

regional basis. GPS users worldwide would not be affected by regional, security-motivated, GPS degradations, and businesses reliant on GPS could continue to operate at peak efficiency.

GPS IMPROVED SIGNAL WILL BRING INSTANT BENEFITS TO MILLIONS OF GPS USERS. It's rare that someone can press a button and make something you already own worth more, but that's exactly what's happening today. As of midnight (May 1) all the people who've bought GPS receivers for boats, cars, or recreation will find that they are ten times more accurate. The technology that makes this extraordinary technology possible grows directly from our past research investments in basic physics, mathematics, and engineering supported from NSF, DARPA, NIST and other Federal agencies over a period of decades. GPS works because of super reliable atomic clocks -- no mechanical device could come close. These clocks resulted from Nobel-prize winning physics, and creative engineering that managed to package devices which once filled large physics laboratories into a compact, reliable, space-worthy device. The improved, non-degraded signal will increase civilian accuracy by an order of magnitude, and have immediate implications in areas such as:

Car Navigation: Previously, a GPS-based car navigation could give the location of the vehicle to within a hundred meters. This was a problem, for example, in areas where multiple highways run in parallel, because the degraded signal made it difficult to determine which one the car was on. Terminating SA will eliminate such problems, leading to greater consumer confidence in the technology and higher adoption rates. It will also simplify the design of many systems (e.g., eliminate certain map matching software), thereby lowering their retail cost.

Enhanced-911: The FCC will soon require that all new cellular phones be equipped with more accurate location determination technology to improve responses to emergency 911 calls. Removing SA will boost the accuracy of GPS to such a degree that it could become the method of choice for implementing the 911 requirement. A GPS-based solution might be simpler and more economical than alternative techniques such as radio tower triangulation, leading to lower consumer costs.

Hiking, Camping, and Hunting: GPS is already popular among outdoor enthusiasts, but the degraded accuracy has not allowed them to precisely pin-point their location or the location of items (such as game) left behind for later recovery. With 20 meter accuracy or better, hikers, campers, and hunters should be able to navigate their way through unmarked wilderness terrain with increased confidence and safety. Moreover, users will find that the accuracy of GPS exceeds the resolution of U.S. Geological Survey (USGS) topographical quad maps.

Boating and Fishing: Recreational boaters will enjoy safer, more accurate navigation around sandbars, rocks, and other obstacles. Anglers will be able to more precisely locate their favorite spot on a lake or river. Lobsterers will be able to find and recover their traps more quickly and efficiently.

Increased Adoption of GPS Time: In addition to more accurate position information, the accuracy of the time data broadcast by GPS will improve to within 40 billionths of a second. Such precision may encourage adoption of GPS as a preferred means of acquiring Universal Coordinated Time (UTC) and for synchronizing everything from electrical power grids and cellular phone towers to telecommunications networks and the Internet. For example, with higher precision timing, a company can stream more data through a fiber optic cable by tightening the space between data packets. Using GPS to accomplish this is far less costly than maintaining private atomic clock equipment.

For more information please visit this site
<http://www.igeb.gov/>

LOOKING FOR HUDSON BERGEN LIGHTRAIL SYSTEM INFO

Any information where I might monitor the Bergen, Hudson Light Rail System in New Jersey. I believe it may be 800mhz Trunking on N.J Transit's Trunking System. Although I never received any Light Rail transmissions on my Radio Shack PRO-92 scanner. I'll be listening to your net for possible information. Thanks in advance.

Frank.

Fwisowaty@juno.com

ROBERT S. PARNASS WEBSITE

<http://www.megsinet.com/~parnass/pubs.htm>

If you've been into scanning for any length of time

than the name Bob Parnass should be almost as familiar as your doctor's name. Over the years Bob has written numerous articles on scanning and the radios that brought the hobby to where we are today. In fact, I personally would put him on a par with Bill Cheek, and a very close second to Bob Grove! Check out the site above which references the magazines his articles appeared in.

