

Explanation of Request for STA

This regards a request by Broad Comm, Inc. (Broad Comm) for Special Temporary Authority (STA) to allow use of various frequencies as detailed below. The purpose is to provide support to the broadcast television networks for coverage of the Democratic National Convention that is scheduled to take place at the Pepsi Center in Denver, CO between August 25 and August 28, 2005. In order to allow for setup and testing plus some use immediately following the convention the STA request covers the period from August 10, 2008 through August 29, 2008.

Broad Comm provides radio-frequency support services to broadcasters and broadcast network entities for coverage of major events. The FCC has granted Broad Comm and others similar requests for several previous events.

The following frequencies assigned for television broadcasting are being requested for use with wireless microphones. The requested frequencies are not expected to cause interference to local television due to the low power being requested (2 watts maximum – but typically < 250 mW) and the shielding provided by indoor use within the venue.

RANGE REQUESTED (MHz)		
TV CHANNEL(S)	LOWER FREQUENCY	UPPER FREQUENCY
8	180.5	185.5
10	192.5	197.5
12 & 13	204.5	215.5
21 & 22	512.5	523.5
24	530.5	535.4
29	560.5	565.5
38	614.5	619.5
42	638.5	643.5
47	668.5	673.5
49	680.5	685.5
52, 53 & 54	698.5	715.5
56	722.5	727.5
58	734.5	739.5
60	746.5	751.5
62	758.5	763.5
64 & 65	770.5	781.5
67, 68 & 69	788.5	805.5

The following microwave frequencies are being requested to support use of portable video camera transmitters that operate in the 1.4 to 6.5 GHz frequency bands. Hardware limitations prevent operation of these cameras in spectrum reserved for broadcast auxiliary operations. Additionally, operation of these low power transmitters (1.0 W) on broadcast auxiliary frequencies is not spectrally efficient considering the possible need for spectrum by local broadcasters to cover this event. In addition, AFTRCC coordination has been requested for those frequencies that fall within their prevue.

Requested Microwave Frequencies

1460, 1470, 1480, 1490, 1500, 1510, 2170, 2178, 2186, 2194, 2306, 2350, 2367, 2372, 2384, 2394, 6431.5, 6456.5 and 6487.5 MHz

Finally 30 pairs of UHF frequencies from the Industrial/Business Radio pool are requested to provide logistical support at the event.

It is noted that the equipment makes and models that have been listed in the application are representative of what is expected top be used. However, equipment with specifications that match or are within the limits of the listed equipment may be substituted as needed.

It is further noted that the requested powers and bandwidths are the maximum that might be needed, but typically lower values are used.

For some of the frequencies a large number of transmitters have been requested. In view of the magnitude of the event it is likely that a large number of portable transmitters may be required and the number requested represents what we believe to be the maximum number that may be needed.

Although the request encompasses a 16 km radius of the venue most all of the operation will be restricted to the area in and around the arena.

All operation at the event will comply with the guidelines established by the Political Conventions Communications Committee (POLCOMM2008) who has previously requested to be appointed as the special frequency coordination for the event. Copies of the guidelines and the request for special coordinator are attached below.

April 7, 2008

To: Chairman, Federal Communications Committee

From: Chairman, Political Conventions Communications Committee (Louis Libin)

Re. Broadcast coverage of the events leading to and including the 2008 Democratic National Convention, which will be held from August 25 to August 28 in Denver, Colorado at the Pepsi Center, and events leading to and including the 2008 Republican National Convention that will take place at the Xcel Energy Center in Saint Paul, Minnesota from September 1 until September 4, 2008.

The attending delegates at both conventions will choose and nominate the Presidential and Vice-Presidential candidates for the 2008 Presidential election.

In view of this, the broadcast networks have formed an ad-hoc coordination group, called POLCOMM2008, as the Frequency Coordinating Committee for the 2008 Political Conventions (and inauguration), as has been done in the past. Louis Libin has been appointed the Chair of POLCOMM2004, and it is requested that he be appointed the Special Coordinator for these events.

The 2008 Political Conventions are both unique events. What is different about the 2008 Political Conventions, as compared to other large events is the sheer number of people who need to be in touch using wireless equipment, as well as the new types of equipment to be used at the event. Unlike an event of short duration, the Conventions will require interference-free operations and communications for two full weeks. These conventions also come during the transition to the digital spectrum, and spectrum is “temporarily” much scarcer than ever before.

