

# DXing With NATO

Deployed to Bosnia-Herzegovina as part of NATO's multinational Stabilization FORce (SFOR), an American ham in uniform sets up a portable station there and meets a fellow soldier/ham who had the same idea! Both discover the adventure, excitement and reward of operating in a challenging and unique environment.

**W**hen the shock of the news that my California National Guard unit would be activated and deployed to Bosnia began to dissipate, my mind drifted to thoughts of what it might be like to operate HF from that troubled part of the world. Our seven-month tour would have us in the Balkans through the dead of winter, so it seemed like the ability to work the world from that snowy, foggy region might provide a welcome touch of home and a little exotic adventure.

A quick check of the ARRL Web site revealed that reciprocal operating agreements existed between the US and Bosnia. An e-mail to Bosnia's Directorate of Telecommunications brought an almost immediate positive response along with specific instructions on how I could get my temporary Bosnian license. I mailed off the required materials and in two short weeks my special Bosnian ticket arrived, complete with a summary of my operating privileges, which precisely matched my FCC Advanced-Class certificate. I'd be T9/N6TST.

## The Theater

My unit handles MEDEVAC duties and flies UH-60A Black Hawk helicopters. With regular overseas deployments becoming a fact of life for American soldiers, the services have turned to Reserve and National Guard units to ease the workload on troops in the active forces. Ostensibly, our unit, with its 10 Black Hawks, would be sent to Eagle Base, a large Soviet-built airstrip located in Tuzla, in the American Sector of the Multi-National Division, North (MND[N]), in the northeastern corner of Bosnia-Herzegovina.

We were told that our unit could be sent elsewhere, so I decided to pack my HF gear



Here I am posing next to a sign stack no overseas military base would be complete without. My Windom antenna was suspended from the left side of the observation tower behind me.



T9/KC5YOR operated his TenTec Delta II transceiver out of his quarters, feeding his roof-mounted dipole with 450-Ω ladder line.

so it would be ready for my wife to ship once we'd settled in. Thankfully, APO parcel service between the States and Bosnia is fast and dependable. Now that Internet access is so universal—and that's surely the case for the military in Bosnia—most everyday personal mail is electronic.

My station would consist of my Kenwood TS-440SAT transceiver, powered by a Kenwood PS-30 supply, which can easily be switched to run on the 50-Hz, 220 V ac power used throughout Bosnia. My antenna was a 132-foot Windom with a resonant 97-foot feed line (which would later prove to be problematic). I also took my Heil headset, complete with a homemade PTT button I'd wired in (this turned out to be a *very* good idea).

Arriving in the region in late August, we found the living situation at Eagle Base a little chaotic. All the tents, including the ones in which we stayed, were being replaced with permanent buildings in a construction blitz that was supposed to be completed by mid-December. It'd be nearly impossible to set up an antenna right away because we had no idea when we might move to our "new" quarters.

So, I did what I've always done when deployed overseas—scrounge! Rooting through the mountain of "materiel" that always accompanies base construction, I came across a handy cache of stackable five-foot fiberglass mast sections originally used to support camouflage netting. They'd make perfect antenna support poles. I carefully bundled them and tucked them safely out of sight.

One morning while I sat on first-up standby, a Major from our Combat Support Hospital walked into Flight Operations looking for the MEDEVAC pilot who was also a ham radio operator. He was Steve Flaherty, KC5YOR, a doctor who had



**My improvised ham shack in MEDEVAC Flight Operations at Camp McGovern, northern Bosnia-Herzegovina. I always volunteered for phone watch on "first-up" since I could operate while people were eating or sleeping and I wouldn't disturb them.**

shipped out with his Ten-Tec Delta II transceiver.

Steve and I talked about our ham radio plans. Although he'd been licensed for 17 years, he'd been off the air for the last 14. Now upgraded from Novice to Tech Plus, he was interested in getting on the air again, especially on HF. Anxious to operate in such an interesting place, he got his Bosnian license and packed his rig and a simple dipole for 10 meters.

So as T9/N6TST and T9/KC5YOR, Steve and I formed the Tuzla Amateur Radio Society.

With our new quarters still under construction, Steve decided he'd put his dipole atop the newly completed single-story hospital building. Feeding his antenna with 450-ohm ladder line via an MFJ tuner, Steve began operating in October. Interference was an immediate problem, however, as his signal was getting into the telephone lines. Despite our best efforts, we couldn't mitigate the problem. Steve decided to wait until our new quarters were complete—only a few weeks away—before continuing his radio pursuits.

In the meantime I visited the local communications unit to see how modern military communicators enjoy their HF experiences. What I found was depressing. Their state-of-the-art Collins rig stood idle. "Nobody knows how to run it," I was told, "and when we had a guy who knew about it, we couldn't get the antenna to work."

