



RF



ORANGE COUNTY AMATEUR RADIO CLUB, INC.

VOL. XLII NO. 10 P.O. BOX 3454, TUSTIN, CA 92861-3454 OCTOBER 2001

The Prez Sez:

Editors Note:

Our President, Bob - KD6BWH's, father passed away recently, and Bob went back to be with his family in the Midwest. On behalf of all the club members, I offer the club's condolences to Bob and his family. Bob has not had time to write his Prez Sez column; at a time like this we all understand - even this tough editor!

Are You Prepared?

Tuesday, September 11th is a day we will all remember. It started as such a clear morning in the U.S. Northeast, and then the fanaticism of a few brought death to so many, and bravery and strength to even more. Communications played an important part in the hours that followed. Amateur radio operators were prepared and worked around the clock to provide much needed communications.

Today, I saw a sketch. It showed a N.Y. firefighter in the WTC rubble holding the American flag. A strong American soldier was reaching for it and saying, "I'll take it from here!" My prayers go out to all the Americans represented by the firefighter and soldier.

Bob – AF6C

Cindy's Report from New York:

by: Cindy - KC6OPI
and Rich - WB2IHF

This month I haven't had much of a chance to work any local repeaters in the New York City area. I thought that maybe the club might be more interested in the Amateur Radio response to the World Trade Center attack; so I have asked my friend, Rich - WB2IHF, to write on the response from the American Red Cross Suffolk County Chapter on eastern Long Island, N.Y.:

Relaxing over AM tea and coffee, my wife Judy - KC2GHH and I had our usual television channel playing in the background. The station went off the air leaving a screen of snow. (Yes, we still use an antenna on the roof with a rotor so that we can choose TV and radio broadcast stations by the city of origin as well as by assigned channel.) We simply went to another station which also went off the air just as we got there. Another change and another dropout shortly after the change. We found only one UHF station originating in New York City which had the Twin Towers "Breaking Story" live (the cartoons program was pre-empted.) We watched the live coverage of the second airplane / second tower collision and of course the media was having a field day with

See *NY WTC* on page 5

The October Program:

There will not be a program in October so that the club can host the yearly **OCARC Club Auction**. See page 7 of this *RF* for the rules.

Sellers should arrive early to receive a sellers number. The doors will open at 6:30 PM. The auction will begin at 7:30 PM. Here's your chance to update your junk box and loose some of those former treasures you bought at the last auction!

Don't miss our next meeting on:

Friday, Oct 19th
@ 7:30 PM

We will meet in the **Anaheim** Room in the east Red Cross Bldg.

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Reminder:

November 3rd 2001
Next Club Breakfast
and Board Meeting

Club Auction is October 19th

It's time to start cleaning out your shack and saving up some cash. There's gold in them-there junk boxes! Share the wealth! Rules and details are found on the OCARC WEB site and in this issue".

**THE ORANGE COUNTY
AMATEUR RADIO CLUB,
INC.**

P.O. Box 3454, Tustin, CA 92781



2001 Board of Directors:

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2001 Club Appointments:

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OCCARO Delegate:

Bob Buss, KD6BWH
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Monthly Events:

General Meeting:

Third Friday of the month
at 7:30 PM
American Red Cross
(near Tustin Ave & 4th St)
Santa Ana, CA

Club Breakfast:

First Saturday of the
month at 8:00 AM
IHOP
1001 E. 17th Street
(west of Lincoln)
Santa Ana, CA

Club Nets (Listen for W6ZE):

Wednesday Evenings

28.375± MHz SSB
7:30 PM - 8:30 PM
Bob AF6C, Net Control

146.55 MHz Simplex FM
8:30 PM - 9:30 PM
Bob, WB6IXN, Net Control

VISIT OUR WEB SITE

<http://www.w6ze.org>

for up-to-the-minute club information, the latest membership rosters, special activities, back issues of *RF*, links to ham-related sites, vendors and manufacturers, pictures of club events and much much more.

Club Dues:

Regular Members	...\$20
Family Members*	...\$10
Teenage Members	...\$10
Club Badge	...\$3

Dues run from January thru December & are prorated for new members.

*Additional members in the family of a regular member pay the family rate up to \$30 per family.

There is a \$1 charge if you'd like to have your badge mailed to you.

