

SCANNING Confidential

The SC Guide to Aero Communications

By Laura Quarantiello

Every day, hundreds of thousands of aircraft take off and land at airports all over the United States. The skies are filled with planes, ranging from the smallest Piper Cub to the largest C-5 military transport. Each uses radio in some way.

Tuning in this high altitude blizzard of aeronautical communications can be some of the most exciting listening that you'll find. Not all of it, however, is designed to inspire confidence in air travel. This is the naked underbelly of the aviation industry. Here you'll get it real and raw. As one prominent aero monitor put it, "I stopped flying when I started listening."

Ninety percent of aero communications occurs between 108 and 136 MHz in what is called the VHF-Hi band. These are frequencies covered by most, if not all scanners. What you'll hear may sound clipped and strange and it may take some getting used to. You see here in the jet-speed world of aviation brevity is important. Both pilots and air traffic controllers strive to keep chatter to a minimum. Hundreds of lives are at stake and a tied-up frequency could spell disaster for a pilot who can't hear important instructions from air traffic control because some one else is chattering away about last night's Celtics game.

Getting Off the Ground

The Airport Terminal Information Service (ATIS) is the first thing a pilot will monitor as he prepares to get under way. A continuous recorded bulletin of airport weather, facilities and runway conditions, these transmissions are found throughout the aviation band.

The broadcast is updated hourly or whenever significant weather changes necessitate it. Pilots also monitor ATIS at least ten miles prior to landing. Coded phonetically, you'll hear pilots refer to it as "I have information 'Bravo' (or 'Alpha' or 'Charlie')" or sometimes simply as "I have the numbers..." If you hear near-continuous weather reports in the aero band, chances are that you've got an ATIS broadcast.

Ground Control

Ground Control is responsible for everything that moves on the surface of the airport, including fuel and service vehicles. Here a pilot relates who he is., where he is, and what he wants. If an air traffic control clearance is required, it would be requested on this frequeny, followed by a request to taxi to the active runway. The communication might sound something like this: "Palomar Ground, Cessna 46478, at Four Winds Aviation, taxi for takeoff, with information Bravo."

Ground Control frequencies can be monitored between 121.6 and 121.9 MHz.

Continue on to next page

Up, Up, and Away!

The airport tower is responsible for all airborne traffic operating within a five statute mile radius of the airport. Vertically, their authority covers all airspace up to but not including 3,000 feet above ground level.

Before taxiing onto a runway for takeoff, clearance must be received from the tower. Such a request can produce any number of replies, ranging from "hold short of the runway," "taxi into position and hold," "cleared for immediate takeoff," to "number three for departure behind the Learjet." A flights remain on tower frequency until it either clears the five mile limit or is handed off to departure control (see below).

Landing aircraft can expect a flurry of instructions from the tower, each designed to keep proper separation between flights. Communications are often swift and furious, especially during peak hours. Patient listening will familiarize you with the babble you'll encounter; don't expect to understand it right away.

Tower communications are found between 118.0 and 130.0 MHz.

Approach/Departure

These two facilities are often combined on the same frequency. They are generally used most often by flights operating on IFR (Instrument Flight Rules) flight plans. Commonly you will hear departing pilots advise the controller that they are "...with you at 3,000 for 5, heading 240," which is a quick way of reporting the current altitude, the height he is climbing to, and the direction of the flight. The controller will come back with any amendments to this clearance, depending on traffic conditions.

Approach consists of controlling aircraft as they descend and vectoring them to a point a few miles outside the final approach fix for the destination airport. At that point, the aircraft is cleared to perform his approach and is handed off to the tower.

The approach/departure frequencies are filled with different aircraft, commands, and terminology. It's an excellent place to monitor all facets of a flight as they climb, descend, and are juggled around at the controller's whim. It's a delicate choreography of men and machines.

Approach and departure frequencies are located from 118.0 through 136.0 MHz.

Air Route Traffic Control Center

The ARTCC or simply "Center" is used by pilots operating in the world of Flight Level, that airspace 18,000 feet and above where only those who are instrument rated may venture. Most aircraft here are airliners, high performance civilian aircraft, or military aircraft.

