WICN OPERATIONS MANUAL

An Interactive Qualifying Project Report

submitted to the Faculty

of the

WORCESTER POLYTECHNIC INSTITUTE

in partial fulfillment of the requirements for the

Degree of Bachelor of Science

by

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Date: February 22, 2000

Approved:

Professor Frederick W. Bianchi, Major Advisor

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WICN is a non-profit New England's Radio Station.

A four term project (1 1/6 credits) was based on creation of the Operations

Manual for WICN station's staff and volunteers, working at the station. Operations

Manual covers all station's electronic equipment and other information such as

emergency numbers and procedures.

First quarter of the project (C'99 term) I have spent with WICN's staff, getting more familiar and experienced with station's equipment. After two weeks of covering basic technical specifications of broadcasting and equipment operations, I have started operating the equipment myself to get a better understanding of how it works.

Basic idea of the Manual was to create a document that could clearly describe all or at least most of the operations and procedures used by WICN's staff in such a way that the document could be used as a reference manual by WICN's staff and as a learning and reference material for volunteers and people with limited knowledge and experience of work with radio station's equipment.

To do that, I have divided all the WICN's equipment and operations into logical consecutive interrelated units, describing each unit and all the operations and procedures related to that particular unit in separate chapters.

For a better understanding of the equipment, I have manually drew several customizable pictures, such as a drawing of mixing board that is the most frequently used piece of equipment, where all the switches and sliders are set depending on the operation being described. That not only describes the reader what he or she should do to proceed with particular operation, but also should ease the process of understanding the operating procedures for the equipment.

Second quarter of the project (D'99 term) I have started getting into greater details and shortcuts for the operations and the equipment used by experienced WICN's staff. I have also started the rough draft of the manual, which later went through many corrections and changes.

Third quarter of the project (A'99 term) I have spent composing and combining the information I have collected in two previous terms. At the end of the term I had a completed but not yet corrected and approved WICN Operations Manual.

Forth quarter of the project (B'99 term) I have spent correcting the manual, which was approved by WICN's staff.

WICN 90.5 FM Operations Manual

WICN

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HELP

HELP



- Warnings and Necessary Procedures.



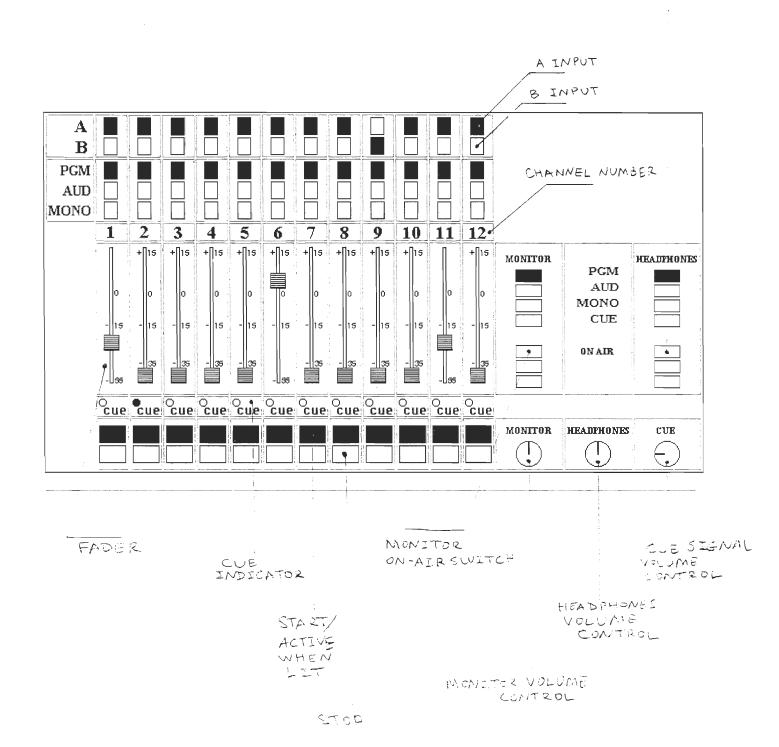


- Useful Hints and Help.

Mixing Board

Mixing Board (General Information)

HEADPH CNES ON-AIR SWITCH



Mixing Board (General Information)

- Mixing Boards are located in the Main Broadcasting Booth and in the Production Room.
- **Mixing Boards** are used to mix one or several input signals from station's equipment (*Mics, DAT Machines, CD Players, etc.*) and also trigger (*Start*) equipment in the room.
- Mixing board located in the Main Broadcasting Booth is used for live broadcasting. Mixing Board located in the Production Room is used to mixdown and record sessions to be used later (no live broadcasting from Production Room).
- There are total of 12 (*twelve*) channels that can be mixed at a time, but also each channel has an (**A-B**) switch above the channel's fader which is set depending on the equipment you wish to use allowing 24 sources to be connected.



[For example: DAT #2 is on Channel 9-A Audio Vault is on Channel 10-A]



Please, **DO NOT FORGET** to push down the fader and pot off the channel after you finished using it.



To listen to a program without signal going out over the air, push fader all the way down till CUE indicator lights up.

Mixing Board (Channel Distribution)

- There are total of 12 (twelve) channels that can be mixed simultaneously.
- Each of the 12 channels can be set to either A or B input by pressing either A or B button located above the channel's volume control slider.

The following is the Channel Distribution table showing the inputs available at each channel of the Mixing Board (e.g. what pieces of equipment are connected to each channel) located in the Main Broadcasting Booth.

| Channel # | (A-B) Switch | Input Signal |
|-----------|---------------|-----------------------------|
| 1 | A | Master Microphone |
| | В | Studio A #1 |
| 2 | A | Mic Left |
| | В | Studio A #2 |
| 3 | A | Mic Right |
| | В | (not used) |
| 4 | A | Turn Table #1 |
| | В | (not used) |
| 5 | A | Turn Table #2 |
| | В | (not used) |
| 6 | A | CD (Compact Disc) Player #1 |
| | В | (not used) |
| 7 | A | CD (Compact Disc) Player #2 |
| | В | (not used) |
| 8 | \mathbf{A} | DAT Deck #1 |
| | В | (not used) |
| 9 | Α | DAT Deck #2 |
| | В | Demod 8 |
| 10 | Α | Audio Vault |
| | \mathcal{B} | (not used) |
| 11 | A | Demod 1 |
| | В | Phone |
| 12 | Α | Demod 2 |
| | В | Cassette Player |

Mixing Board (Channel Distribution for the Production Room)

The following is the Channel Distribution table for the Mixing Board located in the <u>Production Room</u>.

