



AMATEUR RADIO MISSIONARY SERVICE

560 Main Street · Chatham · New Jersey

SPRING 1976

55 YEARS IN RADIO

HERE AM I, SEND ME

Richard Brown, K6GRS, known to us as Brownie, first went on the air in 1921 with the call 6BHS, using a crystalset for receiving and a half-kilowatt spark and rotary-gap transmitter that caused his neighbors to complain to Southern California Edison Co about blinking lights in the neighborhood. He soon discarded his spark transmitter for a pair of vacuum tubes that operated by storage-battery in lieu of a regular household power line. This seemed to solve the problem of blinking lights.

One of his amateur contacts in those days was Hal Pogue, 6MF. Later, visits with Hal resulted in Brownie falling in love with Hal's sister, Regina and the couple were married on December 31, 1925.

For five years Brownie worked for a telephone company as a cable splicer. After learning that the USS Pioneer of the U.S. Coast and Geodetic Survey needed a radio operator, he went to Oakland. At that time Bernard H. Linden, well-known former engineer-in-charge of the Federal Communications Commissions' Los Angeles office, held a similar post in San Francisco. Brownie went to Linden's office and obtained his first-class license, a requirement for the job.

(cont'd on page 2)

A mission paper, a short paragraph, a request for the whereabouts of a Pastor-Pilot, and a man struggling with a quiet voice within.

In August of 1975, I knew I had to reply to that very simple, straight-forward request. I turned to my wife, "Jutta, I have to write." ... "I know you do," Jutta said quietly. "Darling, I doubt if they'd want me. I haven't got thousands of hours. Besides, we've only been here three years. I'll show you the letter before I send it to see if it expresses both of our feelings, Jutta." ... "I think we have to write, Neale. Just the same, though, I don't think we should jump into this unless the Lord really moves us." "I feel the same way, Darling. It scares me about writing, because I know it opens us up to the possibility of a tremendous change in our lives, and I have to admit that I love it just the way it is. Well, the Lord knows our hearts and needs, so we'll just leave it in His hands."

And so it began, those first halting steps of faith that would lead us into the northern mission field. Did I say the 'first steps'? That's not quite right. For looking back now, I can see that the Lord had been

(cont'd on page 3)

As the Geodetic Survey built all their own equipment, and knowing that the amateurs were also building their own units in those days, it was the amateur who usually was hired for the position of radio operator.

Brownie's job involved construction and operation of equipment for a project called "RAR" (Radio Accoustic Ranging). This was the fore-runner of sonar and radar equipment. Field of operations was from the mouth of the Columbia River southward and out to sea approximately 200 miles, where the ship surveyed the ocean floor.

Brownie left surveying work in 1929 but later rejoined the Pioneer in 1932. At that time, Roy Maxon, W6DEY, who later joined the staff of FCC's Intelligence Division, was chief operator aboard the Pioneer which used the call NIJL. Also on board was Brownie's brother-in-law, Hal Pogue, W6MF, and another amateur, Marion Metz, W7BJG. The ship moved from the Oakland base to a new home port at Long Beach.

The Navy had a radio station at that point with facilities for sending messages over Western Union wires. When the Pioneer's skipper learned of this facility he directed Brownie to take the ship's traffic to the station to be placed on the telegraph circuits. The Navy operators on duty were not well versed with the American Morse Code so they suggested that if Dick wanted his traffic to get off that he had better send it himself. This he did.

In 1937 Brownie was given a month layoff. Not to be idle, even for a month, he went to work for the General Petroleum Corp. as an electrician and cable splicer. Later the company put industrial radios in its trucks and cars and Brownie, who had obtained a radio telephone license, was given the job of maintenance of this equipment -- a job he held until May 1970 when he retired as radioman-electrician-cable splicer.

Since his retirement, K6GRS has had more time to operate his amateur equipment. He spends considerable time on the Amateur Radio Missionary Service net six times a week starting at 7 a.m. In addition to his operating he has helped a number of young men obtain their amateur licenses.

The Browns have three sons, Richard, Kenneth and Rev. William Brown; and two daughters, Virginia Schroder and Diane Hawkins, who have given them six grandsons, six granddaughters, and one great-grandson. On December 31, 1975 the Browns celebrated their 50th wedding anniversary, for which we extend our sincerest congratulations.

