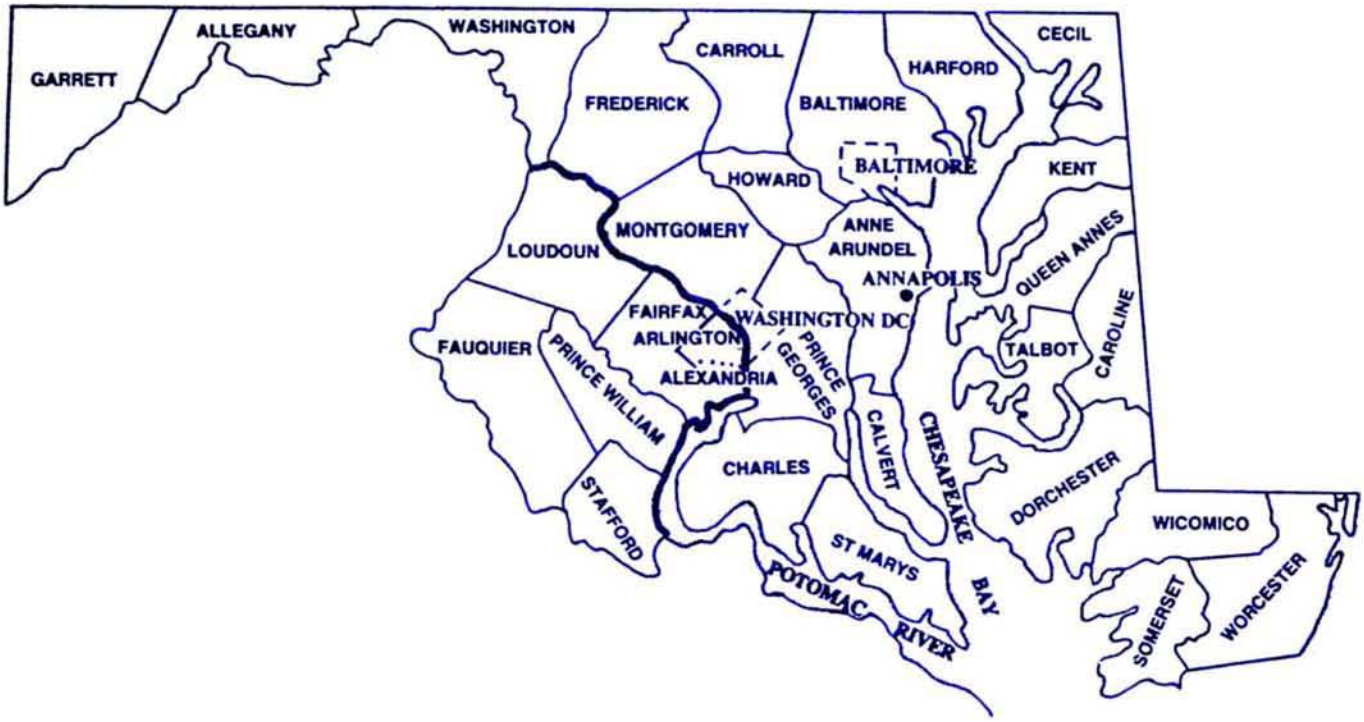
PUBLIC SAFETY RADIO COMMUNICATIONS PLAN

- FOR REGION 20 -

MARYLAND, WASHINGTON, D.C. AND NORTHERN VIRGINIA

(FCC General Docket 90-7)

Updated 2009 Version



NATIONAL PLAN - REGION 20
Chairman:
G. Edward Ryan, II
c/o Maryland Department of Natural Resources
580 Taylor Avenue, E-3
Annapolis, Maryland 21401
410-260-8843

OPERATIONS COMMITTEE
Chairman:

TECHNICAL COMMITTEE
Chairman:
Gary McKelvey
Loudoun County, Virginia

FORWARD

National Public Safety Planning Advisory Committee
REGION 20
FCC General Docket 90-7

This April 13, 2009 edition of the Region 20 (State of Maryland, District of Columbia, and Northern Virginia[1]) National Public Safety Planning Advisory Committee[2] (NPSPAC) is offered to comply with the Federal Communications Commission (FCC) Public Safety and Homeland Security Bureau (PSHSB) Directive[3] to the non-border NPSPAC Regions to file amendments to their 800 MHz Regional Plans by April 13, 2009 to bring them into conformity with the new band plan brought about as a result of FCC Wireless Telecommunications Docket 02-55, *"Improving Public Safety Communications in the 800 MHz Band."* (also known as 800 MHz "Rebanding")

Accordingly this edition of the Region 20 800 MHz plan is updated to reflect the new band plan frequencies and channel numbers where applicable. There has been no intentional change made in this document with respect to Region 20 policy or procedures.