A flight checking in on a Center frequency will inform the controller of his altitude, if he is climbing or descending, and the direction of his flight. For example, you migh hear a pilot report "Los Angeles Center, American 556, 220 for 350, direct Boulder." Los Angeles Center is who the pilot is addressing and American 556 is his flight. The number 220 refers to his altitude which is simply 22,000 with the last two zeros left off for brevity. 350 is 35,000 feet, the altitude to which the flight is climbing and Boulder is the navigational facility toward which they are headed.

When a flight like American 556 checks in, the Center controller may come back with an amended altitude, either authorizing the pilot to climb to a higher level or advising him to stop his ascent for traffic crossing above.

Traffic calls by the controller will sound like this: "American 556, traffic 2 o'clock, six miles, a 747 climbing to flight level 370." Instantly the pilot knows where to look out the windscreen for his traffic. Headings are expressed as if the airplane were a clock with the nose being 12 o'clock, the right wing 3 o'clock, the tail 6 and the left wing 9.

It is easy to follow a particular flight from frequency to frequency because the controller will give the pilot his new frequency over the air: "American 556, contact Albuquerque Center now, one-three-five-point-seven-five [135.75 MHz]. Good day."

Continue on to next page

Air Route Traffic Control Centers operate between 118.0 and 136.0 MHz.

Flight Service Station

Flight service stations (FSS) provide all types of information to pilots, such as en route weather, altimeter settings, and airport terminal information. VFR (Visual Flight Rules) plans are opened and closed, lost aircraft are assisted, and search and rescue units are coordinated on these frequencies. In addition, FSS personnel are certified weather briefers responsible for aiding pilots in flight planning before takeoff. FSS's are located on frequencies between 122.0 and 122.975 MHz. The most common frequencies are 122.0, 122.2 and 122.4 MHz.

Unicom and Multicom

Some smaller airports do not have their own control towers allocated to them by the Federal Aviation Agency (FAA). Privately operated Unicom stations fill the gap.

Aiport personnel can provide general information concerning runways in use, wind direction, altimiter settings, and any known aircraft in the vicinity. Many times, pilots on Unicom will request ground services such as fuel, maintenance, or local transportation. A typical call on Unicom might sound like this: "Oceanside Traffic, Cessna 969 Romeo Delta, five miles west for landing, request airport advisory." If you hear the word "traffic" used in the identification, you may be pretty sure that you are listening to a Unicom.

Multicoms, generally on 122.8, 122.85, 122.9 and 122.925 MHz, are used for air-to-air communications however non-tower airports without Unicoms utilize them also.

Emergency Communications

Flying has been described as hours and hours of utter monotony punctuated by moments of sheer terror. For the aircraft monitor, the latter can make for some exciting listening.

The international aviation distress frequency for civilian aircraft is 121.5 MHz while the military air distress channel is 243.0 MHz. (Flight Service Stations are a good place to check for emergency operations, too, as they often guide misdirected pilots who are unsure of their position.)

Search and rescue teams operate on 123.1, 122.9, 122.925 and frequenctly on plane-to-plane frequencies such as 122.75, 122.85, 123.025, and 123.45 MHz.

Undoubtedly, this is not all that exists on the aeronautical band. Frequencies in the 128.80 to 132.0 area are reserved for Arinc stations which are utilized by (mainly) commercial airlines for communicating with their base of operations. Charter flights often coordinate with their ground headquuarters on common frequencies of 122.825, 122.875, and 122.95 MHz.

Distinctive Morse code radio beacons, such as ILS's, NDB's and VOR's are used for navigational purposes by private, commercial and military aircraft, and may be heard between 108.0 and 117.975 MHz.

Your Flight Now Boarding

Aviation communications are exciting to monitor and nearly unlimited.

Since VHF radio reception is limited to line-of-sight travel, you will often hear only pilots speaking on a channel. (Remote stations are set up to allow better coverage and if you happen to be close to one of these, reception will be much easier.)

The best place to seek aviation frequencies for your area is the local airport or flight service station. Many aiports have charts which list frequencies and are free for the asking.