(Reworded from WIRELESS DAYS RECALLED by Ray Meyers, W6MLZ)
(Los Angeles Herald-Examiner, Saturday, December 6, 1975)

preparing Jutta, me, and the family for some time. Jutta had thought of missions when she was a school girl in Germany. It had been a burden on my heart ever since I began to walk with Jesus as a young seaman on merchant vessels. My wife and I had met through our participation in a Mission Study Club while attending college. During my Seminary years I had studied missions and investigated them seriously. At that time, Jutta and I also became aware that the foreign field might not be our place of service. It was discovered that Jutta could not make the physical adjustment to a tropical climate, and I had become more aware of the fact that languages were not a strong point. I can see now that this was just the Lord's way of getting us out into the parish for a time of maturing. This strong dose of reality, mixed with humility, certainly taught us how to lean heavily upon the Lord. It was while serving on the beautiful prairies of South Dakota, that the Lord saw fit to train me as a flying Pastor.

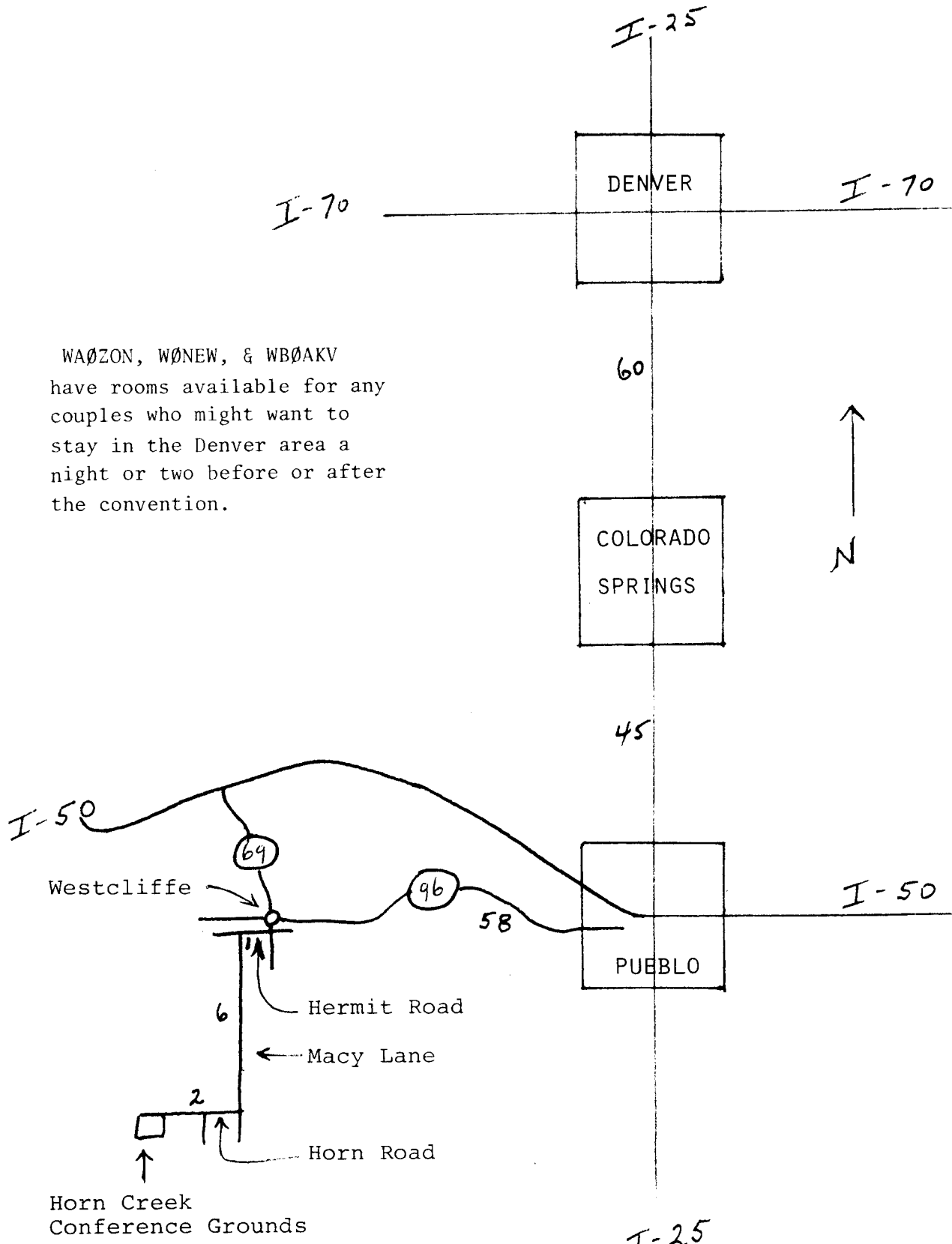
What a miracle! I remember one beautiful Spring feeling an urge, that seemed to be a Godly directive to check into flying. I backed away quickly after discovering the price, and passed it off as just a misread impulse. And yet, the feeling that God intended me to fly just would not leave me. Nine months later, a Christian rancher, whom I had never met till that moment, made it clear to me that the Lord had called him to teach me to fly. From that day on, I was convinced in my heart that I was being equipped with a special skill necessary to bring the priceless message of God's love through the cross of His Son. Yes, looking back I can see how God prepared us for missions, in His own good timing, through a rural ministry on the northern plains. During those days of Parish flying my airports were roads, cow pastures and big yards.

