Flying 1 Club
Flying for Fun in Northern Virginia! www.flyingclub1.org

Volume 19 – 05 www.FlyingClub1.org May 2019

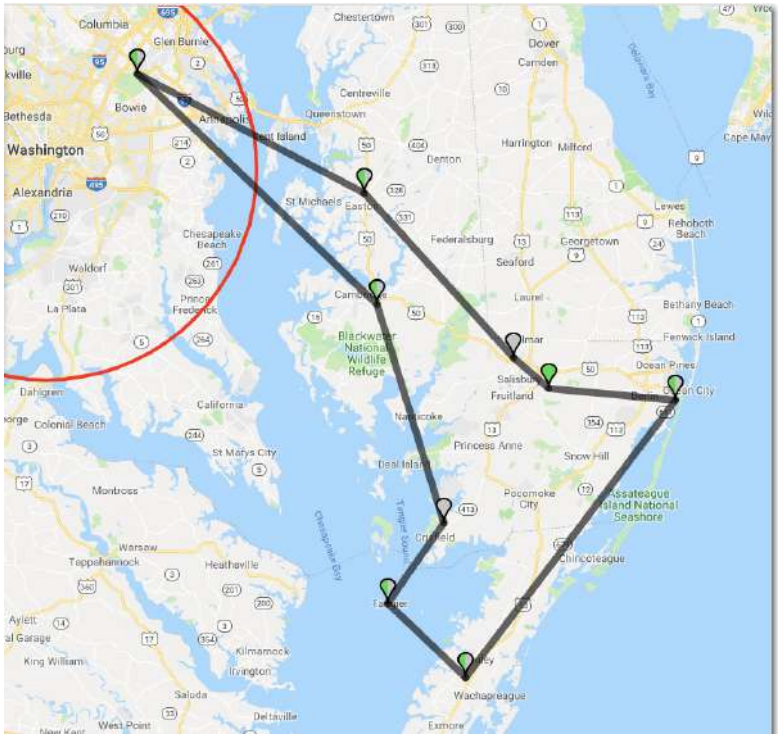
The Privileged View

Steve Beste, President

Not so fast there, fella. Most projects take longer than you predict. Most flying trips do, too. Here's how 4 hours turned into 8½.

It was going to be a quick circuit of eight Eastern Shore airports to get my Ambassador program passport stamped. (I'm working on both Maryland and Virginia.) I wanted something speedier than my trike, so I talked my former trike partner Hugh McElrath into taking us in his Pipistrel Virus (that's VEE-roos) motorglider. How long would this take?

The Virus cruises at 138 mph! Plugging it all into iFlightPlanner.com, total flying time would be 2:06. Add 15 minutes per stop, and it would basically be a 4-hour flight. Perfect. In my trike it would be 7 hours, not counting the time to even get to the Eastern Shore. So let's go! Hugh asked me to be at Ft. Meade at 9am. We should be back by 1pm, give or take. Just in time for a late lunch. But we weren't back by 1pm. Nor by 2pm. Nor 3pm. More like 5:30pm. How could my initial rough estimate have been wrong by 4½ hours?



Planned course from Fort Meade at top left, clockwise

Hugh and his Pipistrel Virus

Selfie

1. We don't actually fly as the crow flies. My first mistake was to think that we would actually fly the course that you see on the previous page. That course is 290 statute miles. In fact, our track was 348 miles - 20% further. We didn't go from airport center to airport center; we flew the patterns and then taxied to the terminals. Then, at Salisbury, the tower sent us far west before letting us turn east for Ocean City. Leaving Ocean City, we doglegged around the restricted area that surrounds Wallops Island. And it took us a bit of looking to find Bennett, the grass field northwest of Salisbury.

So: 20% further. That added half an hour to the flight all on its own.

Actual track flown

Bennett Airport (1N5) - one green field among so many

2. We didn't fly at 138 mph the whole time. The Virus does indeed cruise that fast, and the GPS often showed us doing just that. But our actual ground speed over the track we flew was much less - 108 mph. That's the average of all nine legs, wheels up to wheels down on each leg. (Hence, taxi time is not counted). Why so slow? Part of the loss went to climbing. Thus, our slowest leg was the one to Tangier Island where we flew up to 3,500' to be able to glide to land in an emergency. Much of the loss came from pattern work; we slowed down maneuvering around airports. Having lots of short legs aggravated both factors. On long cross-country legs, the Virus would have averaged a faster speed.

So: 108 mph over the track instead of 138. That added an hour to the flight.

3. We spent more than 15 minutes at each stop. How long does it take to get a stamp in your booklet and use the toilet? Not long. But first you have to taxi to the terminal (after finding the terminal, or the FBO office or wherever they keep the stamp). Then park. At the larger airports, a line boy will direct you, and want to know about this cool airplane, so of course you chat awhile. Then it's a looong taxi to take off, at least at the big airports.

So: We averaged 20 minutes per stop instead of 15. That added 40 minutes to the flight.

The stamp at Bennett turned out to be in that red-roof building. The airport was deserted.

4. Wind was not a factor. Winds aloft were light that day, about 10 mph from the northwest. But mainly, we were making a circuit, so we had tailwinds as well as headwinds. Yes, tailwinds don't cancel out headwinds. That is, you lose more time from the headwind than you gain from having the same wind at your tail on the return. But the effect was tiny - less than 1% - since the wind speed was so low relative to our airspeed.

5. We ate lunch. With all the delays, our lunch break got moved up into the itinerary instead of being afterwards. We could have packed lunches and eaten enroute, but I had promised Hugh a nice lunch. We got it at Kay's restaurant on the field at Cambridge.

So: Lunch added one hour.

6. Pre-flight and post-flight. I showed up at 9am, but we didn't leave until 9:30, what with Hugh finishing his pre-flight, us getting everything stowed, an SFRA flight plan filed by telephone, and so on. After returning, it took us an hour to unpack, re-fuel, and re-wrap the Virus in its covers.

So: Pre- and post-flight tasks took 1½ hours.

Add up all the delays and they come to 4½ hours for a flight of nominally 4 hours.

Virus mummified in its covers

Planning Metrics. Embarrassed by my terrible time estimate here, I analyzed 700 miles of trike day trips and produced the following guidance for myself. It applies to round-trip day-trips that include several airports.

1. Lay out the course in SkyVector or iFlightPlanner, or some other tool.
2. Read off the total *course distance*. 290 statute miles in this case.
3. Increase the course distance by 15-20%. (Today, the overage was 20%. My usual seems to be 16%.) This yields the likely *track distance*, the distance you will probably actually fly.
4. Calculate the airspeed you will probably actually average. Today in the Virus, that was 108 mph over the track as opposed to a nominal cruising airspeed of 138. My usual in the trike seems to be 53 mph.
5. Divide track distance by track speed to get your predicted flight time.
6. Ignore the wind speed unless it will reach 30% of your actual airspeed. If so, add 10% to your flight time. (Write me if you want the full analysis on that.)
7. Add 20 minutes for each stop.
8. Add time for lunch.
9. Add time for pre-flight, post-flight, and re-fueling.

Voila. That's how long your day will be. Enjoy it!

The runway at Tangier Island looking south

Fly safely,

Steve

This Month's Fly-In Destinations

To encourage all of us to get in the air more, the following is a list of fly-ins I found within (about) 100 NM of the Warrenton Airpark which are occurring in the next month. Sources are: The EAA Calendar of Events, www.flyins.com, www.socialflight.com and the Virginia Department of Aviation Calendar of Events.

