Title: Table of Contents

Title: Station Information

Call Sign: WTJR TV 16.1 (HDTV)
Channel: 32 (frequency 578- 584 MHz)
City of License: Quincy, Illinois. (market DMA #166)
Population coverage: 429,000 (+)
Class of license: Commercial
Power output: One million watts effective radiated power (1 MW)
Height on broadcast tower to center of radiation 825 feet. (proposed)

Tower Location:
3420 Cannonball road Quincy, Illinois, 62301.
Coordinates: 39° 58′ 18.00″ N Latitude 91° 19′ 42.00″ W Longitude (NAD 27)
Tower Height 904' Tower ASR# 1009806
Phone: 217-228-1691

Studio Address:
222 North Sixth street Quincy, Illinois, 62301
Coordinates: 39° 56' 02.0" N Latitude 91° 24' 21.0 W Longitude, Elevation 184.4 M
Mail address: WTJR PO Box 1189 Quincy Illinois
Phone: 217-228-1616 Fax: 217-228-0966
Email: tv16@wtjr.org Website: www.wtjr.org

Microwave Studio transmitter link (STL):
Call Sign: WMG-470 (& WMG471 (TSL))
Frequency 12.8 GHz (12812.5 MHz)
Microwave Associates MA13BX transmitters with 6' solid Microwave dish.
Microwave audio, 1 PAC demod (6.8 MHz)

For further Information:
TV search. http://www.fcc.gov/mb/video/tvq.html (search station by call sign)
U.L.S. (Microwave+) http://wireless.fcc.gov/uls/ (search station by call sign)
Check also station website.

Title: Station Information

WTJR Technical data from FCC database

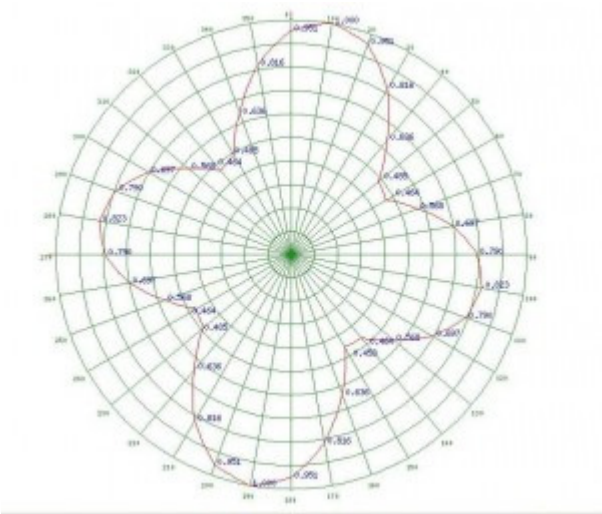
Current Data:

WTJR IL QUINCY USA (Digital)
Licensee: CHRISTIAN TELEVISION NETWORK, INC.
Service Designation: DT Digital television station

Transmit Channel: 32 578 – 584 MHz Licensed
File No.: BLCDT-20091110ADL Facility ID number: 4593
CDBS Application ID No.: 1332070

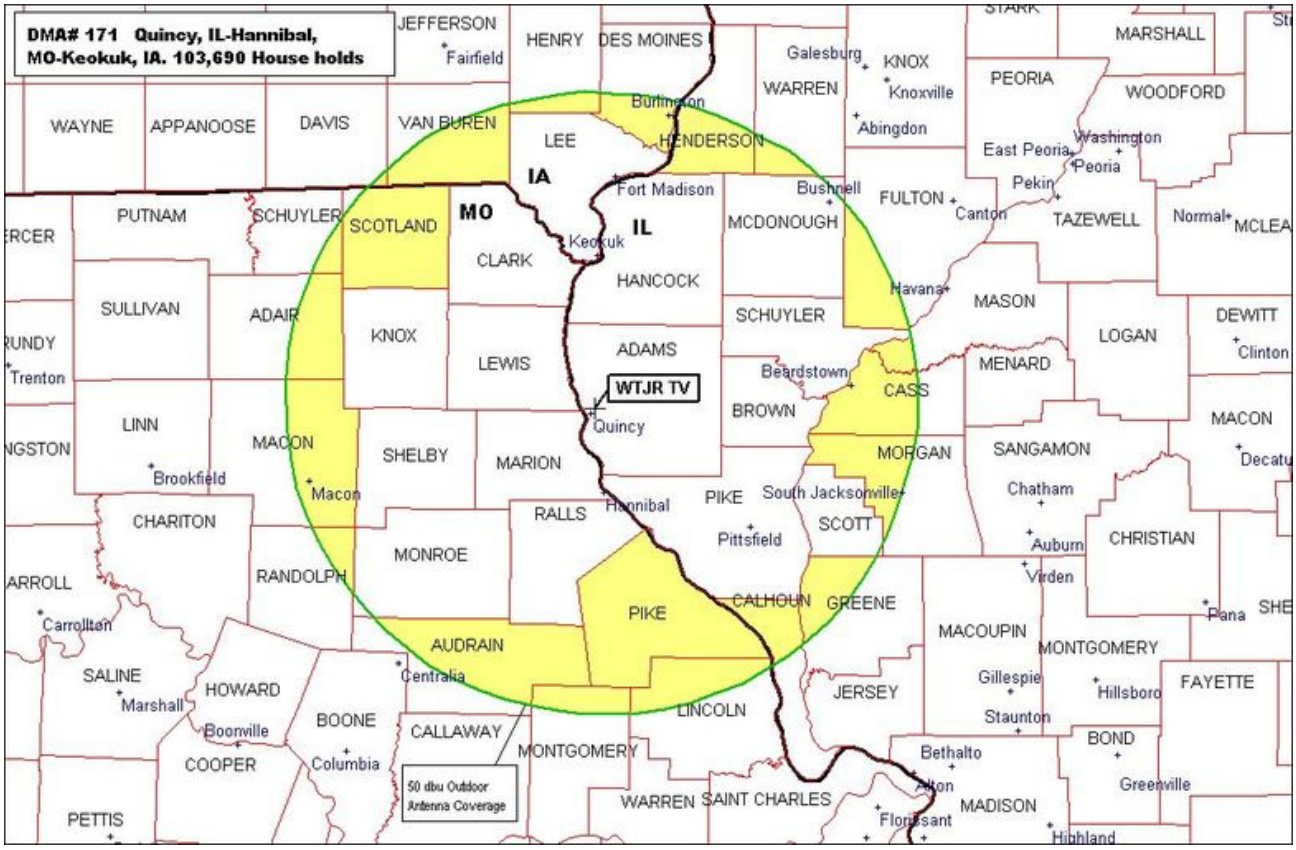
39° 58′ 19.00″ N Latitude 91° 19′ 40.00″ W Longitude (NAD 27)

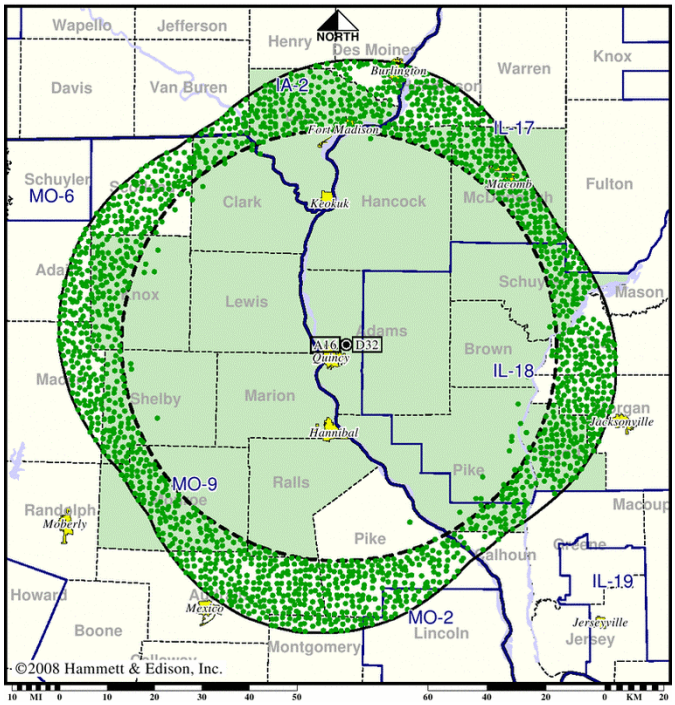
Polarization: Horizontal (H) Effective Radiated Power (ERP): 1000. kW ERP Antenna Height Above Average Terrain: 308. meters HAAT — Calculate HAAT Antenna Height Above Mean Sea Level: 495.7 meters AMSL Antenna Height Above Ground Level: 268. meters AGL TV Zone: 1
Frequency Offset: Directional Antenna ID No.: 102705 Pattern Rotation: 0.00
Antenna Make: ERI Antenna Model: ATW25H3-HTP1-32S



Additional Individual Tower Information from the Antenna Structure Registration database.
ASR # of tower (WTJR is located on with Top Mount Antenna.)
ASR#1009806
Reg Number 1009806 Status Constructed
File Number A0429713 Constructed 10/07/2002
FAA Study 2004-AGL-7705-OE EMI No
FAA Issue Date 02/16/2005 NEPA.
Antenna Structure Structure Type TOWER – Free standing or Guyed Structure used for Communications Purposes Location (in NAD83 Coordinates) Lat/Long 39-58-19.3 N 091-19-40.4 W 3420 N. Cannonball (Quincy-IL#050994) City, State QUINCY , IL

Station Coverage Map





Title: FCC Requirements per FCC checklist.
Bulletin EB-18TV August 2005 Edition*

Section I: Administrative and Non-Technical
A. Authorizations (posted and filed also applications filed on time)
B. Station Logs/Records (maintain and review weekly)
C. Chief Operators (posted & filed weekly review of log)
D. Station Identification (every hour)
E. Telephone Access to Station (local number and toll free)
F. Public Inspection File and all required reports (maintain at studio)
G. Main Studio Presence (8 hours a day)
H. Main Studio Location (25 miles or less from city of license)
I. Subchannel Leasing Agreements (SCA's rented out)

Section II: Antenna Structures
A. Antenna Registration (ASR # posted at tower and filed)
B. Antenna Specifics (does it match license)
C. Tower Light Observations (alarm if light fails, call FAA)
D. Painting/Lighting (painted if required)
E. FAA Notification (if under construction, height change)
F. Station Logs (log tower lights)

Section III: Emergency Alert System (EAS)
A. Participating vs. Non-Participating (participating)
B. Handbook (EAS handbook at control point)
C. EAS Decoder/Monitor (working)
D. EAS Encoder/Generator (working)
E. EAS Test (weekly and monthly test)
F. Station Logs (EAS data in station log)

Section IV: Technical
A. Power (power level set and monitored)
B. Direct vs. Indirect Method (how do you measure? direct)
C. Frequency (frequency set and monitored)
D. Modulation (modulation set and monitored)
E. Transmitter Metering & Control (equipment in place and working)
F. Spurious and Harmonic Emissions (FCC "mask")
G. Monitoring Procedures (how and when station monitors, filed, logged)
H. Calibration (how and when station Calibrates, filed, logged)

Section V: Attended VS Unattended Operation
A. Attended vs. Unattended Operation (operators in place and procedures)
B. Notification (if studio moves)

Section VI: Local Marketing Agreements (LMA)
A. LMA Status, B. Filing of Contracts ("Time brokerage""Local Marketing Agreement")
C. Control of Station (station under control at all times)
D. Main Studio (main studio manned and open to public)
*see current FCC checklist for detailed explanations http://www.fcc.gov/eb/bc-chklsts/

Operator FCC Requirements

1. Station Log

Maintain a Station Log (as described in station log section)

2. Operate & Monitor Transmitter and Transmitter site

Operate and monitor to maintain the following.

A. Power Out kept between 80%-110% of licensed output power
B. Shut Transmitter ON/OFF (within 3 minutes if required)
C. Maintain correct Aural/Visual Modulation
D. Maintain correct Frequency (calibrated quarterly)
E. Monitor Tower lighting

3. Information

A. Know Location and contents of Station License
B. Know Location and Contents of Public File (Table of contents)
C. Know Location and Contents of EAS Handbook
D. Be Prepared for FCC Inspection.
E. Know Station Tower site RF Exposure Guideline (In this manual)

4. Emergency Alert System (EAS)

A. Test Alert Equipment every attended shift to see if working (log)
B. Monitor and Transmit EAS alerts and tests (log)

5. Tower Lights

A. Monitor Tower Lights for correct operation (log)
B. Take Correct action in case of tower light failure (log)
(see tower light section in this manual)

6. Programming

A. Transmit Legal ID minimum 1 time per hour as close to the top of hour as possible.
B. Transmit EAS tests and alerts.
C. Maintain and save program log to comply with community issues programs and public service announcements

7. Chief Operator

A. Weekly Log review
B. Ensure Calibration and Monitoring procedures are followed (logged)
C. Know location of Performance and equipment Records. (public file)
D. Consult with Engineer on areas out of compliance (log)

8. For More Information:

1. Look in appropriate section of this Station Operators Manual
2. Consult FCC rules Code of Federal Regulations Title 47 parts 70-79

Note: This page is a outline of FCC requirements not all inclusive.

Job Description Master Control Operators

1. Monitor all aspects of the ON AIR signal being broadcast, keeping audio and visual modulation levels and color adjustments to the prescribed FCC and Station standard.

2. Operate , Monitor and Adjust television transmitter according to the FCC and Station rules and regulations. Keeping the Power between 80-100%, or in times of trouble reducing power to keep the transmitter on the air. In order to do this it is expected that the operator becomes knowledgeable and proficient in the operation of the remote control Computer and the FCC rules and regulations.

3. Read and Log transmitter meter readings, at the specified time or as often as necessary to insure proper performance, log in the Station log book. If meter readings exceed upper or lower limits try to compensate, if compensation fails contact technical assistance.
Log all adjustments made in Station Log. Log tower lights and condition each day, inform engineer of any malfunctions. Log all EAS tests, alerts, and transmissions, Check EAS receiver each shift. Log all ON AIR and Off AIR times. Enter and sign log book at the beginning and end of your shift. Initial any changes or corrections made in log books. DO NOT leave master control unmanned it is your responsibility to stay until relieved or unattended operation is activated.
.

4. Play all Programs and spots at the correct air times as indicated in the PROGRAM LOG. making sure to sign each log page and indicate any program or spot discrepancies. If shows do not play, cross out and indicate problem.

5. Keep all content in proper order, Pulling any dated spots or announcements. Record or Dub all programs assigned to your shift. Label each recording with DATE, NAME, TIME, and initials.

6. Fill out TROUBLE REPORT, for all technical malfunctions with master control and related equipment. Post trouble reports in assigned place and inform chief operator.

7. Answer telephone as assigned in a courteous manner, making sure to get name, time, date, phone number, of every message or complaint or comment. If you do not know how to answer a question tell them to call our office during business hours.

8. Package and address all mailings as assigned.

9. Keep all work areas clean, this includes master control, bathrooms, kitchen, floors and any area assigned. DO NOT use oil base products like Endust, Pledge, on Control counters or electronics USE Windex or Fantastic.

10. Monitor and secure (lock) studio and transmitter buildings for fire and security and correct heating and air conditioning settings.

11. Participate in all TV production assigned by management.

Chief operators Broadcast Station.

