

USUA FLYING CLUB 1 NEWSLETTER

October 1990

FROM THE LEFT SEAT

by Tom Simmons

Come December, it will have been a year and a half since some stray piece of antimatter, or a sun spot or some other cosmic disturbance interfered with the smooth order of the universe and caused me to be made president of USUA #1. My opinion of the job after lo these many months may surprise some of you -- it has been fun being president. Not an endless pleasure fest, mind you, but fun, nonetheless.

I have enjoyed receiving periodic updates from USUA (see inside), and newsletters from other area clubs. The stray phone calls that have come my way have kept me in touch with what's going on, and I have enjoyed that. I have felt keen excitement in watching our club retake to the skies after a slump in interest and activity. And I have experienced profound pride seeing us broach new possibilities - such as the trip to Corning - although it would be plainly idiotic of me to take any credit for bringing it about. I believe that we are seeing the unmistakable signs of resuscitation in what had become a somewhat moribund flying club, and I have been pleased to see these changes from the podium instead of from the gallery.

Now, for most elective offices such comments would be prelude to the slow chant of "four more years!" and the soft whisper to "cue the balloons!" My purpose, however, is quite the opposite. At the end of this term, I plan to step down as president and will not serve in any other official capacity, either as an officer of the club or a member of the board of directors. I will also be stepping down as newsletter editor. I mention this at such an early date in the hopes of stimulating interest among those who have not yet participated in the club's official functions.

My reasons for this decision are simple: it's time for new ideas and new leadership. In the four years since I joined this club, I have continuously served in one capacity or another. Most of those I began flying with have moved on; to the new members flying now, I am an antediluvian relic. If USUA #1 is a true member organization then everyone must be willing to make a contribution. And those who have had their say must be willing to step aside. I am more than willing. I want to hear the ideas of others; I am tired of listening to my own.

Naturally, I expect to continue as an active flying member of USUA #1. As to my other post-presidential activities, I will examine the precedents. Perhaps I will put in some time building low-cost housing for the poor and criticizing the administration of my successor. Or, if the money's right, maybe Noele and I will take in Japan.

Fly Safely!

ADVISORIES

The mid-summer fly-in at Whitman Strip was such a stand-up success - what with nobody getting killed or anything and a generally large, happy group in attendance - that we have decided to tempt the fates by hosting a year-ender.

The dates of October 20th & 21st (rain date 27th & 28th) have been cleared with Whitman Control, so pre-flight your schedules and plan to attend. I will be sending out invitations to other clubs, as well as a few friends who have hosted us at their strips.

Flush with the thrill of the flying competitions we experienced at Ultraflight, we are determined to hold some contests of our own on Saturday afternoon. They will be confined to low-impact, high-fun quotient tests of skill - for instance, we will not have a spot (squat?) landing contest. Not, at least, unless I get the axle replacement concession.

The club will host a cook-out on Saturday evening, with hot dogs and hamburgers provided. Any contributions of food brought by attendees will be much appreciated, but are not required. We look forward to hosting a large and happy crew, but be advised: participation will be the watchword of the day. It's not much work if everyone pitches in; please be gracious and generous with your time if asked to help out in one capacity or another.

Let's make a fittingly grand close to a superb (except for the weather) flying season! We all deserve it.

PRODUCT EVALUATION - RADIO NOISE SUPPRESSION SYSTEM

by Mike Dietrich

Greetings from the USUA #1 "western division." Everything is copacetic in New Market and the rest of the Shenandoah Valley. One of these days the fog and haze will burn off before noon and I'll be able to join the rest of you brave souls. In the meantime, I'll just have to enjoy the terrific flying out in the valley by myself (if that sounds like a plug folks, you're right... New Market is 15 minutes west of Luray, just over Massanutten Mountain). Anyway...

The real purpose of this article is to tell you about a radio noise suppression kit marketed by California Power Systems. The kit's primary function in life is to eliminate the electromagnetic radiation produced by your engine's ignition system. If you are flying with a radio, this radiation can produce static severe enough to block incoming transmissions. Adjust the squelch, you say. Didn't work for me; I got static the full range of the squelch circuit when RPMs exceeded 4000 (cruise is around 5200). Something had to be done, or forget using the radio (Terra 720).

The kit consists of a lead-lined sheet of aluminum that is cut out and formed into a shielding box to mount over the coils, special plug caps, new plug wires with spirex and a braided metal shielding, and the various nuts, bolts and spacers needed to attach everything to your Rotax 377 thru 503

engine. If you use a different power plant, forget it, this set-up won't fit.

A few simple tools are required to assemble the box, the plug wires, and install everything: hand drill or drill press, assorted bits, jig saw, center punch, round and flat files, heat source for the heat-shrink tubing, dikes, hacksaw, 10 & 8 mm wrenches, some pliers and a vise.