In this edition, we have omitted the names of individuals serving on subcommittees as the previous Region20 Plan document reflecting those names is out-of-date. Many of the individual's names shown are no longer participating, and the committee members tend to change over a period of time much more frequently than the Plan is officially updated.

---

[1] The Northern Virginia component of NPSPAC Region 20 consists of the Commonwealth of Virginia Counties of Arlington, Fairfax, Fauquier, Loudoun, Prince William, and Stafford, and the Cites of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park, Virginia. *See* FCC General Docket 90-7.

[2] National Public Safety Planning Advisory Committee (NPSPAC) FCC General Docket 87-112.

[3] *See* FCC PSHSB Public Notice DA 09-212 Released February 10, 2009, W.T. Docket 02-55, "PSHSB Provides Guidance for Public Safety Licensees with Regard to License Application… for Public Safety Facilities Added During 800 MHz Band Reconfiguration." (Directive)

REGION 20 PLAN PER DOCKET #87-112

TABLE OF CONTENTS

I. INTRODUCTION 1
1. HISTORY 1
2. BACKGROUND 3
3. GEOGRAPHIC AREAS OF OPERATION 4
4. NATIONAL CALLING AND TACTICAL CHANNELS 5
4.6 **TACTICAL CHANNELS AS SPECIFIED BY THE NATIONAL PLAN** . 5
5. INTEROPERABILITY BETWEEN SYSTEMS 5
5.4 The Regional Interservices Channels shall be assigned as follows: 6
6. STATE WIDE CHANNELS 7
7. GUARD BAND CHANNELS 7
8. PRIMARY CONTROL AND OPERATING METHOD 8
9. DIRECT ON-SCENE COMMUNICATIONS 9
10. OPERATING PROCEDURES 9
11. SYSTEM LOADING REQUIREMENT 9
TRUNKED SYSTEM LOADING TABLES 10
12. APPLICATION PROCEDURES 11
13. APPLICATION EVALUATION 11
14. SYSTEMS DESIGN 12
15. RESPONSIBILITY FOR CALCULATIONS 12
16. FUNDING STATEMENT 12
17. IMPLEMENTATION SCHEDULE 12
18. TRAFFIC LOADING STUDY 12
19. FREQUENCY REUSE STATEMENT 13
20. SYSTEM ENGINEERING EXHIBIT 13
21. DEFINITION OF SERVICE AREA 14
22. CALCULATION OF SERVICE AREA 14
23. PROPOSED SERVICEC AREA EXHIBIT 15
24. CONTROL STATION 15
25. CO-CHANNEL DESIGN 15
26. ADJACENT CHANNEL DESIGN 16
27. FREQUENCY REUSE 16
28. TRUNKING GUIDELINES 16
29. AIRCRAFT OPERATIONS 17
30. COMMERCIAL RADIO-TELEPHONE USE 17
31. USE OF LONG-RANGE COMMUNICATIONS 17
32. INTERREGIONAL COORDINATION PROCEDURES 18
33. THE REGIONAL PLAN REVIEW COMMITTEE (RPRC) 19
34. TERMS OF APPOINTMENT 20
35. FILLING VACANCIES 21

36. MEETINGS 21
37. OFFICERS 22
38. QUORUM 22
39. RESPONSIBILITIES, RULES, AND POLICIES 23
41. CHANNEL ASSIGNMENTS 24

APPENDICES 25
APPENDIX A Participation Compliance & Committee Selection Process 26
APPENDIX B Region 20 – Populations & Trends 49
APPENDIX C Evaluation Criteria 51
APPENDIX D Co-Channel Interference Procedure 58
APPENDIX E FCC Part 90.309 (a) (4)FCC Part 90.309 (a) (4) 59
APPENDIX F Glossery/Definition Terms 61
APPENDIX G Sub-Regions 66
APPENDIX H Procedure Words (PROwords) 69
APPENDIX I Original Computer Assigned Channels 70
APPENDIX I Region 20 Channel List (First Filing Window Closure) 73
APPENDIX 1 Channel Assignments (At Close of Second Window) 77
APPENDIX I Channel Assignments (At Close of Third Window) 84
APPENDIX I Inter-Regional Coordination Procedures Agreement 92
APPENDIX I Channel Assignments Window 1, 2, 3, 4A 99
APPENDIX I Channel Assignments Window 1, 2, 3, 4A Post Rebanding 104
FREQUENCIES AVAILABLE 106
806-809 MHz SEPARATION SCHEME 107