Chief operators. (a) The licensee of each AM, FM, TV or Class A TV broadcast station must designate a person to serve as the station's chief operator. At times when the chief operator is unavailable or unable to act (e.g., vacations, sickness), the licensee shall designate another person as the acting chief operator on a temporary basis. (b) Chief operators shall be employed or serve on the following basis: (1) The chief operator for an AM station using a directional antenna or operating with greater than 10 kW authorized power, or of a TV station is to be an employee of the station on duty for whatever number of hours each week the station licensee determines is necessary to keep the station's technical operation in compliance with FCC rules and the terms of the station authorization. (2) Chief operators for non-directional AM stations operating with authorized powers not exceeding 10 kW and FM stations may be either an employee of the station or engaged to serve on a contract basis for whatever number of hours each week the licensee determines is necessary to keep the station's technical operation in compliance with the FCC rules and terms of the station authorization.

(3) The designation of the chief operator must be in writing with a copy of the designation posted with the station license. Agreements with chief operators serving on a contract basis must be in writing with a copy kept in the station files.

(c) The chief operator is responsible for completion of the following duties specified in this paragraph below. When these duties are delegated to other persons, the chief operator shall maintain supervisory oversight sufficient to know that each requirement has been fulfilled in a timely and correct manner. **(Reports filed and logged)**

(1) Inspections and calibrations of the transmission system, required monitors, metering and control systems; and any necessary repairs or adjustments where indicated.

(2) Periodic AM field monitoring point measurements, equipment performance measurements, or other tests as specified in the rules or terms of the station license.

(3) Review of the station records at least once each week to determine if required entries are being made correctly. Additionally, verification must be made that the station has been operated as required by the rules or the station authorization. Upon completion of the review, the chief operator or his designee must date and sign the log, initiate any corrective action which may be necessary, and advise the station licensee of any condition which is repetitive.

(4) Any entries which may be required in the station records.
Source- FCC rules title 47 Sec. 73.1870

Discussion,
At the station the Chief operator may delegate certain operations such as “Inspections and calibrations of the transmission system, required monitors, metering and control systems; and any necessary repairs or adjustments where indicated.” to the Engineering Dept or appropriate operators.

Title: **FCC Inspection**

The Federal Communications Commission has the authority to inspect most radio/TV installations. Responsibility for conducting these inspections generally rests with the Enforcement Bureau's Field Agents. In the course of fulfilling this responsibility, the Agents often receive questions concerning the authority and procedure under which they are working. The Enforcement Bureau has assembled this general information sheet to address some of the more commonly asked questions concerning inspections and to clarify why and how inspections occur.

Both licensees and non-licensees must allow an FCC Agent to inspect their radio/TV equipment. Along with the privilege of possessing a license come responsibilities such as knowing the applicable rules, including allowing the station to be inspected. Licensees should be aware of the Commission's right to inspect. Equally important, FCC Agents are allowed to inspect the radio equipment of non-licensees. Non-licensees include those individuals or entities operating in accordance with Part 15 of the Rules. Non-licensees also include those who should have a license to operate their equipment but have not obtained a license and are operating without authority.

Radio equipment is generally used in a commercial setting (e.g., commercial broadcast station, land mobile station, commercial delivery service) or a residential setting (e.g., amateur, citizen's band (CB) radio). Home-based businesses may also operate radio stations.

INSPECTION AUTHORITY Section 303(n) of the Communications Act of 1934, as amended, (Act) gives the Federal Communications Commission the "authority to inspect all radio installations associated with stations required to be licensed by any Act, or which the Commission by rule has authorized to operate without a license under section 307(e)(1), or which are subject to the provisions of any Act, treaty, or convention binding on the United States . . ." 47 U.S.C. 303(n) Both Section 303(n) of the Act, and the Rules which implement the Act, grant the right to inspect most radio operations to the Commission, and by delegated authority to the Commission's Bureaus and agents. The Enforcement Bureau conducts inspections of radio installations as part of the Bureau's function to "enforce the Commission's Rules and Regulations." 47 CFR 0.111(a).

Station Inspection Frequently Asked Questions for the Business Environment

Q: FCC Agents arrived to inspect the radio at my office. My boss isn't here. Should I call my boss to be present for the inspection?
A: You may call your boss if you wish. If the company is open for business, however, the inspection should be permitted regardless of whether your boss is present. This is not an acceptable reason to delay an inspection.

Q: My boss didn't tell me anyone would come by to inspect our radio so I don't have to let the FCC inspectors in, right?
A: Wrong. The licensee is responsible for knowing the rules and those include the FCC's right to inspect. Because the employer is responsible for the acts of the employee, it is up to the licensee-employer to inform its staff as to its responsibilities concerning the operation of the radio station.

Q: I run a small daytime only AM station. Do I have to allow the agents to inspect the station late at night?
A: The FCC inspects during hours of operation. Thus, a day time station, by definition, should not be operating at night. If FCC agents determine that radio signals are emitting from the daytime station during night time hours, however, an inspection must be allowed if requested by an FCC agent.

Q: How do I know that these are really agents from the FCC?
A: FCC Agents have a badge and credentials with their names and the FCC seal which they will present to you when requesting your permission to inspect. If you would like to further confirm their identity, you may call the FCC's Crisis Management and Communications Room in Washington, D.C., at (202)418-1122. It is open 24 hours a day, 365 days a year.

Q: If an agent is testing my FCC authorized equipment and the equipment breaks or malfunctions during the tests, is the FCC liable?
A: If the agent was negligent, you may have a claim under the Federal Tort Claims Act (FTCA) to recover damages for your property. The FCC will make the initial determination whether the agent was negligent.

Q: Can I have my attorney present during the inspection? Can I make the agent wait to start the inspection until my attorney is present?
A: You may have your attorney present during the inspection; however, there is no constitutional right to have your attorney present. Therefore, you may not make the agent wait until your attorney arrives. Making the agent wait for your attorney conflicts with the "unnecessary delay" requirement discussed earlier.

FCC Public File

PUBLIC INSPECTION FILE: All stations are to maintain a public inspection file at the main studio of the station and on there website. The file at the studio shall be available for public inspection at any time during regular business hours. Regular business hours are generally any eight hour period between the hours of 8 a.m. and 6 p.m., Monday through Friday. The licensee may require members of the public to provide personal information as a prerequisite to granting access to the public file. However, such personal information is limited to the name and address of the person(s) seeking access to the file. The licensee may not require identification of the person's organizations or affiliations they may be associated with.

All or part of the file may be maintained in a computer database as long as the computer terminal is made available to members of the public who wish to review it. If a station is concerned about documents being stolen or destroyed, then copies of required documents may be placed into the file in lieu of the originals. The contents of the file are to be made available within a reasonable time for printing or machine reproduction upon request made in person, provided the requesting party pays the reasonable cost of reproduction. The licensee may require guarantee of payment in advance for any such requests. The licensee shall also mail photocopies of documents from the file upon request made in person, by telephone, by mail or by e-mail, with all postage paid by the station. [See 73.3526 for commercial station public file rules and 73.3527 for non-commercial station public file rules] also FCC check list EB-18TV.

The material to be retained in the public inspection file is as follows:
(Note-Numbers are section and folder numbers in stations public file cabinet, also this is a edited version of the FCC rules (47 cfr Sec. 73.3527 section e)

(1) The License. Stations must keep a copy of their current FCC license in the public file, together with any material documenting FCC-approved modifications to the license. The license reflects the station's technical parameters (authorized frequency, call letters, operating power, transmitter location, etc.), as well as any special conditions imposed by the FCC on the station's operation. The license also indicates when it was issued and when it will expire.

(2) Applications and Related Materials. The public file must contain copies of all applications filed
with the FCC that are still pending before either the FCC or the courts.
These include applications to sell the station (technically known as "assigning" or "transferring" the license) or to modify its facilities (for example, to increase power, change the antenna system, or change the transmitter location).
Also, the station must keep copies of any construction or sales application whose grant required us to waive our rules. Applications that required a waiver, together with any related material, will reflect the particular rule(s) that we waived.

The station must also keep renewal applications that we granted for less than a full license term until final grant of their next renewal application. We may grant such short-term renewals when we are concerned about the station's performance over the previous term. These concerns will be reflected in the renewal-related material in the public file.

FCC Public File (continued)

(3) Citizen Agreements. Stations must keep a copy of any written agreements they make with local viewers or listeners. These "citizen agreements" deal with programming, employment, or other issues of community concern. The station must keep these agreements in the public file for as long as they are in effect.

(4) Contour Maps. The public file must contain copies of any service contour maps or other information submitted with any application filed with the FCC that reflects the station's service contours and/or its main studio and transmitter location. These documents must stay in the file for as long as they remain accurate. Not all stations are required to have contour maps.

(5) Material Relating to an FCC Investigation or a Complaint. Stations must keep material relating to any matter that is the subject of an FCC investigation or a complaint that the station has violated the Communications Act or our rules. The station must keep this material until we notify it that the material may be discarded. Since we are not involved in disputes regarding matters unrelated to the Communications Act or our rules, stations do not have to keep material relating to such matters in the public file.

(6) Ownership Reports and Related Material. The public file must contain a copy of the most recent, complete Ownership Report filed for the station. This report has the names of the owners of the station and their ownership interests, lists any contracts related to the station that are required to be filed with the FCC, and identifies any interest held by the station licensee in other broadcast stations.

(7) List of Contracts Required to be Filed with the FCC. Stations have to keep either a copy of all the contracts that they have to file with us, or an up-to-date list identifying all such contracts. If the station keeps a list and you ask to see copies of the actual contracts, the station must give them to you within seven days. Contracts required to be maintained or listed in the public inspection file include:
contracts relating to network service (network affiliation contracts);
contracts relating to ownership or control of the licensee or permittee or its stock. Examples include articles of incorporation, bylaws, agreements providing for the assignment of a license or permit or affecting stock ownership or voting rights (stock options, pledges, or proxies), and mortgage or loan agreements that restrict the licensee or permittee's freedom of operation;
management consultant agreements with independent contractors, and station management contracts that provide for a percentage of profits or sharing of losses.

(8) Political File. Stations must keep a file containing records of all requests for broadcast time made by or for a candidate for public office. The file must identify how the station responded to such requests and (if the request was granted) the charges made, a schedule of the time purchased, the times the spots actually aired, the rates charged, and the classes of time

FCC Public File (continued)

purchased. The file must also reflect any free time provided to a candidate. The station must keep the political records for two years after the spot airs. see the political broadcasting rules 73.1943 and 73.3526(e)(6) or 73.35.27(e)(5).

(9) Annual Employment Reports and Related Material. We require all radio and TV stations to afford equal opportunity in employment. We also prohibit employment discrimination on the basis of race, color, religion, national origin, or sex. We require stations to file reports annually describing how they have complied with these policies. However, some of the specific rules implementing these policies were struck down by the D.C. Circuit Court in 1998. As a result, we are in the process of studying them to make them consistent with the court's requirements.

(10) Copies of this Manual. Stations must keep a copy of this manual in the public file.

(11) Letters and E-Mail from the Public. Commercial stations must keep written comments and suggestions received from the public regarding their operation for at least three years. Noncommercial stations are not subject to this requirement.

(12) Issues/Programs List. Every three months, all stations must prepare and place in their file a list of programs that have provided their most significant treatment of community issues during the preceding three months. The list must briefly describe both the issue and the programming where the issue was discussed. The stations must keep these lists for the entire license term.

(13) Children's Television Programming Reports. The Children's Television Act of 1990 and our rules require all TV stations to air programming that serves the educational and informational needs of children 16 and under, including programming that is specifically designed to serve such needs. In addition, commercial TV stations must make and retain Children's Television Programming Reports identifying the educational and informational programming for children aired by the station. (Noncommercial stations are not required to prepare these reports.) The report must include the name of the person at the station responsible for collecting comments on the station's compliance with the Children's Television Act. The station has to prepare these reports each calendar quarter, and it must place them in the public file separately from the file's other material. Stations must keep the reports for the remainder of their license terms. You can also view each station's reports on our web site at www.fcc.gov.

(14) Records Regarding Children's Programming Commercial Limits. The Children's Television Act of 1990 and our rules limit the type and amount of advertising that may be aired in TV programming directed to children 12 and under. On weekends, commercial television stations may air no more than 10.5 minutes of commercials per hour during children's programming, and no more than 12 minutes on weekdays. Stations must keep records that substantiate compliance with these limits for the remainder of the license term.

FCC Public File (continued)

(15) Radio Time Brokerage Agreements. A time brokerage agreement is a type of contract that generally involves a station's sale of discrete blocks of air time to a broker, who then supplies the programming to fill that time and sells the commercial spot announcements to support the programming. Commercial radio stations must keep a copy of every agreement involving: (1) time brokerage of that station; or (2) time brokerage by any other station owned by the same licensee.

(16) List of Donors. Noncommercial TV and radio stations must keep a list of donors supporting specific programs for two years after the program airs.

(17) Local Public Notice Announcements. When someone files an application to build a new station or to renew, sell, or modify an existing station, we often require the applicant to make a series of local announcements to inform the public of the application's existence and nature. These announcements are either published in a local newspaper or made over the air on the station, and they are intended to give the public an opportunity to comment on the application. Copies of these announcements must be retained in the public inspection file.

(18) Must-Carry or Retransmission Consent Election. There are two ways that a broadcast TV station can choose to be carried on a cable TV system: "must-carry" and "retransmission consent."

> Must-Carry. All TV stations are generally entitled to be carried on cable television systems in their local markets. A station that chooses to exercise this right receives no compensation from the cable system.
>
> Retransmission Consent. Instead of exercising their "must-carry" rights, commercial TV stations may choose to receive compensation from a cable system in return for granting permission to the cable system to carry the station. This option is available only to commercial TV stations.

Every three years, commercial TV stations must decide whether their relationship with each local cable system will be governed by must-carry or by retransmission consent agreements. Each commercial station must keep a copy of its decision in the public file for the three-year period to which it pertains.

Noncommercial stations are not entitled to compensation in return for carriage on a cable system, but they may request mandatory carriage on the system. A noncommercial station making this request must keep a copy of the request in the public file for the duration of the period to which it applies.

Studio Location and presence.

STATION MAIN STUDIO LOCATION.

(a) ...each AM, FM, and TV broadcast station shall maintain a main studio at one of the following locations:
(1) Within the station's community of license;
(2) At any location within the principal community contour of any AM, FM, or TV broadcast station licensed to the station's community of license; or
(3) Within twenty-five miles from the reference coordinates of the center of its community of license as described in Sec. 73.208(a)(1).

PHONE:
(e) Each AM, FM, TV and Class A TV broadcast station shall maintain a local telephone number in its community of license or a toll-free number.

PER FCC RULES: [Sec. 73.1125]

MAIN STUDIO PRESENCE:
Each station must maintain a full time managerial and non-managerial presence at the main studio during normal business hours so members of the public can reach responsible station personnel and receive access to the public inspection file. In addition, a main studio presence allows the licensee to make the station available for inspection at any time during normal business hours. Normal hours are typically an 8 hour period between 8:00 a.m. and 6:00 p.m. local time Monday through Friday.

This requirement is separate from the unattended transmitter operation rules. [See 73.1125 and 73.1225(a)] 43.