Date	Event Description	Location	Distance from 7VG0
Fri-Sat, May 10-11	AOPA Fly-in at Frederick	Frederick Municipal Airport (KFDK)	50 NM
Sat, May 11 / 10AM-2PM	Operation Cow Drop operationcowdrop.com	Hanover County Municipal Airport (KOFP)	59 NM
Sat, May 11 / 10AM-2PM	Massey Chili Fiesta Fly-in	Massey Aerodrome (MD1)	100 NM
Sat, May 11 / 8-10:30AM	EAA 518 Fly-in Drive-in Breakfast	Mifflin County Airport (KRVL)	121 NM
Sat, May 18 / 7:30-11AM	EAA 1099 Young Eagles Rally	Stafford Regional Airport (KRMN)	22 NM
Sat, May 18 / 11AM-12PM	EAA Chapter 1563 Monthly Meeting	Gordonsville Municipal Airport (KGVE)	35 NM
Sat, May 18 / 7-11AM	Chapter 36 Young Eagles Flights and Breakfast	Hagerstown Regional Airport (KHGR)	63 NM
Sat, May 18 / 10AM-4PM	Flying Start	Lynchburg Regional Airport (KLYH)	104 NM
Sat, May 18 / 7AM-2PM	Wings and Wheels	Salisbury-Ocean City Wicomico Regional Airport (KSBY)	109 NM
Sat, May 18 / 7-11AM	EAA 321 Fly-in / Drive-in Breakfast	Reading Regional Airport (KRDG)	133 NM
Sat, May 25 / 8-10:30AM	EAA Chapter 339 and Commemorative Air Force Old Dominion Squadron Fly-in pancake breakfast	Hampton Roads Executive Airport (KPVG)	129 NM
Sat-Sun, May 25-26	Westmoreland County Airshow	Arnold Palmer Regional Airport (KLBE)	123 NM
Sun, May 26 / 8AM-12PM	EAA Chapter 426 Fly-in Drive-in Breakfast and Young Eagles Rides	Greater Cumberland Regional Airport (KCBE)	73 NM
Sat, Jun 1 / 9AM-1PM	2019 Wings and Wheels	Winchester Regional Airport (KOKV)	34 NM
Sat, Sun, Jun1,2 / 8AM-12PM	Wings Wheels and Pancakes	Gettysburg Regional Airport (W05)	75 NM

Date	Event Description	Location	Distance from 7VG0
Fri-Sun, Jun7-9 / 5PM-12PM	Potomac Antique Aero Squadron Fly-In	Massey Aerodrome (MD1)	100 NM
Sat, Jun 8 / 7:30-11AM	EAA 1099 Young Eagles Rally	Stafford Regional Airport (KRMN)	22 NM

Also of note, the Joint Base Andrews Airshow is May 11-12, but flying in is NOT recommended.

Saturday, June 1, 2019 - 10 a.m. - 2 p.m.

Winchester Regional Airport

491 Airport Road, Winchester, Virginia

Want to help Virginia Airheart on her trek across the state? Sign up here!

Notes From Our Members

Kurt Mohr wrote in to let us know about James Ketchell's trip around the world in a Magni M16 Autogyro. Track James' progress at https://z6z.co/gyro and see a video about him at https://www.youtube.com/watch?v=8cQFuPXl9cU.

From our last meeting (photos courtesy of Kurt Mohr)

The gyros were certainly a hit! Here is a picture from Monty Betts:

Our last meeting, courtesy of Monty Betts:

Robert Meadows had some fun back in March! Here he is with Chuck Tippett on the way back from Connecticut!

Debunking the Misconceptions in Flying Part 11

By Jim Heidish

This is the continuation of the series of articles that has appeared in past months' newsletters: *Debunking the Misconceptions in Flying*. Through writing and illustrating, I present some of the standout misconceptions, state what is wrong, and then present what I see as the correct concept/principles and how they apply to our everyday flying. This month is the continuation of the last three articles: **Are we losing an innate ability? Is GPS navigation dumbing us down?** These articles help to reawaken the intuitive navigator in all of us so we don't lose that path finder's ability - that good sense of direction - to high-tech automation! Through these articles, we look at the basic form of old style navigation with a NEW twist that is well suited for ultralights and LSA flying. This month is about the tools needed for this basic form of low and slow navigation.

NOTE: These are my conclusions based on years of study, with knowledge acquired by experimenting and through flying experience. If one does not agree or does not understand something, it should always be questioned and/or made clear. Never taken for granted!

The tools needed for simple low and slow navigation

Before I explain about low and slow navigation in the next newsletter, I will go over some of the very basic tools, aids and instruments needed. See Figure A.

Fig. A The Tools for Low and Slow Navigation

Topographic Map, Compass, Aircraft Protractor, Airspeed Indicator & Stop Watch

Ultralight and LSA pilots mostly fly low and slow with little wind and good visibility of the ground at all times, not unlike walking on the ground below or driving down a road. Navigating on the ground mostly consists of a combination of path followed, speed indicated, time spent, and sometimes direction confirmed. Some very basic aids and instruments are used for this: maps, speed indicators, clocks and compass.

Pilots that fly low and slow can use the same aids and instruments, but have big advantages and one disadvantage over being on the ground: they can see the landscape a lot better and do not have to follow the beaten path, but can't stop in midair to figure out the right direction! Because of this, we navigate a little differently.

Low and slow flying gives us a very good view of the landscape and we can take full advantage of the *Perspective in Motion* and its *Window to Window View* navigation as described in the last newsletter. With enough fuel on board and at a certain airspeed, we should be able to fly from

point A to point B in a straight line knowing if we go through the landmark windows and check points along the way we will get to our destination at a certain time. All this has to be planned and calculated on the ground before take off. All the instruments need to be calibrated and working, and all aids fully understood. Starting with our first tool/aid: the **Topographic Map**.

Topographic Maps

The classic large (low detail 1:500,000 scale) Sectional Aeronautical Charts are the best for general aviation because they mostly fly a lot higher, faster, and for longer distances and so need charts that have most of the information needed to fly across the country. Ultralight and LSA that fly low, slow, and mostly very short distances need very little of this information. Because of our special navigation needs, using smaller **Topographic Maps** (geological survey/topographic maps) are much better for low level flying because of their unmatched detail (high detail 1:24,000 scale) of the landscape we fly very close to. The topographic map is mandatory for accurate navigation on land, in fact more so than a compass, and it is the same for low and slow flying. If one learns how to read a topographic representation of the earth's surface, it can help guide one accurately across the real land scape and arrive at one's destination.