CHAIRMAN'S INTRODUCTION

The Region No. 20 Planning Committee appreciates the opportunity provided by the Federal Communications Commission (FCC) General Docket No. 87-112 to participate directly in the development of a public safety communications plan for the area.

Past experience dealing with major emergency incidents involving a mix of all types of public safety services has provided many of our committee members with experience through involvement in these incidents. We have had the advantage of reviewing reports and critiques of both the Air Florida Flight 90 Crash in Washington, DC and the AMTRAK train accident in Baltimore County, Maryland. In both of these incidents a lack of sufficient radio capability was identified as a serious problem to be addressed in any future planning.

This planning effort provides us with that very unique opportunity to address the communications requirements which any future widespread or major emergency incident will demand.

We also have the advantage of working with two well established planning councils in this region, the Metropolitan Washington Council of Governments (COG) and the Baltimore Regional Planning Council (RPC).

Both organizations have been effective planners over their life span and have provided this committee with valuable support.

The broad based participation of eligibles on our regional planning subcommittees was enhanced by the efforts and influence of these planning councils.

It was stated early in this planning effort that this plan shall be a long-term growth plan which will fulfill the congressional mandate of providing radio channels in a coordinated manner for the public safety services over the next twenty years or more.

It is also recognized that all governmental public safety and public service providers will not be able to migrate into the 800 MHz allocations, therefore methods of interoperability providing interface into the lower frequency systems will be a key objective of this plan.

We have experienced the value of mutual aid radio systems functioning under emergency conditions in this area and though these systems lacked the capacity to equal the demand, they did provide essential interagency communication links during disasters.

It is therefore the objective of this plan to provide in addition to the five (5) National Channels a set of regional interservice channels for like services of local, state, and federal agencies to communicate in each of our two (2) major metropolitan areas. These channels shall be dedicated to specified services and will improve daily interagency

communications and foster the interoperability concept by allowing users in all radio bands to interface to the 800 MHz channels through console patch technology.

There has been an average of two committee meetings per month over the past sixteen months required for the development of this plan. Four (4) public meetings were held in order to provide an opportunity for all interested eligibles to be informed of the plan development and to allow eligibles to express their views.

Another key objective is the requirement of a permanent committee for the expressed purpose of overseeing the application of the plan and to make recommendations to the FCC of any modifications to the plan which may be required in the future.

This plan specifies such a committee shall have broad eligibility participation and shall be named the Regional Plan Review Committee (RPRC).

I would like to express my appreciation to all of our committee members for their dedicated effort during the development of this plan and also to acknowledge the support provided to each committee person by their respective agencies.

It is my pleasure to present the Region No. 20 Public Safety Radio Communications Plan to the Federal Communications Commission for consideration and approval on behalf of the Public Safety and Special Emergency Radio Services users of the region.

Respectfully submitted,
|s|
Weldon P. Hale, Chairman

FCC NATIONAL PLAN / REGION 20
OPERATIONS COMMITTEE

Representative Disciplines Listed

Operations Committee – Chairman

Emergency Management

Emergency Medical Services

Fire Service

Federal Government

Forestry / Conservation

Highway / Public Works

Law Enforcement

Local Government

Maryland State Police

Metropolitan Washington Council of Governments (COG)

FCC NATIONAL PLAN / REGION 20
TECHNICAL COMMITTEE

Operations Committee - Chairman
Mr. Gary McKelvey
Public Safety Communications Systems Manager
Loudoun County DIT
41975 Loudoun Center Place, S.E.
Leesburg, VA 20175-8901

I. INTRODUCTION

1. HISTORY

1.1 The National Public Safety Planning Advisory Committee (NPSPAC) was chartered in 1986. NPSPAC was organized into three task groups and eleven task teams to study and make recommendations to the FCC with respect to specific questions concerning the Public Safety radio spectrum. As a result of the development of the NPSPAC report, regional committees were also established. These regional committees represent various geographic areas of the nation.

