GPS Basics

In order for you to understand how best to utilize GPS you need to understand what it is, how it works and most importantly how it can improve your fishing.

What Exactly is GPS?

The Global Positioning System is a group of 27 satellites in orbit above the earth, at any given time there are at least four satellites "in view" of all GPS Receivers. The receiver will then pinpoint your location by measuring the distance from it's self to each satellite and then calculate the exact receiver position by a process know as "Trilateration". Early on the accuracy of GPS receivers was limited to approximately a 100 meters radius but improvements in technology and relaxed military regulations have made marking specific brush piles, ledges and "sweet spots" on a lake to within five to ten meters an everyday reality.

GPS Terminology:

WAAS: A system designed by the FAA for aviation use, WAAS (Wide Area Augmentation System) utilizes satellites in a fixed orbit at the equator to more accurately fix the position of a GPS receiver. On average WAAS will pinpoint a location to approximately a four to six meter radius. But, because the system is not fully operational at this time and "line of sight" issues caused by topography between the receiver and the satellite WAAS has limitations and may not be available in all locations.

Waypoint: Any location selected and store in the memory of a GPS receiver. Used to mark specific spots; brush piles, etc… or turns or coarse changes in a route.

Route: Two or more waypoints in a course of travel to designate your path.

Trail or Plot Trail: A savable and retraceable route used to find your way in and out of an area.

Plotter or Plotter Display: Essentially a "bird's eye" view of your position relative to waypoints, event markers/icons or map data saved in your receiver.

Event Marker/Icon: A graphic symbol used as a waypoint to mark a specific event of location by the user.

Chart Plotting and Mapping:

Nothing has revolutionized the use of GPS as much as mapping software and the use of GPS maps and charts or chart plotters. The days of running down the lake with a paper map in your hand trying to find a specific creek, drop off or other piece of structure are long gone. Modern GPS maps enable you to zoom in or out to a comfortable level while you are running down the lake increasing your efficiency on every body of water whether it is your first or 100th time on

the water. Mapping software is available in disks, chips or memory cards and is an essential accessory to any GPS receiver, if your unit does not include mapping software it is a purchase you will not regret. Please note that while GPS and mapping software is accurate it should never be used as your primary source of navigational information. From finding your way around on an unfamiliar lake to finding isolated pieces of structure mapping software make old paper maps almost obsolete.

Basic GPS Uses:

There are hundreds of ways to utilize your GPS receiver and mapping software to improve both the efficiency and effectiveness of your fishing. To truly understand all the ways GPS can help, you really need to spend time both on and off of the water studying how to operate the receiver and all of its functions. As a basic overview let's look at some of the more common functions both amateur and touring anglers use everyday to improve their fishing.

Marking and returning to "hot spots": Probably the most important function a GPS receiver is its ability to mark a specific feature on the bottom of the lake. Unlike the old days of lining your boat up with a specific tree, dock and big rock to triangulate your position now you can use GPS to put your boat on top of whatever cover or structure you are looking for. Plus once the feature is marked and saved in the receiver's memory you can return to that spot time after time without worry about changing lake levels or moving land marks.

Scouting new locations: Another critical function of GPS for fishing is helping you scout and find new locations. This can be done in conjunction with paper maps or just with mapping software in the receiver. Generally a paper map and the mapping software will get you close to a new spot that "looks good" then utilizing your depth finder and a "zoomed in" GPS map you can isolate the key portion of the structure or a specific piece of cover on the structure. Obviously once this "sweet spot" is found the receiver is essential to mark the spot as a waypoint.

Navigating new waterways: While your GPS receiver should never be used as your primary source of navigational information, the mapping software and ability of GPS to pinpoint your location in real time can be crucial in helping you find your way around a new body of water. While Ozark lakes are fairly easy to navigate imagine launching on the Arkansas River and its oxbows or on the canals of the Louisiana Delta without the help of a GPS receiver. Both of these areas are essentially a maze that used to take years to learn, now with the advent of GPS anyone can comfortably find their way around.

Take Time to Learn:

The biggest struggle most anglers have with GPS is getting started. It can be tough to take the time to read an instruction manual or spend what limited time you have on the water learning the different functions of your GPS receiver. But just like anything else if you are not willing to incorporate new technology into your fishing you will eventually be left behind. My suggestion is to spend this winter purchasing and installing a GPS receiver on your boat if don't already own one then spend the time necessary to learn all of the functions in the warmth of your garage (note: many garage roofs are made of metal or multiple layers of fiberglass shingles and a GPS

signal cannot penetrate them, while you will be able to work in simulator mode you may not be able to connect with satellites). With a little practice and study next spring you'll be surprised how efficient and effective your fishing can be with a little help from above.

Tip of the Month:

When all else fails and your depth finder or GPS receiver has crashed and will not function you can try to do a "soft" or "hard" re-boot to re-start the unit's computer. Before doing either re-boot note that all saved data, waypoints, trails etc, will be lost when you re-boot the system, therefore if your receiver accepts flash cards it is imperative to save your data on a regular basis. To perform a "soft" re-boot press the pages button while shutting the unit off, continue to hold the pages button down and turn the power back on. Allow the system to fully boot back up and check operation, if the problems have been resolved start re-installing your waypoints for the memory flash card, if not you will need to do a "hard" re-boot. Press and hold the zoom-in and zoom-out keys while shutting the power off, continue to hold the zoom keys while you turn the power back on. This will completely restart the system with all factory presets. As a side note, never shut the power off on your electronics via the master power switch of your boat, always use the power button on the unit it's self to ensure no loss of data.