### USUA FLYING CLUB 1 NEWSLETTER

#### April 1990

#### FROM THE LEFT SEAT

by Tom Simmons

The time is nigh. We are almost, but not quite, April fools. And we have the opportunity before us to proudly kick-off the most auspicious season we have ever, as a flying club, experienced.

I hope that everyone with a serviceable plane has March 31st circled on his calendar. Because that is the date of our first official Mystery Flight.

Already this winter, we have seen unusually high flying activity. We have flown to Hartwood and Wachtmeister International when it was almost too c-c-c-cold to enjoy it. Now that the warm weather seems to have taken hold, I am hoping to see at least 10 planes join the first scheduled trip of the 1990 season.

Any pilot who is not based at Whitman Strip can be sure of joining in on the fun by: 1. Arriving at Whitman's by 10:00 AM; 2. Calling me on Friday the 30th. As soon as a destination has been selected by the pilots attending (on Saturday morning), I will call the pilots at other fields to coordinate in-flight link-ups.

And if you need any more inducement, remember the Frequent Flyer program. The Board has voted to award the Frequent Flyer patches to qualifying pilots, rather than having pilots purchase them. You need five club flights this season to qualify, ten to rate a special award. The patches will be given out at our November 1990 meeting, and there will be no consolation prizes for the bench warmers.

So let's get out there and change our plugs, pre-flight our planes, top off the gas tanks and get this season rolling. And flying!

Fly Safely!

#### **ADVISORIES**

This year, in an effort to coordinate our monthly meetings with actual flying activity, instead of just drinking activity, we have decide to hold some of the warm-weather meetings at Whitman Strip. The first such meeting will be on Sunday, June 3rd. The time will be announced at a later date.

This means that there will be <u>no meeting</u> at Washington Gas Light on Thursday evening, June 7th. So don't go there.

Between now and then, I will be interested to hear any opinions about what time would be most convenient for everyone. Remember, odd dates are Mystery Flights, so it would be fun to have the meeting either before or after the flight.

(Advisories, cont.)

Included in the newsletter this month is our new Airport Guide. It is a listing of airports that USUA #1 pilots have personally visited, together with a rating. We have printed it on a separate sheet so that you can keep it as a handy reference. If you've visited any airports not listed, please let Tom Simmons know about them so we can update the list.

# THE ELECTRONIC ULTRALIGHT (UPDATE) by Lew Clement

Last year I told those who were interested about the Flight Simulator program, its good and poor features, and discussed how it might be used to augment training for ultralight pilots during periods when weather and other impediments kept them from flying.

Now I'd like to bring you up to date on the Flight Simulator program. Late in 1989, Microsoft released a new version of their FS program, 4.0, with several new bells and whistles. So far, I'm only partially impressed. The other FS program, by subLogic, hasn't been changed, but the company is very busy adding to its peripherals - scenery disks, a set of flight controls with special additional disks to use with it, and a new and, they say, much more extensive FS program called "Flight Simulator: Trainer."

Although the new Microsoft program will operate on 8086/8088 machines, it appears to be aimed at the newer, more powerful, computers. Several of its new features, which give added realism to the program, slow the rate

of image change down unacceptably on the less powerful machines. Microsoft warns that this will happen and recommends against their use on the 8086/8088 machines. I've found two features that work on the slower machines and which might be worth having.

You'll recall my describing how you'd have to adjust some of your procedures so you could get ultralighttype training while flying the simulator's Cessna 182. One feature on FS 4.0 I can use on my older machine, and which I think helps make this disk worthwhile, is a program called "Designing An Aircraft." Starting with a Cessna, or a jet looking much like an F-5, you modify it until you have an aircraft of your own design. For example, I modified the Cessna 182 until it was a 700-pound "ultralight," reducing horsepower so that it flew pretty much like a UL-type plane. I've also reconfigured the Cessna into a canard. It flies well - when I can get it off the ground successfully! The program does have limitation, of course - such as, a Cessna wing is still a Cessna wing, no matter where you move it, how big or small you make it, or how you change its aspect ratio.

The other program which I can use on my machine is soaring in a Schweizer sailplane. You can try your hand at soaring in both up-slope and thermal conditions. And for a real power-off landing practice, take this sailplane down from 10,000 feet over in-land thermals to a sea-level runway near the coast.

I'm disappointed with the flight characteristics of the Cessna on 4.0. I

(Electronic ultralight, cont.) don't think they are as realistic as those on the 3.0 program. I'd be interested in knowing how any of you feel about this program in general.