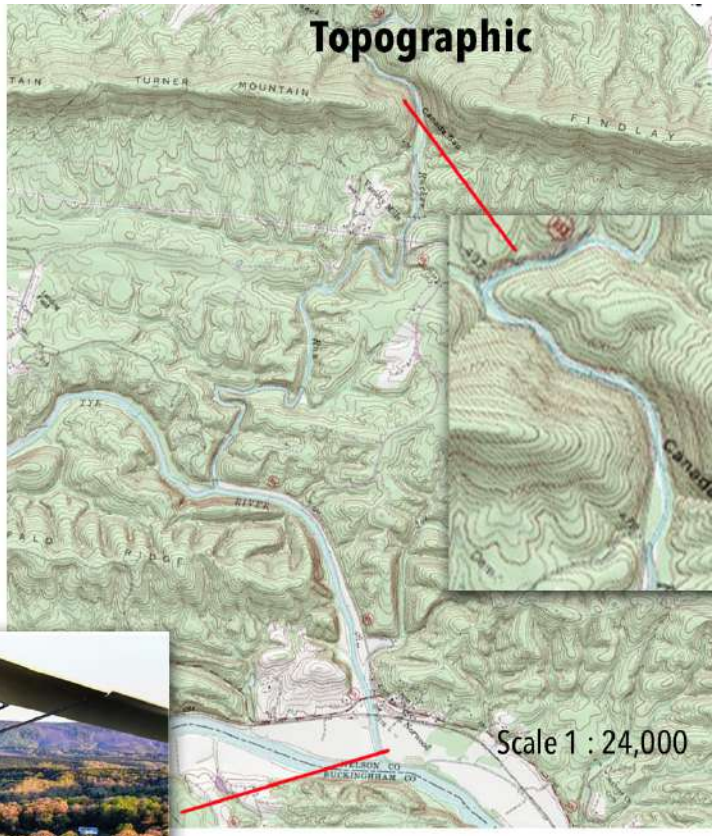
One quick comparison between an aeronautical chart and a topographic map to the real image of the landscape that you fly over makes it very clear that the topographic map is by far better. See Figure B.

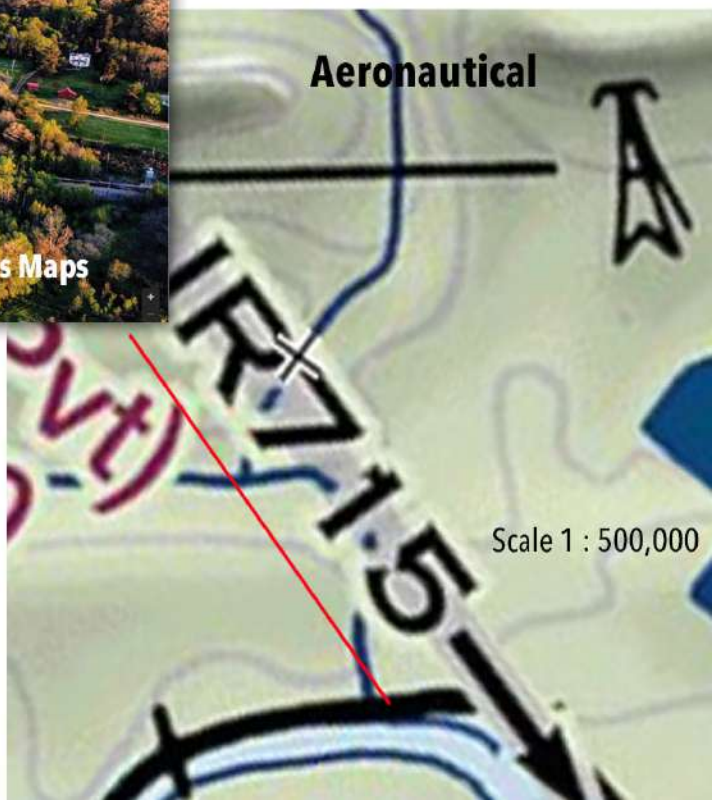
Fig. B Comparison Between Topographic Map and Aeronautical Chart

Both shown at the same size, diffrent scale!

Topographic Maps are much better for low level flying because of their unmatched detail of the landscape we fly very close to. One quick comparison between an Aeronautical Chart and a Topographic Map to a Real Image of the same landscape that you could fly over makes it very clear the Topographic Map is by far better!

Aeronautical Charts are the best for general aviation that fly a lot higher, faster and longer ranges and need charts that have most of the information needed to fly across the country. Even though they have some Topographic information, it is on so large of a scale (1 : 500,000) that it is not very accurate.

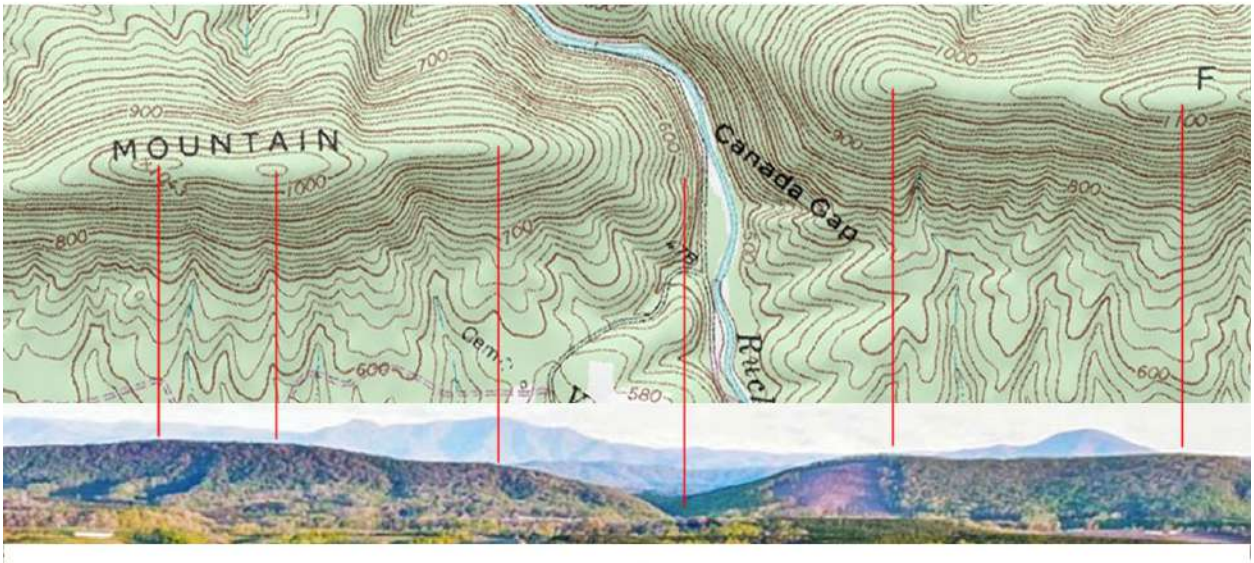




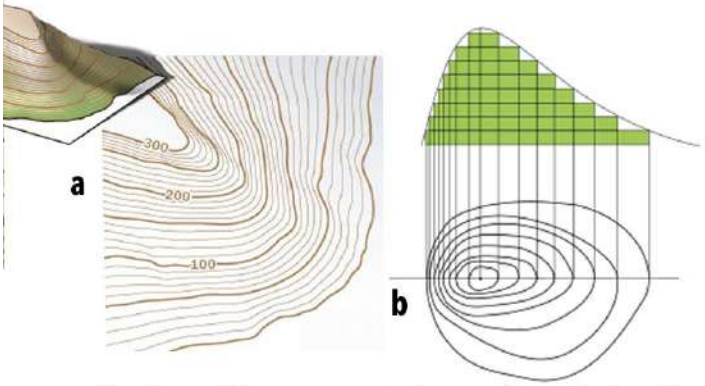
The best way to understand and learn how to read a topographic map is to compare it to an area and landscape you know well. See how it represents the contours of the mountains, valleys and

flat lands. The feature of a topographic map that is the greatest aid to the navigator is their contour lines that connect places of equal elevation. These graphic contour lines follow the real contour of the landscape at ascending or descending measured intervals and are based on very accurate geological survey and satellite image plotting of the surface/landscape and indicated as elevation above sea level. The distance between the lines (measured intervals) depends on the scale of the map. Because of a flat representation of height (3 dimensions on a 2 dimensional map), the closer the contour lines are together, the steeper the terrain, the farther apart the flatter. All of the contour lines placed together form a graphic representation of the physical surface of the earth. See Figure C.

