

BILL CHEEK - SK

Bill Cheek, editor of the "Experimenters Workshop" column in Monitoring Times and author of a series of books on scanner modifications has died. Though always a controversial figure, there is no disputing the fact that Bill devoted his life to the love of radio and technology. The scanning community are deeply saddened at the loss of our friend and colleague. We will have more details on Bill's amazing life and further information on how you can help the family in the upcoming issue of MT.



Bill Cheek

STUART GOLDSTEIN IN THE NEWS

I recently read a very interesting and enlightening article in the July 2000 issue of Radio Resources Magazine. It was written by Detective Stuart Goldstein, a member of NYPD's Technical assistance Response Unit (TARU). In April of this year, members of the TARU were sent to Washington in order to observe the group that was demonstrating against the International Monetary Fund (IMF)/ World Bank. This NYPD unit went in hopes of gathering technical intelligence that would be useful in dealing with anticipated demonstrations by this same group on May 1st in New York.

It was determined that members of the group were told ahead of time to bring "portable radios" (walkman-style?) with them in order to receive instructions, etc. It turned out that a pirate radio station was receiving UHF police radio traffic on a

scanner and rebroadcasting it on 97.5 Mhz FM. As a result, details of police movement was common knowledge for a while. But the police also noticed that some of the demonstrators were using two-way radios. According to the article, "the use of Family Radio frequencies was verified by employing a frequency counter on the perimeter of the demonstration". After determining which frequencies were in use, the TARU group purchased a scanner and was able to monitor the group's transmissions. According to Detective Goldstein, "on May Day, the police department listened in on the family radio channels and gathered enough intelligence to allow proactive decisions. Mission accomplished." Next time, pop for Nextels! ;-)

NJ FREQUENCY UPDATES

Hot off the press, here's a list of new frequency assignments just issued by the FCC. Many of these may not yet be in use, even though the frequencies have been allocated.

Bergen County

- Bogota 506.3875r, 509.3875 (input)
- Dumont 500.425r, 503.425 (input)
500.500r, 503.500 (input)
500.600r, 503.600 (input)
- Englewood Country Club 456.350, 467.475
- Englewood 151.0025
- Ft Lee - E Bergen Emergency 500.9375, 501.1625
- New Milford - Vol Amb Sq. 152.0075
- Paramus 452.725, 457.725 Park & Rec.
- Ramapo 151.475
- Rutherford Vol Amb Sq 155.235
- Teaneck 156.00, 158.820, 159.045

Essex County

- Irvington 461.275, 464.4875, 464.8375
- Maplewood 153.9425, 155.5725
- NJ College of Med 472.000, 500.375

Morris County

- Boonton 506.350
- Florham Park 451.100
- Montville 453.0375
- Morris County 478.475, 478.625

Passaic County

Haledon "OVIC"	153.775
Hawthorne	460.1125
Paterson Pub School	464.650
Ringwood	151.1675, 154.7475, 155.7975 156.2125, 158.8275,
159.3225	
	159.4425
W Paterson	471.250, 472.825

Union County

Cranford	680 khz
Roselle Park	453.5625
Union County College	153.095, 154.570, 158.265

BATF

Bureau of Alcohol, Tobacco, and Firearms
 The Bureau of Alcohol, Tobacco and Firearms (ATF) is a law enforcement organization within the United States Department of Treasury with unique responsibilities dedicated to reducing violent crime, collecting revenue, and protecting the public. ATF enforces the Federal laws and regulations relating to alcohol, tobacco, firearms, explosives and arson.
 Official Website: <http://www.atf.treas.gov>

Nationwide VHF System

CH	Designation	RX Frequency	TX Frequency
A1	Direct	165.2875	165.2875
A2	Tactical	166.5375	166.5375
A3	Repeater	165.2875	166.5375
A4	Treasury	166.4625	166.4625
A5	Tactical	165.9125	165.9125

ATCS MONITOR FOR WINDOWS

"Air Traffic Control for trains!"

<http://207.105.40.225/Default.htm>

ATCS Monitor is an adaptation of the popular application authored by MDTMon that allows you to monitor Advanced Train Control System traffic on railroads that use the Association of American Railroad's ATCS Specification 200 protocol. To use this program you'll need a scanner with a discriminator output, a Windows PC (running Win95, Win98, or WinNT 4.0), and either a sound card, a HamComm-type data slicer, or an RM100 decoder.