Does the licensee maintain a human presence of at least 8 hours per week day at the station's main
studio? [See 73.1125 and 73.1225(a)]

FCC FM BROADCAST STATION SELF - INSPECTION CHECKLIST
Bulletin EB-18FM May 2004 Edition

Broadcasters' Legal Calendar

By January 10. (4th quarter report)
All Stations: Place the Issues/Programs List for the October 1 - December 31 calendar quarter in your public file. All Commercial Television Stations: Electronically file the Children's TV Programming Report (FCC Form 398) for the October 1 - December 31 calendar quarter. Stations should place a copy of the report and documentation regarding children's programming commercial time in your public file. All Commercial Television Stations: Be sure all four Children's TV Programming Reports (FCC 398) from the previous calendar year are filed electronically with the FCC.
Preform annual engineering calibration inspection if applicable.

By January 31.
All Stations: Issue W-2 tax forms. All Stations: Complete IRS Form 1099 MISC and send to recipients.

By February 1 .
Stations with 11 or more employees: Post OSHA Form 300 (log and summary of occupational injuries and illnesses) or comparable state form. By February 28 All Stations: File 1099 MISC and 1096 MISC form with the IRS.

By March 1.
All Stations: If filing on paper, file Form W-3 transmitting Copy A of all Forms W-2.

By March 31.
All Stations: If filing electronically, file Form W-3 transmitting Copy A of all Forms W-2.

By April 1 .
All Commercial Radio Stations: File your ASCAP/BMI annual report.

April 4. All Stations: Daylight Savings Time begins.

By April 10. (1st quarter reports)
All Stations: Place the Issues/Programs List for the January 1 - March 31 calendar quarter in your public inspection file. All Commercial Television Stations: Electronically file the Children's TV Programming Report (FCC Form 398) for the January 1 - March 31 calendar quarter. Place a copy of it and documentation regarding children's programming commercial time in your public file.
Preform annual engineering calibration inspection if applicable.

By April 15. All Stations: Personal income tax returns due.

July. All Television Stations which were retransmitted by a satellite carrier to home dish owners during the previous calendar year and which aired a program for which they own the copyright: File copyright royalty claim forms between July 1-31 to share in the previous calendar year's cable royalty distribution. Claims should be filed with the Copyright Arbitration Royalty Panel, P.O. Box 70977 Southwest Station, Washington, DC 20024.

Broadcasters' Legal Calendar

By July 10. (2nd quarter reports)
All Stations: Place the Issues/Programs List for the April 1 - June 30 calendar quarter in your public inspection file. All Commercial Television Stations: Electronically file the Children's TV Programming Report (FCC Form 398) for the April 1 - June 30 calendar quarter. Place a copy of it and documentation regarding children's programming commercial time in your public file. Preform annual engineering calibration inspection if applicable.

September
All Stations: FY 2004 Regulatory Fees are due in September. The FCC will announce the specific due date when a fee schedule is adopted.

By September 30
All Stations Subject to Title VII of the Civil Rights Act of 1964, as amended, and employing 100 or more workers, must file Form EEO-1 (Employer Information Report) with the Equal Employment Opportunity Commission. Retain a copy of the most recent report at each reporting unit or at company or divisional headquarters.
All Stations: Historically, FCC Form 395-B (Broadcast Station Annual Employment Report)has been due on this date. As of publication of this Legal Calendar, From 395-B is suspended and stations need not file this report. Check www.fcc.gov for update.

By October 10 (3rd quarter reports)
All Stations: Place the Issues/Programs List for the July 1 - September 30 calendar quarter in your public inspection fine. All Commercial Television Stations: Electronically file the Children's TV Programming Report (FCC Form 398) July 1 - September 30 calendar quarter. Place a copy of it and documentation regarding children's programming commercial time in your public file. Preform annual engineering calibration inspection if applicable.

October 31
All Stations: Daylight Savings Time ends.

November 2
All Stations: General Election Day.

By December 1
All Commercial Digital Television Stations: File the Annual Ancillary/Supplemental Services Report (Form 317). Each licensee must file whether it provided ancillary or supplemental services at any time during the 12-month period ending on the preceding September 30. DTV stations must remit 5% of its gross revenues derived from the ancillary services. The report must be filed even if no ancillary services were provided in the prior year.
All Stations: Place EEO Public File Report in your public file. This report is placed in the public file annually on the anniversary of the deadline for filing your station's license renewal application.

Title: **Attended and Unattended Operation**

The Station may employ Attended and / or Unattended Operation.
Whenever an operator is present in the on-air control point and logged into the station log and can monitor remote alarms and take corrective and in control of the transmitter. The operator is in attended operation. When the operator leaves and signs out of the station log and the airshift ends the station enters unattended operation. The unattended operator or operators are now in control of the transmitter and monitoring procedure.

Even if a operator is present in the main control room that does not mean they are signed in to the station log and are in charge of the transmitter. A remote operator may be in charge.
Whenever the airshift ends, (the shift with a operator present in charge), when the operator leaves the studio and logs out of the station log, the REMOTE OPERATOR takes control. The remote Operator must be aware of this transfer of control and is now in charge of the station monitoring. The remote operator's name should be entered into the station log. At all times either a Attended Operator or a Unattended operator must be in charge of the **monitoring procedure** as established by the station.

When in unattended operation the remote operator may be at home, in the studio or any location, when a alarm sounds on the pager or cell phone, the operator must connect to the transmitter, if for whatever reason the operator can not connect, the secondary remote operator can try to connect, or if a operator is present at the control point, the remote operator could call them to connect to the station remote control.

When in Unattended operation mode the station operates in Partially Automated mode because the transmission, monitoring, or control facilities are Supervised on an ongoing basis by a designated person, whether by direct supervision or by remote control from another site, or are configured to contact a person designated by the licensee in the event of a malfunction, who must then take steps to resolve the malfunction or terminate operations. (see Monitoring procedures in this station manual).

"**Unattended station operation.** Broadcast stations may be operated as either attended (where a designated person is responsible for the proper operation of the transmitting apparatus either at the transmitter site, a remote control point or an ATS control point) or unattended (where highly stable equipment or automated monitoring of station operating parameters is employed). No prior FCC approval is required to operate a station in the unattended mode. Regardless of which method of station operation is employed, licensees must employ procedures which will ensure compliance with Part 11 of this chapter, the rules governing the Emergency Alert System (EAS). -**FCC rules Section 73.1300**"

(continued on next pages)

QUESTIONS: Attended and Unattended Operation

Q1: Notification to Commission: Am I required to notify the Commission when a broadcast station begins unattended operation of its transmitter?
A: No. Notification is not required when a station begins unattended operation of its transmitter.

Q2: Main Studio: Does the unattended operation rule permit me to eliminate the main studio for my station?
A: No. The *Report and Order* had no effect on the main studio requirements for radio and television broadcast stations. The "unattended operation" refers to a lack of human monitoring of the transmitter itself, not the entire station. Radio and TV stations, with the exception of low power television stations and FM and TV translator and booster stations, and also excepting those stations for whom waiver of the main studio rules was granted, are still required to comply with the main studio requirements of . Note, however, that the rules do not require the main studio staff to monitor an unattended broadcast transmitter.

Q3: Is the station required to have automated equipment in place before unattended operation may commence?
A: No. At the present time, the Commission does not require the installation of automatically adjusting monitoring and control equipment (referred to in the Commission's rules as an Automatic Transmission System or ATS) before a station employs unattended operation of its broadcast transmitter. If automatically adjusting monitor and control equipment is not employed, suitable equipment must be employed which is expected to operate within assigned tolerances for extended periods of time without constant human monitoring.

Q4: Dedicated Telephone Line: If I use a telephone line for transmitter control and notifications or alarms, am I required to employ a dedicated telephone line for that purpose?
A: Yes. A dedicated telephone line (using the public switched telephone network) to the transmitter site is one which is used for the sole purpose of interacting with the broadcast transmitter and monitoring equipment. Pursuant to , it may not be used for other purposes during periods when it is in use for transmitter monitoring, alarms, or control. However, the telephone line may be used for other purposes during periods when the transmitter is being monitored and controlled by other means, *e.g.*, by a person at the transmitter site.

Q5: Response Time: How long do I have to respond and correct a transmitter malfunction?
A: The personnel designated by the licensee to control the transmitter must have the capability to turn the transmitter off at all times, or include an alternate method of taking control of the transmitter which can terminate the station's operation within 3 minutes. An example of a system of this type, independent of automatic equipment, would be equipment to turn the transmitter off when the studio-to-transmitter (STL) link is turned off by personnel at the studio. This short response time is intended to cover those rare instances where the malfunctioning equipment may be posing a threat to public safety, *e.g.*, by causing interference to a land mobile based emergency radio system. In general, the licensee or permittee must correct any malfunction which could cause interference or turn the transmitter off within 3 hours of the malfunction. Some malfunctions, however, must be

QUESTIONS: Attended and Unattended Operation

corrected within 3 minutes under certain conditions for AM stations. These AM conditions are: (1) any mode of operation not specified on the station's license for the pertinent time of day or hours of operation; (2) any condition of AM antenna parameters or monitoring points out of the tolerances specified in Part 73 or on the station's authorization. Lesser malfunctions may permit continued station operation in some circumstances.

Q6: Location of Transmitter Control Personnel: Are the persons designated by the licensee to control the transmitter required to be at a fixed site?
A: The answer depends on the level of automation employed by the station, as follows:

Fully Automated -- The station's control and monitoring equipment makes any adjustments necessary without human supervision. In the event of a malfunction which could cause interference, if the automated system cannot correct the malfunction, the equipment automatically shuts the transmitter off after 3 hours (or three minutes for certain AM station conditions, see the previous question). The system may be configured to contact designated personnel within these time limits, but operator control is not necessary to deal with the malfunction. In this case, *personnel to control the transmitter are not required to be at a fixed site. See* .The station must maintain the means of receiving, retransmitting, and logging alerts and tests. *See* 47 CFR Part 11 and Question 10 below.

Partially Automated or Not Automated -- If the transmission, monitoring, or control facilities are

- Supervised on an ongoing basis by a designated person, whether by direct supervision or by remote control from another site, or
- Are configured to contact a person designated by the licensee in the event of a malfunction, who must then take steps to resolve the malfunction or terminate operations,

the station is considered "attended" by *a person who can take control of the transmitter must be located at a fixed site*. Equipment used for remote control operation must provide sufficient monitoring and control capability so as to ensure compliance with FCC rules . The station must also have the means of receiving, retransmitting, and logging EAS alerts and tests. *See* 47 CFR Part 11 and Question 10 below.

Please note that these requirements do not preclude the monitor-and-control equipment from being configured to contact a second person initially. If the second party is unavailable or cannot take control, the equipment must then contact the designated person at the fixed site, and control or cessation of operations must occur, within the time periods specified in .

QUESTIONS: Attended and Unattended Operation

Q9: Monitoring Procedures: What technical monitoring procedures must be in place for a station employing unattended operation?
A: A station, attended or unattended, must establish suitable monitoring procedures of its equipment and maintenance schedules for the station and indicating instruments to ensure that the equipment is operating properly. The FCC does not prescribe any particular procedure or schedule interval for a station to use. We suggest that any procedures established be reduced to writing to provide proof that monitoring procedures exist. Please note that indicating instruments must comply with the requirements of fCC rules. Licensees and permittee's should be aware that the Chief Operator of the station, whether attended or unattended, is responsible for weekly inspections of log entries and the additional information required by .

Q10: Station Log: Should out-of-tolerance conditions and corrective actions to the transmitting equipment be recorded in the station log?
A: Yes. The station should take care to record each failure, out-of-tolerance condition, or corrective action (including calibration of automatic devices) made to the transmission system equipment, including monitoring and control devices.

Entries in the station log should be made by the person designated by the licensee to take charge of the transmitting equipment. Automatic equipment may be used to record entries for the station, provided that the requirements of are met by the recording device. Station logs must be kept at least 2 years. *See* FCC rules for additional information regarding retention of station logs.

EAS activations, and EAS equipment taken out of service for repairs, must be logged each time.

Log entries must be made of any malfunction or extinguishment of tower lighting, or any notification made to the FAA of the same, and a log entry should be made when normal functioning resumes. Visual observations to verify proper operation of the tower lighting must be made once a day, unless an automatic alarm system is installed to notify the station of any malfunction. While daily observations are no longer required to be logged, we strongly suggest that the station do so.

For FM, TV, and most AM stations, changes to and readings of metering equipment are not required to be logged.

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TV STATION MONITORING SCHEDULE AND PROCEDURE.

Per FCC Requirements as stated here after,

MONITORING PROCEDURES: "The licensee must establish monitoring procedures and schedules for the station. Monitoring procedures and schedules must enable the licensee to determine compliance with operating power, modulation levels and where applicable with antenna tower lighting. Licensees should be able to provide upon request made by the FCC, the monitoring procedures and schedules they have established for each station. [See 73.691(a) and 73.1350(c)(1)]

In the event that a TV broadcast station is operating with excessive power, or with excessive modulation, then station operation is to be terminated within 3 hours, unless corrective action is taken prior to that time. [See 73.1350(d)]"

ESTABLISHED MONITOR SCHEDULE:

The station shall perform and log a Transmitter and Transmitter site meter and alarm log reading every 8 hours. However in case of a alarm condition the operator shall be notified immediately.

ESTABLISHED MONITOR PROCEDURE:

Attended operation. The Operator shall maintain contact with transmitter site remote control. The Operator shall log and/or take corrective action on any alarm conditions or meter reading not in compliance with established level. The procedure for these actions is described in the WTJR Station Operation Manual (and the FCC rules). The operator shall maintain the station log and all of its related requirements..

Unattended operation. The operator(s) shall be paged of any out of parameter condition and shall connect to remote control and take corrective action per the station operation manual and FCC rules. In the event the station employs 24 hour unattended operation the relative station logs and records shall be reviewed and completed daily Monday through Friday.

ESTABLISHED LOGGING PROCEDURE:

The Transmitter remote control equipment shall log and save a meter and alarm reading every 8 hours. Both in attended and unattended operation. These readings are stored on the remote control computer. A print out shall be obtained that includes at least 2 readings per day. These print outs are stored in the station log. In attended operation usually this occurs Monday- Friday, the operator shall fill out the station log, sign and log the readings, attach all unattended operation printouts, verify EAS operation attach EAS records and log any actions taken . In addition the operator shall evaluate all logs and readings at least once per weekday. In the event of a alarm condition the situation shall be addressed at any time with the approbate data submitted for insertion into the station log. Weekly the Chief Operator or his designee shall review the station log.

see FCC rules Sec. 73.**1350** Transmission system operation.

STATION EQUIPMENT CALIBRATION/ INSPECTION SCHEDULE AND PROCEDURE.

Per FCC Requirements as stated here after,

CALIBRATION: “”The licensee must conduct periodic complete inspections of the transmitting system, all required monitors and automatic logging devices to ensure proper station operation. Monitors and automatic logging devices must be periodically calibrated so as to provide reliable indications of transmitter operating parameters with a known degree of accuracy. The determination as to how frequent the complete inspection and calibrations are to occur is up to the licensee. The licensee should make certain that the date of calibration of each device is entered in the station log along with any other resulting actions associated with the calibration, such as replacement of a meter or other device. The licensee may keep calibration data in a special calibration log, however, such log must be considered a part of the official station log and as such must be made available upon request.””

CALIBRATION/ INSPECTION SCHEDULE:

The stations Broadcasting equipment shall be calibrated Every 3 months (Quarterly) or as often as required to maintain stable operating conditions.

CALIBRATION / INSPECTION PROCEDURE:

At minimum the following shall be Calibrated and Inspected.