| Channel # | (A-B) Switch | Input Signal |
|-----------|--------------|--|
| 1 | A | Master Microphone |
| | В | (not used) |
| 2 | A | Mic #2 (located in the Production Room) |
| | В | Studio Mic #1 |
| 3 | A | Turn Table #1 |
| | В | Studio Mic #2 |
| 4 | A | Turn Table #2 |
| | В | Studio Mic #3 |
| 5 | A | CD (Compact Disc) Player #1 |
| | В | Studio Mic #4 |
| 6 | A | CD (Compact Disc) Player #2 |
| | В | Studio Mic #7 |
| 7 | A | DAT Deck #1 |
| | B | Studio Mic #8 |
| 8 | A | DAT Deck #2 |
| | В | Studio Mic #9 |
| 9 | \mathbf{A} | OTARI#1 |
| | В | Studio Mic #10 |
| 10 | A | OTARI#2 |
| | В | DAT Deck #4 |
| 11 | A | Cassette Player |
| | В | Patch |
| 12 | A | DAT Deck #3 |
| | В | Phone Patch (to record Phone Interviews) |

Mixing Board (Triggering/Starting Equipment from the Mixing Board)

When broadcasting live or recording a session it is always a good idea to trigger/start equipment (*CD Players, DAT Decks, etc.*) from the **Mixing Board** using **START** (*red*) and **STOP** (*yellow*) buttons located below each channel's volume control slider.



Always pots off and down when not in use.

[You can <u>preview</u> the material that is going to be broadcasted (audit without broadcasting) by sliding the **Mixing Board's** volume control slider on the corresponding channel all the way down, till **CUE** light lights up. Then adjust the volume of the playback by turning the **CUE Dial** located in the lower-right corner of the **Mixing Board**]

Mixing Board (Resetting the Clock)

• The Clock is located in the upper-right corner of the **Mixing Board** under the timer and has green-light digits.

It is very important to maintain precise time at the Mixing Board's Clock at all times.

• To get correct naval observatory time - ask Operations Staff.

The following is step-by-step instructions on resetting the Mixing Board's Clock:

- 1) Slide Channel 12's fader all the way down, untill CUE indicator lights up below the fader.
- Adjust the CUE volume control by turning the CUE dial located in the lower-right corner of the Mixing Board. (At this point you should hear the audio boadcast of the precise time on Channel 12-A)

| 1 | 2 | 3 | START |
|-------|---|-------|-------|
| 4 | 5 | 6 | STOP |
| 7 | 8 | 9 | RESET |
| ENTER | 0 | CLOCK | AUTO |

- You may now reset the clock using the Remote Control connected to the Mixing Board. The front panel of the Remote Control is shown to the left.
- 4) Press **RESET** button.
- 5) Press **CLOCK** button.
- 6) Enter 6 (six) digits corresponding to the hours+minutes+seconds of the time you wish to set. Your best bet is to set the time about 30 seconds ahead of the actual time.



For example: If you wish to set time to 11 hours 30 minutes and 00 seconds you would enter: 1 1 3 0 0 0

7) Wait untill you hear time you set on the Clock broadcasted on Channel 12 and press START button at exactly the same time as the beep sounds.

Mixing Board (Setting Examples)

• There are several standard **Mixing Board** settings that are useful for special broadcasting events, listed below. Some of the events may happen daily, and some - only a couple times a year.

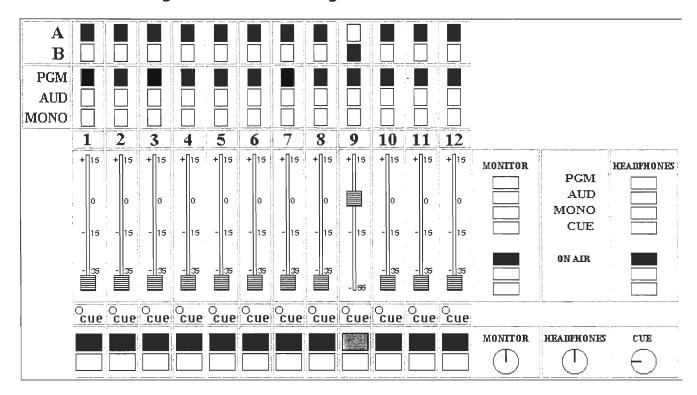
Please. DO NOT fully rely on the given examples. Fader settings will vary depending on the intensity of the signal received on each channel.

The following is the list of special broadcast events. Click on the event to see the Mixing Board settings for that specific event.

Broadcasting Network Programs:
 "Jazz with Jeff Fox",
 NPR (National Public Radio) News,
 Fresh Air.

- 2). Broadcasting Live using Master Mic in the Main Broadcasting Booth.
- 3). Broadcasting Live using Master Mic while playing "Jeff Fox" on the background.
- 4). Broadcasting Live from the DAT Deck.

Broadcasting Network Programs

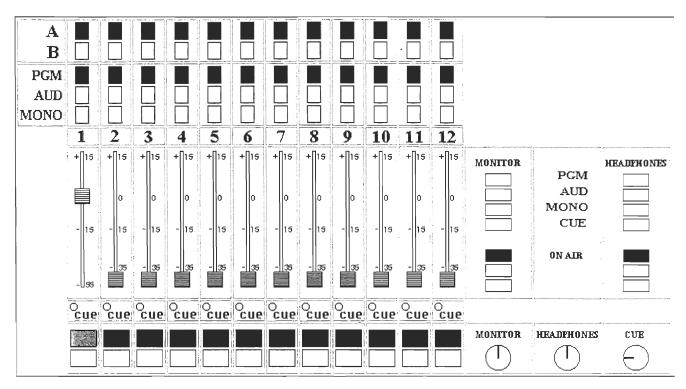




Please, DO NOT fully rely on the given examples. Fader settings may vary depending on the intensity of the signal received on each channel.

- "Jazz with Jeff Fox" is broadcasted through the satellite and can be auditioned on Channel 9-B (Demod 8).
- NPR (National Public Radio) News are broadcasted through the satellite and can be auditioned on **Channel 11-A** (Demod 1).
- "Fresh Air" is broadcasted through the satellite and can be auditioned on Channel 11-A (Demod 1) at noon, and on Channel 12-A (Demod 2) at 7 p.m.
- Both ON-AIR buttons located to the right of the faders are pressed, so that the actual broadcast can be auditted either through the Monitor or through the Headphones. Adjust the volume for Monitor and/or Headphones by turning the Monitor and/or Headphone dials located in the lower-right portion of the Mixing Board.
- Note: that the red START/TRIGGER button located below the active channel's fader is pressed (it should be lighted up).
- Note: with live network programs it is critical to Start/Stop and do breaks accoring to the clock in a polished professional on-air sound.

