



By Steve Thomas, WA4TQS

Mobile Fun with PSK31!

For years mobile ops have yearned for a reliable low-power mode to add to their arsenal of on-the-move operating options. According to the author, PSK31—the low-speed digital mode that’s been taking ham radio by storm—is just that!

Who’s driving? I’ve been asked that question during almost every mobile PSK31 QSO in my logbook. That’s right—*mobile* PSK31. Why not? I’d been operating the handy new digital mode for about a year when I thought it would be a worthy mobile experience. PSK31 has earned a universal reputation as a good low-power, high-intelligibility mode—and what could be better for mobile ops?

Our family vacation last summer was of the “driving” variety. Our 11-year-old son had flown to Kentucky to spend a few weeks with friends, so my wife, daughter and I drove to Kentucky to celebrate the Fourth of July (and pick up our boy). I usually despise driving vacations for the simple reason that I’ve always done all of the driving! Everyone else reads, sleeps or watches videos on a dc-powered TV/VCR combo. But last year was different. I had PSK31 at my disposal...

During the trip-planning phase I decided to add my electronic hodgepodge to the pile of stuff we normally carry on vacation. With an HF rig, a laptop PC and an antenna, I was in business.

To keep things simple, I needed an uncomplicated antenna. Because I had never operated HF mobile, I didn’t have a stockpile of mobile antenna parts breeding cobwebs in the corner of my shack. I was starting from scratch.

A *QST* article by Steve Ford, WB8IMY, steered me toward WD4BUM’s line of Hamstick mobile whips. Perfect! They’re low profile, don’t catch bugs, don’t whistle or make noise and don’t need any guy lines or exotic mounting hardware. All I had to do was mount it on the van.

Further inspired by Steve’s article, I ordered a triple-pad, magnetic-mount capable of withstanding the hurricane force winds I would generate as I cruised down the interstate at 70 mph. With the Hamstick, mag-mount and SWR bridge in hand, I headed for the van to find an optimum antenna location on the roof.

Whoops! Is there *any* metal on this thing? Lumina vans are, I discovered, constructed of corrosion-resistant plastic body panels. The mag-mount wouldn’t stick anywhere!

Plan B was needed. The van is, fortunately, equipped with a luggage rack that has adjustable bars. The bars are fitted with sliding 6-mm nuts. I needed a sturdy aluminum plate to attach the Hamstick’s 3/8-inch stud mount. After a half-hour of rummaging, my junk pile produced a mast-to-boom bracket scavenged from an old tribander. The only modification

required was the addition of a 1/2-inch hole in the center of the plate for the stud mount. The plate was secured to the luggage rack with four 6-mm machine screws and the Hamstick was mounted and standing tall on the roof of the van.

I ran a ground wire from the aluminum plate to the nearest grounded body panel and began to tune the Hamstick. This was a relatively simple task with an MFJ antenna analyzer. In just a few minutes, I had trimmed the stainless-steel whip and adjusted it for a 1.5:1 SWR at 14.070 MHz.

I powered the station from a separate 12-V marine battery that I charged with a portable ac-powered charger. This was much simpler than running power cables from the front of the van (while eliminating “received” engine noise).

I mounted the mobile bracket for my Kenwood TS-570 transceiver to a milk crate for added stability on the road. At the last minute I added a RIGblaster interface to simplify audio adjustments. We were ready to roll!

Who is Driving, Anyway?

Picture this: A middle-aged adult male driving a 10-year-old van 70 mph on the interstate with a laptop computer mounted on the steering wheel. *I don’t think so!* Crazy people—hams included—*might* try such a stunt. But when I said I was operating PSK31 mobile, I didn’t say I was *driving* and *typing* at the same time. For me, typing is difficult enough when the darn keyboard is sitting still. Hitting the right keys while sitting in the back seat of a speeding van was challenging enough in itself. Driving would have added a third complicating dimension to this already challenging task. *Don’t try it—don’t even think about it!*



A close-up view of my Hamstick mobile antenna mount using the Lumina’s luggage rack.



My Kenwood TS-570 transceiver and RIGblaster interface.

Our trip took us from Lake Jackson, Texas, 50 miles north of Houston, to Texarkana. We then headed to Little Rock, Arkansas, and Memphis, Tennessee, where we spent the night. Right out of the chute I began making solid PSK31 contacts. This was going to be a great trip. I don't know why I was still so impressed with PSK31. I should have become accustomed to good copy under less-than-optimum conditions, even while running low power. The

handicap of using a small mobile antenna didn't seem to be a problem. I even managed to have a great QSO with Ken, N9VV, in Chicago, running his peanut whistle PSK20 transceiver at 3-W output.