An Exciting New Use for Ham Radio and the Computer

By: Tom, WA6PFA

The popularity of computers in the ham shack has changed the complex way we have been able to send pictures on HF radio. We no longer have to purchase special equipment to operate slow scan television (SSTV).

SSTV uses no more band width than a SSB signal. The modulation consists of a constant amplitude tone varying only in frequency. The high tones are the bright areas and the low tones are the dark areas.

A very simple SSTV receiving setup requires a stable receiver, a computer and a software program. The computer should be a Pentium 133 megahertz or faster, equipped with a sound card with an audio input jack. The software can be freeware down loaded from the internet. The software I use is freeware written by JE3HHT. It's available at:

<http://www.qsl.net/mmhamsoft/files/mmsstv104.exe>

The program is very easy to install and just as easy to use.

The most active sstv frequencies are 14.230 and 14.233 MHz. When you hear tones on one of these frequencies connect them to the com-

puter by placing the computer microphone near the radio speaker or, if you tire of the noise, you can make a cable to plug into the earphone jack of the radio and the microphone jack of the computer. Using the proper plugs on each end, make the cable with a series resistor of 33K ohms in the phone plug and shunt the microphone plug with a 100 ohm resistor. The cable will attenuate the earphone level to microphone level.

Although you are up and running right away, don't ignore the excellent documentation available as a help file. It contains a lot of information about SSTV.

The transmitting connections are nearly as simple. A second cable containing the similar resistors, is connected between the line out jack of the computer sound card and the microphone connector on your transceiver; it will send your pictures. You must also be able to use voice for ID and communication with others in the QSO. The radio microphone can also be used to send pictures by placing it near the computer speakers when transmitting.

An excellent eight page SSTV primer can be downloaded at:

<http://www.qsl.net/mmhamsoft/mmsstv/primer.htm>



Everything You Ever Needed To Know About the Not so DXpedition

If you want to have a lot more fun in your life, don't miss the coming "Not so Dxpediton" scheduled for the first weekend in November. This is the sixth such event in the history of the Orange County Amateur Radio Club. The first five were a lot of fun and lacked the pressure of contesting.

You can expect to operate when you want to, sleep when you want to or just kick-back and enjoy the scenery, the weather and the companionship of your fellow hams. In the past we have had most stations operating in the HF part of the spectrum, but we have also used VHF. For you satellite, astronomy (bring your telescope) or EME aficionados, it will be very difficult to beat the location. Hopefully we will see the International Space Station. In the past, we have worked some good DX in a noise-free environment.

Antennas? No sweat! There is an incredible amount of open space for us. This is the ideal location to experiment with NVIR antennas and 160 meters would not be a space problem. There's lots of room (by the way, there aren't any trees).

Power? No sweat! We're bringing the club generator. I do suggest that each person bring an extension cord and a multi-receptacle outlet such as a tap strip.

Maps to the site will be available at the next club meeting and also on the website www.w6ze.org. If you are going to arrive in the evening after dark, we will monitor 146.55 and will try to have a yellow flashing beacon on top of the rig to help guide you in. That is, as long as the battery holds out.

Food? Well everyone is on their own. Buddy up with others, bring it ready made, or go to the café down

See **NSDXP** on page 7

Tech Talk

by Bob, AF6C

RF Coaxial Connectors: (Part III)

Last month we looked at BNC and RCA Phono connectors; both are popular in the amateur environment. This month we'll look at some less popular connectors that hams sometimes use in projects. These are all constant impedance connectors unless noted.

SMA Connector (also SMB and SMC):



Male SMA Connector

Impedance: The SMA connector is 50 ohms. The SMB and SMC are available in both 50 and 75 ohms.

Size: Subminiature, 2 of 5. Quite rugged for its size.

Voltage Handling: 335V peak.

Frequency Range: Up to 18GHz (SMA), 4 GHz – with low SWR, usable to 10 GHz (SMB and SMC).

Cost: Typically 3 of 5. Commercial versions are available.

Weather Handling: Weatherproof SMA connectors are available. SMB and SMC are not specified as weatherproof.