## DREAM FLIGHT by Tom Simmons

This year, UltraFlight will be hosting their humongous fly-in near Corning, New York between July 14 - 22. And this year, I'm not going to just dream about going to it; I'm going to go!

What's more, several other USUA #1 pilots have been making similar promissory noises. Even one or two of the USUA #6 gang seem intrigued by the prospect. So it has the potential to be a true Virginia airshow.

Rob Brooke has estimated that the distance to Corning is just about 200 miles from Reese's field. Several of us have already flown that kind of distance in a day.

Of course, adding the distance from Whitman's puts on another 70 or so miles. But that's no sweat. The current plan is for the Whitman contingent to spend the night at Reese's and put out in a group the following day. (Head-winds would naturally alter these plans.)

My own calculations put the total mileage from Whitman's Strip at 267, based on the following, hypothetical itinerary:

67 miles Whitman's - Reese's
50 miles Reese's - Carlisle
67 miles Carlisle - Loch Haven
41 miles Loch Haven - Grand Canyon
42 miles Grand Canyon - UltraFlight

This is only a tentative flight plan, subject to the review and input of other pilots. But it demonstrates that each leg of the trip is do-able for most planes, assuming there are no severe winds to deal with.

The destination is in "the heart of the Finger Lakes," near Watkins Glen. According to last year's brochure, "It's fun, flying, action, contests and adventure." Frankly, it sounds like heaven on earth. There will be lots of activities, lots of planes, rides, seminars, and probably a place to spend a dollar or two. I hyperventilate at the mere thought of it.

There are, of course, one or two cautions appropriate for anyone whose blood is suddenly rushing at the thought of this trip: it would not be a good trip for the unprepared.

Planes should be thoroughly checked, with engines running smoothly. Appropriate engine instrumentation is recommended for a flight of this length. Plenty of pilot hours under diverse conditions would be desirable. And a radio will help you to keep informed and to inform others.

Contingency plans should also be developed; there will be no mother hens on this trip. Every pilot should be prepared for *tripus interruptus*. Whatever his plan is, it should not be an assumption that the whole group will stop if he does.

Personally, I would strongly recommend the buddy system. Each pilot should coordinate with another pilot, and formulate their contingency plans together. This way, no one will

(Dream flight, cont.) be left behind, but the group will not be stopped by a downed pilot.

Interested pilots should begin sounding each other out well before the flight departure. It would be a good idea to have a solid flight plan, including a list of pilots, by the beginning of July.

The UltraFlight trip will undoubtedly become a benchmark flight, both for the 1990 season and for USUA #1 as a club. It would be a record flight for all of us, and yet it poses no special hazards or requirements, only distance.

And part of its beauty is that no pilot needs to feel excluded by inexperience. While it is definitely not a trip for the novice, any pilot seriously interested should be able to get enough hours and experience during the early part of the season to feel comfortable about making this flight. It is entirely a matter of commitment.

As for me, I'm there! And I hope that I'll be flying with a full "wing" of fellow pilots from the Old Dominion.

# CONSTRUCTION OF THE RANS S-9 (CONT.) By Jim Gildea

A very wise person once told me that if you are building an airplane, all of the parts should be assembled for test fitting before you paint it and cover it. Somehow, I interpreted that as meaning most parts, excluding minor stuff and finish details.

Back in May, I put the wings on the S-9, hooked up the controls and decided

it was time to paint it and cover it. After all those months of dealing with airplane parts, there sits something that actually looks like an airplane... taking it apart seems like a step backward.

Covering the wings was fairly straight forward, thanks to an excellent video tape by Ray Stitts on his covering process. If you should do this yourself some day, the Stitts tape is a good reference. Even better would be to help, or at least watch, someone else do it before diving in. Assisting someone else would have taught me some valuable lessons on chaff protection of some critical areas that I had to go back and rework.

Perhaps half of the fabric goes on the wings; the other 15 yards goes on the fuselage, tail surfaces, ailerons and gear legs. I was quite surprised at how time flies by during the covering process... it took all of July, August and September to install the fabric. Of course, this includes a couple of weekends of cleaning and priming all of the steel components.

Spray painting is an art that can be learned as you go... the Stitts process is a multi-coat system that lets you get reasonably good by the time the finish coats go on. Nine coats of paint ended up taking a month and a half; most painting was done on weekends right in my own garage. I suppose if you get real hard-core about it you could put up a spray booth to exclude dust and bugs, however, my goal here was to get a serviceable paint job, not a work of art. Things get very interesting now now that these airplane parts no longer have all sorts of convenient handholds: moving a wing is a real

(Rans S-9, cont.)

challenge despite its light weight. The last thing you want to do is scratch it, or poke a hole in all that work.