The next leg of the trip took us from Memphis to Nashville, then north on I-75 to Kentucky. This is where things became a little more difficult: The mountains, while scenic, seemed to cause a lot of fading.

After spending the Fourth in Kentucky we headed south to Oak Ridge and Chattanooga, Tennessee. While we were in Chattanooga, I took the opportunity to drive to the top of Lookout Mountain and operate briefly from Lookout Park. What a view! It was a shame that I didn't see any tribanders up there.

The final leg of the trip ran through Biloxi, Mississippi, and back to Texas along I-10. Once again, operating in the flat lands was a breeze.

All told, I made 30 PSK31 QSOs. One highlight among many was making a solid QSO with Pete, KF4TVU, who was maritime mobile on his sailboat in Belize. I was having a great time in my land yacht, but Belize somehow sounded more exotic...

Conclusion

I have been a ham, off and on, since 1960, when I was 13 years old. Over the years there has always been something to keep me coming back to this great hobby. PSK31 is one of those "interest anchors." This excursion was my introduction to HF mobile operation. What a blast! PSK31 is the most exciting mode to come to ham radio in a long time. More important than all the gizmos and technology, however, are the people who make ham radio great. I would like to thank the hams who have donated their time and talents in the best traditions of Amateur Radio in making this great mode possible and readily available to the amateur community. A special thanks goes to Nick Fedoseev, UT2UZ, and Skip Teller, KH6TY, for their amazing *DigiPan* PSK31 software. You can grab a free copy at members.home.net/hteller/digipan/download.htm.

If you've been looking to spice up your mobile operations, give PSK31 a try. Just make sure someone else is behind the wheel!

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FEEDBACK

FIELD DAY

◇ The photograph shown on page 102 in the December 2000 *QST* ("Field Day 2000 Results") appeared with the wrong caption. The correct caption should have identified the operators as Jason Swalwell, VE7FXV, and his two children at the Greater Vancouver Radio Group Field Day site.



PIC KISS TNC UPDATE

◇ I've been informed that my KISS TNC does not work well with the terminal program *WinTNC*.¹ Receiving was okay, but the user couldn't transmit. Research shows that this is because (contrary to the KISS specification) *WinTNC* (as well as a couple of other programs) require "hardware flow control." Fortunately, the fix is easy. Simply jumper pins 7 and 8 of the TNC's DB9 connector, J2; these two pins are in the middle of the



¹John Hansen, W2FS, "An Inexpensive KISS-Mode TNC," *QST*, Nov 2000, pp 53-56.

four-pin row of the connector. A foil-side view of a modified board is shown in the accompanying figure.

While using *WinTNC* to isolate this problem, I found it to be a fine piece of software. It is available from many Web sources including www.tapr.org/tapr/html/softf.html. E-mail me if you have any problems or questions.—John Hansen, W2FS; john@hansen.net



STRAYS

WANTED: UNINHABITED ISLANDS PICTURES

◇ Tom Sundstrom, W2XQ, forwards a request from Greg Robins who is starting a Web site called Uninhabited Islands. Robins is a writer and has visited a number of remote places, including the infamous Swan Islands (remember Radio Swan?). Because radio amateurs often visit such islands for DXpeditions and/or contesting, Robins seeks help in filling in his picture collection. If you have been on such a venture and have non-radio pictures, please consider helping Greg Robins. Send e-mail directly to Gregsboat1@aol.com to discuss arrangements. Watch www.uninhabitedislands.com/ for developments.

QST CONGRATULATES...

◇ **Lou Williams, W9GSB**, who was recently inducted into the Illinois Aviation Hall of Fame. Lou has been a ham since 1933 and interested in aviation for almost the same amount of time. Lou flew combat missions during World War II in Europe and was very active in commercial aviation after the war.

◇ **Stephen Mendelsohn, W2ML**, on his promotion to Senior Audio/Video Systems Design Engineer at the ABC Television Network. Recently elected to the position of ARRL Hudson division Vice Director, Steve was also recently honored with an Emmy award as one of the Technical Managers on ABC's historic "Millennium Special," which aired January 1, 2000. The program featured New Year's Eve celebrations from every time zone around the world.