Air Traffic Control Centers publish high and low altitude sector charts showing control areas, frequencies and navigational fixes. These are also available by sending a simple request to your nearest ARTCC facility. The National Ocean Service (NOS) publishes

Continue on to next page

navigational charts for pilots which can be purchased by requesting a chart catalogue from the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, Washington D.C..

And, of course, there are a wide variety of specialized aero publications for scanner listeners available, most of which can be purchased from advertisers in this publication.

Give aeronautical communications a try and monitor the wild blue yonder.

Table One
SPECIALIZED AERO FREQUENCIES

Airborne Firefighting 118.925, 118.95, 118.975, 119.95
Gliders 121.95, 122.775, 123.3, 123.5
Skywriters 122.75, 122.85, 122.9, 122.935
Balloons 122.25
Goodyear Blimp 123.050
Flight Schools 123.2, 123.3, 123.4, 123.5
Law Enforcement 122.85, 122.9, 122.75, 122.925
Military Towers 126.2
Military Airlift Command 130.65
American Airlines 129.2
United 129.3, 129.5
AeroMexico 129.9
Delta 129.55
Federal Express 130.925
Quantas 128.875
Air France 129.02
Alaska Air 131.2
British Airways 130.375
TWA 131.8

Table Two
COMMONLY HEARD TERMS

AGL - Above Ground Level
Airmet - Inflight Weather Advisory
ATA - Airport Traffic Advisory
CAT - Clear Air Turbulence
CZ - Control Zone
DME - Distance Measuring Equipment
Ident - Activate transponder to provide radar target
ILS - Instrument landing system
Knot - Unit of speed equal to one nautical mile per hour
Loran - Electronic Aid to Navigation
Missed Approach - Terminated ILS approach before landing
MOA - Military Operating Area
MSL - Mean Sea Level; average height from seas surface
NDB - Non-directional Beacon used in navigation
NOTAM - Notice to Airmen
Option - Pilot's decision to land, go around, low approach or touch-and-go
Outer Marker - Final Approach fix on the ILS
PAR - Precision Approach Radar
PIREP - Pilot Weather Report
SIGMET - Significant Weather Advisory for all Pilots
Transponder - Radar beacon transmitter
Vectors - Compass headings to fly given by a controller
VFR on Top - VFR above a cloud, smoke, haze or fog layer
VOR - Very High Frequency Omnidirectional Range. Used in navigation
VORTAC - VOR and TACAN Navaids at the same location

Amateur Electronic Supply
Scanner Radio Listings

By Norm Schrein

Tampa-St. Petersburg Area including Arcadia, Bartow, Bradenton, Clearwater, Cypress Gardens, Dade City, Dunedin, Frostproof, Gulfport, Haines City, Lakeland, Largo, New Port Richey, Sarasota, Seminole, Winter Haven, Zolfo Springs and others

Services covered: Police, Fire, Ambulances & Rescue Squads, Private Police, Agencies, Hospitials, Emergency Medical Channels, News Media, Forestry Radio, Railroads, Weather Stations, Radio Common Carriers, AT&T Mobile, Telephone, Utilitiy Co., Marine Radio, Taxis, Trucking, Business Repeaters, Federal Gov't., Funeral Directors, Buses, Aircraft, Amateur Radio & Broadcasters.

Please send $12.95 plus shipping to: AES, 1898 Drew St., Clearwater FL 33575 or call 813-461-4267

More Scanner Buffs Eavesdropping on New York's Troubles

Since Joe Braganza began listening to a police-band radio in his free time, he has wondered what moves his fellow New Yorkers to commit the acts of brutality that he hears police officers describe every night.

Like an increasing number of private citizens, Mr. Braganza bought the radio because he was concerned about crime and wanted more information about what was happening in his neighborhood, the Marine Park section of Brooklyn.

The radio has become his window on a world he has found shocking.

"In the beginning, I knew there was crime," said Mr. Braganza, a high school teacher who also volunteers as an emergency medical technician. "I'd read about it through a third party, like the newspaper."