The most practical HF application in the Balkan theater is short-range Near-Vertical Incidence Skywave (NVIS). The idea is to fill the countless gaps as troops work their way into the multitude of tiny valleys and radio-shadowed sites throughout the country. But with precious few soldiers trained in this delicate aspect of communication and numerous

retransmission sites dotting the hilltops, HF has been eclipsed by the standard 30-88 MHz tactical VHF FM SINGCARS (SINGLE Channel Ground and Airborne Radio System) transceivers. Despite its amply encountered limitations and shortcomings, this line-of-sight system handles most comms in this mountainous land.

It didn't take me long to determine that the NVIS antenna was insufficiently grounded (*very* important). We consulted the real-time HF propagation links I'd put on my Web site (<http://www.ridgenet.net/~n6tst>) to choose the best of their allocated frequencies for any particular time of day. We soon made comm checks with other stations more than 100 miles away. This relatively simple success impressed the communications unit commander and he asked if I might brief his troops on setting up antennas, HF propagation and determining the most effective frequencies. This was no problem and I found my audiences quite attentive.

Suitably appreciative, my communicator colleagues turned me loose with their HF rig and I began checking things out. Europe's popular ham bands are 80, 20, 17, 15, 12 and 10 meters but, as anywhere, choosing the best bands depends on conditions. On good days, early morning brought signals from Siberia, Australia and Southeast Asia. During the day, paths to all of Europe were hot, as were routes into Africa and the mid-East. The polar "window" to the US doesn't open up until mid-afternoon (Bosnia is UTC +1) and closes a few hours after local sunset. I couldn't wait until I could get my antenna up! I e-mailed my wife to ship the gear. I had it in a week.

### Whoops, New QTH!

Suddenly, my assignment changed. One morning, I found myself heading north, bag and baggage, to a small, heavily armed outpost near where the Serbian, Bosnian and Croatian borders converge. Here we kept two aircraft and crews standing by for emergency missions as the region's already volatile political environment grew increasingly unstable. I'd be there "until further notice," so I tossed my boxed up station into the back of the aircraft.

Steve and I exchanged e-mail as time passed and snow fell. The new quarters were open for business. They consisted of long, single-story buildings with low-pitched roofs. Steve had mounted his dipole along the crest about 20 feet off the ground. With no phones or other equipment around to "interfere with," he was able to easily operate from his room, working 10-meter stations all over Europe, Africa, South America and Indonesia.

He'd established himself as a MARS



**Major (Dr) Steve Flaherty, T9/KC5YOR, and the author, both charter members of the Tuzla Amateur Radio Society, show off their special Bosnia QSLs at the end of a successful and rewarding experience operating overseas.**

affiliate (AEM5USM) and, via stations AEM1USA in Germany and AAR3HG in Maine, Steve was passing messages through the MARS web site. As Christmas approached he made phone patches for GIs. It stirred my interest and, at my remote duty station, I began unpacking and getting things ready.

At our outpost, our tiny Flight Operations group had its own tactical FM antenna mounted on a guyed 30-foot mast standing atop the huge bunker adjacent to the building. About 200 feet away stood a 40-foot observation tower bristling with antennas. I decided to mount my 132-foot Windom using appropriate lengths of parachute cord to position it horizontally between the two anchor points.

On Christmas Day and the following morning, I worked in the cold and snow to suspend my wire antenna about 30 feet above the ground while keeping the ends sufficiently clear of existing antennas. I routed my coax to the rig inside the Flight Ops building.

I hooked everything up and almost immediately snagged a station in Germany on 20 meters. My T9 prefix, a suitably rare catch throughout Europe, produced the first of what would become the most amazing series of pileups I'd ever experienced. I say "amazing" because for the first time I was the center of attention!

My first day exploded into activity, and the next several weren't far behind. Propagation on every band was excellent, taking my attention-grabbing call sign as far as India and Norway, all over the Russian Republics, and through a polar window to the eastern US. At night, 80 meters opened, keeping most of Europe in the "my oyster" category.

It was a ham's dream, sitting on MEDEVAC standby for 24 hours a day, with the rig going, my laptop to log my contacts and a headset to keep it all from driving my fellow crewmembers crazy.

Actually, it *did* drive them crazy. I seemed quite frenzied handling pileups while they tried to watch videotaped movies. I also found, ala Steve, that my signal was getting into things, too. And there were good reasons for it.

First, with the proverbial paucity of telephone lines and plethora of users, everyone and his buddy had wired himself his own extension/antenna, selecting from the rich choice of phones and 24-gauge, four-conductor extension cables in our tiny PX. Second, people did the same thing with their miniature amplified speaker systems they'd set up for personal stereos and computers. Their high-impedance, solid-state front-ends made great semi-modulators.