Broadcasting Live using Master Mic in the Main Broadcasting Booth

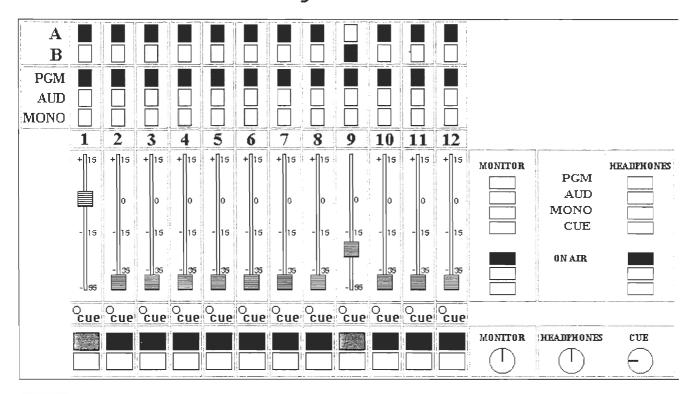




Please, DO NOT fully rely on the given examples. Fader settings may vary depending on the intensity of the signal received on each channel.

- The Master Mic is on Channel 1-A.
- Both ON-AIR buttons located to the right of the volume control sliders are pressed, so that the actual broadcast can be auditted either through the Monitor or through the Headphones. Adjust the volume for Monitor and/or Headphones by turning the Monitor and/or Headphone dials located in the lower-right portion of the Mixing Board.
- Note: that the red START/TRIGGER button located below the active channel's fader is pressed (it should be lighted up).
- Note: with live network programs it is critical to Start/Stop and do breaks accoring to the clock in a polished professional on-air sound.

Broadcasting Live using Master Mic while playing "Jeff Fox" on the background

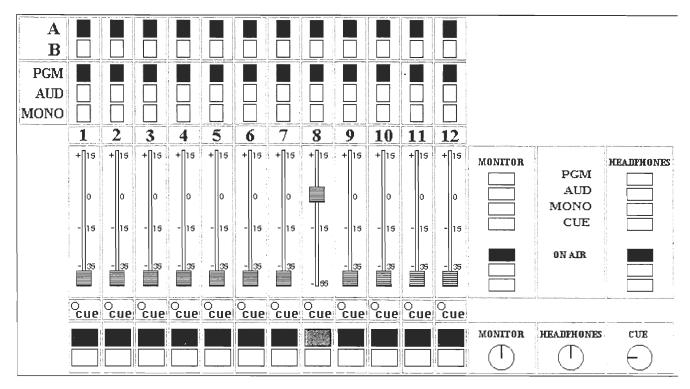




Please, DO NOT fully rely on the given examples. Fader settings may vary depending on the intensity of the signal received on each channel.

- The Master Mic is on Channel 1-A and "Jazz with Jeff Fox" is broadcasted through the satellite and can be auditted on Channel 9-B (Demod 8).
- Both ON-AIR buttons located to the right of the volume control sliders are pressed, so that the actual broadcast can be auditted either through the Monitor or through the Headphones. Adjust the volume for Monitor and/or Headphones by turning the Monitor and/or Headphone dials located in the lower-right portion of the Mixing Board.
- Note: that the red START/TRIGGER buttons located below the active channels' faders are pressed (they should be lit).
- Adjust the fader approximately to 1/2 of normal setting so that your voice is clearly heard over the music. Mic levels are different for every announcer and so always need to be monitored so that they match overall program level.
- Mote: with live network programs it is critical to Start/Stop and do breaks
 according to the clock in a polished professional on-air sound.

Broadcasting Live from the DAT Deck





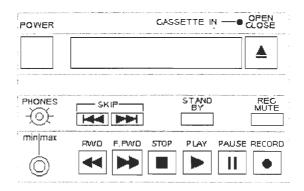
Please, DO NOT fully rely on the given examples. Fader settings may vary depending on the intensity of the signal received on each channel.

- This particular example shows the setting for the Mixing Board for the broadcast from the DAT Deck \$1, which is on Channel 8-A.
- If you would like to broadcast from the DAT Deck #2, you would need to have exactly the same setting as in this example, only for Channel 9-A.
- Both ON-AIR buttons located to the right of the volume control sliders are pressed, so that the actual broadcast can be auditted either through the Monitor or through the Headphones. Adjust the volume for Monitor and/or Headphones by turning the Monitor and/or Headphone dials located in the lower-right portion of the Mixing Board.
- Note: that the red START/TRIGGER button located below the active channel's fader is pressed (it should be lit).
- Note: with live network programs it is critical to Start/Stop and do breaks accoring to the clock in a polished professional on-air sound.

DAT Decks

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DAT (Digital Audio Tape) Decks (General Information)



- The functionality of the **DAT Deck** is very similar to the functionality of the Tape Player.
- You may record and play back the audio data stored on the **DAT Cassettes**.
- **DAT Decks** are located:
 - a) in the Main Broadcasting Booth
 - b) in the Production Room
 - c) in the Engineering Room
- The Remote Control Unit of the **DAT Deck** has more functions available than the **DAT Deck** itself.
- Each **DAT Cassette** has a write protect switch on the front edge.
 - To <u>allow</u> recording: switch must be <u>closed</u>.
 - To protect recording: switch must be open.

DAT Cassettes record and play in one direction only (<u>arrow</u> points in correct direction). Please, **DO NOT** load the cassettes upside down.

Please. **DO NOT** leave **DAT Cassettes** near the equipment that may generate a magnetic field, and always put **DAT Cassettes** back in the case and/or envelope they came from.

DAT (Digital Audio Tape) Decks (Loading the Cassette)

- 1). Turn the power of the **DAT Deck** ON by pressing the top-left <u>POWER</u> button on the DAT's front panel. (*Display should light up*)
- 2). Press **OPEN/CLOSE** button either on the DAT's **Remote Control** or on the Deck's front panel once to open the tray. (*CASSETTE-IN indicator on the front panel should start blinking*)
- 3). Get the **DAT Cassette** out of the plastic case and place it on the **DAT Deck**'s tray, with clear window facing up and hinged part facing toward the DAT player. (Sometimes you will see a small triangular arrow on the hinged part of the cassette, which should point toward the Deck)
- 4). Close the tray by pressing **OPEN/CLOSE** button once. (When CASSETTE-IN indicator stops blinking and go on solid, you may start operating the cassette you just loaded in)

DAT (Digital Audio Tape) Decks (Playing a Prerecorded DAT Cassette)

Please, **DO NOT FORGET** to press **STANDBY** button on the front pannel of the **DAT Deck** before doing any audition or broadcasting. (A light near the **STANDBY** button of the front panel should be on)

To Plav a Specific Program on the DAT Cassette:

- 1) Press STANDBY button on the Deck's front panel.
- 2) Using the numeric keys enter the desired number for the program. Always make sure which machine you are programming, look at display to confirm (Numerals entered should blink on display).
- 3) If you make a mistake press CLEAR button and reenter the selection.
- 3a) If not sure what cut you are on, start at beginning and use **SKIP** button to advance from cut to cut until correct cut is located. Most shows start anywhere from :35 to :47 seconds in. Local Public Affairs usually start at :10 in.
- 4) When desired program was entered press START button.
- 5) Adjust the volume slider on the corresponding channel of the Mixing Board, depending on which DAT Deck you plan on using.



[In the Broadcasting Booth DAT #1 is on Channel 8-A. and DAT #2 is on Channel 9-A.]