The SMA connector and its derivatives were first developed in the 1960's. SM is an acronym for Sub-Miniature; the letter following designates the version. SM versions of connectors may be used for interconnecting miniature microwave modules. Many of the connectors are designed to fit small rigid coaxial lines. Others fit thin flexible coax such as RG-174. SMA connectors are available to fit coax up to

RG-58 sized cable. The connectors are small and some versions can operate to as high as 18 GHz. As ham equipment has become smaller, the SMA connector (which is the most popular of the three versions) has begun to show up on miniature ham equipment. The antenna connector on the Yaesu VX-1R is an SMA connector. The SMA connector also is often used in UHF and microwave home construction projects and commercial equipment.

The connectors differ in size and mating technique. The SMA has 1/4–36 threads. The SMB is smaller than the 'A' version and has snap together mating. The SMC is also smaller than the SMA and utilizes 10–32 threads. Connection to cable is by hex crimp with the pin usually being soldered. Numerous circuit board mounted connectors are also available.

MCX and MMCX Connectors:



The Tiny Male MMCX Connector

The SMA series of connectors are small, and the MCX and MMCX connectors are even smaller. The MCX developed in the 1980's is about 30% smaller than the SMB and the MMCX developed in the 1990's is even smaller (The outside of the mating male shield of the MMCX is only 0.094" in diameter).

Impedance: MCX are available in 50 and 75 ohms. The MMCX is 50 ohms only.

Size: Sub-subminiature, 1 of 5. The MCX uses the same pin and insulator dimensions as the SMB

but the outside diameter of the mating plug is only 0.140". The MMCX is even smaller.

Voltage Handling: 335V rms. (MCX), 170V rms. (MMCX).

Frequency Range: DC to 6 GHz at low SWR.

Cost: Typically 4 of 5. Prices are dropping. Cost of "between series" adapters is still quite high.

Weather Handling: None.

The MCX and MMCX connectors are quite new. I would not have included these models except that the MMCX is used on the new Motorola M12 GPS receiver, and while at a recent electronic show I found that these connectors are quickly becoming popular. Installation is by hex crimp with the tiny pin being soldered. I found that the best way to solder the pin is to drill a tiny hole in a reasonably large piece of wood and press the pin snugly into the hole before attempting the soldering. Even the use of self-locking tweezers seems clumsy when attempting to solder such a tiny pin to the coax.

C, HN and SC Coaxial Connectors:



Top-(L to R) : Male C, HN and SC to 'Female N' Adapters

Bottom-(L to R) : Female C, HN and SC to 'Male N' Adapters

The C, HN and SC connectors are on the other side of the size scale. These are not connectors commonly used by hams; however, they are often encountered on surplus mili-

tary radio equipment and antennas. The usual solution for the ham is to purchase an adapter to convert them to the more popular 'N' connector.

Impedance: All are 50 ohms constant impedance.

Size: Large, 5 of 5

Voltage Handling: 1500V ('C' and 'HN'), 1000V ('SC'). Easily handles the legal limit.

Frequency Range: Up to 11GHz (C and SC), 4 GHz (HN).

Cost: Typically 5 of 5. Connectors are available at specialty connector vendors. Adapters are sometimes available surplus.

Weather Handling: Weatherproof.

Unless you're building a broadcast station, stick with the 'N' connector instead!

Conclusion:

Over the past three issues we've covered many of the RF coaxial connectors hams might encounter. There are lots more that are out there. The TV 'F' connector is one. It's cheap, common and easy to install. If you have a need for some low power 75 ohm connectors it's a good choice. Very inexpensive crimp tools are available at Radio Shack and other stores. (My advice is to skip the very cheapest models.)

If you'd like me to cover any other connectors in a future Tech Talk, please email me (see page 2) and perhaps they will be covered in a future column.

Next month we're going back to the basics – Ohms Law. This is the heart of all everything electrical, and it's easy to understand – if you try. While Ohms law is a mathematical equation, it about as simple of one as you'll ever find in science; and we'll try to keep it that simple. Join us in learning how to determine the voltage, current and resistance values in basic circuits.

- SK -

October Board Minutes - 10/5/01

Six board members were present for the meeting: AF6C, W6HHC, K6LDC, WA6PFA, KQ6JD and W6RWY. Tom reported that Bob Buss' father has passed away.

Treasurer Ken - W6HHC reported our current balance at \$2,782.27.