Third, Windom antennas need efficient RF grounds to prevent feed line radiation. To keep the buildings at our outpost from sinking into the perpetual sea of mud they sit atop (except when it freezes), Army Engineers and Navy Seabees began with a layer of coarse gravel more than six feet deep. Despite the best ground rod and all the pounding in the world, I'd still have a hard time working my way down to real earth.

Between the spider web of jury-rigged telephone lines, high-impedance speaker leads and a less-than-ideal RF ground, more than the ionosphere got hot from my signals. A few steps ahead of the lynch mob, I decided to restrict my operating windows to times when people were flying, eating or sleeping.

But even then things weren't perfect. On our tiny base, the Armed Forces Radio and Television System (AFRTS) operated a one-watt transmitter to relay its satellite-delivered programs across the few hundred feet to the Dining FACility (DFAC), where some TVs were set up. With that meager signal, the AGC on those TVs was wide open. When I pumped out my 100 W on 80 meters, my crewmembers told me about the herringbone patterns and the faint, strange-sounding audio. Fortunately, they were the only guys to recognize the telltale signs!

Time passed and conditions fluctuated. Even with my neighbor-friendly operating arrangements I still had time to make plenty of interesting contacts: a nice QSO to Sweden on 10-meter FM; Rabat, Morocco, on 12 meters; the Orkney Islands off Scotland; every country in western Europe; and about as many of the new Russian Republics as I could identify.

An interesting 80-meter QSO occurred during the first week of January 1999, just



**T9/N6TST used his nighttime flash photo of the first-up MEDEVAC aircraft on the hospital standby helipad during the season's first snowstorm as his Bosnia QSL.**

after a NATO Special Operations team had tried to arrest a Serbian ex-general as a PIFWC (Person Indicted For War Crimes, pronounced "pif-wik"). He'd resisted, trying to run down the team in his car and died in a hail of bullets. That night, a station in Novi Sad, Serbia, came back to my CQ and we talked awhile.

From my call sign he knew who I was and where I was, but although he was quite emotional about the global politics involved, he made it clear that he didn't have any personal animosities toward me. He went out of his way to thank me for being such a caring visitor and having the interest to reach out and meet people as I had. I was truly impressed and came away feeling I'd experienced one of Amateur Radio's greatest rewards.

As unexpectedly as it began, my hinterlands tour ended. Late in January I got word that I'd return to Tuzla, so I dismantled my station. Because Steve had already mounted his antenna on top of our building and we'd be shipping out soon, I decided to pack my station away and send it home.

All told, I'd logged 113 contacts compared to Steve's 125 (not including the more than 100 messages he'd passed for MARS). We'd both had a wonderful time and neither of us in any way regretted bringing our radio gear. We also made special QSL cards to commemorate the experience. I'm still sending mine out as I

receive cards via the QSL Bureau.

## Things have Simplified

If you're in the military and a tour in Bosnia looms in your future, taking your rig can be a fascinating and easily exercised option. Shipping via the APO system is excellent and speedy, and operating in Bosnia-Herzegovina is easier than ever since that country became a signatory to the recently adopted CEPT agreement.<sup>1</sup>

All the HF amateur bands except 40 meters are usable in a region that has no shortage of folks eager to make contacts with a T9 station. Because your Bosnian privileges allow it, operating on VHF and UHF is also an option, although repeaters are almost non-existent. One particularly nice aspect for me was my rig's general-coverage receiver. My large antenna gave me excellent SWL and broadcast AM reception.

Now that I'm home, I look back on my ham radio activities in Bosnia as a definite high point. For US soldiers, NATO bases in Bosnia remain essentially sealed compounds. Most folks are seldom, if ever, permitted to venture beyond the wire. But radio enabled me to reach over the fence and make many friends in the neighborhood and halfway around the world.

KC5YOR, now Trauma Director at Brooke Army Medical Center at Fort Sam Houston, shares my feelings about this. If we're deployed overseas in the future, we'll put our stations near the top of our packing lists.

If all the activity and continuous base construction in the Balkans is any indication, our involvement in that part of the world appears measurable in years now, rather than months. If there's a silver lining, it has to be that if you're headed to Tuzla, you can drop me a line and I'll let you know where I stashed those mast sections.

<sup>1</sup>Since June of 1999, the FCC has become a participant in the European Conference of Postal and Telecommunications Administrations (CEPT) radio-amateur license agreement. It allows US Amateurs to travel to and operate from several European countries without seeking a special license or permit. Essentially, what you need to bring to Bosnia is: (1) your original US license; (2) proof of US citizenship (a passport or military ID); and (3) a copy of the FCC's June 7, 1999, Public Notice (this document contains its information in English, French and German), which details what US Amateurs need to consider and bring with them when traveling to CEPT countries.

More information on the CEPT Agreement is available from the ARRL Web site at: <http://www.arrl.org/field/regulations/io/index.html#cept>.

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