[You can <u>preview</u> any cut or program on the DAT Deck by sliding the Mixing Board's volume control slider on the corresponding channel all the way down, till CUE light lights up. Then adjust the volume of the playback by turning the CUE Dial located in the lower-right corner of the Mixing Board]

DAT (Digital Audio Tape) Decks (Recording Data on DAT Tapes)



[Always, make sure that the Write Protect Switch on DAT Tape is <u>closed</u> to allow recording.]

[Each program or cut you record on DAT Cassette is automatically given it's unique ID (a.k.a. Program or Cut Number). Make sure that DAT Deck is in AUTO ID Mode (press AUTO ID button on the Deck till "AUTO ID" lights in the display). After the Recording Session, make a note on the DAT Tape's Slip given the Cut Number, Title. Short Description and Duration of the program you have recorded on the Tape



[Most recording on DAT Decks is done in the Production Room. On the Mixing Board in the Production Room:

DAT #1 is on Channel 7-A. and DAT #2 is on Channel 8-A]

To Record Data on DAT Cassette:

- 1) Turn the DAT Deck's Power ON, by pressing the POWER button located in the upper-left corner of the Deck once. (DAT Deck's display should light up)
- 2) Load the DAT Cassette. (see <u>Loading the Cassette</u> on p.
- 3) Press REW button on DAT's Remote Control Unit.

If you are using a new blank tape, skip Step 4

- 4) Find the end of the last program using **SKIP** buttons on the Remote Control.
- 5) Never record from the 00:00 mark. Always use REC MUTE to advance the tupe several seconds in. Hold RECORD and press PLAY button. After the recording is started, press REC MUTE button either on Deck's panel or Remote Control. This will leave a 4 seconds silent interval before the recording you wish to make, and DAT Deck will automatically go to Record Ready Mode (Paused. ready to record).
- 6) To start recording, press PLAY button once. Recording starts.
- 7) If you wish to temporarily stop the recording during the recording session, press PAUSE. To continue recording, press PLAY. (repeat as many times as
- 8) To definitely end the recording session press REC MUTE and then when tape stops, press STOP.

DAT (Digital Audio Tape) Decks (Recording Session Examples)



Always set level before recording, DO NOT assume level will be correct.

Most recording on DAT Decks is done in the Production Room.

On the Mixing Board in the Production Room:

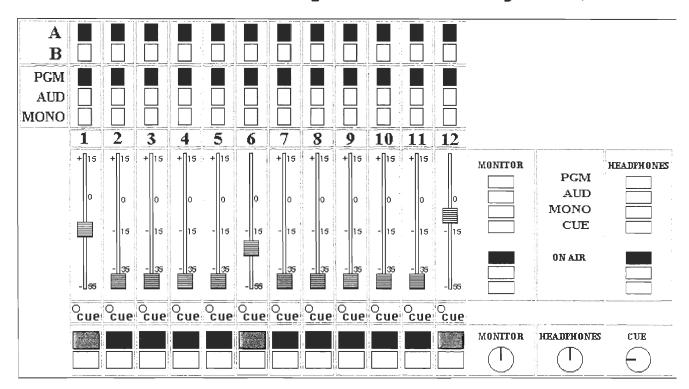
DAT #1 is on Channel 7-A, and DAT #2 is on Channel 8-A.

The Patch Bay set up so that DAT #2 will normally record from the hoard.

The following is the list of <u>Sample Settings</u> of the most common Recording Sessions, and pages where this examples may be found:

- 1) <u>Recording a Phone Interview in a Production Room.</u> (p.)
- 2) Recording a Show using 2 CD Players and a Mic. (p.)

Recording a Phone Interview in a Production room (with music from CD Player on the background)





Please, DO NOT fully rely on the given examples. Fader settings may vary depending on the intensity of the signal received on each channel.

Settings Explanation:

- Three channels are used:
 Master Mic Channel 1-A
 Compact Disk Player #2 Channel 6-A
 Phone Patch Channel 12-B
- Both ON-AIR buttons located to the right of the volume control sliders are pressed, so that the actual broadcast can be auditted either through the Monitor or through the Headphones. Adjust the volume for Monitor and/or Headphones by turning the Monitor and/or Headphone dials located in the lower-right portion of the Mixing Board.
- Note: that the red ${\tt START/TRIGGER}$ buttons located below the active channels' faders are pressed (they should be lit).
- Note: don't start recording with pots on.

See Recording Procedures on the Next Page

DAT (Digital Audio Tape) Decks (Recording Session Examples)

Recording a Phone Interview in a Production Room (with music from CD player on the background)

The following are Step-by-Step Recording Procedures:

- 1) Adjust all the switches on the **Mixing Board** as shown on the schematic drawing above.
- 2) Put **DAT Deck** into Record Ready Mode (follow Recording on DAT: Steps 1 6).
- 3) Establish connection on the phone located in the **Production Room**, put the receiver on the Cradel (*Phone Patch*) located to the left of **Mixing Board** and adjust the volume control on the **Mixing Board** on **Channel 12**.



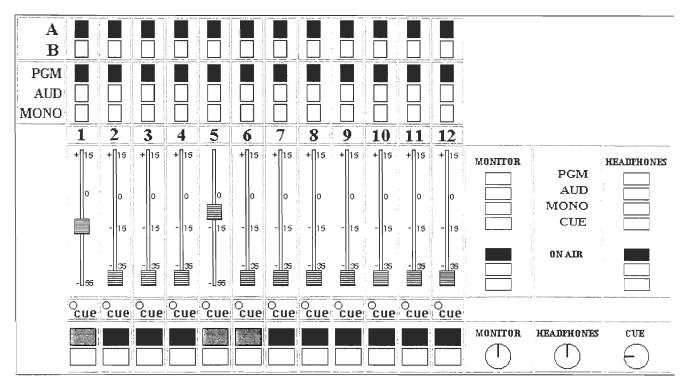
DO NOT start recording with pots up.

- **3a)** Pot 1 (or 2) adjusts host(s) Pot 12 adjusts guest
- **4)** Start the **CD Player** by pressing the **PLAY** button on CD Player's Front Pannel or it's Remote Control. Adjust the volume control on **Channel 6**.
- 5) Adjust the volume control on Channel 1 for the Master Mic.
- 6) When ready, press PLAY button on the DAT Deck to start recording.
- 7) After you finished the interview, press STOP button on the DAT Deck.

Please. DO NOT forget to turn off the equipment you have been using (CD Player, in this case), and put the phone receiver back on the phone set.

Recording a Show using 2 CD Players and a Mic (for example: to promote a new CD or a new artist)

Production Room Mixing Board Setting:





Please, DO NOT fully rely on the given examples. Fader settings may vary depending on the intensity of the signal received on each channel.