For the October auction, Bob - KD6BWH will handle finances and Bob - AF6C and Larry - K6VDP will be co-auctioneers. Ken - W6HHC reported fliers are still available at HRO.

The November program will be April Moell. Cory - KE6WIU will be contacted for more information for RF and the web page.

Baker-to-Vegas date: April 20-21, '02.

Submitted by Bob - AF6C

NY-WTC from page 1

their conjectures, ideas and guesses about why this may have occurred. We found that the broadcast stations in Connecticut and Pennsylvania were still on the air. My Red Cross pager went BEEP.

The Amateur Radio Emergency Services (ARES) groups within our chapter jurisdiction (Nine of the ten townships in the county plus two Native American Tribes Reservations. Shelter Island has it's own chapter) and the Chapter have a long standing relationship. I made telephone calls to the four ARES Emergency Coordinators (EC's) and they had three of our Red Cross Regional offices and our Chapter Headquarters actively on the air within the hour on VHF, UHF and the Red Cross National frequency (47.42 MHz). An additional call to the NLI Section Emergency Coordinator (SEC) led to county-wide UHF repeater coverage into New York City. We used this for Red Cross logistics activities and coordinating relief staff for our Chapter-owned Emergency Response Vehicle (ERV). Zone 5 in New York State activated the ARES operators on the wide-area VHF repeater as per the Disaster Plan re-

sponse for each of the affected Chapters within Zone 5. The town EC's did their own scheduling to maintain continuous amateur radio staff coverage for the local Red Cross Chapter response as well as providing highly trained operators needed within the New York City by other Emergency Management Agencies.

Within our chapter the ARES groups have completed numerous Disaster Services Courses And are considered an integral part of our disaster response plan.

Rich Petersen WB2IHF – (Suffolk County Chapter Disaster Services Committee Communications Chairman, DSHR Communications Specialist):

wb2ihf@arrl.net

From my own end of working in the Pentagon Operation, the amateur operations were folding down. The Camp Unity site (located on the Pentagon parking lot) was using amateur operators to provide communications until other methods of communications were established. Once this was done, the radio operation was folded and the operators were encouraged to remain on board the operation helping to maintain communications at Camp Unity. At Camp Unity the Communications function was stationed in the RV belonging to the local chapter, Arlington Chapter, which was outfitted with some mobile radios, both Amateur and Commercial band.

The Camp Unity operation was still functioning when I left Washington, DC for New York City, my next assignment.

Here in New York City the amateur radio operation stopped approximately September 20. I have spoken with a few operators in the area about repeater locations. The Empire State Building has a few antennas and possibly a repeater on it. It is unknown if The World Trade Towers had any repeaters for amateur radio on it.

- SK -

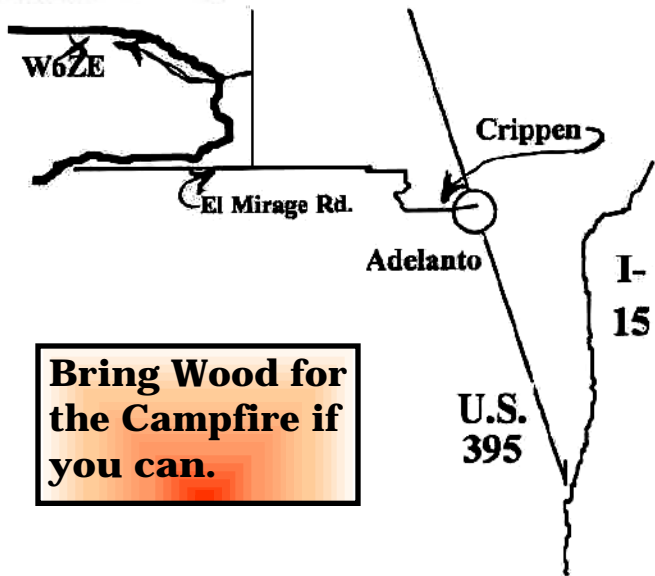
**THE
6TH**

Don't Miss the Fun!