1. Power (using direct method)

2. Frequency

3. Video and Audio Modulation

4. Video Performance measurements.

5. Calibrate local and remote metering and meter readings.

6. Inspect calibrate all abbreviations as determined by local/remote meter readings.

7. Remote Control System

LOGGING PROCEDURE:

The Calibration and Inspection shall be logged in the station log (pass a long book) maintained at the transmitting tower site. This is a separate book from the main station log maintained at the main control point or studio.

See fCC rules Sec. 73.**1350** Transmission system operation.

Title: **Automation**

What has long been called an automation system was at one time singular in function; it now actually handles various automated tasks. The primary function is content management: storage and playback of media content on demand. Add to this the ability to load schedules and keep program logs and as aired logs. While content storage and playback are still the key functions, an automation system has actually shifted its primary function to become a facility event controller. Through event triggers, such as contact closures, serial data strings and other control paths, the automation system is able to automatically record satellite feeds or capture media files, and control external equipment such as VCR's, routing switchers and satellite receivers.

Discussion: The term automation can also refers to when the station is run in unattended operation mode. In essence it is what allows unattended operation of program content but not transmitter or EAS control although as the term is used, it groups all three together . Therefore when someone refers to the Automation shift, Generally they are referring to when the station is running On-Air program playback automation but in addition, unattended transmitter monitoring/control procedures. This is a important distinction as the program playback automation can be running even when a operator is present. It is common practice to call the shift “when no one is home” the automation shift .

When entering a automation shift: (or unattended operation) the following items should be active and working.

1. Correct Program log loaded and running (also correct shows, spots ...)
2. Station ID on at least once per hour
3. EAS operational and set to forward alerts automatically.
4. Remote Control computer ready and set to take Station log reading automatically.
5. Remote Control Operator on duty and following monitoring procedure.
6. Program automation path selected on main switcher.
7. Program Audio/Video Level set or AGC active.
8. Tower Light System monitoring On/OK
9. Phone Answering system on (or forwarded)

The following condition must also be in effect,

A station must be able to turn the transmitter off if interference occurs.
Automatic alarms must be directed to a person, or persons, selected by the licensee. If a corrective response is not received by the remote control master equipment within three hours, the remote control should shut the transmitter off automatically. If remote monitoring fails, and is not restored within three hours, the station must place an operator at the transmitter site or the station must shut down. Any out of tolerance situation with interference potential, which cannot be resolved manually, requires the station to shut down immediately. Tower lights must be monitored on a daily basis. In the event that the entire tower lighting system fails, or any portion thereof, the FAA must be notified within 30 minutes of the failure. When unattended, stations should provide a means for ready telephone contact from the FCC and the public. See the following FCC Rules §73.1350 Transmission system operation. §73.1400 Transmission system monitoring and control.
Conclusion: If the previous conditions are met you are ready to enter Station automation.

Subject: Automation of Master Control Discussion.

With the advent of the new Emergency Alert System (EAS), and the new regulations on remote control as stated by the FCC in part 70 to 79 of there rules It opens the door for unattended operation. Specifically the automation of one or more shifts of master control. The finical reasons to do this are compelling, if the midnight to 8:00 am shift where automated 365 days a year, that is 2920 hours at $6.00 per hour. Costing $17,520 per year to run the midnight shift. At that rate a automation system would pay for it self in a short period of time, and then in essence it would make money for the station.

The following Items need to be considered in order to run on automation.

1. **Transmitter Control**
2. **Emergency Alert System Active**
3. **On Air Station Identification**
4. **Air Signal meets FCC Specifications**
5. **On air Programming Controlled by Automation System.**
6. **Building Security**
7. **Tower Lights**

1. Transmitter Control: The transmitter needs to under control at all times. First lets state that the transmitter has built in protection circuits to protect itself from damage. Second the FCC requires you can turn the transmitter on and off at all times.
At this time we many stations control the transmitter through computer control with a phone line and a modem. The operator when transferring control to the automation system would transfer the computer control to a designated persons home computer or laptop who could control all aspects of its operation as we do now with the addition that the operator could shut down the transmitter with a cell phone. The home operator does not have to stay on line with the transmitter. It will call or page him if any problem occurs. When the home operator is paged he calls the transmitter to see what the problem is, this must take place within 3 hours of the alarm.
The station could purchase a laptop Computer with modem then the home control could be transferred from house to house as needed or contact could be made on the road.
The home control operators number or pager would need to be posted on an answering machine activated on the main cal1 in line at the studio location so in a emergency he could be contacted. The home operator could be paid a small daily amount for there trouble, which could be scaled if there up all night wrestling with the transmitter.
See FCC Rules 73.1300 and 73. 1400 for remote Operation.

2. Emergency Alert System (EAS): Emergency Alerts must be transmitted.
The New EAS system allows total automation of all its functions. A alert is received, it is stored in memory, and it dumps its text to the character generator, which in turn runs the alert across the screen as a crawl, this is printed out on paper for a record. The station is required to transmit a weekly and a monthly test, also the unit needs to be checked for correct operation, this can be done on the other shifts that are not automated. (See FCC Rules 73. 1250 for EAS)
AUTOMATION DISCUSSION CONTINUED...

3. Station Identification: One time per hour.
The FCC Requires a Station ID hourly as close to the hour as possible, this can be done aurally or visually, with Character Generator it can be programmed to key the ID "WTJR 16 Quincy IL" in lower corner once per hour, or it can be left on for the whole shift.

4. Off Air signal meets FCC requirement.
Mainly is the video, color, sync and audio correct on the pictures being transmitted.
The day shift would log all the required waveform and Vectorscope readings.
The Video level must be maintained though, so a Automatic Gain Correction AGC Box would be added to the switching system to maintain a level below 100 my at all times.
A program of tight color and audio levels to match our network would be initiated so the on air switches would not have green faces ext. If necessary additional TBC'S would be added to match the color of the designated automation playback machines.
AGC already is in place for the audio.

5.On Air Programming Controlled by automation system:
A automation system would control the switcher Video server and connected VCR's and devices, it can switch by its built in clock with 1 Second accuracy or by stop and start tones. A1l tapes played could have a start and a stop tone added to then or cued by hand for third party tapes. The operator at the studio would have to load all the coded tapes into the correct machines before he leaves, the machines stop and start by there selves. A11 programs would need a accurate numbering and length system.
If the unit senses a black screen for a long period it will switch to a default setting. a fail-safe unit would need to be installed to bypass the automation system in times of failure.
Also complete manual operation must be possible.
A Disk play back system could be added in the future to prevent VCR breakdown.

6. Building Security.
The Studio and Transmitter Buildings need to have a computer security system to alert of fire or intrusion.

7. Tower Lights.
The tower lights would be linked to the remote control system. A light bulb failure of any kind would sound a alarm and the autodialer would call the pager to inform the automation home operator. A current sensing circuit would be designed and constructed to accomplish this.

Title: **Station Identification**

STATION IDENTIFICATION: Station identification shall be made at the beginning and ending of each period of operation, and hourly, as close to the hour as feasible, at a natural break in program offerings. The identification shall consist of the station's call letters immediately followed by the community of license. Any reference to additional communities must be made after the community of license. The name of the licensee, or the station frequency, channel number, or both, may be inserted between the call letters and community of license. No other insertion is permissible.

FCC Rules:

§ 73.1201 Station identification.
(a) When regularly required. Broadcast station identification announcements shall be made:

(1) At the beginning and ending of each time of operation, and

(2) Hourly, as close to the hour as feasible, at a natural break in program offerings. Television and Class A television broadcast stations may make these announcements visually or aurally.

(b) Content. (1) Official station identification shall consist of the station's call letters immediately followed by the community or communities specified in its license as the station's location; Provided, That the name of the licensee, the station's frequency, the station's channel number, as stated on the station's license, and/or the station's network affiliation may be inserted between the call letters and station location. DTV stations choosing to include the station's channel number in the station identification must use the station's major channel number and may distinguish multicast program streams. For example, a station with major channel number 26 may use 26.1 to identify an HDTV program service and 26.2 to identify an SDTV program service. No other insertion between the station's call letters and the community or communities specified in its license is permissible.

(2) A station may include in its official station identification the name of any additional community or communities, but the community to which the station is licensed must be named first.

(c) Channel—(1) General. Except as otherwise provided in this paragraph, in making the identification announcement the call letters shall be given only on the channel, or channels in the case of a broadcaster that is multicasting more than a single channel, identified thereby.

Title: **Station Log**

The FCC rules require every broadcast station to keep a written (or electronic) record of station operations. It may be called the "transmitter log", but officially it is the station log.
The station log contains entries to show that the station is operating in compliance with FCC rules. The FCC no longer states any specify rules requiring the verification of specific operation perimeters at specific intervals (other then the items mentioned in FCC requirements of this document). The FCC rules do require that some means should be provided to measure all relative perimeters and reading to ensure proper operation**.**

What this means is the FCC requires you maintain compliance with there rules. The exact mechanics of the Station Log and the monitoring interval such as every 4 hours is not spelled out in great detail. It is up to the station to establish written monitoring procedures and schedules to determine compliance with operating power, modulation levels, and tower lighting, in addition to any other readings deemed necessary by the station. A large portion of the station Log may be generated by the transmitter remote control printer, and the EAS unit printer. These are typically attached to any written portion of the log.

In addition to the written monitoring procedure it is a requirement to have a written Calibration/ Inspection Procedure and schedule to ensure correct operation of monitoring equipment. So that what is logged reflects accurate calibrated data.

It is important to understand that station log is a very important. That it is one of the main records that the FCC Inspects. When filling out the Station Log if you make a mistake, do not scratch it out, erase it, or use correction fluid or tape. The FCC rules state that a single line be drawn through the mistaken entry and the correction wrote next to it. Any correction made at a later date must include a explanation in the notes.

Any item determined necessary by the station can be included in the station log
The FCC has the following minimum requirements.
1. Date
2. Daylight Savings or Standard Time.
3. Details of any Tower light readings or failures
4. Details of EAS equipment not functioning.
5. Time EAS Tests/Alerts are sent and received (maybe attached printout)
6. Operator signature when making entries to the log (it is excepted practice for the operator to sign ON/OFF a Airshift)
7. Any special entries required by the station license
8. Details of any out of tolerance condition and actions taken to correct them.
9. Weekly review by designated chief operator with signature and date.

(continued on next page)

Title: **Station Log**

In addition to the FCC requirements for the Station log it is common practice for the following entries
to be included in the Station log to ensure compliance with related FCC rules. The station log may also contain additional outside “books” or pass along books, such as a maintenance log located at towersite,containing technical information such as calibration, repair and inspection, or a separate EAS log record book. Although theses are separate books they are still considered part of the station log.

Addition Station Log items,

1. Plate Voltage
2. Plate current
3. Power output
4. Transmitter adjustments repairs.
5. Daily check of tower lights
6. Meter Calibration details
7. Maintenance notes
8. Test signals and readings
9. Building conditions (temperature, AC power, Fire and security alarm)
10. Cooling system status
11. Frequencies and Modulation
12. Quarterly Inspections and Calibration of Tower lights and Broadcast equipment
13. EAS message details
14. ON/OFF Air times

In conclusion,

The station Log must be retained for 2 years preferably in a organized file cabinet.
It is common practice to save and box up logs beyond that time.

In unattended operation the remote operator on duty must be entered in to the station log.
In addition any actions taken by the remote operator must be submitted into the station log via, Note, E-mail, Voice message (then translated to log).

Also the main control point (studio) transmitter remote control computer continues to take readings at the designated time in unattended operation. It is the Attended operators duty to print out and attach these records to the station log along with all EAS records.

Title: Station Log Books

The Station log can consist of different books or they can be compiled into 1 book.

1. Station Log Book #1- Main log book. (3 ring binder.)
Location: Master Control point.
Contains: Daily Transmitter monitoring records , EAS records, Tower Light records,
Operator on duty, Sign off and on,. Note section for problems related to any above. Weekly log review. Monthly EAS review. Please see station log section of station operation for more complete description and items not listed here. Only post all broadcast related problems here, not content or play back problems.
Storage: Each Month or two insert in a plain vanilla folder or envelope label it station log and date it including year and insert in file cabinet. Two years from the current date must be maintained, after that box and save them all as they are important.

2. Station Log Book #2 or "Transmitter Log" (composition book with book binder)
Location: Master Control Point.
Contains: Quarterly Calibration Inspection Dates completed.
Transmitter adjustments including power tube and replacement part.
Transmitter and Broadcast equipment, problems, installations, notes.
All major broadcast equipment events. Tower work. Detailed explanations of all important station log events.

3. EAS Log Book #3.
Location: Master Control Point
Contains: Summary page per month of all EAS tests.

4. Station log book #4, print outs.
Location: Master Control Point
Contains: Remote Control Print outs and related.

5. Station Log Book #5 or "Tower Log""Transmitter log"
(composition book with book binder)
Location: Tower site transmitter room.
All work done at the tower site.

OTHER LOG BOOK:

4. Daily Note Book or "Journal" "log" (spiral note book)
Location: Master control point.
Contains: Any thing you would like to keep track of... Shows, phone calls, technical problems, computers, Ideas. This is a note book that sits open at Master control like a daily journal.

Station log Schedule

The following is a outline of typical Operator activity in regards to the station log.

MONDAY: Log in, Manual Meter reading write in log. View Automation Shift log from when Automation shift started Friday and over weekend up to your log in this morning. View, Edit and print out. Attach or insert automation shift log into station log. Log any alarms over weekend. Clear alarms. Check EAS unit for operation. Tear or cut off EAS paper. Read EAS paper for required tests. Attach to station log. Log required tests.(transmit EAS weekly test 1 time per week any day at random).
Chief operator or designee FILL OUT WEEKLY LOG REVIEW FROM PREVIOUS WEEK! (Take corrective action on any items missing) . Log out, write in unattended or automation shift operator and hours of automation. [Estimated time to complete all tasks 5-15 minutes.]

TUESDAY: Log in, Manual Meter reading write in log. View Automation Shift log from when Automation shift started Monday to your log in this morning. View, Edit and print out. Attach or insert automation shift log into station log. Log any Alarms. Clear Alarms. Check EAS unit for operation. Tear or cut off EAS paper. Read EAS paper for required tests. Attach to station log. Log required tests. Log out, write in unattended or automation shift operator and hours of automation. [Estimated time to complete all tasks 5-10 minutes.]

WEDNESDAY: Log in, Manual Meter reading write in log. View Automation Shift log from when Automation shift started Tuesday to your log in this morning. View, Edit and print out. Attach or insert automation shift log into station log. Log any Alarms. Clear Alarms. Check EAS unit for operation. Tear or cut off EAS paper. Read EAS paper for required tests. Attach to station log. Log required tests. Log out, write in unattended or automation shift operator and hours of automation. [Estimated time to complete all tasks 5-10 minutes.]

THURSDAY: Log in, Manual Meter reading write in log. View Automation Shift log from when Automation shift started Wednesday to your log in this morning. View, Edit and print out. Attach or insert automation shift log into station log. Log any Alarms. Clear Alarms. Check EAS unit for operation. Tear or cut off EAS paper. Read EAS paper for required tests. Attach to station log. Log required tests. Log out, write in unattended or automation shift operator and hours of automation. [Estimated time to complete all tasks 5-10 minutes.]