Settings Explanation:

- Three channels are used:
 Master Mic Channel 1-A
 Compact Disk Player #1 Channel 5-A
 Compact Disk Player #2 Channel 6-A
- Both ON-AIR buttons located to the right of the volume control sliders are
 pressed, so that the actual broadcast can be auditted either through the
 Monitor or through the Headphones. Adjust the volume for Monitor and/or
 Headphones by turning the Monitor and/or Headphone dials located in the
 lower-right portion of the Mixing Board.
- Note: that the red START/TRIGGER buttons located below the active channels' faders are pressed (they should be lit).
- · Note: don't start recording with pots on.

See Recording Procedures on the Next Page

DAT (Digital Audio Tape) Decks (Recording Session Examples)

Recording a Show using 2 CD Players and a Mic (for example: to promote new CD or new artist)

The following are Step-by-Step Recording Procedures:

- 1) Adjust all the switches on the **Mixing Board** as shown on the schematic drawing above.
- 2) Put **DAT Deck** into Record Ready Mode (follow Recording on DAT: Steps 1 6).
- 3) Adjust the fader on Channel 1 for the Master Mic.
- 4) CD pots must be in off/unlit position. Put both CD Players into the Ready Mode by pressing PAUSE buttons on their Front Panels or Remote Controls after the desired track was found. Now, they are ready to be <u>triggered</u> from the Mixing Board.
- 5) When ready, press PLAY on the DAT Deck. It starts recording. Trigger/Start the CD Player on Channel 5 and start talking on the Master Mic.

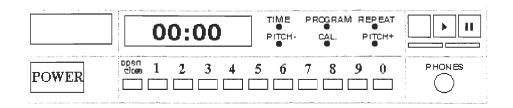
Whenever you need to switch from one CD Player to another follow these steps:

- **A)** Increase the volume on the channel to which you wish to switch to (if CD #1 on Channel 5 was playing, increase the volume on Channel 6, and vice versa). The usual record level for CD Players is somewhere around -18 to -12.
- **B)** Lower the volume level on the first **CD Player** by sliding the volume control slider all the way down on the channel that was previously active.
- C) Press PLAY button on the second CD Player, which can be either stopped or in the Ready Mode.
- 6) After you finished the show, press STOP button on the DAT Deck.

Please. DO NOT forget to turn off the equipment you have been using (CD Players, in this case), and return the CDs where they belong. Thank you.

CD Players

CD (Compact Disc) Players (General Information)



- **CD Players** are used to playback and broadcast music and other audio material stored on Compact Discs.
- **CD Players** are located:
 - a). in the Main Broadcasting Booth (2 CD Players)
 - b). in the **Production Room** (2 CD Players)



Always try to keep the disc surface clean. Clean discs with special compact disc cleaners only.



To protect the disc, avoid placing it in the following locations:

- In direct sunlight or near a source of heat;
- In a place which is damp or dirty;
- In a place which could be exposed to rain, such as near a window.

CD (Compact Disc) Players (Playing CD - Normal Playback)

The following are step-by-step instructions on how to playback a CD in a Normal Playback Mode.

- 1) Press the **POWER** switch to turn on the power.
- 2) Press the **OPEN/CLOSE** button once to open a tray. Put the **Compact Disc** on the tray (label side up).
- 3) Press the OPEN/CLOSE button once to close the tray.
- 4) Press the PLAY button once. The playback starts.
- 5) To <u>fast-forward</u> and <u>fast-reverse</u> the play position, press and hold **SEARCH REVERSE/FORWARD** button (*located under the PAUSE button*).
- 6) To skip tracks use **TRACK PREVIOUS/NEXT** button (*located under the STOP button*).
- 7) To play specific track, enter the number of the track using **Numeric buttons** located under the **CD Player**'s Display. Confirm the track number on the display.

CD (Compact Disc) Players (Program Play)

The following are step-by-step instructions on how to playback a specific Program (number of tracks) on a CD.

- 1) Turn on the Power on the CD Player.
- 2) Load the desired Compact Disc.
- 3) Make sure corresponding pot is off/unlit.
- 4) Using Numeric Buttons specify the number of the track you wish to play. Do not wait too long when entering the track number. Confirm the entered track number on the display.

The total number of the program's playback is shown on the display.

By pressing TIME button you can switch between: <u>Elapsed time</u> of the playback.

Time remaining for the currently playing track and <u>Total time remaining</u>.

5) To queue the CD Player press PAUSE button.

Right now CD Player is ready to be triggered from the board and the program you have entered will be played once.

6) To erase the entire program press STOP button twice.

Audio Vault

Audio Vault Software (General Information)

- AUDIO VAULT SOFTWARE is installed on the computer. The monitor and the keyboard are located to the left of the Mixing Board in the Main Broadcasting Booth.
- AUDIO VAULT IS USED TO:
 - 1) Store and Playback promotional/underwriting spots.
 - 2) Store and Playback show theme music.
 - 3) Interact with overnight services.



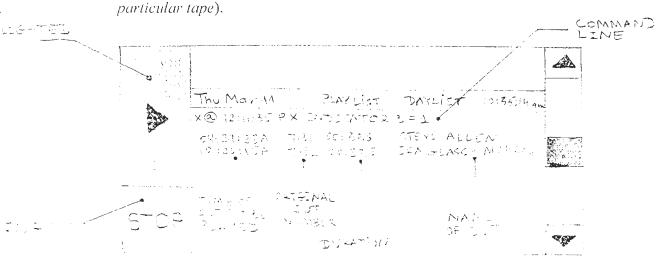
[The HOT KEY on the Audio Vaults keyboard is: 0 INS on the keypad to the right. It starts selected cut as a PLAY button when pressed.]

• A big green button to the left of the screen with a triangle - is a **PLAY** button. **STOP** button is a yellow button marked "**STOP**" located below the **PLAY** button.



Make sure you DO NOT highlight the command lines at the very top and bottom of the playlist. This will cause bad things to happen.

- To the right of the PLAY button, there is a list of CUTS usually 30 to 60 seconds long.
- Each entry/cut contains:
 - 1) Date(s) the show airs or the date the spot is good through ($Kill\ Date$) if applicable.
 - 2) The CUT Number. Each CUT Number appears as two numbers separated by the dash.
 - 3) Each CUT Number is unique and it corresponds to one of the cuts on the DAT Tapes in the red binder (for example: CUT Number 7-32 means that it was prerecorded into Audio Vault from the DAT Tape #7 and it is a CUT #32 on that particular tape).



Audio Vault Software (Playing Cuts)

The following are Step-by-Step instructions on how to play a particular CUT using Audio Vault:

Make sure you **DO NOT** highlight the command lines at the very top and bottom of the playlist. This will cause bad things to happen.

- 1) Adjust all the switches on the **Mixing Board** as shown on the schematic drawing above.
- 2) You can scroll up and down the list of **CUTS** using the scroll bar to the right of the list. Click the left mouse button directly on the arrows pointing up and down. This moves the list one **CUT** at a time. Or hold the left mouse button down on the arrows and the list moves faster.
- 3) Select the CUT by putting the mouse pointer directly on the line that you want and clicking the left mouse button to highlight the line in black.