**"NOT SO
DX-PEDITION"**

*its Just
Around the
Corner!*



**Bring Wood for
the Campfire if
you can.**

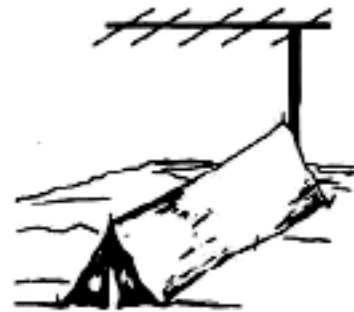
**El Mirage Dry
Lake**

**Only Weeks
Away**

Be There!

**the Weekend of
November 2, 3 & 4
2001**

Directions: Take Hwy. I-15 north to Hwy. 395 (as you come out of the Cajon Pass). Go north to the town of Adelanto (Less than 10 miles) and turn left (west) on Crippen St. Proceed to the end of Crippen and turn right (north) and follow it a short distance to the end and turn left (west). Proceed about 7 miles to the dirt road entrance to the El Mirage Dry Lake Off Highway Vehicle Rec, Area on the right (north) side. Go north about 1/2 mile until you see a sign that indicates Lake access. Turn left (west) and drive onto the dry lake bed (it's like concrete so don't be concerned.) Follow the north (right side) edge of the dry lake for about 500 yards and look for us. W6ZE possible talk-in on 146.55 MHz or listen on the other bands.



☺ **No digging holes required!!!**

☺ **Tents, campers, trailers,
motorhomes are acceptable.**

☺ **Wire Antenna are good**

☺ **No real organization.**

☺ **You can sleep-in mornings.**

☹ **You can operate all night.**

Need Info?

**Telephone Larry K6LDC at
(714) 636-4345**

**ORANGE COUNTY A.R.C.
ANNUAL ACTION**

Friday, OCT 19, 2001

Auction Rules:

The OCARC Annual Auction will take place on Friday evening, October 19th, 2001, at 7:30 PM at the American Red Cross facility located at 601 N. Golden Circle Drive, Santa Ana (see map below). The room will open at 6:30 PM to allow registration, set-up and viewing. All buyers and sellers are welcome.

The following rules will be in effect:

- 1) Only Ham Radio or electronic equipment/items will be auctioned (that is: no fishing equipment, etc)
- 2) Buyers and Sellers must register at the door with the OCARC treasurer. There is NO registration fee.
- 3) Only three items from a Sellers lot will be auctioned during each turn. After auctioning three items, the auctioneer will move on to the next lot. After the first three items from every lot have been offered for bidding, the auctioneer will start the second round of auctioning with the next three items in Lot #1.
- 4) Sellers should number each item in their lot. A tag should indicate the minimum bid they expect.

- 5) Bidding will take place as follows:
 - (a) \$0.⁰⁰-to-\$5.⁰⁰ bidding will take place in 50¢ increments.
 - (b) Over-\$5.⁰⁰-to-\$50.⁰⁰ bidding will take place in \$1.⁰⁰ increments.
 - (c) Over-\$50.⁰⁰-to-\$100.⁰⁰ bidding will take place in \$5.⁰⁰ increments.
 - (d) Over-\$100.⁰⁰ bidding will be in \$10.⁰⁰ increments.

6) Payment for purchased items is due at the end of the auction and shall be by cash or check with the appropriate ID. No two-party checks or credit cards are allowed. Disbursements to the Sellers will be by OCARC check, only. Sellers will be charged 10% of the selling price for items sold by the OCARC.

7) A special table will be set up for donated items. The proceeds of donated items will go to the OCARC.

We welcome all Buyers and Sellers and hope they have an enjoyable and profitable time. **You do NOT have to be a member of the OCARC to participate.**

Note: The Red Cross building where the OCARC meets has recently been renovated. Sellers should bring some old newspapers or other protective material to keep heavy equipment from scratching tables.

Large items can remain out in the parking lot and viewed by interested parties there.

NSDXP from page 3

on El Mirage Rd. (although I'm not certain of their business hours).

Toilet facilities are available a few hundred yards from our camp for those using tents. No **water** is available, so bring what you need for washing, cooking, etc.

A highlight of some past "Notso's" has been the evening campfire. Sitting around with friends and rag chewing. We plan on having a fire on Friday and Saturday evening, so please bring as much firewood as you can (don't forget your folding chair).