FRIDAY: Log in, Manual Meter reading write in log. View Automation Shift log from when Automation shift started Thursday to your log in this morning. View, Edit and print out. Attach or insert automation shift log into station log. Log any Alarms. Clear Alarms. Check EAS unit for operation. Tear or cut off EAS paper. Read EAS paper for required tests. Attach to station log. Log required tests. When ready to logout fill out WEEKEND automation log sheet.
write in unattended or automation shift operator and hours of automation.
[Estimated time to complete all tasks 5-15 minutes.]

SATURDAY & SUNDAY unattended station automation.
Note: Any anomaly's in the log or readings should be reported to the Chief Operator.

Title: Program Log

Program Log:

The program log is the listing of what events will occur at what time in regards to station on air content. This log lists the air time and show numbers of programs, spots, satellite feeds and so on. The program log is generally loaded into the automation system and now becomes the scheduled automation program log.

In attended manual operation the scheduled automation log may vary from the program log as the operator takes local control away from the automatic nature of the automation program log. In this case manual additions to the log will be made.

The Program Log is different from the as "As Aired Log".

The "As Aired log" is a record of the station Legal IDs, promos, programs, and PSA's which are aired. It is a listing of all events that the automation system has preformed. Normally a text file that can be printed out. In manual operation the paper scheduled log (if it exists) becomes the as aired log as the operator checks off the events and logs any Discrepancy's .

Discrepancy's are any errors, failures, or mistakes that have occurred in the program or "As Aired" log. A discrepancy report is a note to the appropriate person describing the error.

While there is no specify FCC rule in regards to retaining the program log, the log should be retained as evidence of what material aired at what time. In a modern broadcast facility the program log may never be output to paper. If that is the case a electronic copy of the log should be archived on floppy, CD-R or memory chip.

Program Recording Computer:

A helpful feature is to use the program log to find material maintained in the Station program recording computer. The recording computer records all material broadcast (at a lower resolution to save storage space.). This is reviewed by the operator to verify correct operation of program automation and other station events. This can then be archived to storage media for later reference.

Title: EAS

All broadcast stations must have installed and operational EAS equipment capable of sending and receiving the digital EAS protocol.

OUTLINE OF REQUIREMENTS:
Receive weekly test from all stations monitored (3 weekly tests received a week)
Transmit weekly test originated by local operator.
Receive Monthly test and relay it to air.
Transmit Monthly test when its received (this is set to pass it along to "Air" in unit)
Post EAS manual at main control point.
Check unit daily (or weekly in some cases) for operation
Log and maintain records of all of above also take corrective action to fix problems.

EAS REQUIREMENTS QUICK CHECK LIST:
1. EAS Operating Handbook available? (FCC rule# §11.15)
2. EAS Encoder/Decoder installed and operational? (§11.35)
3. Does EAS test go over the air?
4. EAS Decoder tuned to stations in accordance with local/state EAS plans? (§11.52)
5. Encoder timing tones 8-25 seconds in length? [§11.32(11)(b)]
6. Transmit Tests: Is Required Weekly Test (RWT) conducted weekly? (§11.61)
7. Transmit Tests: Is Required Weekly Test (RWT) logged properly? (§11.61)
8. Receive Tests: Is Required Weekly Test (RWT) logged properly? (§11.61)
9. Transmit Tests: Is Required Monthly Test (RMT) logged properly? (§11.61)
10. Transmit Tests: Was the Required Monthly Test (RMT) conducted within 15 minutes of reception? (§11.61)
11. Receive Tests: Is Required Monthly Test (RMT) logged properly? (§11.61)
12. Does the station log explain failures to send or receive the weekly and/or monthly tests? [§11.35(a)]
13. Does the station log contain date and time for any EAS equipment outages or repairs? [§11.35(b)]

DISCUSSION OF EAS REQUIREMENTS:

1. PARTICIPATING vs. NON-PARTICIPATING: The difference between a "Participating" and a "Non-Participating" station occurs during national level Emergency Activation Notification (EAN) alerts. Upon receipt of an EAN the participating station will stay on the air providing necessary information while the non-participating station takes its carrier off the air. All stations are considered participating stations, unless they submit a written request to become a non-participating station.
The station is a participating station.

2. HANDBOOK: All stations are to maintain an EAS Operating Handbook. The handbook is to be available at ALL EAS control points.
The station posts Handbook at the master control point.

Title: EAS

3. EAS DECODER/MONITOR: All FM stations must have equipment installed and capable of decoding, either manually or automatically, the digitally encoded EAS protocol while monitoring at least two assigned EAS stations. This equipment must be operational during all hours of broadcast operation. Manually operated equipment must be located so that operators, at their normal duty stations, can be alerted immediately when EAS messages are received.
The station employs EAS equipment that passes alerts to "AIR" with no delay, Both in attended and in unattended operation. Only the weekly test is not passed to "AIR". It most be manually activated.

4. EQUIPMENT STATUS: Is the required EAS decoding/receiving equipment currently installed and in operational condition?
The Station when in attended operation checks the EAS unit daily for operational condition.

5. INSTANTANEOUS ALERT RECEPTION: For manually operated EAS decoding equipment, is the decoder installed in a way that enables broadcast station staff to be alerted instantaneously upon receipt of an activation occurring during any portion of your broadcast operation?
The station has EAS unit at main control point in master control, at same location as operator.

6. MONITORING ASSIGNED STATION(s): Is the EAS decoder/monitor tuned to receive EAS activation's from the monitoring priorities named in the FCC-EAS Mapbook or State EAS plan?
The station Monitors 3 radio channels LP1, LP2, NOAA. The frequencies are posted on the EAS unit. These channels are checked daily when in attended operation.

7. EAS ENCODER/GENERATOR: All FM stations are to have installed and operational equipment capable of transmitting the digitally encoded EAS protocol. The equipment may be installed for either manual or automatic activation of the generator. If manual activation's are used, the EAS encoder must be located so that station staff, at normal duty locations, can initiate the EAS code and Attention Signal transmission.
The station employs automatic activation, except for the weekly test.

8. CERTIFIED EQUIPMENT: Does the station maintain certified equipment capable of generating the EAS protocol to modulate the transmitter so that the signal may be broadcast to other receiving stations?
YES

9. EQUIPMENT STATUS: Is the required EAS encoding/generating equipment currently installed and operational at this station?
The Station checks equipment per station log AND chief operator weekly log review to insure this.

Title: EAS

10. LOCATION: For manually operated equipment, is the equipment positioned where responsible broadcast staff can initiate an activation during any portion of the broadcast day?
YES

11. TESTS: All FM stations, are to conduct required weekly tests (RWT) of the EAS header and End of Message (EOM) codes a minimum of once a week at random days and times, which can include any time of the day or night. In addition, required monthly tests (RMT) are to be conducted once a month as coordinated by the Emergency Communications Committee for each state. The RWT is optional during the week that a monthly (RMT) test is conducted. The RMT conducted in odd numbered months shall occur between 8:30 a.m. local time and local sunset. The RMT conducted in even numbered months shall occur between local sunset and 8:30 a.m. local time. All RMT's shall be retransmitted within 60 minutes of receipt and include the EAS header, 8-25 seconds of two tone attention signal, entire audio message and EOM. Note1: Since stations are required to monitor two EAS sources, then each station should receive at least one RWT (or emergency activation) from each of the two sources. An EAS activation for a state or local emergency, as defined in the EAS Handbook, may be substituted for an RWT. The RMT may result in only one test being received during that week.

12. CONDUCT WEEKLY EAS TESTS: Does the station conduct RWT transmission tests of the EAS header and EOM codes a minimum of once a week at random days and times?
The station has the operator conduct a RWT. The Operator pushes the weekly test button and enters information into the station log.

68. CONDUCT MONTHLY EAS TESTS: Does the station initiate/retransmit RMT tests that include the EAS header, two tone attention signal, audio message and EOM codes as required each month?
The station has the EAS unit automatically pass these tests. It is the chief operators responsibility to ensure they are occurring by reviewing the logs each week and month. If the monthly test did not occur this must be logged and radio station LP1 and LP2 must be contacted (via email or phone) to find out why the test did not happen.

69. RECEIPT OF EAS TESTS: Did the station receive an EAS activation during the last full calendar week from each of its two assigned EAS monitoring sources?

The station attaches all EAS print outs to the station log that are reviewed by the chief operator to ensure this is performing.

Transmitter Control

The operator besides his other responsibilities as stated in this manual is in charge of a Broadcast Transmitter, a transmitter building, and monitoring the tower lighting.

The transmitter is located at the station tower site this transmitter and building are controlled and monitored by a Remote Control Unit with a dedicated phone line.
(basically a computer in a box with a lot of wires connected to it)
You control the transmitter from your computer in the studio master control room, this is the control point. In unattended operation you control the transmitter from your local computer or cell phone. Two computers total, one at control point, one at the tower, connecting with modems and there own dedicated phone lines . Each computer has its own telephone number and is capable of calling out or in, on its own, or in the case of a alarm, and when you prompt it, also on a preset schedule.

When there is a problem, the transmitter calls out to a list of phone numbers, It will continue to call until you connect to it and acknowledge all alarms. Your responsibility is to control the transmitter, monitor tower lighting and log all information regarding its operation and alarms and take corrective action if needed per Station procedures and FCC rules.

It is important to understand that you are not always connected to the transmitter site.
All important out of tolerance conditions will cause a alarm. The remote control unit at the tower will then proceed to call the programed phone numbers and will continue to call till the operator connects to the transmitter site to determine the problem. This includes Tower lighting and building temperature.
When the studio control point is attended the “alarm pager” or local computer will sound, this is the operators cue to immediately connect to the transmitter site.

In unattended operation the remote operators pager or cell phone will sound cuing them to connect to the tower site remote control. The studio transmitter control computer is scheduled to take a meter reading and log information regardless if the operator is present or not, this does not alleviate the unattended operators responsibilities of reporting any alarms and making sure they are in the station log. The studio transmitter control computer therefore maintains meter reading saved as files that are to be printed out and attached to the station log as described in the station log section

In addition,
The station has established a monitoring logging schedule and procedure for both attended and unattended operation. The station has established a calibration schedule and procedure of related equipment

In this regard, some areas of concern for Master control operators are to keep the transmitter on the air by starting or restarting transmitter if necessary, insure correct output power levels of 80%-110% for television broadcasting. Acknowledge transmitter alarms. Maintain the correct Audio and Visual modulation levels. In pursuit of this goal the operator must know when to make adjustments or corrections when needed.

Transmitter Control Instructions

	Analog Channels [01]			Upper	Lower		Status Channels
01	Power Out +/-	86.4	Power %	110.0	8.0	01	Ready Time Delay:Ready
02	Beam on/off +/-	2.290	Aural %	9.999	0.100	02	Beam:ON
03	Standby +	85.6	Blk %	110.0	8.0	03	Standby-5min Max:OFF
04	BK Heat +	0.196	VSWR 1			04	BK Heat:OFF
05	Reset HV Brker +	2.797	VSWR 2	3.500		05	HV Breaker:ON
06	Reset Harris +	1.378	Col.Amps	2.000		06	Remote Control:ON
07	GE/Strt/stop +/-	12.33	Body mA	20.00		07	TX line Nitrogen:OK
08	GE/HV/on/off +/-	32.01	IPA % pw	60.00		08	Coolant Flow:ON/OK
09	.....	0.0	Smk Alrm			09	AC Power Present:Yes
10	De-Icer +/-	120.7	AC Volts	128.0	112.5	10	De-Icer:OFF
11	DTV On/Off +/-	101.6	Power %	110.0	80.0	11	Crowbar Fired:OFF
12	DTV Power +/-	0.	Ref.DTV			12	Fault Lock Out:OFF
13	.....	80.	.....			13	VSWR Fault:OFF
14	AC Volts Line 1	129.6	Volts	134.2	112.0	14	Body Curr. Fault:OFF
15	AC Volts Line 2	129.1	Volts	132.5	112.0	15	Ion Pump Fault:OFF
16	AC Volts Line 3	129.0	Volts	133.3	112.0	16	Coll I. Fault:OFF

The above picture represents a typical transmitter site reading through the remote control system. In this case the remote control system is a Moseley model# 1620. The unit has 16 channels of analog numeric readings with upper and lower limits that trigger a alarm. 16 channels of status indicators like a on/off reading. And 16 channels of ON/OFF switch commands. Theses commands if active will be displayed on screen with the following + / - symbol. Not all channels have a plus or minus command associated with the on screen reading. Note that not all channels line up with the status or analog reading on the same channel. For example line #10, Deicer on and off also contains a voltage reading that is not related, it is 120 volts building AC line voltage.

Transmitter Readings Explanation
Reading that are viewable on the remote control computer screen.

Power Out %: this reading monitors the transmitter output power.
Power Out +/-: The power can be raised and lowered by entering a + or - on this 'line when selected. FCC rules state that our output power be kept between 80-1 10%. WTJR keeps the power at 100% or between 90-100% the power moves in 5% increments on the remote control so it is hard to adjust to the exact percentile. NOTE: The transmitter output power is the power that leaves the broadcast antenna and travels through the air to the viewers home antenna, it is Radio Frequency energy, it is sampled on the transmission line and is connected to the transmitter. The reading corresponds directly to the power out meter on the transmitter, it must be calibrated periodically in order to insure accurate readings.

Transmitter Readings Explanation (continued)

Beam on/off +/-: The beam can be turned on or off-when these commands.
Beam Status: You can see its status by looking at the status channel "Beam".
When you engage the beam you are applying the High Voltage to the tube. In essence you are turning on the transmitter. It is important to note that the transmitter is already on in a "standby-by" state or the beam will not turn on. The Beam will only come on after the appropriate time delays are over. The ready time delay status channel will show "ready" then the beam can come on. You can hit the beam on command and not have the beam on, the transmitter will automatically wait for the ready light, then it will engage the beam, so the status channel may show on, but the beam will only come on her the time delay. NOTE: Beam means the electron beam in the main amplifying IOT tube is turned on or off by applying the high voltage. How this is done is in the line control cabinet where the voltage to the outdoor transformer is turned on and off-with a large solenoid conductor or "Jennings" array, hence when you are at the transmitter you will hear it kick in.

Standby +/-: plus or minus turns standby on or off
Standby status: Look at the standby status channel to see its current status.
Standby puts the transmitter in the standby state this is the prerequisite for the beam to come on. Standby is a warm up state for the transmitter it lasts for approximately 3 minutes. do not leave the transmitter in the standby state for more than 5-15 minutes it could gas the tube. The reason being the transmitter is ready to emit but no beam has been applied. Note: standby actually turns the transmitter filament voltage to 5.8 voltage approximately6.8 volts, this warms up the transmitter tube.

BK Heat: plus or minus turns BK Heat on or off.
BK Status: observe the BK Heat status channel for its current status.
BK Heat is a sleep mode for the transmitter. The transmitter is not off its waiting to go in to standby. This is the first stage of a warm up period for the transmitter. It is safe to leave the transmitter in BK Heat, it cuts down on the warm up time. Note: BK Heat turns the transmitter filament to a reduced voltage approximately 1.5 volts below standby voltage.

Reset HV Breaker+ : a plus command resets the HV breaker.
HV Breaker Status: Indicates ON/OFF state.
This breaker feeds the high voltage beam supply. It is a circuit breaker with a motor on it. The beam will not come on if the high voltage breaker is off -observe its state on the high voltage breaker status channel. Always check to make sure this breaker is on otherwise the transmitter will not start Note: this breaker is located in the line control cabinet before the high voltage contractors, it feeds the high voltage system.