You can preview any cut by playing the Audio Vault in the CUE Mode. Just slide the volume control slider on Channel 10 all the way down till CUE light is on.

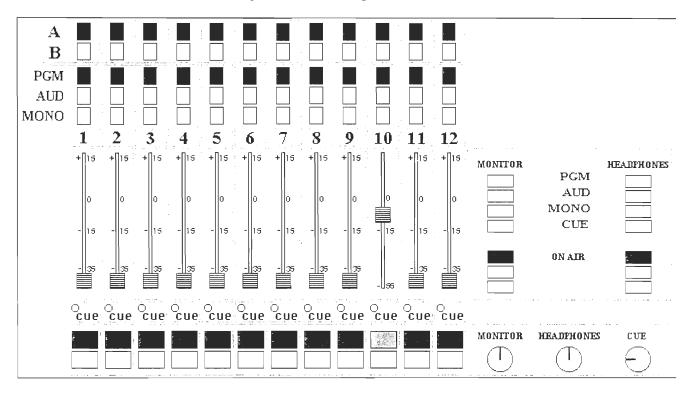
- 4) When you are ready to play the CUT, press big green PLAY button located to the left of the list, or press the HOT KEY 0 Ins key on the keypad located in the lower right corner of the keyboard.
- 5) After CUT is finished, it will be automatically stopped at the end of the CUT.
- 6) To manually stop a **CUT** click the left mouse button on the lower left portion of the screen directly on the yellow button marked **STOP** located below the **PLAY** button.

Make sure you **DO NOT** highlight the command lines at the very top and bottom of the playlist. This will cause bad things to happen.

(See Next Page for Mixing Board settings)

Playing Cuts on Audio vault

Main Broadcasting Booth mixing Board Setting:





Please, DO NOT fully rely on the given examples. Fader settings may vary depending on the intensity of the signal received on each channel.

Settings Explanation:

- Audio Vault is on Channel 10-A
- Both ON-AIR buttons located to the right of the volume control sliders are pressed, so that the actual broadcast can be auditted either through the Monitor or through the Headphones. Adjust the volume for Monitor and/or Headphones by turning the Monitor and/or Headphone dials located in the lower-right portion of the Mixing Board.
- Note: that the red START/TRIGGER button located below the active channel's fader is pressed (it should be lit).
- . Mote: don't start recording with pots on.

Audio Vault Software (Instructions for 6 am Hosts ONLY)

In order to turn off *Jazz with Bob Parlocha* and to access the list of spots for airplay on the **Audio Vault** you need to switch from the **Overnight** list to the **Daylist**. Proceed through the following steps <u>very carefully</u>.

- 1). Select the final line on the **Overnight** list. (@ 09:00:00A J DAYLIST)
- 2). Hit the **PLAY** button or **0-Ins** (hot-key) on the keyboard.
- 3). The screen now displays the **Daylist**.
- 4). Select the first line on the **Daylist**. (@ 09:01:00A X INDICATOR3=1)
- 5). Hit the **PLAY** button or **0-Ins** (*hot-key*) on the keyboard. This turns off *Jazz with Bob Parlocha*.
- 6). Select the second line on the **Daylist**. (@ 09:02:00A X LOADLIST2"")
- 7). Hit the **PLAY** button or **0-Ins** (*hot-key*) on the keyboard. This stops the overnight station IDs from playing automatically at the top of each hour.

Live Broadcasting (Mechanics Hall)

Live Broadcasting (General Information)

- WICN produces and broadcasts the **Brown Bag** series broadcasted live from **Mechanics Hall** located on the Main St., Worcester.
- There is a cable connecting WICN with Mechanics Hall and to access it you need to perform one simple operation in the Engineering Room located near the Production Room.
- These are two important operations you need to perform:
 - 1) Engineering Room Operations
 - 2) Main Broadcasting Booth Operations

Live Broadcasting (Engineering Room Operations)

- To get access to the cable connecting WICN with Mechanics Hall you need to:
 - 1) Locate a patch cord that has a plug on each side marked R/L. This cord is usually located in the engineering room on top of the modulation monitor in the right hand rack.
 - 2) Connect one end of the cord to the third plug from the left located below **DAT Decks** marked **MECHANICS HALL**.
 - 3) Connect another end of the cord to the forth plug from the right located below **DAT Decks** marked **MASTER POT 10**. The markings on the side of the plug must point in the same direction on both plugs.
- After you do that, you can audit the signal from Mechanics Hall on Channel 12-A (Demod 2) on the Mixing Board in the Main Broadcasting Booth.



Please, **DO NOT** forget to unplug/disconnect the cord after you finished the broadcasting from **Mechanics Hall**.

(Follow the **Broadcasting Booth Operations** on the <u>Next Page</u>)

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Live Broadcasting (Broadcasting Booth Operations)

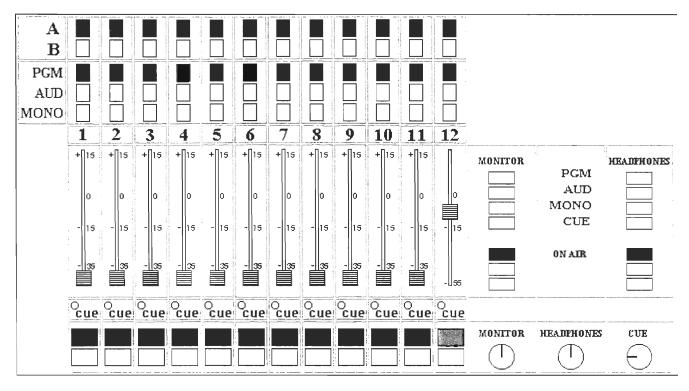
After you have connected the cable connecting WICN and Mechanics Hall as described in the Engineering Room Operations, go on with the following procedures:

- 1) Adjust all switches on the Mixing Board as shown on the schematic drawing on the next page.
- 2) Put Channel 12-A in the CUE mode by sliding the fader on Channel 12 all the way down until CUE light is on.
- 3) Now you should hear a signal from Mechanics Hall. If nothing happens in CUE or audition mode, make sure that the signal is being broadcast by calling Mechanics Hall.
- 4) Put the Mixing Board in its original position as shown on the schematic diagram on the next page.
- 5) When it is time to broadcast, press START/TRIGGER (red) button located under the Channel 12's fader and fade up.
- 6) When broadcasting is finished, fade down and press STOP (yellow) button located under the Channel 12's fader.

(see Mixing Board setting on the Next Page)

Mechanics Hall Live Broadcasting

Main Broadcasting Booth mixing Board Setting:



A

Please, DO NOT fully rely on the given examples. Fader settings may vary depending on the intensity of the signal received on each channel.