Fig. C Contour Lines on the Topographic Map



The best way to understand how **Contour Lines** graphically represent mountains and valleys is to compare a Topographic Map to same real landscape you know.



Contour Lines connect places of equal elevation.
a. These graphic lines follow the physical surface of the landscape at ascending or descending measured intervals based on very accurate geological survey and satellite images.
b. They are ploted as viewed from above and indicated at elevation above sea level.
All of the Contour Lines placed together form a graphic representation of the physical surface.

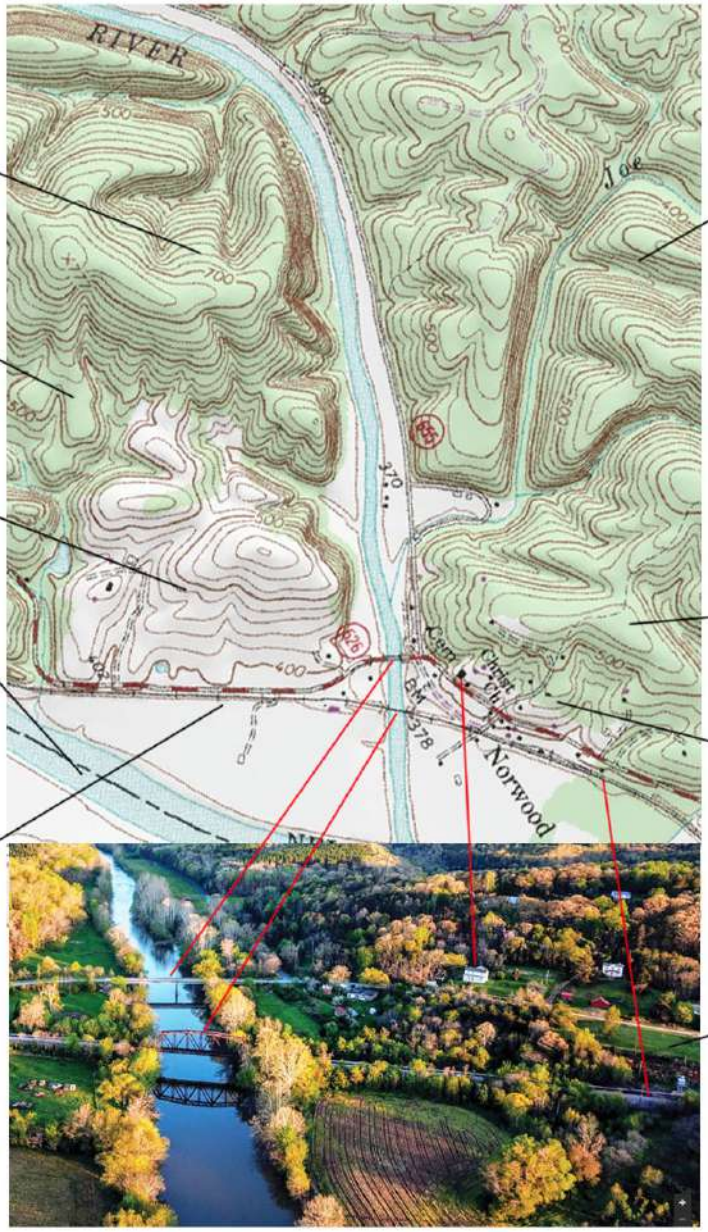
Contor Lines that are shown closer together indicate stepper terrain, farther apart flatter.

Contor Lines running around mountains that look V shaped: Point UP valleys and DOWN ridges!

The outstanding details and features of the map are color-coded. Contour lines are shown in brown. Forest and areas of heavy vegetation are light green and contrasted with white for open or very light vegetation areas. All bodies of water, rivers and streams are shown in light blue. Most labeling, roads, railroads, bridges and man-made structures - even small buildings - are shown in black with some major roads in black and red. Some topographic map producers also add a slight cast shadow

effect that gives a good 3D feeling. With the colors, features and contour lines printed together they form quite a remarkable representation of the actual landscape. See Figure D.

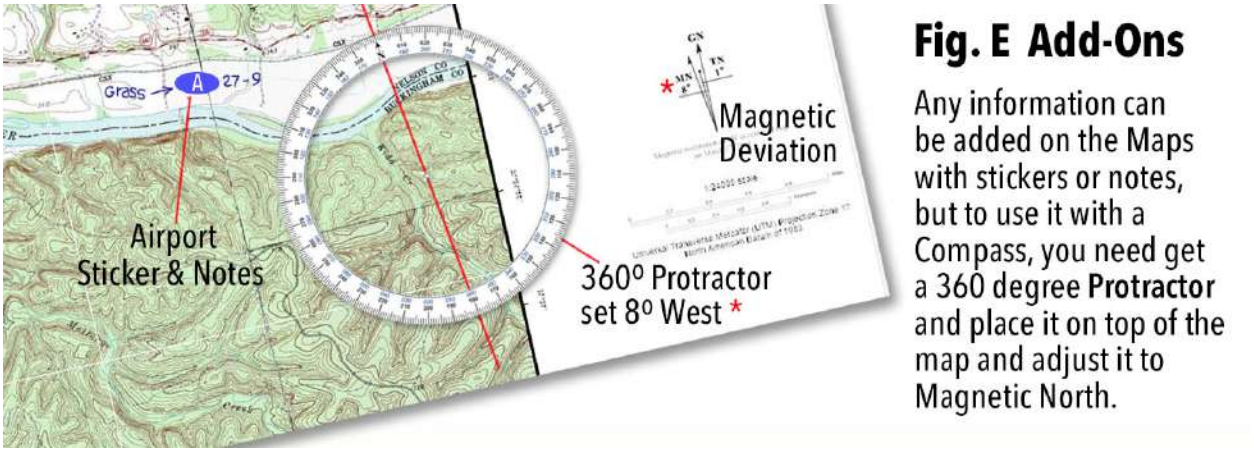
Fig. D Topographic Features, a Real Aid for Low and Slow Flying



Even though the maps are produced oriented north, the proper way to use them is to orient the map in the direction one is going. If traveling up a valley, the map is oriented/aligned so the graphic representation of it lines up with the real valley (explained in detail later). Once learned, this graphic represents what you intend to fly over and can help guide your flight across the real landscape and arrive at your destination.

There are a few drawbacks to using topographic maps for aviation. They do not have most of the information that is on aeronautical charts, especially airport information and most smaller airports, as private and grass airstrips are not marked. Also, there are no 360° compass circles lined up

with magnetic north (deviation/declination from true north) printed on them. Any information like airports can be copied from aeronautical charts and the easy to find and use online satellite images can help pinpoint almost any land feature needed. Any information can be added on the maps with stickers or notes, but to use it with a compass, you need to get a 360º *Protractor* made of transparent plastic and place it on top of the topographic map and adjust it to magnetic north. The magnetic deviation is shown on the side of the map. Also, because most cover a small area, especially the 1:24,000 scale maps, you may need to put 2 or 3 together to cover the whole area you want to navigate over. See Figure E.



You can get topographic maps of most areas in the United States (large and small scale) through the U.S. Geological Survey, but the easy way is from some of the online producers like MyTopo. Their maps have the cast shadow feature that makes for faster reading!