DSS: United States Department of State - Diplomatic Security Service

<http://www.abcs.com/drunyon/dss.htm>

One of the less publicized agencies, DSS appears to be quite active in the NYC metro area. Visit the page above and see if active frequencies are in your area. This age was really too detailed so as to allow me to include actual frequencies in the news letter.

NJSP

Aside from the trunked system NJSP uses, here's a list of conventional frequencies that are used throughout the state. I'm told that state troopers often uses these for general talk around when they are involved in various events and disasters. While they aren't considered "heavy traffic" frequencies, they are none the less worth programming in and keeping an ear on.

Freq	Ch Designation	Description	PL
866.3125	09-TA CONV	Conventional Talkaround	192.8
866.3125 R	10-RP CONV	Conventional Repeater	192.8
851.3375	11-TA STHSE	Statehouse Talkaround	192.8
851.3375 R	12-RP STHSE	Statehouse Repeater	192.8
866.0125	13-TA CALL	Nat'l Calling Talkaround	156.7
866.0125 R	14-RP CALL	Nat'l Calling Repeater	156.7
866.5125	15-TA TAC 1	Nat'l TAC-1 Talkaround	156.7
866.5125 R	16-RP TAC 1	Nat'l TAC-1 Repeater	156.7
867.0125	17-TA TAC 2	Nat'l TAC-2 Talkaround	156.7
867.0125 R	18-RP TAC 2	Nat'l TAC-2 Repeater	156.7
867.5125	19-TA TAC 3	Nat'l TAC-3 Talkaround	156.7
867.5125 R	20-RP TAC 3	Nat'l TAC-3 Repeater	156.7
868.0125	21-TA TAC 4	Nat'l TAC-4 Talkaround	156.7
868.0125 R	22-RP TAC 4	Nat'l TAC-4 Repeater	156.7
851.3375 R	23-RP GSPW1	Garden State Parkway #1	151.4
852.1625 R	24-RP GSPW2	Gardan State Parkway #2	151.4

867.3125 SPARE TA
 867.3125 R SPARE RP

MILITARY AIR FREQUENCIES

Below is a nationwide Military Air-to-Air frequencies:

If you live next to or near a military air base you may hear activity on these frequencies. Check these search ranges,138-151.0000,148-150.9875.

<u>Frequencies(AM Mode)</u>						
138.025	138.000	138.025	138.050	138.100	138.125	138.150
139.425	139.625	139.650	139.700	139.725	139.750	139.975
141.125	141.275	141.675	141.775	142.375	142.975	143.300
143.375	148.025	148.250	148.475	148.500	148.650	148.675
148.700	148.725	148.750	148.775	148.825	148.850	149.625
149.650	149.700	149.725	149.750	149.775	149.800	149.825
149.850	150.450	150.650	150.750	150.775		

Air Refueling Frequencies UHF

Primary						
236.750	254.600	293.000	314.500	343.100	372.300	378.200
391.000	396.200					

Secondary

225.750	288.550	289.700	297.300
322.800	370.400	375.700	388.400
394.600	343.100		

UNITED STATES MARSHALS SERVICE

The mission of the United States Marshals Service is to protect the Federal courts and ensure the effective operation of the judicial system. Other responsibilities include transporting federal prisoners, protecting endangered federal witnesses and managing assets seized from criminal enterprises.