Getting Close to the News

"But from the radio first-hand, it's almost like being there," he said. "And I find what I hear just very hard to believe and almost difficult to live with. People just can't reason with each other without the help of a gun or a knife."

For years, hobbyists fascinated by police work and disasters but bored with fictional presentations, have turned to radios that monitor communications among police officers, firefighters and emergency personnel, hoping to eavesdrop on real-life dramas like shootouts or fires.

But as the crime rate has risen, the hobby has begun to attract people who are less interested in the thrill of hearing about a gunfight and more concerned with gaining an inside knowledge of law enforcement in their neighborhoods.

"This is where I live," said Kenneth Meyerowitz, describing why he bought his radio. "With the scanner, I get an idea of the kind of crime that's going on in my neighborhood, the severity of it, the consistency of it." (Continued next page)



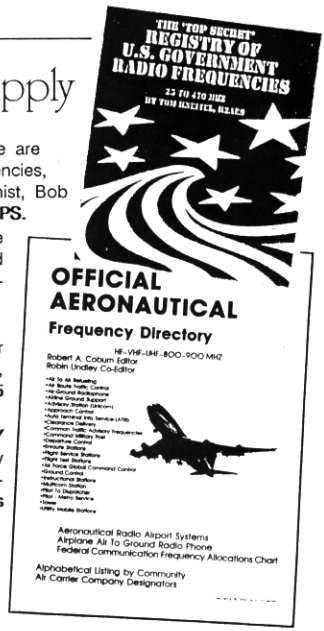
Book Buys by DX Radio Supply

THE CITIZEN'S GUIDE TO SCANNING Sure police and fire are exciting, but there's more. Eavesdrop on governmental agencies, cordless phones, business and the military. Popular columnist, Bob Kay tells how to catch these signals **$12.95 plus $1.20 USPS.**

SCANNER MODIFICATION HANDBOOK 20 tested mods the average electronics hobbyist can perform. Change a chip, add a switch. Gain 6,400 channels. Restore frequencies, add S-meters, improve squelch, more. **$17.95 plus $1.55 USPS.**

TOP SECRET REGISTRY OF U.S. GOV'T FREQUENCIES Completely covers 25 to 470 MHz. Loaded with freqs for federal offices like the FBI, Secret Service, FEMA, DEA, Customs, CIA, FCC, NASA, more. **$19.95 plus $1.55 USPS.**

OFFICIAL AERONAUTICAL FREQUENCY DIRECTORY Huge 416 page guide to HF, VHF and UHF military communications. Entries contain community, service license, frequency, call sign and comments. **$19.95 plus $1.90 USPS.**



Please send check, money order, Mastercard or VISA (acct. no. & expiry date) to: **DX RADIO SUPPLY, PO Box 360 Wagontown, PA 19372.** Add $1.50 per book for UPS delivery. **Send for Our Catalog – 25 cents.**

New York Scanning

Radio enthusiasts, known as scanner buffs, say the hobby has increased in popularity as the public's anxiety over crime has grown.

Tuning In to the Precinct

"It seems like everybody and his brother has a radio," said Ira Rubin, an officer of Citywide Radio New York, a club for scanner buffs. "People want to know what's going on. If they see a police car racing down their block with its sirens on, how better to know what's happening then to have a radio tuned into their local precinct?"

Peter Guggenheim, the president of Stuart Electronic Distributors in Queens, which sells scanners for $150 and up, said, "In the last six or seven months, the interest from private citizens has definitely increased."

Jerry Thompson, a salesperson at a Radio Shack store in Manhattan, said sales of the radios seem to increase with each random shooting.

"One guy came in a few days ago, and he bought a model for his home in Harlem," he said. "He has a family, and when the children go play outside, he wants to know what's happening."

The Police Department has no policy on the radios, though it does enforce a law prohibiting people from installing the equipment in their cars.

Trying to Aid the Police

Sgt. Peter Sweeney, a police spokesman, said the department appreciates people who listen to scanners and then use what they hear to aid police officers. Some community patrols around the city, for example, use portable versions of the radios to learn descriptions of suspects.