Transmitter Readings Explanation (continued)

Reset Harris +: a plus command resets the Harris transmitter. This command resets the transmitter faults and especially the fault lockout. This command will clear your fault status channels and reset the fault lockout so that you can try to start the transmitter. Make sure you have all faults logged because this will clear them from your screen. The faults will still be displayed at the transmitter site on the fault panel on the face of the transmitter. The faults stay in memory there so the technician can log them at the tower site. Sometimes when you walk in the tower site and see red fault lights, this may of happened earlier do to the memory of the faults. To clear faults at transmitter press reset faults.

Standby transmitter:
GE/strt/stop +/-: A plus command turns the general electric transmitter on a minus command turns the GE transmitter of The GE transmitter is our standby transmitter. The GE and Harris transmitter share the same cooling system and cooling pump. So the GE transmitters control circuitry must remain on because it controls the cooling pump. That is why we are concerned with its status. Notice the coolant status, if it is off, you can try to start the GE transmitter in order to activate the cooling pump.
Note: normally this would put the GE transmitters filament in the warm up mode, but we turn the filament breaker off at the transmitter site so you can not turn the GE tube on through the remote you must turn the breaker on at the transmitter site if you are trying to run the GE. When you are running the primary Harris transmitter this command is to turn the water pump on and off this will inadvertently take you off-the air if the pump stops. We don't want to shut the pump oft this is a bad way to stop the transmitter. Also the off command is on a five minute time delay in order for the tube to cool off before the coolant flow stops. The control for the pump is located inside the GE transmitter.

GE/on/off +/- a plus command turns the GE transmitter high voltage on a minus command turns the GE high voltage off. This command is similar to the beam on command for the Harris transmitter. It turns on the high voltage to the GE transmitting tube. This command will not function normally. The reason being the GE transmitter is hooked to a open transmission line. We do not want it to come on if no technician has manually switched over to the standby GE transmitter. So the delta wye switch is left in the middle position at the transmitter site in order to prevent accidental transmitter start. This command is only used when the standby transmitter is already on the air operating and you need to re-start it.

GE/power +/- : a plus command raises the GE power output, a minus command lowers the GE power output. This command controls the output power of the GE standby transmitter. The power is still observed on the same channel as the Harris output power but it is not controlled there.

Transmitter Readings Explanation (continued)

De-Icer: +/- a plus command turns the antenna De-Icer on, a minus command turns the antenna De-Icer off. This command controls the antenna De-Icer on top of the tower. The transmitting antenna must be kept clear of ice and snow in order to prevent high reflected power coming back down the system. This is high VSWR on the monitor channels. The De-Icer should be automatic when the atmosphere conditions warrant it. The on and off command is a manual override function, you can observe the De-Icer status by observing the De-Icer status channel. It is very expensive to operate the De-Icer as it consumes large amounts of electrical current. if the VSWR is rising above its upper alarm limit and it is snowing or freezing rain turn the De-Icer on and reduce output power to keep the VSWR alarm of The De-Icer . It will take several hours to warm up the 55 foot antenna.

DTV ON/OFF +/- : This command turns the DTV transmitter on and off.
DTV Power % : Analog channel #11. This displays the DTV Power output.
DTV Power +/- : This command raises and lowers the DTV power.
DTV REF %: Analog channel #12. This displays the DTV reflected power in % of forward.

Analog Transmitter Readings:

VSWR 1 and 2: VSWR stands for voltage standing wave ratio. This reading is the reflected power coming back down from the antenna on the transmission line. The lower the number the better the match between the transmission system and the transmitter. There will always be a amount of VSWR but if the VSWR gets high it can cause a visible ghost to the right of the video picture, it can cause arcing which in turn could burn a hole in the transmission line or antenna. High VSWR is a serious problem. VSWR 1 & VSWR 2 can not be lowered, except by lowering your output power as they track each other. VSWR 1 = Tower transmission line and antenna VSWR 2 = Transmitter output, patch panel and filter plus VSWR #1. High VSWR can be caused by antenna icing (de-icer not on or working) Snow, water in the transmission line (nitrogen not on), mechanical failure of transmission line components. Nitrogen must be kept in the transmission line to keep water out. The TV picture develops a ghost to the right of the image due to reflection back down the transmission line. if VSWR #1 or #2's upper limit is exceeded reduce power to stay below it. If necessary reduce power to the point of going of the air to save the transmitter and antenna ! A1l power out times below 80% should be logged and reported to the chief operator as soon as possible. Return to 80%-110% as soon as possible per FCC regulations. High VSWR is the indicator of a Serious Problem, it should be reported to the Engineer.

AC Volts Line 1, Line 2, Line 3. Analog channels 14,15,16,
This is a Indicator of the Building 3 phase AC power. The 3 phase power is actually 480 Volts , but is transformed down to a usable sample level. If any or all of these AC readings are low or not present the transmitter will not run. Normally this would mean a problem with the Utility Company and power coming into the transmitter building. If these readings are abnormal do not try to restart as the transmitter will not start.

AC volts. Analog channel #10. This is a sample of the typical AC line voltage in the building. Adjusted at the site by the building voltage regulator.

Transmitter Readings Explanation (continued)

Status Channels on remote control:

01 - Ready time delay. 5-10 minute delay on restart, displays “wait” and “ready”

02 – Beam. High Voltage applied to transmitting tube. Displays on/off

03 – Standby. Transmitter state of Stand-By. Displays On/off

04 – BK Heat. Transmitter state of BK Heat. Displays On/off

05 – HV Breaker. Breaker that feeds High Voltage Power supply. Displays On/off

06 – Remote Control. Remote Button on transmitter cabinet. Displays On/off

07 – TX Line Nitrogen. pressure level alarm of transmission line on tower. Displays OK/Low

08 – Coolant Flow. Transmitter coolant level. Level in holding tank. Displays OK/low

09 – AC Power Present. 120 Volts present to transmitter cabinet. Displays Yes/No

10 – De-Icer. Broadcast Antenna Deicer on top of tower. Displays On/off

11 – Crowbar Fired. Transmitter Crowbar protection fired. Displays On/off

12 – Fault Lock Out. Transmitter Locked out due to serious problem. Displays On/off.

13 – VSWR Fault. Transmitter reflected power high. Displays On/off.

14 – Body Curr. Fault. Transmitter Tube fault. Displays On/off.

15 – Ion Pump Fault. Transmitter Tube Fault. Displays On/off.

16- Coll I. Fault. Transmitter Tube Fault. Displays On/off.

Starting and Re-starting Transmitter

Transmitter Control Instructions:

Starting and Re-starting Transmitter, if the transmitter has a fault or is broke it will not restart, also if it keeps shutting off there is a problem, do not keep slamming the transmitter on and off try 3 times only.

1.Establish Contact and stay on line with transmitter with computer Control.
(check on line status in middle of screen on computer)
Do not hit command F-10 acknowledge all alarms yet as this will clear your screen of faults that you need to determine the problem, F-10 does not effect the transmitter, the alarms are for your sake. The alarms will give you information to determine if it is OK to start transmitter.

2. Determine if AC power is present. (Analog Channels 14,15,16)
if not normal, listen to WGCA to see if they have power. if no power call Adams COOP to report no electric power. Watch status channels #14,15,16 and System Normal to see when AC power is restored. Once AC power is restored proceed with start-up.

3.Check Status Channel 5 HV Breaker, to make sure it is ON, if Off Reset Breaker by moving courser to Ch.5 and typing + sign this should reset HV breaker.

4.Check Status Channel 12 to see if fault lock-out is ON. If ON you can reset 1 time and try to start transmitter, Goto Channel 6 and type + sign to reset Fault Lock Out. usually a fault lock-out is a more serious problem so do not keep trying to reset if it keeps locking you out.

5.Goto Beam On Channel 2 and enter + to turn transmitter ON, (it will take 3 minutes for the transmitter to warm up). You will Know it is warming because the Beam ON status will show ON but you are not on air yet. If the Beam on status does not turn ON try to put the transmitter in Standby (channel 3 enter +) if the standby status is on you know it is warming up. if standby will not come on, try BK Heat (channel 4) first then Standby. When the Transmitter is ready (3min. delay) Status ch.1 Ready time Delay will come ON, then Goto Beam On (ch.2) and enter + to turn it on.

IMPORTANT NOTE: DO NOT LEAVE TRANSMITTER IN STANDBY for more than 15 minutes. It could gas up the tube, if the transmitter will not start turn it off (ch.10) and call for Assistance.

6. Transmitter should Turn On, if it shuts off again and locks you out (status ch.16) call for assistance.

7.Log all ON/OFF Air Times in Station Log and describe all problems in pass-a-long book. include ON/OFF times in pass-a-long book station log book #3

8. If the above procedure doesn't work and your faults are VSWR , Beam Current, Body current try lowering channel 1 power out push + 3 times than try restart from #1 above.

Shutdown the Transmitter

Transmitter Control Instructions:

Shutdown the Transmitter with time delay:

1. Establish Contact with transmitter through computer Control.

2. Goto Channel 2 enter – this will shut the beam off, you are now off air .

3. To turn back on enter + this will turn transmitter back on. (with time delay)

Alternate Shutdown to ready state:

4. Goto Channel 3 and enter + The transmitter is now in standby state (ready)
   Do not leave in standby for more then 15 minutes

5. If desired to leave transmitter in a sleep state turn BK Heat On (+ channel 4)

Note:

The transmitter has a warm up period, this is illustrated by the status channel that shows “ready”. This time delay is longest from a off state.

The standby mode (if status says on and ready) will bring you right to the on air air state without a time delay when you apply the Beam on command.

The BK heat mode has a slightly longer delay then the stand by mode.

POWER OUT ADJUSTMENTS

Transmitter Control Instructions:

Power Out adjustments:
Limits: The Transmitter Power must be kept between 80%-110% according to FCC regulations.
If it is outside these parameters corrective action must be taken.

WTJR is licensed to operate at 603,000 watts E.R.P. (Effective Radiated Power)
100% = 1,020,000 Watts ERP
80% = 816,000 Watts ERP

To Raise or Lower Power Out:
1. Go to Channel #1 Enter + one time to raise Power.
2 Go to Channel #1 Enter - one time to lower Power.

NOTE: the Aural and Black power cannot be adjusted through the computer.
also the VSWR 1 & VSWR 2 can not be lowered, except by lowering your power out as they track each other.

During times of trouble like high VSWR it may be necessary, to keep the transmitter on the air to reduce power below 80%.
VSWR 1 = Tower transmission line and antenna.
VSWR 2= Transmitter output, filter and patch panel plus above.

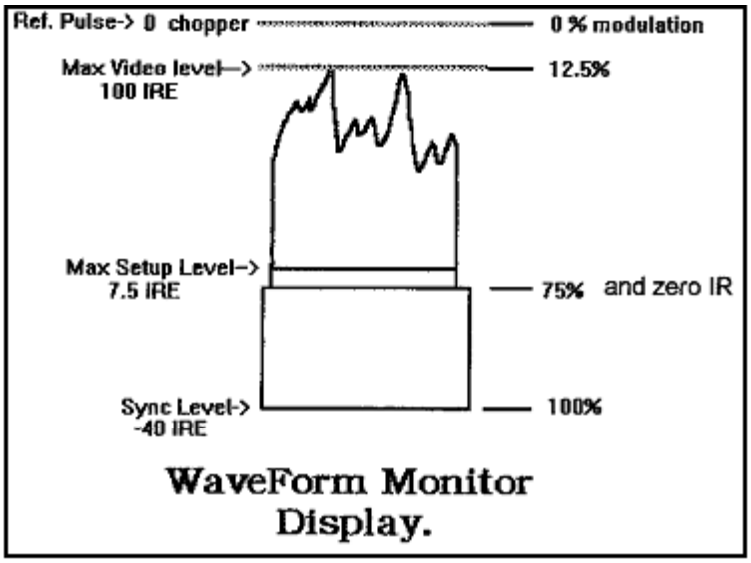
High VSWR can be caused by antenna icing (de-icer not on and working) Snow, water in the transmission line (nitrogen not on), mechanical failure of transmission line or components. Nitrogen must be kept in transmission line at all times to keep water out.

If VSWR #1 upper limit is exceeded reduce power to stay below it
If VSWR #2 upper limit is exceeded reduce power to stay below it.
In either case a VSWR fault should appear, do not restart at full power if it faults again leave transmitter off.

If necessary reduce power to the point of going off the air to save the transmitter, the transmission line and the broadcast Antenna!
All power out times below 80% should be logged and reported to the chief operator as soon as possible. High VSWR is the indicator of a serious Problem, it should be reported to the Engineer. Return to 80%-110% as soon as possible per FCC regulations.

POWER: All TV stations are to maintain visual transmitter output power between 80% and 110% of that authorized. The power is to be maintained as near as practicable to the station's authorized power. The aural transmitter output power shall be maintained as necessary to provide an aural carrier ERP up to, but not exceeding, 22 percent of the peak authorized visual ERP. [See 73.1560 and TSA] In the event that it becomes technically impossible to operate at authorized power, a station may operate at reduced power for a period of not more than 30 days without specific authority from the FCC. If operation at reduced power will exceed 10 consecutive days, a notification must be sent to the FCC-Media Bureau no later than the 10th day. If normal power is restored prior to the expiration of the 30 day period, the licensee must notify the FCC upon restoration of normal operation. (per FCC TV checklist)

Video Modulation and color adjustments



Display on Waveform monitor in control room.

Operator Off Air reception monitoring requirements:
Maintain peak Video level of 100 IRE.
Maintain setup level 7.5 IRE
Monitor Sync Level of -40 IRE

Waveform calibration procedure:

1. Use vertical adjustment to put blanking level at 0 IRE.
2. Use gain to place 0 chopper a 0 modulation line.

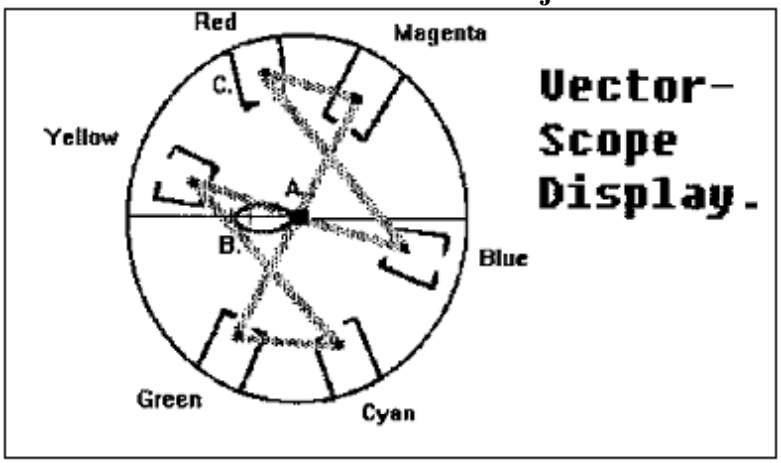
Time Base Corrector (TBC) adjustments.

1. Video level: This controls the video signal luminance level (brightness of picture).
2. Setup level: This is the contrast or amount of white in the black. (misty to mud).
3. Chroma: This controls the color density or amount of color (layers of color)
4. Hue: This control the phase or tint of color (adds red or green)

FCC Rules: Sec. 73.691 Visual modulation monitoring. (also 73.699 73.692)
(a) Each TV station must have measuring equipment for determining that the transmitted visual signal conforms to the provisions of this subpart. The licensee shall decide the monitoring and measurement methods or procedures for indicating and controlling the visual signal....