Final assembly is just like trial assembly all over, only worse. Nothing fits because all those precisely fitted parts now have fabric and paint on them; all those carefully reamed holes have paint inside. Installing the landing gear bungee was a horrifying experience, requiring a hydraulic jack to apply the necessary 500 pounds or so of tension... I had visions of it getting out of control and ripping the bottom out of the fuselage, and maybe taking my hand off in the process.

So there I was with a covered, painted fuselage sitting on the landing gear. Seemed like a good time to put in the seatbelts. However, since this was the first time the seatbelts had been near the airplane, is it really a surprise to anyone that they wouldn't fit? Lo and behold, the tabs in the fuselage should have been reamed out prior to fabric installation. Now, the only way to do that with fabric in place is to use a 90° drive with a very short drill bit. Fortunately for me, this is a standard tool at work, so the problem was solved with a minimum delay. That really is the point of this whole story: make sure everything is test fitted before the fabric goes on.

For a while, I thought the plane would fly before the end of '89. That was not to be the case. Now all I need is a month of good weather with little precipitation so construction of the hangers at Culpeper can be completed. Once at the airport, a few days of assembly and adjustment should do it. There are still some minor things to do - polish this, adjust that - but this year should see a full season of S-9 flying.

Mystery Flight Checklist - Here's what the well-dressed pilots will be bringing to all Mystery Flights: outerwear for any altitude (it's cold going over the mountains, even in the summer), extra oil for long flights, lunch money (it looks the same as gas money, only there's more of it) and a good attitude. Let's show Washington, Maryland and Northern Virginia that the Killer Bees have arrived!

#### **FLIGHT PLAN**

April 5 - Club meeting, Washington Gas Light, Springfield Center, 7:30 PM.

Mystery Flights this month:

April 7 (Saturday)

April 15 (Sunday)

April 21 (Saturday)

April 29 (Sunday)

This is in accordance with our new plan to have a Mystery Flight on the odd date of any weekend when a planned flight is not scheduled. So start thinking about flights you'd like to make, and propose a flight plan to the group that shows up. Any number can play! Mystery Flight timetable:

9:30 AM at Whitman Strip for pilot briefing.

Pilots not based at Whitman call Tom Simmons (548-3347) or Jim Laurenson (266-9532) on the previous evening to coordinate.

10:00 AM departure for wherever.

Remember your frequent flyer credits, and plan to fly often!

#### **CLASSIFIED**

FOR SALE - Rotax 277, completely rebuilt and good as new, geared reduction drive, throttle cable, brand new 60/29 propeller. Best offer. Call Tom Simmons 548-3347. Eves. 548-7420.

## USUA Flying Club 1 Airport Guide

### Virginia 1990

The following list of 20 public airports, together with a rating indicating their acceptance of ultralight aircraft, has been gathered from the personal experience of USUA #1 pilots. It is intended as a guide, not as authority to use these airports. Any USUA #1 pilot asked to refrain from using a listed airport is requested to: 1. Comply gracefully; 2. Report the incident to USUA #1 so that this list may be kept up to date. We would also appreciate any information on area airports not listed here.

Airport	Frequency	Rating*	Gas
Bridgewater	122.7 Mhz (inactive)	Accepts us	No
Culpepper	122.8 Mhz	Accepts us	Yes
Front Royal	123.0 Mhz	Amused by us	Yes
Gordonsville	122.8 Mhz (inactive)	Accepts us	No
Hanover Co.	122.8 Mhz	Accepts us	Yes
Hartwood	122.8 Mhz	Accepts us	Yes
Hummel	123.0 Mhz	Accepts us	Yes
Luray	122.8 Mhz	Loves us	Yes
New Market	122.8 Mhz	Accepts us	Yes
Orange Co.	122.8 Mhz	Accepts us	Yes
Shannon	122.8 Mhz	Accepts us	Yes
Sky Bryce	122.8 Mhz	Amused by us	Yes
Tangier	122.8 Mhz	Very amused by us	No
Tappahannock	122.8 Mhz	Loves us	Yes
Warrenton/Fauquier	122.7 Mhz	Insurance only	Yes
Waynesboro	122.8 Mhz	Loves us	Yes
West Point	122.8 Mhz	Accepts us	Yes
Winchester	122.7 Mhz	Insurance only	Yes
Whitman Strip	122.9 Mhz (inactive)	Loves us	No

<sup>\*</sup> It is worth noting that many of these ratings were experienced by pilots with radio contact to the ground. We cannot know if ultralights without radios will be as well received. If you do not have a radio, and you are flying to an airport you have not visited before, we recommend calling in advance to get any special instructions. Remember, every ultralight pilot will be perceived as an example of the ultralight community; don't screw the pooch-for yourself, or for the rest of us.