A very complete set of instructions and templates are included with the kit. Assembly will take approximately 1 hour, and installation another hour or so. If you are experiencing a bunch of static when using your radio, you might want to give this a try. Sixty bucks isn't too bad when you've already shelled out \$350 - \$500 for a hand-held and you can't hear anybody. Got any questions, give me a call at (202) 475-4243 (wk) or (703) 754-0893 (hm). Happy flying...

Reading Mike's description of a "few simple tools" I am reminded how utterly easy it is to assemble, oh say, a Hubble telescope, right in your own home.

All you need is a two-meter lens grinder, a few, finely-jetted bottles of liquid nitrogen (you know, the kind you use around the house), a Clean Room, a government grant of about two billion dollars and several hundred thousand man hours of assembly time (slightly more if you want it to work). I'm starting mine Sunday!

Seriously, Mike, thanks for the article and the tips. You did make it sound awfully easy. *Ed.*

MY FAVORITE ACTOR (PART I)

by Jim Laurenson

Jimmy Stewart. Not only is he my favorite actor (or at least one of my favorites), but there's an airport named after him in Indiana, Pennsylvania, his home town. And that was good enough reason to fly there on Saturday, September 8, 1990, in my Quicksilver MXL-II, with Jerry Eastman in his Wind Rider gyrocopter as my wing/blade mate (sort of; more on this later).

Of course, there happened to be an "Aviation Awareness Day" there for the locals, and I thought I might be able to provide introductory flights and thereby to help offset, at least to some minuscule degree, the cost I've incurred lately to obtain my Basic Flight Instructor (BFI) certificate. And I've been itching to see more of the area northwest of Reese's Field while I have the chance (i.e., before permanently moving to Whitman's Strip).

Well, clearly enough reason to fly the 135 miles from Reese's to Jimmy Stewart. So, after a quick phone call to Jerry (who masterminded the flight) at Manassas to let him know I'd be leaving Reese's a little before 9 am, and after a call to Flight Service (800-992-7433) to get the latest on the weather, and, of course, after a thorough pre-flight (yep, that bracket seems a little rustier, and that wheel is definitely getting looser; I know what I'm doing next weekend), off I flew towards parts unknown.

Soon after passing Frederick to my south (where several jets were

approaching under me) and Camp David to my north (where missiles were no doubt pointing at me), I began to hear Jerry calling me on 122.75. Little did I know, however, that he was using his super deluxe atomic signal booster, which made my radio look like a G.I. Joe walkie talkie with weak general purpose (not alkaline) batteries. Needless to say he never heard my feeble responses.

Feeling alone and rejected, I decided I'd chat with the pretty-sounding traffic controller at Hagerstown (Washington County Airport), whose control zone I was about to fly into (alright, who can make the best joke out of that one). She happily gave me permission to enter her zone (!) and fly over at my current altitude of 3,500 feet and my heading of 330 degrees.

This was the first time I'd actually been in the middle of a fairly busy traffic area that was being controlled by a tower. It was very comforting to be on the radio, however, and be aware of who was doing what where and when. (Of course, at my altitude I was nowhere near the pattern, and the controller kept everyone aware of and away from me. It got rather amusing after a while because the controller would ask my position, and yet because I was cruising at only 45 MPH and the headwind was about 15 MPH, my position was never much different from the last time she asked.) It also was satisfying to know that because of the radio I could fly straight to my destination instead of making a zig-zag or climbing to some outrageous height. (Quiz: What height would that be?)

After leaving the Hagerstown CZ, I passed over the second ridge of approximately 2500 foot high mountains (the first ridge being just west of Frederick). With echoes of the trip to Corning in my head, and with a foreboding of what ended up coming later (i.e., Sunday), I passed among several low scud layer clouds. I did pause long enough to enjoy the circular rainbow that followed below me on every cloud I passed over, and the beautiful site of the next valley as I topped the ridge -- man, I love flying!

My flight plan was to try to make a direct shot to Jimmy Stewart without stopping. But with the headwind I encountered, which necessitated refueling, and all of the coffee I drank, which...well, never mind..., I soon realized I would need to stop at some point.