"If they're trying to be the eyes and ears of the Police Department and are helpful," Seargent Sweeney said, "then it's good for the local community and it's good for the entire city."

One scanner buff, Marty Eisgrau, who manages a dental laboratory in Manhattan, said of violence in the city: "The radio's more active; there is more violent crime, more shootings. The criminals are more bold. It's different in the extremeness of the shootings. Life has become cheap."

Mr. Eisgrau, who rarely goes anywhere without his radio,. recalled how he stayed up late one night recently, listening to the city's troubles.

'The Interest Is in Knowing'

The tense voices that flooded into his apartment from the scanner told of ambulance technicians in Queens treating a man shot in the head, of a shootout between police officers and three suspects in Brooklyn and of a Manhattan man threatening to jump off the ledge of his building.

"The interest is in knowing, being able to hear what's going on before things get into the newpspapers," Mr. Eisgrau said. "You're putting your finger on the pulse of the city. You're also listening to what your tax money is doing."

Mr. Braganza said that when he first began monitoring his radio during the summer, he was so overwhelmed by the stories of violence and tragedy that he felt powerless.

But the more he listened, he said, the more he wanted to do something, instead of just sitting back.

So he has become more active in his volunteer ambulance corps.

"Listening makes you want to help out in your community more," he said. "Now, I definitely look forward to any job in the community I can get."

Copyright 1990 New York Times. All rights reserved. Reprinted by permission.



DISPATCH!

Frequency Exchange

By Sue Kennedy
Program Coordinator

Welcome to another edition of *Scanning Confidential*'s Frequency Exchange. We have a lot of solid information to share. My name is Sue Kennedy and I will be your host for this month.

As always, I remind you that you can use the information in Frequency Exchange in two ways. The first is the most obvious: if you live in the reporter's area, you can punch the frequencies directly into your scanner and listen.

Serious monitors also use the information in developing their own band plan by studying the frequency allocations in different cities around the country and using the information as the basis for finding similar useage in their location.

Frequency Exchange is the result of cooperation between clubs and monitors all over the country who desire to share information.

We realize that some information is so sensitive that you may not want to reveal your name. Rest assured that we will respect your request for annonymity.

Like to be a part of this exciting opportunity to work with others who share your need to have the latest, most up-to-date information? Send your frequency list to Sue Kennedy, Program Manager, Frequency Exchange, *Scanning Confidential,* PO Box 291918, Kettering, OH 45429. Be sure to include some information about yourself, your equipment, and what you've been hearing on the frequencies that you're reporting.

Floating on Air

We begin with a look at the military in Virginia.

While he's not driving for a local trucking company, ex-U.S. Marine Bill Shultz of Virginia, uses a Bearcat BC760XLT to monitor the Virginia Beach area. Bill checks in with a meaty list of frequencies from some of the many military installations in the area.

Naval Air Station, Oceana, ground control	134.100
Naval Air Station, Oceana, ground control	325.200
Naval Air Station, Oceana, tower	360.200
Naval Air Station, Oceana, crash crew	140.100
Naval Air Station, Norfolk, Chambers Field	124.300
Naval Base Norfolk, police F1	143.600
Naval Base Norfolk, police F2	143.425
Naval Base Norfolk, gate guards	140.550
Naval Auxilliary Landing Field, Fentress	269.800
Tidewater Area Navy shore patrol	138.700
Fort Monroe military police	165.060



Continue on to next page

Frequency Exchange

Ed Asher writes in to alert North Carolina monitors to the possibility that the State Bureau of Investigation might be attempting to escape detection by operating on some of the NC Wildlife frequencies.

Ed also offers a listing of the State's Emergency Management frequencies, listed by useage.