For these events of such national importance, there are no assigned broadcast “rights holders”. Each participating network and local radio and television broadcaster and other entities requires communications, the networks require major communications and spectrum for video and audio transport as well as all the various government agencies. The 2008 Political Conventions will also be a technology showcase for major communications and wireless companies, thus forcing the Coordination Committee to address many new technology and equipment issues.

In order to provide sufficient communications and a fair and equitable allocation of resources the committee makes three requests:

1. Special Temporary Authorization (STA) for Spectrum for both conventions, from August 12 through convention conclusion.
2. A waiver of the distance separation requirement of section 74.802 of the FCC Rules

3. And as discussed above the appointment of Louis Libin as the special coordinator for these events as permitted under Part 74.24 of the Rules for a period beginning August 12, and ending when each of the National Political Conventions end in the area surrounding each of the convention venues.

These requests are respectfully and jointly submitted on behalf of all of the domestic broadcasters of the United States, for spectrum to be used primarily inside the arenas for broadcast coverage of both conventions, in Denver and St. Paul.

These requests are being submitted with the consent of all related broadcasters, as well as the Political Party leadership. We respectfully ask that this request be acted on in a very timely manner so that equipment can be procured as soon as possible, and testing can begin.

Specific Band and Channel Requests

1. POLCOMM2008 requests an STA for limited, low power, not to exceed 5 watts, indoor, in the arenas, for use of the UHF television band as well as the microwave channels (listed below)

1460 MHz, 1470 MHz, 1480 MHz, 1490 MHz, 1500 MHz, 1510 MHz
2170 MHz, 2178 MHz, 2186 MHz, 2194 MHz,
2306 MHz, 2350 MHz, 2367 MHz, 2372 MHz, 2384 MHz and 2394 MHz
4508 MHz, 4558 MHz, 4604 MHz, 4652 MHz, 4712 MHz,
6431.5 MHz, 6456.5 MHz, 6487.5 MHz

2. A waiver of the distance separation requirements of section 74.802

Specifically, POLCOMM2008 hereby requests that the commission grant POLCOMM2004 a waiver of the distance separation requirement of Section 74.802 of the FCC Rules. Specifically the request is to allow the broadcasters to operate low power auxiliary stations inside both the Arenas in Denver and St. Paul, on bands allocated for TV broadcasting where television stations on those channels are located at least 40 kilometers from each venue. The low power to be used inside will not exceed 2 watts, and in the majority of cases, powers will be 100 to 200 milliwatts.

The list of stations that are within the “Request For Waiver” follows as attachments A (Denver) and B (St. Paul).

Studies and Measurements

In support of this request, the POLCOMM2008 Committee, along with the network and local broadcasters, has done analysis and RF Measurements at each venue. Upon request,

POLCOMM2008 will present to the FCC our measurements and analysis. Additional measurements will be performed at each venue to assure interference-free operations. The reference coordinates for each venue are as follows:

Denver: 39-44-55 N, 105-00-26 W (NAD 83)

ST. Paul 46-56-42 N, 93-06-04 W (NAD 83).

Respectfully Submitted,

Louis Libin
Chairman, POLCOMM2008

2008 Political Conventions Communications Committee (POLCOMM2008)

Guidelines for Operations: Planning and Enforcement Committee

Introduction:

There is much less spectrum this year due to the digital transition. In order to prevent interference to and between broadcasters, as well as to critical public safety systems, and all other RF users, all RF transmitting devices must be approved and if approved, tested before use in the 2008 Political Conventions. The FCC has traditionally recognized ad-hoc coordination groups for many years for events such as Olympics Events and National Political Conventions. It is expected that the FCC will suspend Part 74.24 of the Rules for a period before and during the Events. This has the effect of requiring all Part 73/74/78 and Part 90 and 101 when in the shared bands and 74 broadcast licensees who need to use RF equipment of any type at the event to contact and coordinate with other users via POLCOMM2008.

The Political Conventions are unique events. What is different about the 2008 Political Conventions, as compared to other large events is the sheer number of people who need to be in touch wirelessly, as well as the new types of equipment to be expected at the event. Four full days of operations adds to the stress of ensuring interference-free communications for all.