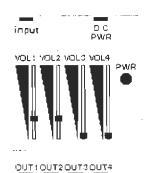
Settings Explanation:

- "Mechanics Hall" is on Channel 12-A
- Both ON-AIR buttons located to the right of the volume control sliders are pressed, so that the actual broadcast can be auditted either through the Monitor or through the Headphones. Adjust the volume for Monitor and/or Headphones by turning the Monitor and/or Headphone dials located in the lower-right portion of the Mixing Board.
- Note: that the red START/TRIGGER button located below the active channel's fader is pressed (it should be lit).
- Note: don't start recording with pots on.

Live Broadcasting (Live Interview with Two People)

The following are step-by-step explanations on how to broadcast a live interview with two people from the Broadcasting Booth using Master Mie and two additional ones.

- 1) Press START (Red) button on the Mixing Board under Channel-1's volume control to activate the Master Mic
- 2) Repeat Step 1 for Channels 2 and 3, depending on which Mics you wish to activate.
- 3) Adjust the volume on the Mixing Board.



- 4) Connect two additional Headphones to the OUT1 and OUT2 outlets on the Sterco Headphone AMP (small black box shown to the left usually located to the right of Mixing Board).

5) Let people on two other Microphones adjust VOL1 and VOL2 volume controls for themselves.

Transmitter

Transmitter (Taking the Readings)



You should record the readings from the Transmitter once per air-shift.

- 1) Prepare (find) a Log labeled (Non-Commercial Broadcast Station WICN-FM 90.5 mHz) and a pen or a pencil to record the readings.
- 2) Correctly date the form.
- 3) From the Broadcasting Booth dial the following local number: 869-0422. (The transmitter control will answer and say: "ENTER")
- 4) Press the following buttons on the phone's key pad in the following order: 1, 2, 3, 4, 5, 6, 7, 8. (If you have completed step 4 correctly, you should hear the access authorization from the transmitter, saying "WICN-FM". If you don't, hang up and start with step 3)
- 5) If you completed step 4 and heard the access authorization, next thing you are going to hear will be the readings themself. Be prepared to record them.
- 6) Press 0 1 (zero and then one). You will hear the reading of the form **** (where * is a digit). That 4-digit number should be recorded into the Plate Voltage column next to the corresponding time in the Time column that you need to include while taking the readings. If you miss the reading, just press 01 again.
- 7) Press 0 2 (zero and then two). You will hear the reading of the form *.** (where * is a digit). That whole number and two decimal digits should be recorded into the Plate Current column next to the Volage recorded in step 6.
- 8) Press 0 3 (zero and then three). You will hear the reading of the form *.** (where *- is a digit). That whole number and two decimal digits should be recorded into the **Power Output** column next to the Current recorded in step 7.
- 9) Press 9 9 (nine twice) when you are finished. After you hear "Good-bye" from the transmitter, you may hang up the phone.
- 10) Any comments should be recorded in the Operator Comments column.
- 11) When you finish the broadcasting, you should fill out Time on Duty column and sign the form.

At the end of the day, the last operator should put completed Log Sheets in appropriate bin by the Engineering Room.

Intercom

Intercom (General Information)

• Intercom operations are similar to the ones of a Telephone.

The following is the listing of Intercom number for the WICN departments:

| Name | Intercom # | Departments | |
|-------------------|------------|---------------------------------------|--|
| Sandy Lashin | 10 | Membership | |
| Reception Desk | 11 | | |
| Drew Watson | 15 | Operations | |
| Gene Petit | 16 | Programming | |
| Record Pool | 19 | CD Libraries | |
| Lower Hall | 20 | | |
| Conference Room | 21 | | |
| On-Air Studio | 22 | make sure announcer is not on the air | |
| Production Studio | 23 | make sure taping is not in progress | |
| Brian Barlow | 24 | General Manager | |
| Engineering Room | 26 | Satellite taping room | |
| STL closet | 62 | 6th floor | |

Intercom (Usage Instructions)

The following are the instructions on how to operate the Intercom:

1). Pick up handset (you will hear a quiet dial tone)

or

Ask caller to hold (put them on hond), you should hear a quet dial tone.

2). Dial intercom number of the person or department from the <u>list of numbers</u> you would like to reach (you will hear a quiet "confirmation ring"). Person you are calling will not hear a ring.

NOTE: if they are already on the phone you will hear a busy signal.

- 3). After you hear confirmation ring, speak: "Mary smith on line one" or whatever you wish to say that is appropriate (they will hear you).
- 4). They can either pick up their phone and talk back to you

or

if they pick up a call on hold, you will see the blinking hold light change to a solid red to show that the line is in use.

Voice Mail

Voice Mail (General Information)

Voice Mail operations are similar to the ones of Answering machine. If somebody is trying to reach a person at WICN who is not available at the moment, the caller can leave a private message for a person he/she is trying to reach.

The following is the listing of Voice mailbox numbers for the WICN staff:

| Name (i | ntercom # | Departments |
|------------------------|-----------|--|
| Sandy Lashin | 10 | Membership |
| Drew Watson | 15 | Operations |
| Gene Petit | 16 | Programming |
| Bob Walters | 18 | Classical dreamscapes |
| Brian Barlow | 24 | General Manager |
| Rich Wojtaszik | 30 | Tonal Vision (new age) |
| Tom Banyai | 31 | Bluegrass Junction |
| David Ritchie | 32 | Against the Grain (roots, acoustic. etc.) |
| Nick DiBiasio | 33 | Against the Grain & Contemporary Cafe |
| Norm Rosen | 34 | Blues Monday |
| Steve jones-D'Agostino | 35 | The Business Beat show |
| Mark Lynch | 37 | Inquiry (arts & sciences show) |
| Al Vuona | 39 | The Public Eye (local social & historical) |
| | 66 | WICN Jazz Line |
| General Mail Box | 88 | all other calls |



Voice Mail (Voice Mail Operations)

The following are the instructions on how to Transfer a Call to Voice Mail:

- 1) Tell caller that you will connect them -- Please, do not put call on hold
- 2) Push the VM button (you will hear a soft "confirmation ring", that confirms that you are entering the voice mail system).
- 3) Enter one of the mailbox numbers.
- 4) You can now hang up the phone (you will hear a loud "confirmation ring" that confirms that the call was transferred).