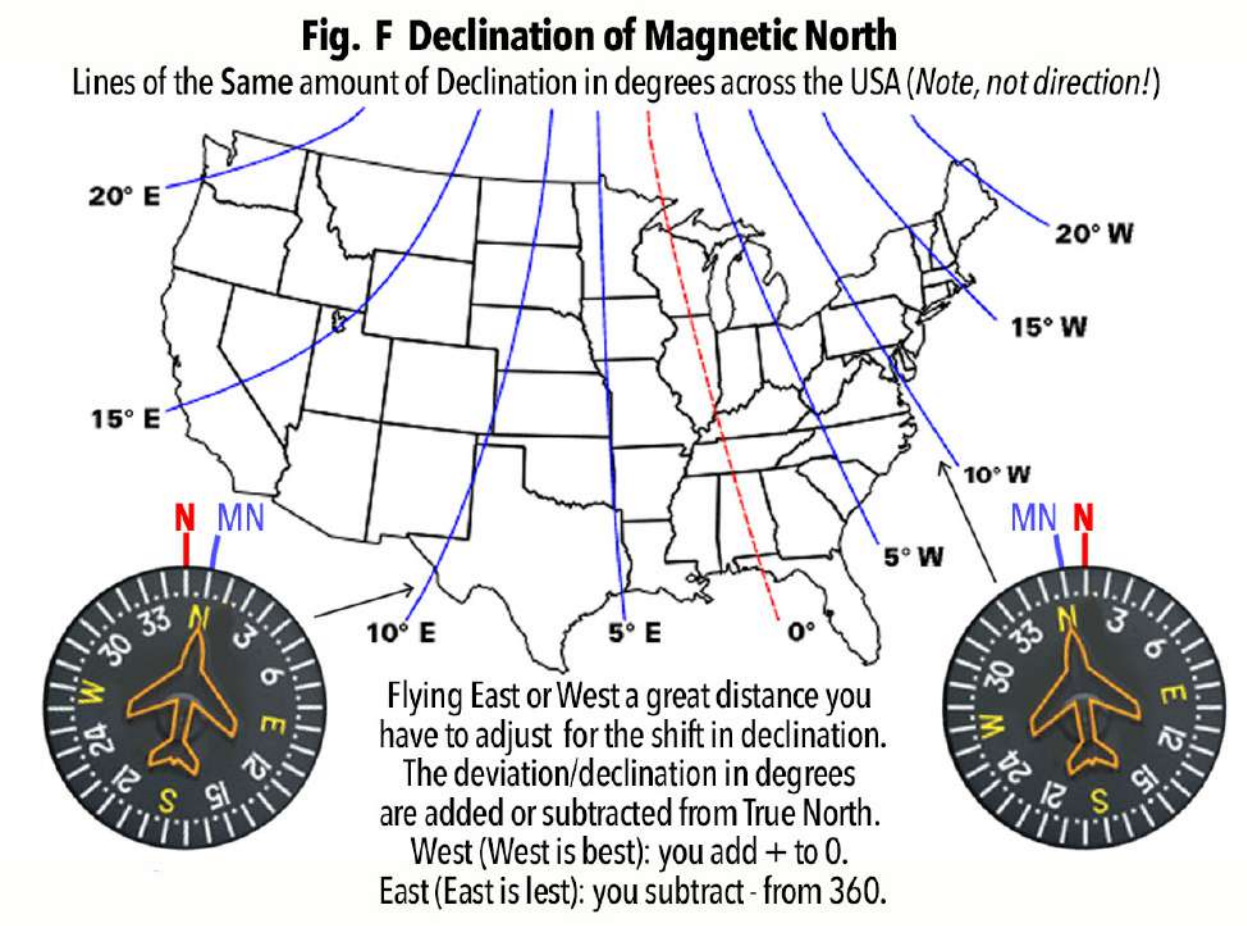
Compass

From the days of global exploration to today's hike in the woods, most people seeking the direction north think of a compass. That little case holding a 360º circle with a suspended needle that was always trying to point to magnetic north was the pride of many of the old Boy Scouts and mandatory for navigators everywhere. Aircraft have had a compass on board as a basic instrument since man started flying over the horizon. With the compass card made up of 360 segments/degrees, the navigating world became very accustomed to referring to directions and headings in so many degrees. Instead of words like north northeast, it became 45º. With this being the standard direction terminology in navigation, having a complete understanding of a compass and how to use it is very much a part of flying.

Declination of Magnetic North

Even though the location of **magnetic north** has moved around some over time because of the shifting electromagnetic field of the earth, it has stayed close enough to true polar north for navigational use. Because it is a magnetic field in flux, it has variations that distort to the east and west of true north, which needs to be taken into account to use the compass for navigation. Very in-depth field surveys of the magnetic flux is taken on a regular basis and the deviation/declination

is published in numbers of degrees. The deviation/declination in degrees are added or subtracted from true north. West (*west is best*): you add to 0. East (*east is least*): you subtract from 360. This should keep the compass reading accurately for true north. Some compasses have an adjustable bezel that rotates until the desired number of degrees plus or minus in deviation is set and can be read as indicated. See Figure F.



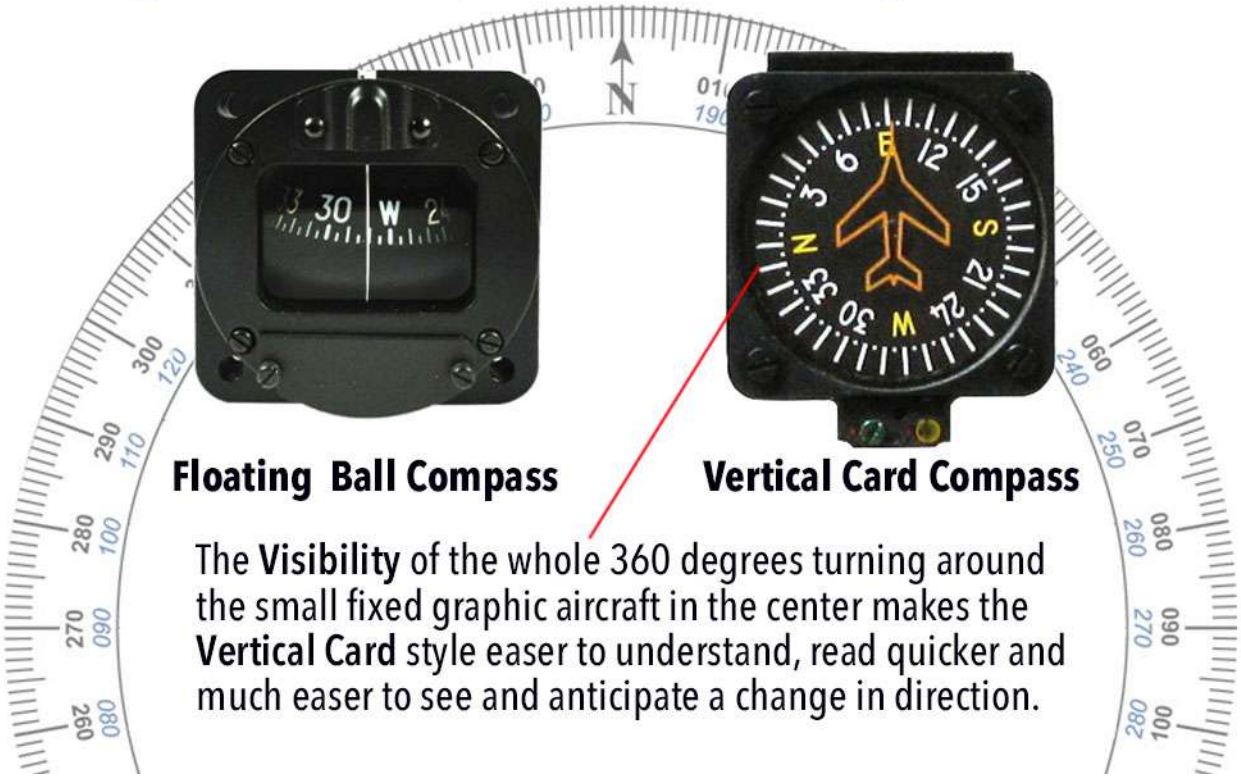
When aviation uses magnetic north (no-corrected) they call the direction ***magnetic***, *so many degrees magnetic*, but they still need to know declination in the area they are navigating through to know where true north is compared to magnetic. Aeronautical charts have this well-defined as 360° circles printed in line with the declination of that sectional. You have to constantly note changes in declination and adjust for it if you fly east or west a great distance. Topographic maps, like all maps used for navigation, have the correct deviation/declination listed for that sector.