Each participating organization requires communications; the broadcasters require major communications and spectrum for video and audio transport as well as all the various government agencies. New technologies always present new spectrum challenges.

All "special use" must operate in the local environment of each city on a secondary basis.

Just prior to the conventions, the Enforcement Committee of POLCOMM2008 will schedule a series of RF tests called "Test Events" These are a series of tests that will ensure that every organization who will utilize wireless transmitters, will operate correctly and interference-free, in the heavy RF environment that we anticipate. The Enforcement Committee will organize the tests from a central location. In addition, individual venues will be tested. At the "Test Events" every transmitter to be used in the venue compounds will be powered up, in a pre-determined order. **The two test events will be the Thursday before each convention, as well as the Sunday (the day before) each convention.**

Interferences will be identified and their causes will be located and resolved. Identifying bright stickers and cable ties with associated bright colors and designs will be placed on antennas. Assuring all equipment used for the Events is working properly is the most important consideration. While this is the responsibility of the licensee, the POLCOMM2008 Enforcement Committee will use spectrum analyzers throughout the area. The FCC will also send its sophisticated trucks to look for spurious and unauthorized emissions throughout the course of the Convention and related events. Good communications is an essential part of the Enforcement Committee.

Enforcement of Wireless Microphones

The greatest challenge to the Committee will be the sheer volume of wireless microphones in and out of the venues. They are small and simple to bring in to the events without coordination. The Enforcement Committee must be able to prevent at the security gates the many hundreds of wireless microphones from being used. When a wireless microphone is used without coordination, the Enforcement Committee is not always able to spot them either visibly and on a spectrum analyzer or spectrum counter. The Enforcement Committee must be able to legally and physically shut down the offender. For these conventions, wireless microphone use will be extremely limited, both on the Floor as well as anywhere within the secured complex. Additionally, even those allowed to use a wireless microphone inside the venue, if a 25 foot cable will work, it will need to be used. Just outside the perimeter of both venues, the use of a 100 foot audio cable is preferable than to operating a wireless microphone.

In the U.S., there are currently hundreds of thousands of VHF wireless microphones systems in use, and tens of thousands of UHF wireless microphone systems in use. The FCC Part 74 specifies that High Gain Transmitting Antennas are not allowed. At the 2008 Political Conventions, with multiple users, common sense as well as the POLCOM Radio Committee Guidelines tells the world that High Gain receiving antennas are not to be used. The reality for a broadcaster is that omni-directional antennas are usually used at both ends, the consequence being that multipath situations are created. One solution is diversity spaced receiving antennas. There are three Methods of Antenna Spacing. Phase Switched, Dual Receiver/Post Detection Combining, or Antenna Combination. All three will be recommended for “approved” broadcasters on the floor at the 2008 Events.

Interference to wireless microphone systems include co-channel, this will be relatively simple to solve, as another user may be operating on the same frequency. Adjacent channel interference is caused by other nearby users. Intermodulation is always more difficult to solve, as an exact database is required for this to be successful. EMI (impulse Noise) could come from many sources, as well as spurious radiation, which comes from other transmitters. The obvious solution of frequency and location separation will solve most problems, but at the 2008 Political Conventions, more creativity will be needed from the Enforcement Committee.

The 2008 Political Conventions

Guidelines for Radio Operation: (UNDER 1 GHz)

POLCOMM has determined an “Area of Operation” This Committee shall have jurisdiction over the city of Denver and St. Paul area of operation for a period commencing approximately three weeks before the Events, until conclusion of the Events.