After several more ridges, Martinsburg (Altoona-Blair Airport) loomed ahead, and after checking on the Unicom for the active runway, I eased on in for a hairy downwind landing. ("Oh yeah, well, we try to avoid flying over the town. Of course, I suppose we could just use a right-hand pattern...") Well, with my plane still rolling, I hopped out and ran stiff legged (not because my legs were cramped) over to the bathroom. With that done, and after warming up with more coffee (we never learn!) I proceeded to answer the many questions shot at me from the growing encirclement of the curious. *It was like they never done seen one of these thangs before.* Just then a large (about 75 seat) US Air twin engine commuter landed and taxied up to a bunch of similar ones I hadn't seen when I landed, and it all

became clear why they hadn't seen many ultralights there before. Suddenly I was the one in awe. Awe quickly turned to fear as the teensiest puff of air from one of the commuter's engines nearly blew my plane away. Well, after I rolled my plane to a safe spot inside a hangar, tied it down with inch-thick cables, and posted a big burly guard (and some people call me paranoid), I answered the remainder of the questions. I should add that all the questions were friendly, another testimony, I believe, to the air-band radio.

Off again and heading towards the next ridge, the flight was beautiful all the way to Jimmy Stewart, with valleys unfolding in panoramic vistas after each ridge. At Jimmy Stewart, a small crowd gathered along the taxi way as I was directed to a prominent spot next to the only other things there that were similar -- at least in weight -- to an ultralight: gyros (including Jerry's) and paraplanes.

Stay tuned for Part II of this story. Same time. Same channel. Coming to a newsstand near you in November's newsletter. Ed.

F.A.R.
FROM THE MADDING
CROWD
by Tom Simmons

As we avidly pursue our "right" to fly, how many of us are truly familiar with our license in the sky, F.A.R. Part 103? I am prompted in this question by having received from USUA recently a reprint of these pertinent

rules, including a portion of the preamble.

"The best practices and methods to preclude the need for further federal regulation appear to at least include: self-regulation, self-policing, safety standards, membership in organizations and associations equipped to function and operate programs approved by the FAA...

"FAA will continue to monitor performance of the ultralight community in terms of safety statistics, growth trends, and maturity, and, if indicated, will take additional regulatory actions to preclude degradation of safety to the general public..."

Ah, is there any poetry that is the equal of government prose?

I have used ellipses (...) to indicate editing - a practice which I dislike, but you'll just have to trust me that my omissions did not alter the meaning of the words. And the meaning of the words is crystal clear: we have no "right" to fly, whatsoever; we have "permission" to fly. And it is very, very conditional.

Of course, John Ballantyne's motives for sending this reminder are transparent: the FAA recommends membership in organizations, and increased membership in USUA will give his organization greater voice and greater sway. But it is nonetheless worth our while to take heed of these words, because they are fair warning from a large government agency empowered to take action unilaterally.

Take, as an example, the case of the 30-mile circle within which any airplane with an engine driven electrical system must have a Mode-C transponder. Here is a classic example of the FAA solving a problem that didn't exist, simply because some hysterical members of the public believed that it did exist. The new rule severely restricts many experimental and conventional pilots; we could easily be next.

Let even a small group of what Mencken often referred to as the "general Boob of humanity" get the notion that we represent a threat, however slight, to their overall complacency, and we will see 240 million hands quickly raised in support of our banishment from the skies, if not our burning at the stake.

This sober thought makes me feel that publishing the full text of F.A.R. Part 103 here in the Newsletter will provide each member with a valuable resource he can use to assess his own flying behavior.

Of course, I do not believe there is one of us who thinks he is in full compliance with all of these rules, or ever intends to be. But some transgressions are more subtle than others. Carrying a six-gallon gas tank, for instance, is not so flagrant as flying over DuPont Circle at 200 feet AGL.

And to some degree or other we should recognize that we are all in this together. The one of us who makes a visible and frightening mistake hurts those who follow, even if they are flying sensibly and according to the rules.

In any event, here are the rules by which we hold our tenuous permission. May we be ever mindful of how easily they could be revoked.

PART 103 ULTRALIGHTS by I. Ken Hurtue

Subpart A - General

103.1 Applicability.

This part prescribes rules governing the operation of ultralight vehicles in the United States. For the purpose of this part, an ultralight vehicle is a vehicle that:

a) is used or intended to be used for manned operation in the air by a single occupant;

b) is used or intended to be used for recreation or sport purposes only;

c) does not have any U. S. or foreign airworthiness certificate; and

d) if unpowered, weighs less than 155 pounds; or

e) if powered:

1) weighs less than 254 pounds empty weight, excepting floats and safety devices which are intended for deployment in a potentially catastrophic situation;

2) has a fuel capacity not exceeding 5 U. S. gallons;

3) is not capable of more than 55 knots calibrated airspeed at full power in level flight; and

4) has a power-off stall speed which does not exceed 24 knots calibrated airspeed.

103.3 Inspection requirements.

a) Any person operating an ultralight vehicle under this part shall

upon request allow the Administrator or his designee to inspect the vehicle to determine the applicability of this part.

b) The pilot or operator of an ultralight vehicle must upon request of the Administrator furnish satisfactory evidence that the vehicle is subject only to the provisions of this part.