The best way to check a compass to see how accurate and how the declination is affecting it when flying is the line up a compass heading with known landmarks that run in the same direction: say, line up the compass pointing (corrected true north or magnetic north) with a strip of highway that runs true north or magnetic north, or a paved runway that you know for sure has the correct published magnetic heading.

What is the best style of compass?

Compasses come in many styles, from the simple to the highly specialized. For many years the old so called whisky or floating ball compass was used in aircraft. But today, most GA aircraft up to large jets have the vertical card compass with its 360° card always in view. See Figure G.

Fig. G What Compass is Best for Navigation?



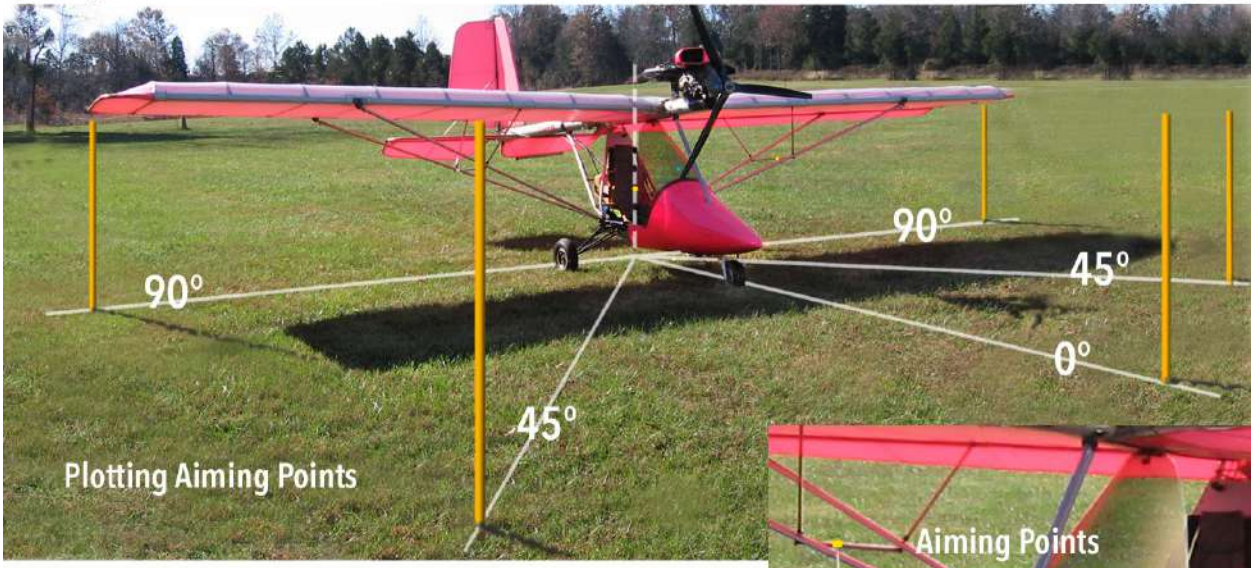
Even though the bearing/heading was always viewed in the little window of the floating ball style, the rest of the 360° were not visible. The visibility of the whole 360° turning around the small fixed graphic aircraft in the center makes the vertical card style easier to understand and quicker to read as well as making it easier to see and anticipate a change in direction, especially a 180° turn around. The vertical card compass is also outstanding for triangulation and shooting azimuths to check position (covered in basic navigation later).

A compass is not needed as much as one would think for low and slow flying if a good topographic map is being used and the pilot is very proficient at reading it. The compass comes in to good use when the area the aircraft is flying over has few known features and/or the distant features that were the guides (as noted on the topographic map) become obscured by haze. The pilot knowing the course heading in degrees (pre-selected on the ground) uses that compass bearing to keep on course until the next clear feature and window shows up. Another use for the compass is vectoring and triangulation to find a fix and also for what I call *shooting an off-course azimuth* to check position. These will all be covered in **Basic Navigation** later.

Aircraft Protractor

A very useful homemade navigation tool is what I call an **aircraft protractor**. Azimuth/degree aiming points or marker sights are placed on the windshield and parts of the airframe that have a fixed degree from the view point of the pilot. one aiming point straight ahead, two (one on each side) at a 45^{o} angle from the pilot's viewpoint and two (one on each side) at a 90^{o} angle from the pilot's viewpoint. The position of these aiming points needs to be plotted out on the ground with protractor and target poles placed at a distance and the right degree angle from the pilot's view point. These fixed Azimuth Aiming Points are used with a pre-planned course plotted on a topographic map that has features located at 45^{o} and 90^{o} to the course and can be good location checks when they line up from the pilot's viewpoint. See Figure H.

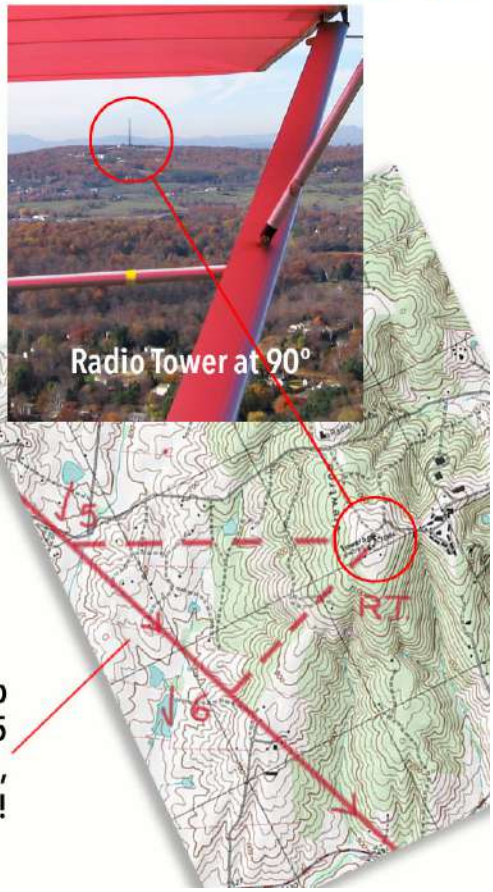
Fig. H Aircraft Protractor



An **Aircraft Protractor** is a very useful home made navigation tool. It takes time to set up at an airport with the pilot in flying position (Pilots view from the seat).