The ATCS radio network consists of the following pairs of UHF channels:

Ch	MCP (MHz)	BCP (MHz)
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1	896.8875	935.8875
2	896.9375	935.9375
3	896.9875	935.9875
4	897.8875	936.8875
5	897.9375	936.9375
6	897.9875	936.9875

ATCS frequencies are typically registered to the Association of American Railroads, not the individual railroads themselves, so use that name in Percon or

FCC database searches to determine if there are any transmitters in your area. Alternatively, simply search for any one of the MCP or BCP frequencies, since apparently all MCP's are registered for all MCP frequencies, and all BCP's are registered for all BCP frequencies.

To receive both sides of the "conversation", program your radio to rapidly alternate between the frequencies of a channel. On some radios, maximum speed may be obtained by programming an entire bank with alternating values.

BROADCAST STATIONS DISAPPEARING

Looks like another Canadian AM is about to become history. 840-CJXX- Grande Prairie, AB is advertising their new FM station as 'coming soon on 93.1 FM, the new CJXX' Checked 93.1 many times, but no sign of anyone testing. While this particular station was not heard due to WHAS in Louisville, KY, this does allow other stations to be assigned to the frequency. Seasonal propagation changes may allow you to log a new station! While it is summer and we have been having our share of lightning and thunder, winter isn't that far away. To date, our summer has been wetter and cooler than normal. If this is a hint of what our winter might be, cold and snowy night make for great BCB DX'ing!

And closer to home....

WMAQ Radio will soon be no more. According to All Access, the staff at WMAQ has been dismissed and WSCR will move from its all sports format from 1160 to WMAQ's 670 50kw clear-channel dial position. However, the WMAQ call letters will remain on the TV side. No plans on what will happen to the 1160 frequency. The news can be read under the following URL:

<http://www1.allaccess.com/members/nts/>

Chicago Sun-Times also runs a story about WMAQ

in today's edition. The link to their story is <http://www.suntimes.com/output/show/lead11.html>

CONGRADS TO KC2FZT

I wanted to let you know that I went to the VE session in Fairlawn and passed my 5 wpm and General written tests. Mike (KC2AHS), Bill (KC2BLN) and Mike's brother Steve (KC2GRW!) all came down for moral support, which was much appreciated. (Steve was going to try for his 5 wpm but he wasn't feeling very well and decided that he'd wait until the next session.) I did better than I expected on the code (I got 10 out of 10 of the questions; they didn't bother to figure out if I'd gotten a minute of solid copy since I passed the other part of the test), and I only missed 2 on the written, so I was pretty happy.
73, David - KC2FZT

EMERGENCY E-MAIL NOTIFICATION NETWORK

<http://www.emergencyemailnetwork.com/>
Get Notified of an Emergency by EMAIL from your local, regional and national government sources

MOTOROLA COMMENTS ON N2NOV WEB SITE

Dear Mr Hargrove,
I just wanted to thank you for the information on your site. I'm the field technical representative for a Motorola 2-way radio dealer in Manhattan who had to program radios for some police officers today, and without your site I would have been looking pretty foolish. Upon further inspection of the site I see that you have the most detailed information on the 800 DOITT site that I have ever seen (forget my old OEM STX/SPECTRA archives!) In any case I just wanted to say thanks for a great site and as a suggestion you might want to include the radio plans for NYPD (e.g. Manhattan North portables vs Manhattan South portables etc.)

Unfortunately, most of the radio stuff that I get to play around with are building management radios, in the few instances where I work on public safety stuff the units only have the particular talkgroups for that agency. For example I just had the Department of Buildings come in with brand new Motorola XTS3000 800 trunked radios, I figured it was the "mother load", but apparently their radio shop only programmed D.O.B. talkgroups and the O.E.M. alert channel. Needless to say it was a disappointment. I was able to read a CON ED MTX8000 radio but from what I understand (from sources at Motorola

they are moving to their very own Nextel system this year and scrapping the 800 system. As for Ericsson Edacs systems (P.A. and Metro 21), I have no way of programming or gaining access to information. Here are a few systems that I did not see on your site. Thanks again
"Phil"

CON ED

SYSTEM 2B35
854.0375CC
855.3875CC
855.1375CC
854.8875CC

(size b0=S13, b4=S13) You will have to intercept the rest of the channels of the system, with Motorola radios I only have access to the control channels. With the control channels (in a Trunktracker) you will usually follow the entire conversation without gaps.