Official Website: <http://www.usdoj.gov/marshals>

Nationwide System

Designation	RX Freq	TX Freq
Repeater 1 - Admin/Ops	163.2000	163.8125
Repeater 2 - Borders	164.6000	163.8125
Repeater 3 - Federal Courts	162.7125	170.8000
Repeater 4 - Metro	162.7875	170.8500
Direct 1	163.2000	163.2000
Direct 2	164.6000	164.6000
Direct 3	162.7125	162.7125
Direct 4	162.7875	162.7875
Federal Court Security 1	170.8500	170.8500
Federal Court Security 2	170.7500	170.7500
Bureau of Prisons 1	170.8750	170.8750
Bureau of Prisons 2	170.9250	170.9250

Secondary

225.750	288.550	289.700	297.300
322.800	370.400	375.700	388.400
394.600	343.100		

BOX 54 DEMO AT RAMSAY, NJ

Back in the beginning of May I attended a Box 54 demonstration at the Ramsey Fire Department. To those of you who may be new to scanning, Box 54 unfortunately has a stereotype image of being a glorified coffee truck. In reality, Box 54 is a group of extremely dedicated individuals who donate countless hours of their time to make the lives of fire fighters and fire victims a bit more bearable. many of the communities in Bergen County are served by volunteer fire departments. They have to be dedicated considering that Box 54 was formed in 1952!

Box 54 responds to a fire or emergency scene only after being requested by the fire department in charge of the fire scene. They are based out of Teaneck, NJ and are dispatched on the Teaneck FD frequency of **158.820 R (PL 127.3 hz)**. Once activated, Box 54 operates on their repeater frequency of **463.550 (PL118.8 hz)**. Once on scene, much of their communications shifts to simplex on 463.550. Teaneck Box 54 is a Special Services Unit that is a volunteer section of the Teaneck Fire Dept., funded by the Twp. and by donations. Box 54 is a mobile rehabilitation unit along with a communications unit capable of communicating with the tri-state area. All the men and women of Box 54 are volunteers and have been providing this service since 1952 when it was first organized.

Box 54 Fire Service Support unit is a canteen/communications fireground support service consisting of four

vehicles staffed entirely by volunteers and founded in 1952. These CEC Step-Vans (2), 1994 Recreational Vehicle (RV) and 1985 Dodge Ram are maintained, licensed and insured by the township and housed at Fire Headquarters and Fire Station 2. The two GMC trucks are equipped with two 25 gallon (hot & cold) water tanks, propane fired stove, oven coffee urns, barbecue, serving equipment, etc. The 1994 RV is used for rehabilitation at major incidents and the Dodge Ram is used to ferry supplies and personnel. Two freezers and refrigeration units at headquarters contain enough food provisions to feed 200 people and include Kosher food item. Funding of supplies is from donations made by Teaneck and other fire departments. Call 837-2085 for further information about joining or contributing funds or supplies. Teaneck Box 54 is proud to present its new and improved fleet.



Interior View of Box 54 Vehicle

Field Unit 1-is our first truck to roll to any scene. With a full kitchen and radio's on board we are ready for any type of rehab or communications with this vehicle.



Justin Mates KC2GIK & David Kozin KC2FZT @ Box 54

Field Unit 2-This truck is a backup truck to 1 and has just been fully renovated with a new kitchen and radios. It Can also be used in the event of simultaneous runs.

Field Unit 3- This unit gives us mobility, whether it be obtaining additional supplies, or moving personal at most incidents.

Field Unit 4 MIRV-Major Incident Rehab Vehicle This Vehicle is a 31-foot Four Winds RV that has been modified to be able to provide rehab for extended periods of time. It includes a kitchen, bathroom, rehab area and radio's for communications.

Members Needed!

If you are interested in being a part of our organization please stop by Teaneck Fire Headquarters, 1231 Teaneck Road, Teaneck any Monday or Friday night at about 8PM.

Membership Requirements

Any male or female over the age of 18 with a valid drivers license can join. When your application is approved, members serve 9-months as a probationary member before receiving permanent membership status.

Box 54 Is Always in Need!

Beacuse Box 54 is a volunteer unit all our supplies and equipment are donated. If any Dept has 2 way radios, Emergency lights or even old turnout Equipment in good condtion we would be more than happy to accept them for our members use.