Aiming Points (AP) need to be plotted out on the ground around the aircraft with Protractor azimuth degrees and Target Poles placed at a distance . One pole straight ahead at 0 °, two (one on each side) at a 45 °angle from the pilots view point and two (one on each side) at a 90 degree angle from the pilots view point.

The Pilot places **colored markers** on the wind shield and parts of the airframe that line up with all the poles and become a fixed navigation visual aid used from the pilot seat. These fixed azimuth **Aiming Points** are used with pre-planed course plotted on a Topographic Map with features located at 45 degrees and 90 degrees to the course and can be a good location checks when they line up from the pilots view point.

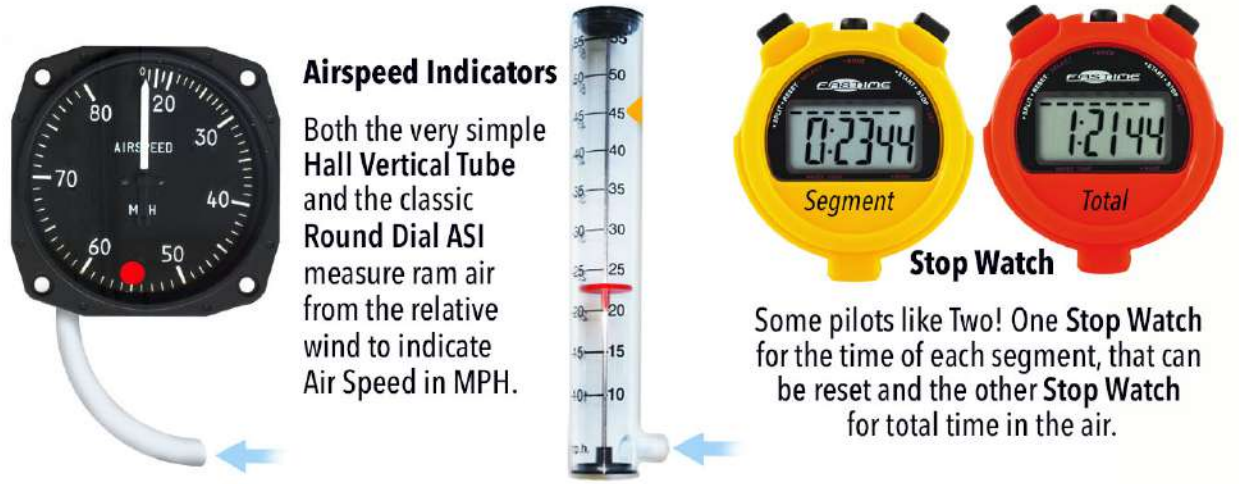


When the Radio Tower lines up with the 45° AP at check point 5 or the 90° AP at check point 6, the pilot is on course!

Measuring Speed and Time

Our basic speed measuring instrument is the **airspeed indicator**. Ultralights and LSA mostly have ones from the very simple Hall Vertical Tube to the classic round dial airspeed indicator with both measuring ram air from the relative wind to indicate airspeed in MPH. These have to be installed correctly to get an accurate reading and checked in flight by flying at a certain speed over a known distance in a certain amount of time, such as: flying at 60 mph for a distance of ½ mile should take ½ minute. See Figure I.

Fig. I Measuring Speed and Time



The very basic navigation of flying from point A to point B is plotting the course, measuring the distance, figuring the speed (airspeed corrected for wind direction and speed gives ground speed) and estimating the time it will take, **time spent**. For ultralights or LSA that have a very limited fuel supply, the time spent is critical. The best way to measure this limited time is a **stop watch**. It is a constant reminder of time spent so far in the flight and if checkpoint features along the course are calculated to pass by at a certain time and and are met we know the wind has not changed. Some pilots like two stop watches: one for total time and the other for the time of each segment that can be reset for the next. What ever style, the readout should be big and easy to read. See Figure I.

Even though only ground speed counts in navigation, we know only airspeed counts when flying an aircraft. Because of this, ground speed has to be calculated. Without a wind or a slight breeze, most short flights in ultralights and LSA can use the airspeed indicator for measuring ground speed. On a long distance flight with a constant wind of a known speed and direction, it has to be taken into account for its effect on ground speed, distance covered, time spent, and heading adjustments. A lot of this can be figured out by plotting a simple **wind triangle** in paper and will be explained in **Basic Navigation** in the next newsletter.

Meeting Minutes

April 2019

Flying Club One Meeting

Saturday, April 13, 2019
Warrenton Airpark
Warrenton, VA

Selling 50/50 tickets before meeting

Call to Order

President **Steve Beste** called our first warm weather meeting this year to order at 11:10 AM.

27 members present - big turn out!

Visitors, New Members and Old Members

PPC pilot **Tom Trell** moved from Texas to the Richmond, VA area recently and trailered his PPC rig to the Airpark today. **Brendon Meyer** came looking for a place to fly his PPG. **Fabian Georges** stopped by and is still interested in flying ultralights. **Martin Walker**, who has fought cancer for the last two years, said he would like to get up in his two seat motorglider/sailplane as soon as the weather clears up and said he has to fly with a copilot because of his health condition. The gyro guys flew in for the meeting, both **Kurt Mohr** and **Frank Noe** fly high-tech 2-seat gyroplanes. **Steve Beste** said he had a great time (no wind) flying his Trike to Cumberland, MD. **Steve Cherry** said he is ready to get an ultralight, maybe a *Quicksilver*. Both **Lucy Ooi** and **Monty Betts** had early spring snow weather stories to tell. Lucy trying to avoid wind and snow flying her plane on long flights to/from Plattsburgh, NY for work and Monty on a short hop in a magical swirling snow squall. Many members said that the constant strong winds this spring have grounded them.

REGULAR REPORTS

Secretary: **Jim Heidish** reported that the March minutes were published in the April Club Newsletter and they were approved as published.

Treasurer: **Jim Birnbaum** reported that the March income was $85.00, expenses were $148.73 and checkbook balance is $2279.88.

President: **Steve Beste** reported that it is time to sign up for cooks at our great cookout at noon after all our warm weather meetings. Sign up and get a special club apron. Also, some members are asking about club hats, and **Tim Loehrke** said he would look into getting them made. When we get them made, Steve suggested the club give one to each of the landowners that helped rescue a Trike that had an emergency landing recently. More information about the hats to come later.

Membership Director: **Jim Birnbaum** reported that we have 36 members paid-up, but more are paying their 2019 dues today. Paid-up members for this year are listed on the roster with (2019) after their name.

Warrenton Airpark Owner: **Tom Richards** is starting a big clean-up program at the Airpark. He is forming an advisory group to help with the program and form clean-up crews, special work days and even putting out some solar powered lights on the runway. He said he also needs to repair his two big tractors. Tom is now an *Aerolite 103* ultralight dealer and has an *Aerolite 103* demonstrator at the airport.

Old Business

None

New Business

None

MONTHLY PROGRAM

None

50-50 Drawing

Winner **Jim Birnbaum** donated his winnings to the Club.

Adjourn

President, **Steve Beste** adjourned the meeting at 12:15 PM.

Cook Out

A very tasty chili lunch was served by **Jim Birnbaum**.