In late November of 1975, after several interviews with my wife and me, a flight proficiency test, and a reference investigation, I received a call from Pastor Les Stahlke, Executive Director of the Lutheran Association of Missionaries and Pilots, with offices at Edmonton, Alberta. He and a fellow board member, Paul Scott, after interviewing candidates and praying for the Lord's direction in this matter, were under the conviction that I should be recommended as Pastor-Pilot to begin this new mission outreach. By this time, Jutta and I had also felt the Lord's heavy hand upon us. We would say yes. From the very first interview, we had felt that this was what the Lord had prepared us for. How glorious it is to be in the center of His purpose!

Now our eyes are set toward northwestern Ontario and the establishing of a base in Manitouwadge. As we look on the map at the vast wilderness covering 200,000 sq. mi., we realize even more that our strength for the task must come from the Lord. But, nevertheless, as humble vessels of clay, we dare to say through the strength of God's Spirit, "HERE AM I, SEND ME."

-- KØLHJ Neale Thompson

WAØZON, WØNEW, & WBØAKV
 have rooms available for any
 couples who might want to
 stay in the Denver area a
 night or two before or after
 the convention.



Horn Creek
 Conference Grounds

ARMS will be in the Mountain Meadow Unit.

CONVENTION

JULY 9, 10, 11, 1976



DINING + REC BLDG ON THE LEFT.
TWO OF THE TWELVE CABINS ON THE RIGHT.

EXCELLENT MODERN FACILITIES IN A MOUNTAIN SETTING. THREE ROOM CABINS WITH BATH. HEATED POOL. WEATHER WILL BE COOL IN THE EVENINGS.

NOTE: BUSINESS SESSIONS WILL INCLUDE CONSTITUTIONAL CHANGES OR COMPLETE REVISION.

PLEASE: PREREGISTER BEFORE JULY 1. SEE CUT-OFF SLIP ON LAST PAGE.

If you are arriving by commercial air flight, make arrangements well in advance for someone to meet you and transport you to the camp. Contact Rocky Mountain Section Chairman, WØNEW Darwin Moxness, 2117 Stonehenge Circle, Lafayette, Colorado 80026. 303 666-6659

HORN CREEK CAMP GROUNDS
NEAR WOLF CREEK, COLORADO
(SEE MAP ON REVERSE PAGE)

FIRST MEAL SERVED IN THE EVENING
6 PM MUST BE ATTENDED TO CON NOON.

CAMP CHARGE \$100.00 PER PERSON
TOTAL. YOU MAY NEED TO
ASSESS AN ADDITIONAL CHARGE FOR
OVERHEAD EXPENSES.

BRING YOUR OWN TENT OR RENT
FROM THE CAMP AT \$25.00 ADDITIONAL.

BICENTENNIAL ANTI-ISE CARDS WILL
BE ISSUED. CHECK IN ON 20 AND
80 METERS.



ONE OF THE MEETING ROOMS.
(PART OF CAMP BUILDING)

