

**News, Views and Stories about
Furuno Marine Electronics.**

The Furuno Waypoints newsletter is intended to keep you informed of new products, technology and company news to enhance your boating experience.

This issue of Furuno Waypoints focuses on how to use your Furuno Radar as a tool to target birds, beginning with a practical application from Captain Ed Dwyer.



**"The Other Side" - Using
Radar To Target Birds**

By Capt. Ed Dwyer

You have been running for hours now and the water is still that same bottomless blue. The excitement is mounting because your temperature gauge just dropped a degree and a half. You have just emerged from the warm-water river known as the Gulf Stream. You have entered a realm of incredible fishing potential that has come to bear the name "The Other Side".

Now your eyes scan the horizon and all points in between, trying to find something to focus on. You are searching for a "pack" of birds with your radar, because they are the ever watchful companions of the yellowfin tuna. More and more boats are now investing in radar units that can detect flocks of birds for approximately six miles or more. This greatly increases one's chances of finding the tuna. The yellowfin are using the slightly cooler waters bordering the Gulf Stream as a highway on their northward migration. They are cruising quickly, stopping only to annihilate any bait fish that happen to be in their path. The birds, spying from incredible altitude, are always

on hand to clean up the carnage left in the wake of the ravenous yellowfin. So as the food chain goes, the birds are watching the tuna and we are watching the birds.

We are not alone in the hunt for yellowfin, because blue marlin are cruising about using their own time tested method of fishing. If you can find some floating debris or a weed line, you might add dolphin, wahoo and tripletail to your menu. The fishing is best described as "hit and run". Often the tuna spook after a pass or two with the boat. You need to make the most of your first pass with multiple hook ups. A spread of small to medium high-speed lures maneuvered into the path of the



Capt. Ed Dwyer has been a Charter Boat Captain in South Florida for the past 18 years. You can find him at www.ticketfishing.com.

tuna can often result in five to six reels screaming at once. If the school dives or the fish get shy about striking, then you're off to find another flock of birds and repeat the procedure.

Furuno USA, Inc.
4400 NW Pacific Rim Blvd.
Camas, WA 98607-9408

U.S. POSTAGE
PAID
CAMAS, WA
PERMIT NO. XXX
ZIP CODE 98607

Targeting Birds With Your Furuno Radar

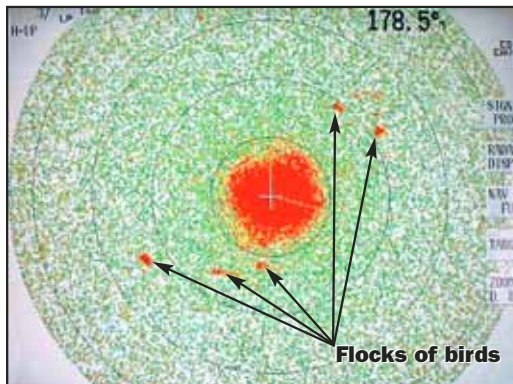
It's a well known fact that if you want to catch fish you need to know how to find them, and in order to find the fish, you need to locate the birds - the undisputed masters of fish finding technology. What is less clear is exactly how to go about targeting birds with radar, a tool normally reserved for collision avoidance. This issue of Waypoints will remove some of the mystery surrounding the subject.

The first thing to think of when considering bird-tracking radar is antenna beamwidth. Remember that the narrower the beamwidth, the greater target discrimination you will have. For this reason, dome antennas are not as adept at tracking birds as a comparable open array antenna. As the length of the antenna radiator increases, beamwidth becomes narrower, so a larger antenna will invariably offer better target discrimination.

Experience and practice will make you a bird-finding machine, but to get there you need to start with the basics. For the novice, it is best to practice these techniques on a clear

day with calm seas. It is easiest to first visually locate a flock of birds that you want to target.

To target the birds, set the radar to a mid- or long-range. Next, increase the Gain control until you see noise on the display. This will appear as a blanket of small specks. You will



These birds were targeted using the Furuno 1953C NavNet Radar. True Color is highly desirable when targeting birds, as demonstrated above; these flocks were easily picked out in red against the blanket of clutter.

need to leave the Gain turned all the way up, thus setting the receiver for maximum sensitivity in order to detect birds. Resist the temptation to turn up the AC/Sea or AC/Rain to

drop out the noise. Flocks of birds may look like dense, recurring noise rather than a solid target, but you should be able to see them clearly. This is what you will be looking for when you don't have a visual cue as to where the birds are feeding.

If your radar is capable of operating in True Motion, do so. You will be stabilizing the display, and you will be able to tell if the flock is travelling in a straight line looking for bait pods or if they have found their target school and are feeding.

When operating in Head Up or True Motion, be sure to turn on your target trail function and set it for long trails to help track travelling flocks.

Practice these techniques and soon you will be scouting your fishing spots just like the pros.

FURUNO Radar Factoids

Here is a list of common radar terms and their definitions as they are used within this article. For more detailed information on Furuno radars, please visit us on the Internet at www.Furuno.com.

Beamwidth: The angular width, horizontal or vertical, of the path taken by the radar pulse. Horizontal beamwidth is the principal factor which affects bearing resolution. The narrower the beamwidth, the better the bearing resolution.

Bearing Resolution: The ability of the radar to display separate echoes received from two targets which are at the same range and are close to each other.

Head-up: In Head-up mode, the line connecting own ship and the top of the display indicates own ship's heading.

Target Trails: Trails of the target's echoes may be displayed in the form of synthetic afterglow.

True Color: Received echoes are displayed in differing shades of color from a set color palette, according to echo strength. Generally, stronger returns will display as a darker shade of a given color.

True Motion: Own ship and other moving objects move in accordance with their true course and speed while stationary targets will remain stationary on-screen.