Submitted by **Jim Heidish**, *Secretary*

Service Providers

Recap our standing list of service providers:

- **PPG instructor and dealer:** Michael O'Daniel, 540-270-8855
- **Aircraft instructor - CFI:** Pete Bastien, 703-568-5778
- **Aircraft instructor - light sport and seaplane:** Chuck Tippett, 540-905-5091
- **Ultralight (Part 103) instruction:** Tom Richards' Grass Roots Flyers, 703-568-3607
- **Machinist:** Luther Taylor, 540-222-3927
- **Welder:** Luther Taylor, 540-222-3927
- **A&P mechanic/IA (not at Airpark):** JD Ingram, 513-388-6312
- **Light Sport Condition Inspections, Rotax Certified:** Tim Loehrke, 703-618-4005
- **Gyroplane Instructor:** Frank Noe, frankcanfly@yahoo.com

Activities

Flying Club 1 Activities Schedule

Designated Club meetings will be held the first Thursday of each month in the Centreville Regional Library, 14200 St. Germain Drive, Centreville, VA, at 7:30 PM. Others will be held at 11:00 AM at the Warrenton Airpark as shown in the 2019 schedule. Changes in time or location will be posted in this newsletter and on the Club website.

Date	Activity	Location
Sat, May 11th	Club meeting, fly-in and cookout at Warrenton Airpark	Airpark
Sat, June 8th, 8:00 am	Poker Run	Airpark
Sat, June 8th, 11:00 am	Club meeting, fly-in and cookout at Warrenton Airpark	Airpark
Sat, July 13th, 11 am	Club meeting, fly-in and cookout at Warrenton Airpark	Airpark
Sat, August 10th, 11 am	Memorial table, monthly meeting, fly-in and cookout at Warrenton Airpark	Airpark
Sat, September 14th, 11 am	Club meeting, fly-in and cookout at Warrenton Airpark	Airpark
Sat, October 12th, 11 am	Club meeting, fly-in and cookout at Warrenton Airpark	Airpark
Sat, Oct/Nov TBD	Club 1 Color Run Fly-out	Airpark
Sat, November 9th, 11 am	Conversation, club business meeting and program	Centreville Regional Library
Sat, December 7th, 5 pm - 8 pm	Monthly meeting and Holiday Party	Airpark Club House

Classifieds

Ads will be run twice and then dropped unless resubmitted, or renewed by telephone or e-mail. Please advise the editor: **Lucy Ooi**
(Ooi.Lucy@gmail.com) when the ad is no longer needed.

'46 Taylorcraft for ½ interest sale. LIGHT SPORT. TT airframe 1225 hr. Good fabric and clear glass. 12 gal main and two 6 gal wing tanks.
Cruise at 95 burning 4 gph. Sensenich wood prop balanced with 350 hr. 65 hp Continental with 587 hr.
Rebuilt Mags and new harness with less than 75 hr.
Fresh annual and all ADs complied with.
Hangared at Warrenton Airpark.
$7,000 for ½ interest or $14,000 for all.
Contact Bill Sullivan at 540-422-9175 or wpsullivan99@gmail.com

---

Owner/Builder of Fisher Celebrity (biplane)

Looking for a Co-Owner

All wood construction, Grove one-piece spring-aluminum main gear
Powered by Rotec R2800, 7-cylinder radial engine, 100 horsepower

A tandem 2-place open cockpit biplane, cruises ∼80 MPH
Qualifies as light sport

Construction site & hangar, Warrenton Airpark (7VG0)
Project is ∼80% complete

Project includes Grove Gear, Rotec R2800, Instruments, Flying Wires and all other major components. Total value ∼$35,000

A current co-owner is offering his half of this beautiful project
(Entire aircraft sale – may be considered)

Call for additional info or to make an appointment to see this beautiful Taildragger!

Gil Coshland - (703) 618-3422
Asking $17,500 for his co-ownership

Jim T. Hill - (703) 659-8336 (Co-owner)

Membership Dues Policy

The period of membership follows the calendar year - January through December. The renewal period starts on 1 October with regular dues at $20.00 and family at $25.00. Members who have not paid their dues by the end of February will be dropped effective 1 March and will not receive the Newsletter or Membership Roster. New members joining after 1 October will be charged $20.00 or the family rate, if applicable and will be credited will full membership for the following calendar year. Please mail payments to Flying Club 1, 8570 King Carter Street, Manassas, VA 20110. Payment can also be made at the regular monthly meeting. Please include the Membership Application form with your payment. This will be used to ensure that our records are current. A copy of the membership application is attached and also printed at the end of the Newsletter.

Jim Birmbaum
Flying Club 1
Membership Director, Treasurer

MEMBERSHIP APPLICATION

Type of membership: ☐ **New,** ☐ **Renewal,** ☐ **Regular,** ☐ **Family membership**

Name(s): _____

Name To Go On Your Name Tag: _____

Street or PO Box:_____

City: _____ **State:** _____**Zip:** _____

Telephone, Home: _____ **Cell:** _____ **Work:** _____

Spouse's Name: _____

Emergency Contact: Name: _____ **Phone:** _____

E-mail Address: _____

Aircraft Liability Insurance through: _____

Aircraft make and model: _____ **N-Number (if any):** _____

Pilot rating(s): _____

Club Activities or Services for Which You Volunteer: _____

Information from this application will be in the club's membership roster which goes only to members.

Instructions:

1. FILL OUT THE ABOVE FORM.
2. ENCLOSE A CHECK FOR $20 ($25 FOR A FAMILY) MADE OUT TO **"FLYING CLUB 1".**
3. SEND THE FORM AND CHECK TO:

   Jim Birnbaum, Treasurer
   8570 King Carter Street
   Manassas, VA 20110-4888

To join the national USUA, go to http://www.usua.org
To join the national USPPA, go to http://www.usppa.org

Flying Club 1 General Information

The Flying Club 1 is a nonprofit, recreational club dedicated to the sport of ultralight and light sport aircraft flying.

2019 CLUB OFFICERS AND DIRECTORS

President: Steve Beste 703-321-9110

Vice President: Allen Whatley 571-235-6978

Secretary: Jim Heidish 703-524-5265

Treasurer: Jim Birnbaum 703-361-7478

Director At Large: Pete Bastien 703-568-5778

Director At Large: Tim Loehrke 703-318-7896

Director At Large: Lucy Ooi 585-410-5573

2019 CLUB VOLUNTEER STAFF

Safety & Training: Tom Richards 703-568-3607

Membership: Jim Birnbaum 703-361-7478

Club Artist: Jim Heidish 703-524-5265

Newsletter Editor: Lucy Ooi ("Wee")

Ooi.Lucy@gmail.com

Web Master: Steve Beste,

president@flyingclub1.org

A club is only as good as the members who volunteer to support its activities. The following listed activities with the club require member support in varying amounts. Please indicate on your membership application the function(s) (can be more than one) you will support as a Club member. All active Club members are expected to participate. However, members who live some distance away and cannot attend meetings regularly may prefer to support functions associated with Club weekend activities.

ANNUAL DUES (Jan 1-Dec 31) $20.00. Family membership (typically husband and wife): $25.00. A spouse who wishes to participate will please complete a membership application form.

CLUB WEB SITE: http://flyingclub1.org

MEETINGS are monthly, year-round. See the web site for dates and places.

THE NEWSLETTER: The newsletter is published by email on the first of every month.

SUBMITTING ITEMS FOR THE NEWSLETTER Members and non-members are encouraged to submit items for this newsletter. Send submissions to Lucy Ooi at Ooi.Lucy@gmail.com at least one week prior to the end of the month.

If you are interested in joining the U.S. Ultralight National Organization go to their website for membership information at: www.usua.org

Likewise, if you are interested in joining the U.S. Powered Paragliding Association, the National PPG Organization, go to their website for membership information at: www.usppa.org