THE ARMS BEAM

published by the
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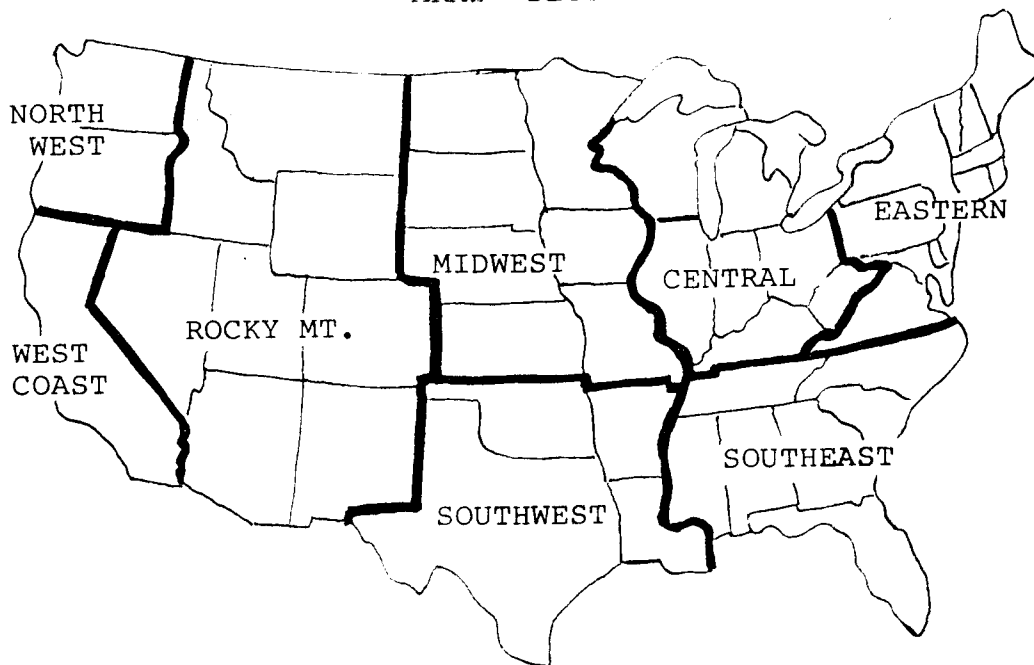
THE ARMS MOTTO

"...let us do good unto all men,
especially unto the household of
faith." Galatians 6:10

A R M S N E T S

Eastern M.W.F. 7 A.M. EST 3.907
Central Thu. 7:30 P.M. EST 3.907
Southeast Thu. 7 A.M. EST 7.260
Midwest Sat. 8:30 A.M. CST 3.907
Rocky Mt. Sat. 8 A.M. MST 3.907
West Coast Sa. 11 A.M. PST 7.285
Cross Country Fellowship
(Thursday) 9 P.M. EST 3.907
Transcontinental
(Mon to Sat) 10 A.M. CST 14.307
Halo Missionary Net
1 P.M. EST 21.390

ARMS SECTIONS



MORE ON COAX

In an earlier issue, we found that if we could take a 75 ohm air dielectric coaxial cable and somehow fill it with polyethylene, the characteristic impedance, Z_0 should become 50 ohms. It might be interesting to know why we started with 75 ohm cable in the first place.

In getting RF energy from the transmitter to the antenna, there are three questions we are concerned with whether we voice them or not.

- (1) How much power do I loose in the cable?
- (2) Is there danger of arc-over in the cable?
- (3) How much power will the cable carry?

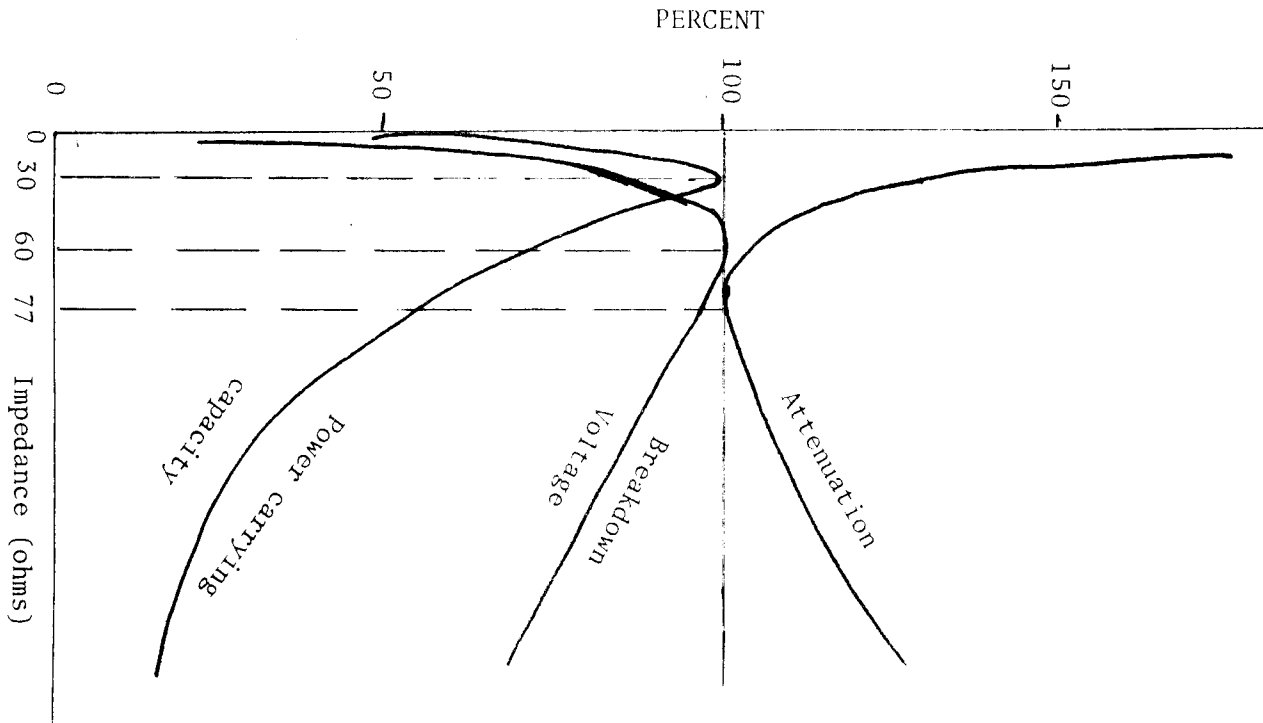
Unfortunately, there is no best inner to outer diameter ratio that gives the optimum value as an answer to these questions. Minimum attenuation occurs on a line with a characteristic impedance of 77 ohms. The cable with a Z_0 of 60 ohms will withstand the maximum voltage and a 30 ohm line has the maximum power handling capability. Figure 1 is a plot of cable efficiency in each of these areas plotted against characteristic impedance.