Jacob Javitz Convention Center

SYSTEM 3400
859.2125CC
858.2125CC
Motorola size code D (not sure what it is on the trunktracker)
TYPE I system (low power)

Union City NJ PD

SYSTEM 000B
866.3500CC
868.1875CC
868.2125
868.4000
SZ=E2 (TYPEII)
TG 1648 PD Disp
TG 1680 PD F2
TG 12848 DPW
TG 16080 FD??

Have fun with them.
[Http://www.n2nov.net](http://www.n2nov.net)

MONITORING ENTERTAINMENT COMMUNICATIONS

<http://www.geocities.com/ResearchTriangle/System/5140/OB.html>

Ever wondered if your favourite artist ever 'faked it' during live performances, or how some of those bootleg 'live' CD's got recorded with such good quality then read on:-

Live music and stage shows have been transformed

in recent years by the extensive use of wireless microphone and talkback communications systems.

If you have ever attended a concert and noticed that there no obvious microphones or foldback speakers facing the performers then the chances are that they are using some form of radio, infra-red or magnetic induction loop technology.

Many of these systems have a transmission range which extends beyond the confines of any particular venue, and as the equipment is often left running before and after a performance you can often hear the backstage chat of your favorite performers.

Commonly used frequency bands for entertainment purposes include 174, 200, 216MHz and increasingly 854-862MHz for professional performers and In Ear Monitoring systems. The URL mentioned at the beginning of this section has links to dozens of the manufacturers who make wireless equipment used in the entertainment industry. I suggest you check it out!

MONITORING MICROWAVE VIDEO TRANSMISSIONS

<http://www.geocities.com/ResearchTriangle/System/5140/video.html>

MONITORING INMARSAT

<http://www.geocities.com/ResearchTriangle/System/5140/inmarsat.html>

Inmarsat consists of a a series of commercial telecommunications satellites placed in geostationary orbits around the earth, which are used to provide world-wide telephone, fax and data communications from mobile land, ship and aircraft based terminals.

Although the technology is advancing towards totally digital transmissions there are still a very large number of narrow band analogue FM signals using Inmarsat type 'A' terminals, which can be monitored relatively easily, providing you have access to the following equipment :-

A good quality receiver capable of tuning across the 1525-1545MHz frequency band. e.g. AOR 3000/3000A/5000 or ICOM IC-R7000 (with pre-amp)/7100/8500

A directional antenna with at least 20dB gain

A compass to point the antenna in the right direction
And possibly a Pre-amplifier if you have a deaf receiver or long cable runs.

Editors Comments

This month we've added several new readers to our distribution list, several of which are associated with E mail scanner lists targeting the Southern NJ and Philadelphia area. I joined these lists in preparation for a trip I'm taking to Wildwood Crest, NJ.

My request for frequencies in Wildwood brought many responses, all of which are appreciated and my sincere thanks goes out to all who responded. In the midst of my search I overlooked one of the more well known sites, that being the one run by Joe Cardani. Joe's original pages have been quiet for some time and I thought Joe had given up. I E mailed him and received a prompt reply with a new URL
<http://users.erols.com/jcardani/sjcomm.html>

If you visit Joe's page and sign up for "SJComm", which is a similar list to this group, you'll have access to a county by county listing of all Southern New Jersey. The files are in PDF format and are created in a format that will be VERY familiar to most of you. I won't elaborate, but I do urge you to look at Joe's page, subscribe, and check out the information he offers.

One important note you must remember.. when signing up with SJComm, make sure you check off "remember me" in their logon screen. This is used to grant access to the files on Joe's pages so without this option checked you won't be able to look at anything.

Joe has also done an outstanding job on updating the NJSP pages that made him known to the scanner community. It to is offered on the page below.

Joe adds the following about NJSP...."Disposition codes 2, 3, and 4 are going away and replaced with 20 (traffic enforcement) with a sub code of A (summons, moving), B (summons, non-moving), C (warning, moving), and D (warning, non-moving).

The Red Lion station will be moving over to Troop C from Troop A this month. Plans for the Tuckerton station to move to Troop C are also in the works.

July, 2000

The Urban DX'er

One final request...

Joe asked for any information on the NJ Transit system.. especially any trunk tracker parameters we can provide. Hope this information was useful!

Bob, WA2SQQ

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

Charlie - N2NOV, "R", Justin - KC2GIK, David - KC2FZT, K2EPM, Joe Cardani