For those who don't wish to sleep over, Adelanto is reasonably close and there are **motels** available. If you're planning on leaving at night, to go to a motel or home, bring a compass and take a bearing to the campsite as you enter onto the lake. It's usually hard to spot the exit in the dark. It's okay to come for only one day. I suggest Saturday. Come in the morning and stay for the campfire. We will probably break camp and head home Sunday between noon and 2 PM.

K6LDC and KE6WOX and possibly others will arrive at about noon on Friday. Anyone wishing to caravan with us is welcome. Call Larry, K6LDC at 714-636-4345.

Wednesday Nets

September Check-ins (Both 10-meter and 2-meter nets):

AB8AA	KF6AXJ	KD6BWH
AF6C	K6CCD	KG6HZP
WA5IMI	WB6IXN	K8JAA
W6JAY	KQ6JD	W6KFW
K6LDC	KF6LEX	WA6NOL
KD6NOT	AD6NQ	NZ6T
N6TEZ	KF6TRA	KB6TWA
KF6UEB	K6VDP	KE6WOX
KE6YZW	KE6ZG	

Be sure to checkout what happened on the September OCARC nets at:

http://www.w6ze.org/RF-NEWSLETTER/IXN-NET-NEWS/OCARC_NETNEWS_index.html

Keeping Equipment Records:

by Larry, K6VDP

Over the years, I have handled several estates of deceased hams. My job has often been made harder because no documentation on the equipment was available. Here are some suggestions for each of you.

Make a master list of all equipment owned. Include purchase price, serial number, date purchased, and any other important information. Keep this list separate and tell others where it is. This list can be useful in case of fire or theft.

For each piece of new or used equipment, start a file folder for it. In-

clude the manual, sales slip, warranty card, and serial number. List any accessories that go with it. Include a manufacturer's ad sheet if available. This sheet usually shows a picture of the equipment and its specifications.

Keep all of this information in one place. Leave instructions for equipment disposition for future reference. These suggestions are also applicable to cameras, computers, tools, etc. I have AES catalogs back to 1976 if anyone needs information on older equipment.

[Look at the club's web site for some good sources for manuals and manual reproductions - Ed.]

September Meeting Minutes:

President Bob Buss KD6BWH called the meeting to order at 1936 hours. The meeting began with a presentation on APRS by Dennis Kidder - WA6NIA. The program was well received governing from the good questions asked and the crowd around Dennis during the break and after the meeting.

After the break, the business part of the meeting began. All board members were present except Member-at-Large Bob - KD6XO. A total of 31 members and visitors were present.

The Treasurer, Ken - W6HHC reported the club's balance at \$2,700.95 with the club insurance the only major outstanding expense for the remainder of the year. Income is \$2,586.11 and expenses are \$1,480.60 YTD.

The October auction was discussed. Ken - W6HHC distributed fliers at the A.R.R.L. Convention and at HRO. Rules are on the flier and will be published in the October issue of **RF**.

Frank - WA6VKZ suggested the club pass the hat to collect a donation for the local chapter of The American Red Cross. Discussion followed and many members preferred to make individual donations. Donation envelopes were available in the meeting room. It was recommended that members mention the OCARC on their donation.

The upcoming A.R.R.L. Southwestern division election for Vice Director was discussed. The candidates are Tuck Miller, NZ6T and Ned Sterns, AA7A. The election will be before the next issue of **RF** is published so club members may be receiving an email from each of the candidates.

The doors to the Red Cross building are locked sometime after the meeting begins. This is part of a new security procedure. Members needing access after the meeting starts should call on 146.55 for access. The Secretary, and one other member will monitor that frequency during the meeting. A better solution will be sought for long term.

Cindy - KC6OPI is away again on Red Cross business helping the victims of the tragic attack on the Pentagon.

Matt - K6LNX inquired about putting on a program on Linux (A Unix based operating system that runs on PCs and Macs). The club responded favorably and Matt will be our speaker for the January Meeting.

Elections are in November. Larry - K6LDC and Bud - WA6VPP agreed to head the nominating committee.

The meeting was adjourned at 2122 hours, followed by the raffle.

Submitted by Bob - AF6C



ORANGE COUNTY AMATEUR RADIO CLUB, INC
P.O. BOX 3454
TUSTIN, CA 92781-3454

First Class Mail

Time Dated Material.
Please Expedite!!