103.5 Waivers.

No person may conduct operations that require a deviation from this part except under a written waiver issued by the Administrator.

103.7 Certification and registration.

a) Notwithstanding any other section pertaining to certification of aircraft or their parts or equipment, ultralight vehicles and their component parts and equipment are not required to meet the airworthiness certification standards specified for aircraft or to have certificates of airworthiness.

b) Notwithstanding any other section pertaining to airman certification, operators of ultralight vehicles are not required to meet any aeronautical knowledge, age, or experience requirements to operate those vehicles or to have airman or medical certificates.

c) Notwithstanding any other section pertaining to registration and marking of aircraft, ultralight vehicles are not required to be registered or to bear markings of any type.

Subpart B - Operating Rules

103.9 Hazardous operation.

a) No person may operate any ultralight vehicle in a manner that

creates a hazard to other persons or property.

b) No person may allow an object to be dropped from an ultralight vehicle if such action creates a hazard to other persons or property.

103.11 Daylight operations.

a) No person may operate an ultralight vehicle except between the hours of sunrise and sunset.

b) Notwithstanding paragraph (a) of this section, ultralight vehicles may be operated during the twilight periods 30 minutes before official sunrise and 30 minutes after official sunset or, in Alaska, during the period of civil twilight as defined in the Air Almanac, if:

1) the vehicle is equipped with an operating anti-collision light visible for at least 3 statute miles; and

2) all operations are conducted in uncontrolled airspace.

103.13 Operations near aircraft; right of way rules.

a) Each person operating an ultralight vehicle shall maintain vigilance so as to see and avoid aircraft and shall yield right of way to all aircraft.

b) No person may operate an ultralight vehicle in a manner that creates a collision hazard with respect to any aircraft.

c) Powered ultralights shall yield the right of way to unpowered ultralights.

103.15 Operations over congested areas.

No person shall operate an ultralight vehicle over any congested area of a city, town or settlement, or over any open air assembly of persons.

103.17 Operations in certain airspace.

No person may operate an ultralight vehicle within an airport traffic area, control zone, terminal control area, or positive control area unless that person has prior authorization from the air traffic control facility having jurisdiction over that airspace.

103.19 Operations in prohibited or restricted areas.

No person may operate an ultralight vehicle in prohibited or restricted areas unless that person has

permission from the using or controlling agency, as appropriate.

103.21 Visual reference with the surface.

No person may operate an ultralight vehicle except by visual reference with the surface.

103.21 Flight visibility and cloud clearance requirements.

No person may operate an ultralight vehicle when the flight visibility or distance from the clouds is less than that in the following table, as appropriate:

Flight altitudes	Minimum Flight Visibility	Minimum Distance from clouds
<u>1,200 feet or less above the surface regardless of MSL altitude</u>		
Within controlled airspace	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
Outside controlled airspace	1 statute mile	Clear of clouds
<u>More than 1,200 feet above the surface but less than 10,000 feet MSL</u>		
Within controlled airspace	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal
Outside controlled airspace	1 statute mile	500 feet below 1,000 feet above 2,000 feet horizontal
<u>More than 1,200 feet above the surface and at or above 10,000 feet MSL</u>		
Not applicable	5 statute miles	1,000 feet below 1,000 feet above 1 statute mile horizontal

FLIGHT PLAN

October 4 - Club meeting, Washington Gas Light, Springfield Center, 7:30 PM.

Mystery Flights this month:

October 7 (Sunday)
October 13 (Saturday)
October 21 (Sunday)
October 27 (Saturday)

Scheduled flights this month:

West Point Crab Feast
(I haven't heard the date yet, but maybe I'll know by the October meeting.)

Reese's Flyin, Sept. 29 (rain date Sept. 30), call Jim 703-266-9532

Mexico Farms, Oct. 13(?) and 14, EAA 426 brkfst. at 7am Sun., call Jim 703-266-9532

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 PM 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	703/548-3347
Vice-President	Tom Alder	703/914-8922
Secretary/Treasurer	Charles Maples	703/941-8167
Member at large	Jim Laurenson	703/266-9532
Member at large	Paul McLung	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.

Articles and non-commercial ads may be mailed to Tom Simmons, 311 North Pitt Street, Alexandria, VA 22314; or faxed to 703/548-3138. Commercial ads must be accompanied by a check.

Membership Application: mail to Charles Maples, USUA Flying Club #1, 4656 Conwell Drive, Annandale, VA 22003

Application must be accompanied by \$15 annual dues.

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

TELEPHONE: HOME () _____ WORK () _____

ULTRALIGHT TYPE _____

USUA MEMBER # _____ UL REG. # _____

Mr. Robert B. Chapman
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