During the early days of the microwave industry, low attenuation was the primary consideration that dictated the use of 77 or 75 ohm transmission line. Then, as was pointed out in the last article, the introduction of 50 ohm cable resulted when the polyethylene dielectric replaced air in the 77 ohm configuration.

The plumbers have had an influence on the communications industry also. In the 1940's an RMA committee recommended to the U.S. Navy that a characteristic impedance of 50 ohms be selected as a standard (1) as a compromise between the transmission parameters mentioned above, and (2) because of the availability of inner and outer conductors as commercial copper water-tubing. (The writer has experienced the same indebtedness to the plumbing industry in using their 3" circular tubing as waveguide for X-band milliwatt signals in $TE_{0,1}$ mode).

-- WØETA Chuck

Figure 1



Missionary schedules and contacts. Please help us fill in missing ones or correct those that are in error.

BOLIVIA

CP8AU - K1GUR - 14.280 - Dly - 7:00 am EST
 CP8AZ - K1GUR - 14.285 - Dly - 1115 Z

BONAIRE

PJ9BN - W2RJQ - 14.330 - Dly - 1145 Z
 PJ9AD - W2RJQ - 14.330 - Dly - 1145 Z
 PJ4CR - W2RJQ - 14.330 - Dly - 1145 Z
 PJ9SNV - W2RJQ - 14.330 - Dly - 1145 Z

BRAZIL

PY8ZAC - K1GUR - 14.285 - Dly - 1115 Z
 PY9ZAA - K1GUR - 14.285 - Dly - 1115 Z
 PY8ZAF - K1GUR - 14.285 - Dly - 1115 Z
 PY8ZAV - K6GRS - 21.440 - M-W-F - 1730 Z
 PY8ZAQ - W3BPJ - 21.405 - Tues - 1800 Z
 PY8ZAT - WBØAKV - 21.360 - 1st Sat - 2000 Z

COLOMBIA

WAØKXQ/HK3 - WØNIT - 14.245 - Mon - 6:30 am MST
 WAØKXQ/HK3 - WØNIT - 21.260 - Fri - 1:00 pm MST
 KØLWJ/HK3 - K1GUR - 14.280 - Occasionally - 6:45 am EST
 WA4BPA/HK3 - WØODW/KØYAR

ECUADOR

HC1RT - KØGAZ - 21.430 - Sun - 4:30 pm CST
 HC7DO/HC1 - WØEYL - 21.430 - Mon/Tue - 2000 Z
 HC7JB - WØEYL - 21.430 - Thurs/Fri - 2100 Z
 HC7BA - W3BPJ - 21.320 - Wed, Fri - 2045 Z
 HC1ME - WB9GGK - 21.445 - 1st Fri - 11:30 am CST

HONDURAS

HR2GK - K4RBZ - 21.405 - M-W-F - 1900 Z

LIBERIA

EL2F - K2AXO - 21.100 RTTY - Wed - 1500 Z
 EL2F - K2CAC - 14.272 - Thu - 1730 Z

MEXICO

YS1DSE/XE - W2RJQ - 14.319 - Sun - 8:00 am EST

PARAGUAY

ZP1AE - KØGAZ - 21.430 - Sun - 4:00 pm CST
 ZP5TI - K6GRS - 21.440

SWAZILAND

WB2ELY/ZD5 - W3BPJ - 21.380 - Tue - 2130 Z

VENEZUELA

WA6IGT/YV2 - W7FQ - 21.420 - Wed, Sat - 1700 Z
 K6TZ