Channel 1, Statewide	47.460
Channel 2, Raleigh and others	47.500
Channel 3, Other areas	47.540
Channel 4, Raleigh and others	47.580
Channel 5, Raleigh	47.620
Channel 6, Raleigh	47.660
Channel 7, Mobile	45.920
Channel 9, Mobile	46.000
Channel 10, Mobile	46.040
Phone patch (relays phone calls by radio)	45.960

We thought that monitors in the Triangle area of North Carolina (Raleigh, Durham and Highpoint) might want to know that there is a scanner group forming in the area. Interested monitors should contact Tom McKee at 104 Water Leaf Lane, Cary, NC 27551. That information comes from the RCMA *Journal.*

The Promised Land

There are two reasons to travel to Canaan Valley, West Virginia. During the summer, its lush green courses attract golfer from all over the nation. Once the leaves change the the snows come, however, CV changes into a skiing paradise. Here are three frequencies for the Cannan Valley Ski Patrol, courtesy of AOSC Special Events Editor Bob Jacobs.

Canaan Valley Ski Patrol	155.160
Canaan Valley Ski Patrol	155.220

Of course, no matter how good you are on the slopes, accidents can happen...

Tucker County Emergency Medical Service	155.235

Taken Prisoner In Indiana

"The Big Man" works at the prison in Medaryville, Indiana, as a guard. "If you promise not to use my real name," he writes, "I'll pass along some frequencies for the Indiana Department of Corrections." You've got a deal.

Indiana Dept. of Corrections, Medaryville	154.890
Indiana Dept. of Corrections, Medaryville	155.130
Indiana Dept. of Corrections, Medaryville	154.370
Indiana Dept. of Corrections, Medaryville	154.475
Indiana Dept. of Corrections, Medaryville	154.580
Indiana State Prison, Michigan City	155.580
Indiana State Prison, Westville	155.580

Continue on to next page

Frequency Exchange

Calling All Sheriffs

Randy Smith offers a list of all the sheriffs for the State of Wisconsin, arranged alphabetically by county. The notation following the county is their frequency tone. Thanks, Randy, for a very thorough and professional presentation of informaiton.

Brown (4B)	154.740	Outagamie (1B)	155.700
Calumet (6A)	155.040	Ozaukee (6A)	155.595
Columbia (2A)	154.875	Portage (M1)	155.595
Dane (6Z)	155.655	Racine (7Z)	154.755
Fon du Lac (7Z)	155.625	Rock (3B)	159.090
Green Lake (4Z)	155.490	Shawano (ZA)	155.640
Kenosha (1B)	155.955	Sheboygan (7Z)	155.685
Manitowoc (7A)	159.210	Washington (7A)	155.595
Marathon (7Z)	159.210	Waukesha (4Z)	155.130
Marquette (4Z)	155.190	Waushara (2A)	155.865
Milwaukee (4Z)	453.225	Winnebago (1B)	158.730

You Can Win
The New Grove "Omni" Antenna!

The new Grove Omni antenna is a non-directional, vertical dipole antenna with 30 to 960 MHz coverage. Listen to low band, UHF, military and civilian aircraft bands, even 800 MHz mobile! A single 66-inch element provides improved reception of signals throughout the VHF/UHF scanner spectrum.

You can buy your own Grove Omni antenna by calling 1-800-438-8155 or you can win one free of charge from *Scanning Confidential.* Your contribution of articles, frequencies, newspaper clippings or product reviews, are your entries. (Inaccurate information is disqualified.)

So enter often. There's a different prize each month.

You'll not only be supporting the country's only professional scanning publication but end up with a new antenna!

It's only from *Scanning Confidential.*

A Frequency from the War Zone

An annonymous reader who calls himself simply "William" suggests that monitors in the Washington, D.C. area tune in to 155.040. "You'll hear reports of frightening violence, teenage prostitution and drug deals without end." What will you be listening to? District of Columbia public schools, of course. The call sign is KUJ512.

Tickling the Dragon's Tail

"Ed" of Islip Terrace, New York, reports "one interesting frequency." According to *North-East Scanning News*, 154.665 "is the state [police] car-to-car frequency which is used for their radar traps on Long Island. It's also used in the vicinity of I-84 and I-684 (actually I-84 from 684 to west of Route 17). (Continued next page)

Frequency Exchange

"I have even heard the state police in the I-84 area using this frequency for the aircraft speed traps," says Ed, who calls this activity "tickling the dragon's tail."