For More Info

Bruce Mayer - Unit Chief
PO BOX 54
Teaneck , NJ 07666

May, 2000

The Urban DX'er

Phone: 2018372085

Fax: 201-488-0557

box5400@aol.com

POSTAL RADIO INSPECTOR FREQUENCIES

Below is a list of North East Postal Inspector Radio Frequencies:

Format:: ID / Input / Output

BUF-AL-SIM/415.0500 / 415.0500

BUF-AL-RPT/407.7250 / 415.0500

HTF,CT/407.7250 / 415.0500

LI-SP,MA/407.7250 / 415.0500

MULE-SIM/414.7500 / 414.7500

NA-RED/407.7750 / 414.7500

NA-RED/414.7500 / 414.7500

NJ,SOUTH/407.7250 / 415.0500

NWK,NJ/407.7250 / 415.0500

NY-GN RPT/408.0500 / 416.2250

NY-YEL-RPT/409.3750 / 413.7000

ORANGE-SIM/407.7250 / 407.7250

ORANGE-RPT/414.7500 / 407.7250

ROCH-SIM/414.7500 / 414.7500

ROCH-RPT/407.7750 / 414.7500

SF-1/416.7750 / 416.7750

SF-RPT/416.7750 / 418.3000

SF-SIM/418.3000 / 418.3000

SYR-SIM/415.0500 / 415.0500

SYR-RPT/407.7250 / 415.0500

TS1148BU/407.7750 / 407.7750

TS1148RD/407.7750 / 407.7750

TS825BU/407.7750 / 407.7750

TS825RD/407.750 / 407.7500

WORC-MA/407.7250 / 415.0500

CODES

HTF,HARTFORD

LI,LONG ISLAND

NA-RED-NATIONAL RED FREQUENCY

NY-GN-NEW YORK-GREEN

ORANGE,ORANGE,NJ

ROCH-ROCHESTER

SF-UNKNOWN

SP-UNKNOWN

SYR-SYRACUSE

WORCH,WORCHESTER,MA

Postal National Radio System

407.7750-SIMX

414.7500-RPT

407.7250-CM

408.0500-RPT

413.6000-SIMX

418.3000-SIMX

MUHAMMAD ALI RADIO

You've heard of the all-Beatles format and the all-Elvis format? An L.A. radio station now has the "All Muhammad Ali, All The Time" format. KBET (850 AM, licensed to Thousand Oaks) is running a 55-minute biography of the three-time heavyweight champion, 24 hours a day. Bumpers between

segments say, "All Ali, All the Time" and "More memories of the Greatest -- This is Muhammad Ali Radio."

The Ali format is part of a promotional link with a Tony Robbins-type success seminar being run by L.A.-based sister stations KIIS-FM (102.7 FM) and XTRA Sports 1150 (KXTA-AM). Ali is scheduled to pick up an award at the event, hosted by Jim Rome. The event will also feature a gaggle of sports heroes talking about "the secrets of their winning ways."

IRCA's AM SLOGANS LIST

BCB DX'ers may find this very useful....

Get in line NOW for your copy of the latest IRCA "AM SLOGANS LIST". Completely revised by IRCA's own Rich Toebe to 2/00 and includes X-Band stations as well. This 24 page "DX Aid" can be yours for only \$5.00 through the IRCA Bookstore. Non-IRCA/NRC members... add \$1.00.

Overseas... add \$0.50.

IRCA Foreign Log #10 is NOW available from the IRCA Bookstore for \$10.00 US. Overseas, add \$2.00 US for airmail delivery. This edition contains ALL the SDXM DXWW-E and DXWW-W tips from 9/96 to 7/99... almost three years of material! All collated and in frequency order by TA, PA and TP for each DXWW column.

A DXers TECHNICAL GUIDE. Now in its 3rd edition (published early 1998), this 155 page book answers questions on receiver and antenna theory (how to improve their performance), how audio filters and loop antennas can improve DX (and hints on their construction), how to build a Beverage and phasing unit, and much more. Only \$10.00 for IRCA/NRC members, \$12.00 for non-members (overseas airmail add \$2.50).