IMPORTANT NOTE: This is for master control monitoring, the Visual signal must also comply with the complete FCC standard. See visual modulation drawings in this manual and 73.699. Other Visual parameters may be assigned by the engineering department for monitoring.

Video Modulation and color adjustments



VECTORSCOPE

Video Level and Color Adjustments.

The Vector scope displays color information about the amplitude (chroma) and phase (hue) of the video signal with respect to the subcarrier pulse. The above picture displays a color bar signal inserted in the vertical interval, this is called a VITS signal. (Vertical Interval Test Signal) We monitor this signal to set on-air color. Due to non-linearity's in the transmitting system it may not be possible to adjust VITS into all the boxes , in this case concentrate on the red area as this is the flesh tone.

Adjustments Available on TBC in relation to color:

Chroma: controls the amount of Color (density) black and white being in the center of screen and maximum saturation on the outside of circle. adjusting will move trace large and small.

Hue: adjusts the tint of picture ice. red and green. adjusting this will rotate trace on Vectorscope.

Calibration Procedure if necessary:

1. Put Vectorscope on Over the Air input
2. Rotate subcarrier trace on scope (not TBC!) until pulse is on horizontal line see A. and B. on above.
3. Adjust gain of scope until subcarrier pulse extends to outside notch (100% vectors) See B. on above.

Operator adjustments: Maintain VITS trace in appropriate boxes, paying close attention to the red box as this effects flesh tone. (see C. in figure above.)

1. First set Video and Set-up level on waveform monitor
2. Check calibration of Vectorscope
3. Adjust TBC hue to rotate, and TBC chroma for amplitude of colors, put VITS into boxes.
4. CONFIRM GOOD COLOR ON OVER THE AIR MONITOR

Note: If you set every thing up, and the people look green use common sense and adjust by the monitor, A good operator compiles the information given and comes up with a good result.

Audio Modulation and channel Frequency and Bandwidth

FCC RULES STATE:

BANDWIDTH:
Sec. 73.682 TV transmission standards. (Bandwidth)
(a) Transmission standards. (1) The width of the television broadcast channel shall be 6 MHz.
(2) The visual carrier frequency shall be nominally 1.25 MHz above the lower boundary of the channel.
(3) The aural center frequency shall be 4.5 MHz higher than the visual carrier frequency.(1)
FREQUENCY:
Sec. 73.**687** Transmission system requirements. Automatic means shall be provided in the visual transmitter to maintain the carrier frequency within <plus-minus>1 kHz of the authorized frequency; automatic means shall be provided in the aural transmitter to maintain the carrier frequency 4.5 MHz above the actual visual carrier frequency within <plus-minus>1 kHz.

Discussion:
The Station employs a Frequency monitoring company to check the frequency every quarter. These reports are inserted into the public file section #20.Name and address of Frequency monitoring company are also located in Public File section #20. Each Quarter the station performs a Calibration procedure. If the submitted Frequency report shows a out of tolerance condition the engineering department shall perform the required adjustments to bring the frequency back into calibration. In addition when a Proof of Performance is performed the frequency shall be checked and calibrated.

FCC RULES MODULATION: FCC rules Sec. 73.**1570** Modulation levels: AM, FM, TV and Class A TV aural.(3) TV and Class A TV stations. In no case shall the total modulation of the aural carrier exceed 100% on peaks of frequent recurrence, unless some other peak modulation level is specified in an instrument of authorization. For monophonic transmissions, 100% modulation is defined as +/-25 kHz.

(Sec. 73.682 TV transmission standards. Part #9. Total modulation of the aural carrier must not exceed +/- 75 kHz.)

Discussion:
The Station has a modulation Monitor located at the transmitter site. This monitor allows the Engineer to set the modulation during the Calibration procedure and calibrate the local and remote meters accordingly, including the audio meters in master control. In addition the Modulation Monitor may be connected to the remote control system so the operator can observe any out of tolerance conditions. Also a silence alarm may be employed to sound a alarm in the advent of On-air silence.

NOTE: Aural Modulation can be equated to mean over the air loudness

Subject: Tower and Tower Lighting:

STATION INFORMATION:
The Tower WTJR is located on is owned by American Tower.
American Tower has a electronic tower light monitoring system installed that if a light bulb fails it calls them. American tower is responsible for tower light monitoring. ATC also must approve all worker activity on tower and all workers must comply with established RF safety guidelines in addition to approved safety gear and procedures.

American tower can be reached at:
Emergency response center: 1-800-821-5825
Quincy Illinois tower site reference number #50994
Local representative Jason Mcbribe: 1-636-443-9097

Additional Tower information: Coordinates: 39° 58' 18.00? N Latitude 91° 19' 42.00? W Longitude (NAD 27) FCC Tower ASR Registration # 1009806

FAA Phone Number for tower light failure: 1-636-532-1361 or 1-800-233-9863 or 314-875-5321

TOWER AND TOWER LIGHTING FCC REQUIREMENTS:

1. ANTENNA REGISTRATION NUMBER POSTED: Most antenna structures that are higher than 60.96 meters (200 feet) above ground level are to be registered with the FCC. Once a tower is registered, then the registration number is to be displayed in a conspicuous place that is readily visible near the base of the antenna structure. **(Note *1)**

2. ANTENNA SPECIFICS: The FCC provides authority for the station to operate under a specific set of operating parameters. The licensee must review the current station authorization, and where applicable the structure registration, to compare the listed specifications to the location, height, etc. that is actually used by this station. **(Note *2)**

3. TOWER LIGHT OBSERVATIONS: The lighting on tower structures is to be observed at least once every 24 hours either visually or by observing an automatic indicating device; or alternatively the licensee/tower owner may provide and maintain an automatic alarm system to constantly monitor the lighting on a structure. All automatic or mechanical control devices, indicators, and alarm systems are required to be inspected at intervals NOT TO EXCEED 3 months. **(Note *3)**

4. **PAINTING/LIGHTING:** The station authorization and/or tower registration specifies the painting and lighting requirements for your operation. If no painting or lighting is required, then the authorization will specify "NONE". **(Note *4)**

(continued)

TOWER AND TOWER LIGHTING FCC REQUIREMENTS:
(Continued)

5. FAA NOTIFICATIONS: The tower owner/licensee is to notify the nearest Federal Aviation Administration (FAA) Flight Service Station within 30 minutes of the observation of an improper functioning or extinguished top steady burning light or ANY flashing obstruction light regardless of its position on the structure. Such improper functioning beacons include non-lighted beacons as well as those that are lighted, but non-flashing. Notification is to also be made immediately to the FAA once the beacon or steady burning top light is returned to service. Notification is not required when side light outages are observed. Tower owners/licensees should insure that the telephone number to the nearest FAA Flight Service Center is readily available and known to all personnel who would be responsible for notifying the FAA of such outages.

Important Note *1: In the event that the structure owner is unable to maintain the prescribed painting and lighting, e.g. in cases including but not limited to abandonment, negligence, or bankruptcy, the FCC would require that each tenant licensee on the structure undertake efforts to maintain painting and/or lighting. Additionally, if the licensee has reason to believe that the structure is not in compliance or that the owner is not carrying out its responsibility to maintain the structure, the licensee must immediately notify the owner, notify the site management company (if applicable), notify the FCC, and make a diligent effort to ensure that the antenna structure is brought into compliance.

NOTE * 2: If the tower height changes the FAA , FCC must be notified before construction. And permissions obtained in necessary.

NOTE *3: If the tower lights and monitoring are not maintained by the station but by a tower company, the quarter calibration/ inspection should state this and confirm that the tower company is still maintaining lighting also listing contact phone numbers. If the station is responsible for tower lighting All automatic or mechanical control devices, indicators, and alarm systems are required to be inspected at intervals NOT TO EXCEED 3 months. (This procedure is established in the Calibration and monitoring procedure established by the station see those sections of the station manual.)

NOTE *4: If the tower has white strobe lights in daytime many times it is not required to be painted (check ASR and station License)
The licensee/tower owner should also be aware of the requirement to clean or repaint tower structures as often as necessary to maintain good visibility to aircraft. One of the most common problems associated with tower painting is the feedlines that are on the outside legs of a tower. In many cases, the tower is painted correctly, but the solid black colored feedlines defeat the purpose of the painting by covering the outside legs of the tower. The licensee/tower owner should make certain that the feedlines are also painted in such instances. This does not apply in cases where the tower is authorized for strobe lighting.

Job title: Master Control Operator & Broadcast technician

Job title: Master Control operator
Learn the following:
Job description and expectations.
Over the air program switching.
VCR operation.
Transmitter control.
Automation control.
Television signal analysis.
Television signal correction, adjusting audio and video levels.
Emergency alert system
Satellite reception systems.
Microwave STL system.
Station operation manual.
FCC rules regarding television operators.
Station log, program log, as aired log, daily log.
Discrepancy reports, trouble reports.
Equipment maintenance, head cleaning, belt replacement...
Equipment troubleshooting and replacement.
FCC inspection
TV production, camera operation, Videotape editing
Society of broadcast engineers certification program.
Telephone answering.
Shipping and receiving.

Job title: Television Broadcast Technician
Learn master control operation.
Learn company policies and procedures.
Learn television broadcast FCC rules and regulations.
Learn job safety
Learn computer skills and repair.
Become familiar with equipment and operation.
Learn equipment maintenance and troubleshooting skills.
Learn equipment interfacing and interconnection.
Learn to interpret broadcast signals.
Learn broadcast system design and installation.
Learn troubleshooting and diagnosing of broadcast equipment failures.
Learn electrical systems maintenance and repair.
Learn transmitter systems.
Learn tower maintenance and inspection.
Learn satellite maintenance and inspection.
Learn correct documentation and logging procedures for master control and engineering.

Master control daily operator schedule

1. Connect to transmitter, Site: WTJR Password: Master

2. Pull out station log books #1 and #4. Fill out blank page in station log book #1 for that day. Fill in all areas that apply. Attach any EAS print outs to the back of page and log weekly and monthly tests. Check EAS unit for correct operation of stations that we monitor. There are 3 stations, you should hear there audio from each. Log EAS operational status. Once a week manually transmit EAS weekly test.

3. Write down one transmitter site reading in log. Draw a line through time taken and write in correct times. For times when we are in unattended operation write this, "see station log #4."

4. Print out todays.hst by clicking on desktop icon and click print. Take the print out and punch holes in it, and when ready insert in 3 ring binder that is station log #4. Examine log for alarms or other conditions. Log alarms in station log #1. Clear alarms from remote unit. (ALT - R) Write day, date and signature in upper right corner.

Friday: In addition to normal procedure fill out weekend automation page station log #1
Weekly on Monday: Fill out Station Log review and insert in station log #1.
Monthly: Fill out EAS log book that is station Log #3. This shows all EAS test activity for the month. Take corrective action on any omissions.

Program Log and automation:
(1.) Pull program log for automation shift 2 week days 1000am-1000am
(on the weekend you have four days Friday, Saturday, Sunday, Monday.)
(2.) Check log for Program Dubs and recordings start those now.
(3.) Examine program log and Highlight all tapes to play.
(4.) Examine automation log on computer screen and write down VCR number next to program whose source is a VCR in program log.
(5.) Fill out Automation Tape run sheet with show title and number
(add program length when tape is pulled in step 6)
(6.) Pull all shows on runsheet from shelf and set next to automation. Fill out show length from program label to Automation tape runsheet.
(7.) Eject all Programs from automation, box and put up on correct shelf.
(8.) Reload Automation VCR's, Set counter at 00:00 at show beginning, and cue to -00:03. (Beta VCR cue to -00:06)
(9.) Pull and reload spots at this time also leaving in the auto spot tapes. V7-V8
(10.) Reprogram show and spot runtimes in automation log.
(11.) Verify Automation log.
(12.)Review Station recordings from previous automation shift. Make corrections as needed

Training tapes Master Control.

View the Following tapes for more in depth coverage of topics.

TAPE # 1 Title: Master Control Training Number: TT-I
Segments:
Cut 1 "Overview Control Room" 8: 13
Cut 2 "Over Air Switching" 8:46
Cut 3 "Audio & Video Adjustments" 8:22
Cut 4 "Waveform Monitor and Vectorscope" 18:20
Cut 5 "VCR'S part 1" 14:00

TAPE # 2 Title: Master Control Training Number: TT-2
Segments:
Cut 1 "Computer Control" 45:00

TAPE # 3 Title: Master Control Training Number: TT-3
Segments:
Cut 1 "VCR'S part 2.' 10:35
Cut 2 "VCR'S part 3, a look inside" 10:57
Cut 3 "Satellite Receivers" 13:06
Cut 4 "Emergency Broadcast System" 10:40
Cut 5 "Character Generator" 1 1:43

TAPE # 4 Title: Automation of Master Control

Personnel policy outline.

Vacation days:
1 week vacation her 1 year full time employment.
The following days are paid holidays
New Years Day, Memorial Day, July with: Labor Day,
Thanksgiving Christmas, Easter.
If You work on these days you will be paid double time.
Someone will have to work on holidays as we are on the air 24 hours a day 7 days a week.

The Following is expected from all employees:

Vacation time.
Vacation time should be submitted in writing at least two weeks in advance, and is subject to management approval.

Attendance :
Arrive to work on time.
If delayed call in ASAP and make sure your work is covered.

Work days off.
If you need to take a work day off inform management well in advance (2 weeks), and help somebody to cover your work or shift.

Personal appearance.
Employees should maintain a good image to present to the public.
At minimum for master control operators and studio personal this is a Business “casual”.
This includes good personal hygiene.

Tasks:
Perform all tasks in your job description.
Treat all other employees and the public in a kind and courteous manner.

Problems.
Take problems to management for intercession.

Employee departure:
Give a 2 week notice if you plan on quitting or moving on.

Note: This is a basic outline please see the personal documents you received upon employment for further information.

Job Safety Requirements.

RF radiation hazard. Exposure to radio frequency energy is believed to be harmful to humans. The FCC regulates the amount of time a person can be exposed to various levels of RF radiation. This comes into play when a person is at the tower site. Basically whenever a person is climbing the tower, power must be reduced or shut entirety. When a tower climber ls within 50 feet of the WGCA Fm antenna their power must be reduced to 10 percent if the climber is going straight on past (up or down) the tower. if a person is working in the 50 it. zone power must be shut off completely. The WTJR television station safety zone is 125 feet. When a person approaches the top of the tower, power must be turned when they are 125 feet from our antenna which is at the top of the tower. Power may be restored when they are clear of the hazardous exposure zone. The RF system in the transmitter building is shielded to minimize RF radiation exposure to safe levels. Periodic tests should be performed with measurement instruments to confirm the reliability of this shielding. caution is needed when changing the RF patch panel in order to prevent RF leakage or exposure, observe the proper precautions.

Tower work. Should be preformed by qualified insured personal. All personal should wear hardhats and follow OSHA guidelines.*

Transmitter coolant. Ucartherm is our transmitter coolant and is much like anti freeze in its chemical composition, this material is considered hazardous, and must be disposed of in the correct fashion. Avoid breathing fumes and prolonged contact with the skin and avoid eye contact. Observe all precautions on the coolant packaging.

Electric hazards. The transmitter site has several high voltage transformers 14000 volts, 24000 volts, and 35000 volts. Also the building is serviced with 480 volt 3 phase electric service. Extreme caution should be observed when working around electric equipment located at the transmitter site. Maintenance should be performed by qualified personnel only. Power should be turned off before working on electric equipment. Confirm that the power is off with the appropriate instrument. This also applies to the electric service at the studio location. When working on electric circuits, label the circuit panel breaker that you have in the off condition so that others will not turn it on. Lock and tag the circuit if possible. Do not use extension cords as permanent wiring in the studio. All wiring must be performed according to the current NEC electrical code.

