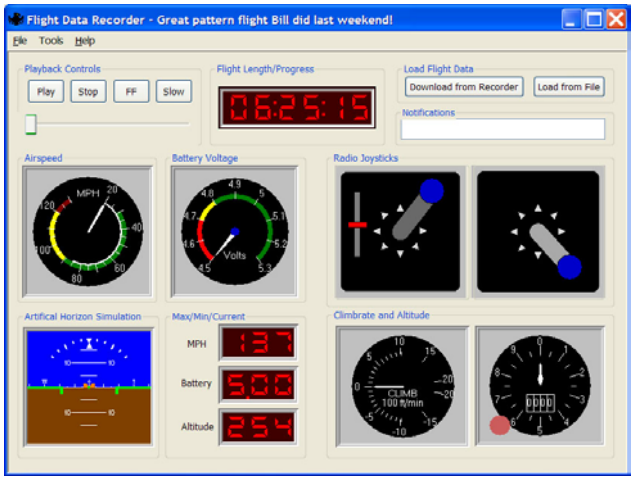
Product Review: Flight Data Recorder, by Eagle Tree Systems Inc.

Here's a nifty flight accessory that's fairly new, appearing earlier this year. The Flight Data Recorder (FDR) is a small device about the size of a standard R/C receiver that is installed in your plane, and records the airspeed, altitude, stick (servo) position, and onboard battery voltage. It can record about 20 minutes of flight time, after which the data is downloaded via an included USB cable to a computer, where the data can be viewed using the supplied software, so you can review all or part of your flight. As the illustration shows, a display similar to an instrument panel lets you see the details of the flight. I heard about the FDR in the August 2003 issue of *Model Airplane News* – the $150 (US) price tag sounded fair, so I ordered one right away, and it arrived in less than 2 weeks.

The beige cable hooks up to your computer, and the blue tubing that looks like fuel line connects to the pitot tube

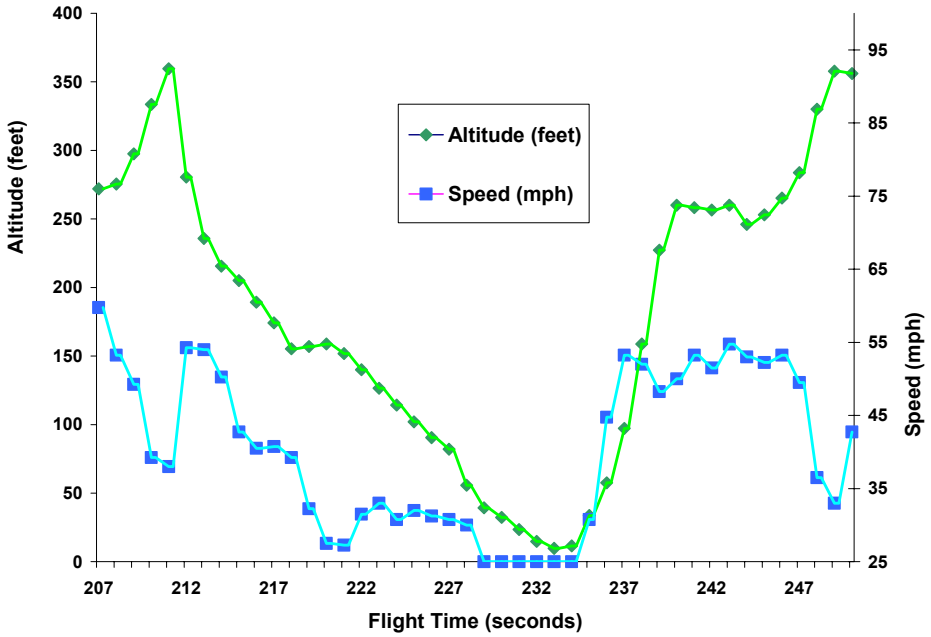
The unit arrives with Y-cables so that the servos can be connected so that their positions can be recorded, as well as rubber tubing and a plastic pitot tube. Installation is straightforward. The pitot tube can be mounted on the wing, or on the landing gear where there's undisturbed airflow. The tubing is routed to inside the aircraft where the FDR is located, and I found the arrangement to work well, although pinching or excessive vibration of the tube (as happened to me once) will give you weird airspeed readings. The total onboard weight is about 3 ounces. Eventually I plan to see how accurate the device is by holding the model outside my car while my wife drives at some predetermined speed – needless to say, we'll try this where we won't attract too much attention.

Here's the setup I used – a simple access hatch at the bottom of the plane lets me record the data onto the computer. The arrow shows the location of the pitot tube near the left wheel pant.



A screen shot as the software appears on your computer so a recorded flight can be viewed in real time. Functions include altitude, airspeed, rate of climb, stick position and battery voltage. Also there is a "simulated" artificial horizon – a bit gimmicky perhaps since it can't display rolls or inverted flight.

While I've only had the chance to check it out a few times, the FDR has provided some interesting information about my Stinger 60. My normal cruising altitude is about 300-500 feet, although I went as high as 1100 feet once (about as high as I dared). The maximum straight and level speed is about 65 mph – about what one would expect with a 16x6 prop that turns about 8800 rpm on the ground with a YS .91 engine. My fastest speed in a dive was 82 mph. The landing and take-off speeds are below 25 mph, the lowest accurate speed the unit can measure. I noticed that the battery voltage fluctuates a fair amount when the servos are working harder through high g maneuvers. One thing that's fun is that you can take the data from a recorded flight and make a graphical representation, using, for example, a program like Excel. Shown below is a graph illustrating a touch-and-go.



The FDR is sold as a device which can let you evaluate the performance of your aircraft (and how it might change after performing any modifications to it). Also, since it can be put in a continuously recording mode, it may provide clues about apparent glitches, crashes, and other unforeseen events, acting in an analogous way to "black boxes" on commercial airliners. I've found the FDR to be an interesting and useful tool, and I really like it. Although you need a computer to use it, the software and application is quite undemanding, and a basic computer would be sufficient. The manufacturer, Eagle Tree Systems, can be reached at www.eagletreesystems.com, or by calling at (425) 614-0706.