IRCA Bookstore, 9705 Mary NW, Seattle WA 98117-2334 (all checks payable to Phil Bytheway)

SCANNING FOR MEDICAL ACTION

Following the recent fire in Elmwood Park, I developed a renewed interest in scanning the frequencies used by hospitals, paramedics, and ambulances. Most of us have heard of the "MED" channels, but they don't seem to generate too much among most scanner listeners. Ambulances / Medical scanning can get very busy monitoring the "MED Channels" Typically, activity will begin on

155.340 or 155.175. From there, "dispatch" will assign the ambulances to "med" channels where patient data and telemetry may be sent to the doctors at the hospital's "ER".

A fellow amateur and co-worker, Eric Boehm, happens to be a paramedic out of Hackensack Hospital so I asked him if he could give us an insight as to how medical communications are established and maintained when they are dispatched. Here's Eric's explanation...

The MED channels (Med 1-8) are 463/468 pairs, used in full duplex or semi-duplex depending on the unit and their radio equipment. Typically, the hospital transmits on one side to the medic truck, where there's a mobile repeater. This repeater transmits out on the other half of the pair, to the portable in the ambulance with the medic. Going the other way, the medic transmits on the same frequency as the hospital, which is also picked up at the truck's repeater input and re-transmitted to the base. There are base stations scattered throughout MICCOM's service area, fed by DC remotes to MICCOM, to a switching matrix to the consoles in the hospital. I'm not sure of the exact locations of these stations. I do

know there's one on Wayne General hospital, and one on top of Hackensack, there are several others scattered around, though.

Here's a look at the frequencies for MED 1:

Ambulance: 463.000tx

Medic Truck: 463.00in, 468.00out

Hospital: 468.000rx, 468.000rx, 463.000tx

I'm not sure if hospital or mobile (repeater) tx is high or low, above is just an example.

Note that the hospital (via MICCOM DC remote base) transmits on the same freq as the portable with the medic in the ambulance and the repeater in the truck (can also be used with a mic) transmits on the frequency that BOTH the hospital and the portable listen to.

This system can be operated full duplex with the old telephone style Motorola APCOR portables. These units had built-in duplexers and would continually listen to the truck's mobile repeater output at the same time they transmitted. This way, the doctor on the console could key up, capture the mobile repeater and interrupt the medic mid sentence (in theory). These days, most portables are

conventional HTs and the system is operated semi-duplex. There were also repeater-less high-power APCORs that

could operate full duplex direct to the base by transmitting on the opposite frequency from the hospital.

For scanning purposes, if you tune to only the hospital side of the call, you'll only hear the doctor. If you tune to the other side (the output of the mobile repeater), you'll hear both sides (the repeater repeats both the doctor and the medic). Problem is, just like hearing any other mobile from a distance, it can be tough to hear the mobile repeater.

All of the hospitals ALSO have the ability to communicate on 155.34 (Hospital Emergency Alerting Radio - HEAR). This is not usually used for paramedic communications, but for BLS ambulances to call the ER to alert them of incoming cases when there's no medics on board. There are exceptions: HEAR is sometimes used as a backup when MED channel communications fail or the portable is with the other medic on a multi-patient call. Hackensack and a few of the others tape their HEAR radios for the purpose of documenting ALS calls.

You'll see licenses to many hospitals on 155.34, but not on the med channels since HEAR transceivers are local to each hospital, but the MED bases are pooled by MICCOM.

Let's toss some newer technologies in here. Take note when you hear many of the medic units call on scene, particularly ALS101,2,3. They won't receive a med channel assignment since we primarily use cell phones. We call a number that patches us to the very same console the med radio patches to. You'll still hear MICCOM page the Code 41 on 155.175, which basically tells the doc to get to the console. Since there's no PTT necessary when talking to a cell phone caller, the doc's can use their inhouse PCS phones and dial a number to answer the console from where ever they are. For a med channel call, they have to go to the console, since there's no VOX interface to the PCS phones.