Nitrogen hazard. Nitrogen is a known hazardous gas it is odorless and does not give you a choking feeling when breathing the gas. Precautions should be taken to make sure the room is well ventilated in the event of a nitrogen leak. Nitrogen is used at the tower site to expel moisture from the transmission line. Nitrogen is also used at the studio location to expel moisture from the microwave transmission line or wave guide.

Posture and eye strain hazard. Prolonged television viewing can cause eye strains it is good to change your focus point of your vision every few minutes to prevent this. Also correct distance should be maintained from television view screens, approximately 3 times the screen size. Posture is very important to keyboard and mouse operation the wrists should be kept at right angles to the body to prevent the possibility of wrist strain. Also the neck should be kept straight to prevent strain to the spinal column. It is suggested all employees educate themselves in this area to prevent injury.

Title: Community Issues/programs lists

Issues/programs lists. (section # 8 of public file)
Every three months a list of programs that have provided the station's most significant treatment of community issues during the preceding three month period. The list for each calendar quarter is to be filed by the tenth day of the succeeding calendar quarter (e.g., January 10 for the quarter October-December, April 10 for the quarter January-March, etc.).
The list shall include a brief narrative describing what issues were given significant treatment and the programming that provided this treatment. The description of the programs shall include, but shall not be limited to, the time, date, duration, and title of each program in which the issue was treated. The lists described in this paragraph shall be retained in the public inspection file until final action has been taken on the station's next license renewal application.

Discussion:
“”We simply require that the licensee identify issues of importance to its community and identify specific programming it broadcasts responsive to those issues.” Stations are now given considerable latitude in the methods used to “identify” issues, but the Commission still expects there to be a demonstrable link between the issues identified and the programs broadcast.””

Although not specifically stated the FCC has considered 5 to 8 different issues addressed per quarter to be sufficient. More of course is better.

PSA's: Public service announcements. Also a representative sampling (or a entire list) of the PSA’s the station plays to address issues can be included in the quarterly report. While stations aren't required to donate a fixed percentage of air time per day to PSA's,. Most stations donate about a third (or a lot less it now seems) of their commercial spots to non-commercial causes; in other words, if a station has 18 minutes of commercials in a given hour, six minutes of that will probably be devoted to PSA's. A Poll of 730 TV stations showed, they average 137 PSA's a week.

These Quarterly reports should be filed without fail each quarter before the 10th day of the new quarter. The more topical message is that the Commission expects strict compliance with public file requirements. The certification required by the license renewal application is that the applicant has placed required documents in its public inspection file **“at the appropriate time.”**

The station has developed forms to help meet these requirements.

Children's Television Programming Reports.
Section #13 of local public file.

The Children's Television Act of 1990 and our rules require all TV stations to air programming that serves the educational and informational needs of **children 16 and under,** including programming that is specifically designed to serve such needs. For commercial TV broadcast stations, on a **quarterly basis, a completed Children's Television Programming Report** (``Report''), on FCC Form 398, reflecting efforts made by the licensee during the preceding quarter, and efforts planned for the next quarter, to serve the educational and informational needs of children.

The Report for each quarter is to be placed in the **public inspection file by the tenth day** of the succeeding calendar quarter. By this date, a copy of the Report for each quarter is also to be **filed electronically with the FCC.** The Report shall identify the licensee's educational and informational programming efforts, including programs aired by the station that are specifically designed to serve the educational and informational needs of children, and it shall explain how programs identified as Core Programming meet the definition set forth in Sec. 73.671(c). The Report shall include the name of the individual at the station responsible for collecting comments on the station's compliance with the Children's Television Act, and it shall be separated from other materials in the public inspection file. The Report shall also **identify the program guide publishers** to which information regarding the licensee's educational and informational programming was provided as required in Sec. 73.673(b), as well as the station's license renewal date. These Reports shall be retained in the public inspection file until final action has been taken on the station's next license renewal application. **Licensees shall publicize in an appropriate manner the existence and location of these Reports.** (based on 47 C.F.R. Section 73.3526(e)(11)(iii).)

In addition the FCC has the following requirements in this regard, (from FCC rules starting at 73.671)

(a) Each commercial and noncommercial educational television broadcast station licensee has an obligation to serve, over the term of its license, the educational and informational needs of children through both the licensee's overall programming and programming specifically designed to serve such needs.

(b) Any special non broadcast efforts which enhance the value of children's educational and informational television programming, and any special effort to produce or support educational and informational television programming by another station in the licensee's marketplace, may also contribute to meeting the licensee's obligation to serve, over the term of its license, the educational and informational needs of children.

(c) For purposes of this section, educational and informational television programming is any television programming that furthers the educational and informational needs of **children 16 years of age and under in any respect,** including the child's intellectual/cognitive or social/emotional needs.

(continued on next page)

Children's Television Programming Reports. (continued)
Section #13 of local public file.

Programming specifically designed to serve the educational and informational needs of children (``Core Programming'') is educational and informational programming that satisfies the following additional criteria:

(1) It has serving the educational and informational needs of children ages 16 and under as a significant purpose;
(2) It is aired between the **hours of 7:00 a.m. and 10:00 p.m.;**
(3) It is a **regularly scheduled weekly program;**
(4) It is at least **30 minutes in length;**
(5) The educational and informational objective and the target child audience are specified in writing in the licensee's **Children's Television Programming Report,** as described in Sec. 73.3526(a)(8)(iii);
(6) Instructions for listing the program as educational/informational, including an indication of the age group for which the program is intended, **are provided by the licensee to publishers of program guides,** as described in Sec. 73.673(b).

Note 1 to Sec. 73.671: For purposes of determining under this section whether programming has a significant purpose of serving the educational and informational needs of children, the Commission will ordinarily **rely on the good faith judgments of the licensee.** Commission review of compliance with that element of the definition will be done only as a last resort.

Note 2 to Sec. 73.671: The Commission will use the following processing guideline in assessing whether a television broadcast licensee has complied with the Children's Television Act of 1990 (``CTA''). A licensee that has aired **at least three hours per week of Core Programming** (as defined in paragraph (c) of this section and as averaged over a six month period) will be deemed to have satisfied its obligation to air such programming and shall have the CTA portion of its license renewal application approved by the Commission staff. A licensee will also be deemed to have satisfied this obligation and be eligible for such staff approval if the licensee demonstrates that it has aired a
package of different types of educational and informational programming that, while containing somewhat less than three hours per week of Core Programming, demonstrates a level of commitment to educating and informing children that is at least equivalent to airing three hours per week of Core Programming. In this regard, **specials, PSAs, short-form programs,** and regularly scheduled non-weekly programs with a significant purpose of educating and informing children **can count toward the three hour per week** processing guideline. Licensees that do not meet these processing guidelines will be referred to the Commission, where they will have full opportunity to demonstrate compliance with the CTA (e.g., by relying in part on sponsorship of core educational/informational programs on other stations in the market that increases the amount of core educational and informational programming on the station airing the sponsored program and/or on special non broadcast efforts which enhance
the value of children's educational and informational television programming).

(continued on next page)

Children's Television Programming Reports. (continued)
Section #13 of local public file.

Sec. 73.673- Public information initiatives regarding educational and informational programming for children.

(a) Each commercial television broadcast licensee **shall identify** programs specifically designed to educate and inform children **at the beginning of the program, in a form that is in the discretion of the licensee.**
(b) Each commercial television broadcast station licensee shall provide information identifying programming specifically designed to educate and inform children **to publishers of program guides.** Such information shall include an indication of the age group for which the program is intended.

Sec. 73.670- Commercial limits in children's programs.

No commercial television broadcast station licensee shall air more than
10.5 minutes of commercial matter per hour during children's programming on weekends,
or more than **12 minutes of commercial matter per hour on weekdays.**

Note 1: Commercial matter means air time sold for purposes of selling a product or service.
Note 2: For purposes of this section, children's programming refers to programs originally produced and broadcast primarily for an audience of children 12 years old and younger.

RF Radiation hazard study

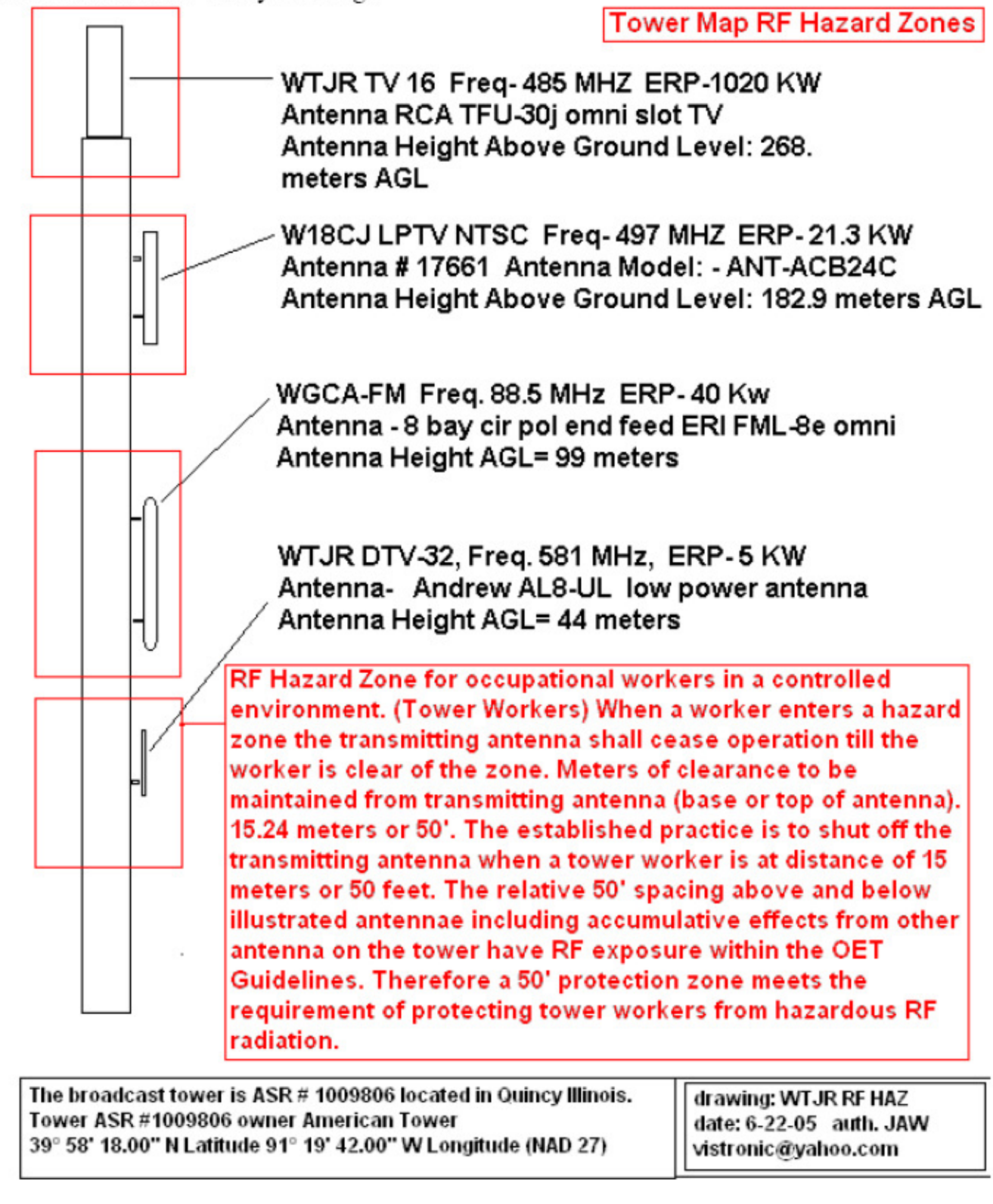
Environmental Effects for FCC OET65 compliance for WTJR TV16

FCC Requirements:
Licensee certifies that the specified facility complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.
The licensee also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.
Environmental Effects.

Conclusion of report from RF Radiation study for FCC OET65 compliance for WTJR TV16 Quincy Illinois License renewal application. Date: 06/22/05:
WTJR TV16 does not pose a RF radiation hazard as the maximum level at the tower site the public can be expose to is 5.94% out of a 100% total possible. *Please see report in public file for supporting data.* The TV station is in compliance with the Commission's rules regarding exposure to workers or the general public to levels of radio frequency radiation in excess of the Commission's safety levels with respect to human exposure to radio frequency electromagnetic fields, 300 kHz to 100 GHz.

Furthermore,
In regard to protecting workers at the tower site; should tower workers be required to work at the site where exposure would result in a non-ionization radiation level greater than the Commission's maximum level, the applicant will cause the relevant Broadcast antenna to cease radiating or will lower the power until the workers clear the area. The applicant certifies that it has an agreement with the other users of the site to lower power or to cease operation of their transmitters in the event a worker is required to be in a zone affected by their antennae which would otherwise result in more than the maximum exposure. (see tower worker RF safety drawing)

Tower worker RF safety drawing.



Equipment performance measurements. per Sec. 73.1590

Stations must maintain equipment performance measurements or "proof of performance" records. commonly referred to as a "Proof".
These records should be kept on file at the transmitter site or main studio, preferably both. All though not specifically required a good place to keep these records is amended section in the public file or in the same file cabinet or storage area. The minimum requirements for such records are stated below.

Sec. 73.1590 (Edited to show data pertinent to Television)
(a) The licensee of each AM, FM, TV and Class A TV station must make equipment performance measurements for each main transmitter as follows:
(1) Upon initial installation of a new or replacement main transmitter.
(2) Upon modification of an existing transmitter made under the provisions of Sec. 73.1690, Modification of transmission systems, and specified therein.....
(5) Installation of TV stereophonic or subcarrier transmission equipment pursuant to Sec. Sec. 73.669 and 73.1690....
(7) When required by other provisions of the rules or the station license.
(b) Measurements for spurious and harmonic emissions must be made to show compliance with the transmission system requirements of Sec. 73.44 Sec. 73.687 for TV stations. Measurements must be made under all conditions of modulation expected to be encountered by the station whether transmitting monophonic or stereophonic programs and providing subsidiary communications services.
(c) TV visual equipment performance measurements must be made with the equipment adjusted for normal program operation at the transmitter antenna sampling port to yield the following information:
(1) Field strength or voltage of the lower side-band for a modulating frequency of 1.25 MHz or greater, (including 3.58 MHz for color), and of the upper side-band for a modulating frequency of 4.75 MHz or greater.
(2) Data showing that the waveform of the transmitted signal conforms to that specified by the standards for TV transmissions.
(3) Photographs of a test pattern taken from a receiver or monitor connected to the transmitter output.
(4) Data showing envelope delay characteristics of the radiated signal.
(5) Data showing the attenuation of spurious and harmonic radiation, if, after type acceptance, any changes have been made in the transmitter or associated equipment (filters, multiplexer, etc.) which could cause changes in its radiation products.

(d) The data required by paragraphs (b) and (c) of this section, together with a description of the equipment and procedure used in making the measurements, signed and dated by the qualified person(s) making the measurements, must be kept on file at the transmitter or remote control point for a period of 2 years, and on request must be made available during that time to duly authorized representatives of the FCC.

Concordance Alphabetical Word Index