

ONTARGET

BY PAT CANNON

Map Your Way to the Target

This month we tackle two main preparation items that can cause you to win or lose a competition. Map preparation and grid orientation are both items that should be done with care prior to any competitive event. If not done correctly, these are considered a “technical” error and it’s the “technicals” that can lose a championship. There are many of them and we will discuss as many as possible through this continuing series of articles.

By taking just a little time with your maps prior to the first competitive flight, you will save yourself the embarrassment of taking off in the wrong place, or of getting aloft with absolutely no idea of the terrain features you should see enroute to your target or goal.

When we talk about maps, we refer to the unlimited type, style and variety of maps presented to you by the event organizers. They range from fairly sophisticated, gridded geo survey maps, used at large, championship events, to a basic Chamber of Commerce business street maps, used at smaller events. They come in all sizes, and shapes and the information on them, including their North orientation arrow, may be completely wrong.

Once that map is in your hands, it is up to you to change it into something useful during your planning for each competitive flight. Here’s how. For the simpler maps, including the street maps, you will only need to highlight items that will help you in flight during navigation, such as water towers, radio towers and any other well defined feature of the area that should be visible to you from the air. If you know where your goal or target is in relation to the known location of that feature, you can align your flight direction early in the flight, at fairly low altitudes, without actually seeing the goal or target. While GPS will give you an accurate direction to the target and direction of travel, visual contact with the land features in the area of the target provide a better three-dimensional view of your position. It will be different with the geo survey maps.

On the finished product for the Nationals, the scale is pretty small and the road structure, while accurate is not printed prominently on the map. Your will need to make them stand out more, by outlining *all* roads in a color that will

stand out. Properly marked, the road structure between you and your target will take on a distinct pattern when seen from the air, and you’ll spend much less time looking for your present position on the map. (This is also important for selecting proper targets in pilot declared tasks. At Nationals and some other large events, not every goal or target comes complete with a big visible X. Road intersections are frequently used and you need to be able to see them easily at a glance.)

I also highlight every driveway and farm field access road that I can find, and I continue to mark them as the competition progresses. I always find something that I didn’t see and mark earlier. These small features can become very instrumental in choosing goals away from the main road intersections and balloon congestion, and also provide a known location for a marker drop, should you miss your goal.

Other items that must, by rule in the Nationals, be marked, are major power lines and red roads. Red roads are major thoroughfares, which are too congested to be used as goals. Declaring a goal too close to red roads and power lines, is another of those “technicals” and will cost you points. Lastly, mark all PZs. Land in one, and at the least it will hurt landowner relations for the organizers. In national competition, it will earn you big penalty points as well.

The bottom line in map preparation is that it must be made into something useful to you, and in the Nationals, also be in compliance with the rules. Proper preparation of your map will make a difference in how you perform and will reduce your in-flight workload while visually acquiring your goals and the navigating to them.

The next item of business with your map is it’s orientation to magnetic North. The first rule is to never believe what you see on the map. Even the geo survey maps can be off by a degree or more, caused by the set up and printing process.

With the advent of GPS, this process has become much easier. Here are several ways to accomplish this task. The most reliable is to first find the center of activities. This might be a given GPS point, or the location designated by



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the organizers to mark the center of the target on the competition field. Get that GPS point and then verify it using triangulation.

For this you need a transparent compass rose, one that you can move around on the map. (These are available from the BFA office at a very nominal fee.) Drive out two or three kilometers (miles) from that point, in several different directions and take some direction and distance readings back to the center point. Mark these known points and lay the compass rose over them by matching up the degree lines. The place where all lines cross in the center will be the actual location of the target, and will set the compass rose to the map.

Another reliable method is to take a compass reading down the middle of a straight road near the competition field. Not only will this show you where magnetic North is, but it automatically takes into considera-

tion, any deviation you may have in your compass. You can use GPS to confirm your readings. You simply drive down the road and check the GPS magnetic heading of travel. Compare it with your compass. Now you will know your compass error and can apply it to the bearings shown on the GPS.

Once you know where magnetic North is on your map, and how that relates to what your compass reads, you are ready to use your map as a useful tool. You can place your compass rose permanently on the map, over the center target field, or have it available to move over other goals that you may fly to during a multiple task flight.

Next month: Pibal readings. Meanwhile, congratulations to Nick Donner for his win at the 2001 National Championships in Anderson, SC.