1. FCC rules and regulations shall be complied with at all times unless a special waiver has been granted
2. If a special waiver has been granted, it must be registered with POLCOMM. Each user will request and submit all notifications and STA applications for frequencies and associated equipment use to the FCC.
3. All transmitting equipment shall be restricted to the minimum RF power output necessary for the intended operation.
4. POLCOMM shall determine requirements, gather factual information, analyze alternatives and make appropriate recommendations to the committee on an as needed basis.
5. Any conflicts during the set-up period shall be initially worked out between the users, with POLCOMM as the deciding Entity. If no solutions are reached, the Committee, upon request by any party shall offer investigation and recommendations. The FCC shall be notified only if no mutual agreement can be reached among the concerned parties and the committee. The DNC/RNC media representative will be contacted to assist with the resolution of conflicts.
6. Any conflicts during the actual Events period shall be initially worked out between the users. If no solutions are reached, the committee, upon request by any party shall offer investigation and recommendations. The DNC/RNC media representative will be contacted to assist with the resolution of conflicts. If not able to mediate, the FCC shall be notified along with the committee, on an observer basis. The FCC shall take over the issue if no mutual agreement can be reached among the concerned parties and the committee.
7. Users of broadcast auxiliary shall carefully test equipment to ensure that out-of-channel products that could contribute to harmful interference are not present. Equipment is subject to inspection and will be tested on site by the Enforcement Committee.
8. There will be Committee sponsored test events prior to the Opening of the Conventions, where all transmitting equipment will be sequentially powered on. All systems will be tested live, and interference problems will be resolved during those tests. Equipment that does not participate in this procedure must not be used, unless approved by the Enforcement Committee.
9. When commencing operation, each station shall transmit the call sign of the associated broadcast station, or appropriate organization identification, together with a unit designator, e.g. NBC-12.

10. Each organization intending to operate must furnish the committee with the name of contact individuals and telephone numbers to contact individuals at base and at each venue where there is ongoing operations. The users must notify the Committee upon arrival in Denver and St. Paul. Phone numbers must include all possible numbers, including an emergency number and an on-site location.

11. Each “major” network organization and local station will monitor and have the ability to operate on the interference subcommittee repeater, during testing, and during the Events.

12. The use of power levels over 5 watts for voice or data transmissions are not expected and will require approval of the full committee.

13. It will be mandatory for all full-time communications links to be identified by audio loop at setup, for the first 6 hours, during the normal business day.

14. It will be mandatory that base stations employ isolators/circulators with 3 stage cavities in order to reduce Intermodulation products.

15. There will be 2 days of war Tests Events. Stickers and/or colored cable ties are to be placed on approved equipment at the end of the test period.

16. The Enforcement Committee will “patrol” the entrance to the venues.

17. Each member of the Enforcement Committee must carry a Frequency Counter, a copy of the database, a pad, a pen, and a radio.

18. All encounters with non-coordinated users and cases of interference must be documented including:

Name, Date, Time and Place, Organization and relationship, and Frequency

19. Notices must be affixed at Venue Entrances regarding uncoordinated and unauthorized use of radio-frequency spectrum.

20. There will be no new authorization of transmitting equipment once the test event period begins. Everything already tested is put at needless risk if new, untested equipment is brought into the area.

21. The week prior to the opening ceremony, a meeting will be held with all volunteers. This will be a planning session, as well as a tutorial on the interference resolution procedures of the Enforcement Committee, as well as logistical orientation.

22. The logistical orientation will include locations, familiarization, equipment, forms, and introduction to personnel, credentialing issues, management, as well as distribution of uniforms. Those from out-of-town who cannot be there in person must be on conference call, and must schedule their own orientation upon their arrival in Denver and St. Paul City.

23. Local stations limitation on wireless mics is four.

24. Network limitation on wireless mics is eight.

ADDITIONAL GUIDELINES FOR MICROWAVE USE AT THE 2008 POLITICAL CONVENTIONS AND EVENTS IN DENVER AND ST. PAUL

1. All in-venue microwave transmitting equipment shall be restricted to the minimum RF power output necessary for the intended operation
2. It is mandatory for all microwave links to be identified at all times when in use without actual program.
3. It is mandatory for all microwave links to be identified even when transmitting actual program.
4. In-Hall microwave transmitters must have their power output to the antenna limited to 100 milliwatts, by design or attenuation.
5. Equipment is subject to inspection and will be tested on site by the interference subcommittee.
6. Within the secured compound, maximum power out from trucks should be limited to 1 Watt.
7. RF Paths cannot cross the secured venue compounds.
8. Higher frequencies are recommended outside, in and around the secured compound.
9. All indoor microwave use must be digital, no analog use will be permitted.
10. Local stations should attempt to limit inside microwave cameras to one.
11. Networks will be limited to three inside wireless cameras.