Additionally, MICCOM also can use MED 9 and 10 (462/7.950 and .975) for communication with the trucks. Generally speaking, these are NOT used for medical control communications, because both 9 and 10 are widely used for dispatch in NY state. However, the medics tend to use MED 9 as an intercom to MICCOM. It is a split pair, with the truck

transmitting on one freq and MICCOM on the other, but it's not through the mobile repeater and therefore you'll have to hop freqs to hear it all.

What I do with my scanners is to program each channel in pairs, (463.000, 468.000, 463.025, 468.025, etc) with any scan delay turned OFF and set the unit to it's highest scan speed. This works for all 10 med channels. This is the way that you'll have the best chance of catching a complete conversation.

Lastly, bear in mind that the QSOs on the med channels are short. The medic gets on, gives his report, gets orders, and gets off. Unless the patient is going south fast and we need additional orders, you're not likely to hear anything further.

73, Eric W2PKJ

<u>Channel</u>	<u>Hospital</u>	<u>Ambulance</u>
Med-9	462.950	467.950
Med-10	462.975	467.975
Med-1	463.000	468.000
Med-2	463.025	468.025
Med-3	463.050	468.050
Med-4	463.075	468.075
Med-5	463.100	468.100
Med-6	463.125	468.125
Med-7	463.150	468.150
Med-8	463.175	468.175

"HEAR" 155.340 Intersystem (Hosp. Emerg. Ambul. Radio)

Med-1 thru Med-8 are assigned as a block and any channel may be used.

Med-9 and Med-10 may be used for dispatch.

BERGEN COUNTY JAIL FREQUENCIES

recently, this question was posted in the NNJ Scan mail list...

What's the situation with the three new freqs that were assigned to the Bergen County Jail? Are they being used? Repeaterized? Any idea on PL's? .

<Response>

The Jail freqs are VERY low power as from what I am hearing. You would actually stand on thier front steps to hear them. Don't think ANY of you would go that far to monitor those freqs! I found that Bergen

May, 2000

The Urban DX'er

County had licenses on the following frequencies, any ideas what they are for? I put 154.0550 on my site last night, it's for the golf courses around the county. 158.8950 I would stay away from because the last time I checked Ridgewood STILL USED IT, thought once they got the 472.xxxx freqs, it would die! 156.1500 I'm taking a gamble by staying DPW and animal control(don't throw tomatos at me if I'm wrong!) my theory is 39.9800 is on it's way out.

Teaneck and Rutherford(?) both moved up there! 158.8800 again folks I think it might be to early to tell. My suggestion to all of you is to take a look at the "old" Bergen County frequencies! Then with my notes, go through all the low band stuff and start replacing it with the new freqs below. By process of elimination you can narrow the rest down!

154.055, 156.150, 158.880, 158.895, 453.075, 453.9125?

Justin Mattes KC2GIK

The County pd/prosecutor new freq.'s are now old they have been using them for over a year or two...

and the golf courses FREQ has been in use 2 years, 154.05 the Sheriff jail channels are in full use dpl which is still ??unknown the county road engineers have about 4 radios on 158.895 158.880 for portable to portable use for over 10 years during surveys and stuff Ridgewood is still inputting on 158.895 hopefully not for long the, Passack Valley FD'd who were on it first try and stayed off it as not to interfere with rpd rpd will add Glen Rock and have added Midland Park to the 472. data channel data nothing else Paramus [500mhz FREQ] OEM is very active - during a OEM emergency?

Sm166@aol.com

The Urban DX'er would like to thank all those who contributed to this months issue!

Charlie - N2NOV, "R", David, KC2FZT, Eric - W2PKJ,