## USUA Flying Club 1 Airport Guide

## Maryland/Pennsylvania 1990

The following list of 18 public airports, together with a rating indicating their acceptance of ultralight aircraft, has been gathered from the personal experience of USUA #1 pilots. It is intended as a guide, not as authority to use these airports. Any USUA #1 pilot asked to refrain from using a listed airport is requested to: 1. Comply gracefully; 2. Report the incident to USUA #1 so that this list may be kept up to date. We would also appreciate any information on area airports not listed here.

Airport	Frequency	Rating*	Gas
Maryland			
Aqua-Land Clifton	none	Amused by us	Nearby
Bay Bridge	123.0	No joy	Yes
Cambridge	122.7 Mhz	Accepts us	Yes
Clearview	122.8 Mhz	Accepts us	Yes
Crisfield	122.8 Mhz	Accepts us	No
Easton	122.8 Mhz	Accepts us	Yes
Frederick	123.0 Mhz	Tolerates us	Yes
Freeway	122.7 Mhz	Accepts us	Yes
Harford Co,	122.8 Mhz	Loves us	Yes
Kentmorr	none	Accepts us	Nearby
Lee	122.9 Mhz (CTAF)	Amused by us	Yes
Maryland	122.7 Mhz (inactive)	No joy	Yes
Mexico Farms	none	Accepts us	No
Potomac	122.8 Mhz	Loves us	Yes
Wolf	none	Accepts us	No
<u>Pennsylvania</u>		7	
Hanover	122.8 Mhz	Accepts us	Yes
Doersom	122.8 Mhz	Accepts us	Yes
Devener	none	Loves us	No

<sup>\*</sup> It is worth noting that many of these ratings were experienced by pilots with radio contact to the ground. We cannot know if ultralights without radios will be as well received. If you do not have a radio, and you are flying to an airport you have not visited before, we recommend calling in advance to get any special instructions. Remember, every ultralight pilot will be perceived as an example of the ultralight community; don't screw the pooch for yourself, or for the rest of us.

#### \* \* \* GENERAL INFORMATION \* \* \*

The United States Ultralight Association's Flying Club #1 is a non-profit, educational club dedicated to the sport of recreational ultralight flying.

Meetings are held at 7:30 P.M. on the first Thursday of each month in the auditorium of the Springfield Operations Center of the Washington Gas Light Company, unless stated otherwise in the newsletter. To reach the WGL Center, take the Edsall Road West exit from I-395; turn left at the second light (Industrial Road); continue until the "Y" in the road; bear right and continue until you reach the WGL Center at 6801 Industrial Road on the left.

1990 Chapter Officers President Tom Simmons 703\548-7420 Vice- President Tom Alder 703\356-9133

Secretary\Treasurer Charles Maples
Member at large? Jim Lawrenson
Newsletter Editor Paul McClung 703\941-8167 703\266-9532 703\787-0631

\*\*\* Members are encouraged to submit items for inclusion in this newsletter. Articles and non-commercial classified ads will be run, space available, free of charge for current members. Commercial ad rates are: full page - \$20.00; 1/2 page - \$10.00; 1/4 page - \$5.50; business card - \$3.00.

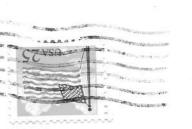
Membership application: Mail to: Charles Maples USAU Flying Club 1 4656 Conwell Drive, Annandale, Virginia 22003

PLEASE SUBMIT YOUR DUES OF \$15.00 BY MARCH 1 TO KEEP THIS FINE PUBLICATION COMING TO YOUR HOME ! TIPS EXCEPTED.

#### MEMBERSHIP APPLICATION Dues: \$15.00

NAME: DUES INCLUDED: PHONE H: (\_\_\_\_)\_\_\_\_ W: (\_\_\_\_)\_\_\_\_ UL'S OWNED: \_\_\_\_\_USUF#:\_\_\_\_ USUA#: \_\_\_\_ EXAMINER? \_\_ 2-PL?\_\_ EAA#: \_\_\_\_ AOPA#: \_\_\_\_ FAA RATING: \_\_\_\_\_ DEALER: \_\_\_\_ INTERESTS:

Robert B. Chapman Rt. 1, Box 51AA (Lenah Road) Aldie, VA. 22001





Paul McClung 13337 Point Rider Lane Herndon, Virginia 22070

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