Fort Worth P.D.

"Are you interested in some frequencies for the Fort Worth Police Department?" asks Ed Dougherty. You bet. Here's Ed's list:

Ft. Worth Police - Information	460.050
Ft. Worth Police - East	460.100
Ft. Worth Police - South	460.150
Ft. Worth Police - West	460.200
Ft. Worth Police - North	460.250
Ft. Worth - Detectives/Special Operations	460.300
Ft. Worth Police - Handhelds	458.925
Ft. Worth Police - Handhelds	458.950
Ft. Worth Police - Data transmissions	460.525
Ft. Worth Police - Data transmissions	460.550



Your corrections, additions and updates of this list are welcome. Please send them to Sue Kennedy, Frequency Exchange, *Scanning Confidential,* PO Box 291918, Kettering, OH 45429.

This is Your President

Ken Detterline has been monitoring the Richard Nixon Library, which is located near his home in California. He has three frequencies which he claims are "his favorites." They are 163.96, 163.91, 163.885 and 167.025. "The action," he says, "really heats up when dignitaries visit the library."



For those who want to use their scanners to tune in on the past, New Mexico is a perfect site. An annonymous reader passes along the following frequencies for "Dinosaur, New Mexico 166.375 and 166.975." To that we add our own observation of the Florissant Fossil Beds, also in New Mexico, on 167.025.

L.A. Rails

You *can* get to Long Beach, California, from Los Angeles. A train, known as "The Blue Line," is operated by the Southern California Rapid Transit District or "RTD" and there are a number of frequencies that rail buffs can tune in.

There are two commonly known UHF frequencies, 471.3375 and 474.3375 Bill Farmer of Thousand Oaks, California, says in "Railroads," that there are others, though, including 160.935, which is "for the yard" and 161.265 and 160.695 for maintenance. Security, say the locals, is provided by the Los Angeles County Sheriff's Department.

That puts the wraps on another edition of *Scanning Confidential's* Frequency Exchange. Let's hear from you. It only takes a minute and you'll be doing so much good by helping others who share your enjoyment of scanning.

What's New in Scanning



The National Police Directory

It's a staggering collection of information. Here, in one book, is frequency information for police departments in all 50 states and U.S. territories. This includes everyone, whether they operate in the public police radio service or are "hidden" from other directories because they operate in the local government radio service.

Frequencies are arranged alphabetically by state and by town and the book is formatted like other Betty Bearcat directories.

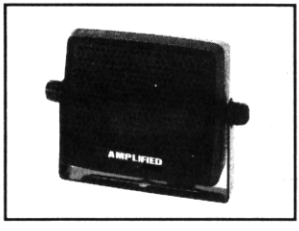
The 650-odd page Bearcat *National Police Directory* is a recommended addition to any scanner enthusiast's bookshelf and is available to members for $7.95 plus 3.00 shipping from club headquarters, P.O. Box 291918, Kettering, Ohio 45429. (Non-member price: $14.95 plus 3.00 shipping).

Louder! Louder! Louder!

If the thin, tinny sound coming out of your scanner speaker is driving you to distraction, Grove Enterprises may have the answer for you. It's the new Grove SP10 amplified extension speaker. Your radio's volume control automatically sets the SP10's output power.

Capable of delivering a powerful 10 watts when connected to your radio's external speaker or earphone jack, it's perfect for in-home use and small enough for under-dash mounting too. (A rugged metal tilt bracket is included.)

Connect the SP10 to your vehicle's 12 volt system for mobile operation, or order the SP10A for AC use.



The SP10 aplified extension speaker is available from Grove Enterprises for $49.00 plus 4.00 parcel post or 3.50 UPS. from 1-800-438-8155 or write P.O. Box 98, Brasstown, NC 28902.

The Ultimate Aero List

For the person who is <u>really</u> into the aeronautical bands, the Flightline *AviationCompendium* may be the ultimate accessory.