To Call directly into VM from your own phone:

- 1) Press VM key -- don't pick up handset
- 2) System will then request your password -- enter it

To call directly into VM from someone else's phone:

- 1) Press VM key -- don't pick up handset
- 2) System will then request your password -- enter it
- 3) System will then ask: "if you know the extension..." -- enter it
- 4) System will then request your mailbox number -- enter it
- 5) System will then request your password -- enter it

To call directly into VM from an outside line:

- 1) Dial (508) 793-1596
- 2) When system answers, you'll hear the greeting message -- press the # key to interrupt
- 3) System will then request your mailbox number -- enter it
- 4) System will then request your password -- enter it

Emergency Numbers

Emergency Phone Numbers

If an emergency situation arises you must notify station management by calling one people listed below. Call the name which appears first on the list and if that person is not available, call the second name and so on.

| 1) | Drew Watson, Operations Director | (508) 387-4774 (beeper) |
|----|----------------------------------|-------------------------|
| | · · | (508) 755-1122 (home) |
| 2) | Don DeMarsh, Engineering | (508) 756-9468 |
| 3) | Eugene Petit, Program Director | (508) 865-4299 |
| 4) | Steve Charbonneau, Jazz Director | (508) 650-3843 |
| 5) | Brian Barlow, General Manager | (508) 865-4410 |

If we go off the air or serious technical problems occur, you must notify station management by calling one people listed below. Call the name which appears first on the list and if that person is not available, call the second name and so on.

| 1 | Drew | Watson. | Oper | ations | Director |
|----|------|----------------|------|------------|-----------|
| ъ. | | * * 4 L3 U L L | Oper | au u u u u | Different |

beeper (508) 387-4774 home (508) 755-1122

2) Don DeMarsh, Engineering (508) 756-9468

3) Sid Schweiger, Station Engineer

beeper (800) 946-4646--pin # 1449657 home (508) 757-9858

work (508) 752-1045 x238 car (508) 826-4565

4) Steve Callahan, back-up engineer

beeper (888) 991-4351

voice mail (800) 696-9505 x211

Additional contacts:

Fran, WUNI Engineer

work (781) 433-2727

beeper (800) 496-8186

WUNI--TV27 Master Control (781) 433-2735

WUNI Transmitter (508) 869-6194

QEI (800) 334-9154

revised August 18, 1999

Memo

To: All on-air volunteers

From: Drew Watson, Operations Director

Date: 07/13/99

Re: Phone calls from WICN transmitter

The WICN transmitter in Boylston has an automated alert system to advise the station when power levels are raised or lowered unexpectedly.

If this happens, the station will get a phone call. When you answer, you will here a computerized voice saying, "This is WICN...telemetry channel 03" over and over again.

DO NOT HANG UP. The system is asking you to take a reading while it is calling you so just PUNCH "03" and note the reading level and time on the engineering log to the right of where you normally write down readings.

If you get a relatively normal reading (approx. 3.0 kw up to 3.7 kw), then just note reading & time on the log. **NOTE**: If reading is lower than 2.8 then you must also alert station staff by using the emergency contact list posted in the studio to the right of the tape recorder rack. If the reading is 0 (zero) then the station is completely off the air.

Usually, an alert call is just calling our attention to a slight change in the power readings and, as long as readings are ok, requires no action.

EAS Test Procedures (Weekly)

The REQUIRED WEEKLY TEST (RWT) is done once per week at random times. The Operations Director will let you know if it's your turn to do one.

Choose the time you want to do the test and when the time comes:

- Look at the green display screen and push the button under the word WEEK. The display now changes. You now have the option to PROCEED or ABORT the test.
- 2) Go on the air and say:
 This is a test of the Emergency Alert System
- 3) Push the button under the word PROCEED (or ABORT if you don't want to do the test).

A red light will come on next to OUTGOING ALERT. While this light is lit the listener will only hear what the EAS system is putting out - about 8 seconds of "data bursts". As soon as the red light goes out you can go back on the air.

On our TRANSMITTER LOG, where it says EAS TEST TRANSMITTED AT, enter the time and your initials. Also, notice that something like adding machine tape has come out of the EAS. Carefully pull the record tape out so that the whole message print-out is visible. Pull tape upwards gently to tear it off and staple it to the transmitter log.

EAS Test Procedures (Monthly)

The REQUIRED MONTHLY TEST (RMT) is done once a month whenever we receive and in-coming test from WSRS Radio.

A red light will come on next to INCOMING ALERT.

On the green display screen it will say P REQUIRED RMT which tells you that this is a test and not a real weather or other type of alert.

You will also see a timer counting down from 15:00. This means that you have up to 15 minutes to relay the pending incoming test yourself. If you don't do so, the system will relay the test over the air when the time reaches 00:00. When the test is relayed, either by you or automatically, it will cut out any audio you have on the air until the test is complete. You may not be doing a show that has a break coming up within 15 minutes or you may not even see the red INCOMING ALERT light on. If test goes off by itself, just read both parts of the script after the red OUTGOING ALERT light is out and you are back on the air. You MUST read the script no matter what. Obviously it is better for you to control when you do the test, so the procedure below will tell you the best way to relay the MONTHLY TEST.

Choose the time you want to do the test relay.

- 1) Look at the green display screen and push the button under the word PEND. The display now changes.
- 2) Look at the green display screen and push the button under the word SEND. The display now changes. You now have the option to PROCEED or ABORT the test.
- 3) Go on the air and say:
 This is a test of the Emergency Alert System
- 4) Push the button under the word PROCEED (or ABORT) if you don't want to do the test).
 - A red light will come on next to OUTGOING ALERT. While this light is lit the listener will only hear what the EAS system is putting out "data bursts" followed by the familiar alert tone and then more "data bursts". As soon as the red light goes out you can go back on the air.
- 5) Now go back on the air and say:

 This is a coordinated test of the broadcast stations in your area. Equipment that
 can quickly warn you during emergencies is being tested. If this had been an actual
 emergency, such a severe weather warning or a flood warning, official messages
 would have followed the alert tone. WICN serves the Worcester County area.
 This concludes this test of the Emergency Alert System.

On our TRANSMITTER LOG, where it says EAS TEST RECEIVED FROM, enter WSRS followed by the time and your initials. Also, notice that something like adding machine tape has come out of the EAS. Carefully pull the record tape out so that the whole message print-out is visible. Pull tape upwards gently to tear it off and staple it to the transmitter log.

For an Actual EAS Alert

We receive real EAS alerts from WSRS Radio on and should relay them along to our listeners as soon as possible. The procedure is similar to that for the monthly test except it is much simpler - there is no automatic timer and no script to read - just relay it as soon as you can.

A red light will come on next to INCOMING ALERT.

On the green display screen it should indicate that the system has received a real weather or other type of alert.

Choose the time you want to do the test relay - as soon as is convenient.

- 1) Look at the green display screen and push the button under the word PEND. The display now changes.
- 2) Look at the green display screen and push the button under the word SEND. The display now changes. You now have the option to PROCEED or ABORT the test.
- 3) Push the button under the word PROCEED (or ABORT) if you don't want to do the test).

A red light will come on next to OUTGOING ALERT. While this light is lit the listener will only hear what the EAS system is putting out - "data bursts" followed by the familiar alert tone and then more "data bursts". As soon as the red light goes out you can go back on the air.

On our TRANSMITTER LOG, next to your transmitter readings, enter Alert received from WSRS followed by the type of alert, time and your initials. Also, notice that something like adding machine tape has come out of the EAS. Carefully pull the record tape out so that the whole message print-out is visible. Pull tape upward gently to tear it off and staple it to the transmitter log.