Aviation Compendium provides complete data on every registered aircraft (commercial, business, private and homebuilt, in the United States and Canada.), on every landing facility (public, private and military), and on every Service Difficulty Report submitted over the last 24 months. In short is the most comprehensive list of all the aircraft, airmen, airports, and associated facilities -- some 1,200,000 people in all -- that you'll find, short of the FAA itself.

While Flightline's *Aviation Compendium* is really targeted at the businessman seeking sales contacts in the industry, it can also be of interest to the deep pocketed aero communications enthusiast as well.

Aviation Compendium is delivered on CD-ROM and is compatible with IMB and Macintoch computers. A single copy is $595 and is available from Electronic Publishing, Inc., 30 East Swedesford Road, Malvern, PA 19355 or call 215-296-9205.

Catch Those Frequencies

Optoelectronics, the well-known manufacturer of frequency counters (devices that can "read" the frequencies of transmitters) is announcing the January 1991 release of their 820 through 870 MHZ Band Pass Filter/Amplifer. This accessory extends the range for frequency finding by boosting desired signals and eliminating others saignals from unwanted portions of the radio spectrum.

Used with a model 2600H Handi-Counter and model RD800 antenna, the typical distance from a 600 mW transmitter increases from 20 feet to over 200 feet.

The CF800 measures 7" high by 3.9" wide by 1.4" deep and weighs just 12 ounces. Expected retail will be $329.00. Get more information by call Optoelectronics at 305-771-2050 or by writing 5821 Northeast 14th Avenue, Fort Lauderdale, Florida 33334.

Fire Service Communications

Fire Service Radio Communications is designed for dispatchers, technicians and others involved in firefighting communications. As such, it can provide the scanner enthusiast with an inside look at virtually all forms of public service radio communications.

Author Edwin Spahn divides the book into seven themes, ranging from the FCC license application through radio system installation and maintenance and into communication theory and equipment instruction.

Other topics include consultant services, specifying needs, repair shop considerations, installation requirements, signal propagation, characteristics of the radio spectrum, types of modulation, electronic components and laws, paging systems, batteries and power supplies, even various signaling methods. Keep in mind that this is a professional-level text.

The 437 page *Fire Service Radio Communications* is available for $42.05 plus $2.00 handling from Pennwell Books, P.O. Box 21308, Tulsa, Oklahoma 74101.

Bearcat Radio Club
PO Box 291918
Kettering, OH 45429

Sign Me Up!

For One Year of America's Hottest Scanning Publication

Scanning Confidential

Name _____

Address _____

City _____ State _____ Zip _____

Scanning Confidential is a bi-monthly newsletter designed for serious scanner enthusiasts. Delivered by First Class. To subscribe, send your check for $18.00 to: Mr. Scanner, PO Box 291918, Kettering, OH 45429

Bearcat Radio Club president, Norm Schrein (Mr. Scanner) and Richard Petty (right) at the Winter CES radio show in Las Vegas, NV

Meet Mr. Scanner at these Upcoming Radio Shows

January 10 - 13, 1991 -- Winter CES Show, Las Vegas, NV
February 2 - 4, 1991 -- Southeastern Div. Convention, Miami, FL
March 22 - 24, 1991 -- Florida State Convention, Orlando, FL
April 26 - 28, 1991 -- Dayton Hamvention, Dayton, OH
May 17 - 19, 1991 -- Atlantic Div. Convention, Rochester, NY
June 1991 -- Summer CES Show, Chicago, IL
June 1991 -- Ham Com, Incorporated, Dallas, TX
July 27 - 28, 1991 -- Georgia State Convention, Atlanta, GA
August 23 - 25, 1991 -- ARRL National Convention, Saginaw, MI
September, 1991 -- Roanoke Div. Convention, Virginia Beach, VA
October 11 - 13, 1991 -- Southwestern Div. Conv., Scottsdale, AZ
November 23 - 24, 1991 -- Southern Florida Sec. Con., Tampa, FL
December 1991 -- No Shows
January, 1992 -- Winter CES Show, Las Vegas, NV
February, 1992 -- Southeastern Division Convention, Miami, FL
March, 1992 -- Florida State Convention, Miami, FL
April, 1992 -- Dayton Hamvention, Dayton, OH