1.2 The selection of the Region No 20 Planning Committee proceeded using the guidelines as set for the in General Docket No 87-122.

1.3 The Convener established eligibility as including the participants representing the radio services as described in FCC Part 90 under sub-part (B) Public Safety Radio Services and sub-part (C) Special Emergency Radio Services.

1.4 Early meetings were held using the established Communications Advisory Committees of the Washington Metropolitan Council of Governments (COG) and the Baltimore Regional Planning Council (RPC). Each of these agencies participated in the planning and advertising of the public meetings required to establish the Public Safety Communications Planning Committee for Region 20, as described in the Docket under Appendix A. The burden of advertising and notifications were shared equally by COG and the RPC with the State of Maryland absorbing the monetary cost of the advertising.

1.5 The public meeting notice, related advertising and notifications are attached as Tab 1, Tab 2, Tab 3, and Tab 4 (Appendix A). In Addition to the public notice being published in the two major newspapers covering the area, the notice was also carried in the Maryland Register and Municipal Maryland Publications.

1.6 To further ensure coverage both the RPC and COG made mailings to all county and major city heads of government in the region. At the first public meeting all participants were requested to complete a registration form. This form contained questions concerning qualifications, experience, major interest, etc. From that information the Operational and Technical Committee Chairman were able to recruit members for their committees from all eligible services.

1.7 At the public meeting the Convener was elected as the Chairman of the Region 20 Planning Committee and the Operational and Technical Committee Chairmen were selected. A copy of the meeting notes is attached as

Tab 8 (Appendix A).

1.8 Committee meeting schedules were proposed as follows: Each committee shall meet monthly or more often if required. Every quarter, or as declared appropriate, both committees shall hold a joint meeting open to the public for their comments and input.

1.9 Region 20 consists of the State Of Maryland, the District of Columbia, and the six (6) adjoining suburban counties in Northern Virginia; Arlington, Fairfax, Fauquier, Loudoun, Prince William, and Stafford; which encompass the cities of Alexandria, Fairfax, Falls Church, Manassas, and Manassas Park. Communications environment ranges from sparely populated mountainous Western Maryland and Northwestern Virginia to the major SMAs of Baltimore, Maryland and the District of Columbia, and the flat agricultural plains of the eastern and shores of the Chesapeake Bay. (Region 20 has been divided into sub-regions for the purpose of frequency coordination as listed in Appendix G.) Most problems associated with high-density radio dispatch occur in the Baltimore/Washington corridor. These problems are magnified due to the presence of numerous dispatching jurisdictions operating on frequency assignments that are at present incompatible.

1.10 Problems with inter-jurisdictional mutual aid radio communications are presently worked out at the regional level by two already functioning organizations: The COG in the Washington, DC area and the RPC in the Baltimore, Maryland area. Both organizations, as well as the State of Maryland and several local jurisdictions, have contributed heavily to this planning effort, mostly in the form of personnel and administrative support. In addition, the State of Maryland will be coordinating the Mutual Aid network resulting from this plan. Note that all eligible users have been considered during generation of this plan, and that there are no unaddressed issues at the time this plane was submitted.

1.11 This plan considers the spectrum 821-824/866-869 MHz as a vital communications resource allocated to all public safety dispatching jurisdictions, together with the special emergency radio system (SERS) users in Region 20. Therefore, the primary means of allocation of the available new 800 MHz channels as identified in Appendix I will be by sub-region as convenient method of geographical distribution according to population demographics (Appendix B). Actual assignments to jurisdictions will allow for such factors as:

(i) Conformance with the National Plan.
(ii) Several Region 20 jurisdictions have 800 MHz systems construction using existing frequency blocks; additional under channels from the new

spectrum will be allocated only up to the proposed demographic loading standards.

(iii) Eventual total equipment compatibility between new and old 800 MHz channel blocks.

(iv) Mutual aid and disaster communications arrangements based on the five (5) FCC designated interoperability channels and the thirteen (13) additional mutual aid/interservice Region 20 channels.

(v) Frequency reuse within the region based upon acceptable calculated co-channel and adjacent-channel interference levels.

(vi) Actual channel assignments to dispatching jurisdictions should not be confused with geographical and interservice allocations as accomplished by this document. Specific channel assignments by dispatching jurisdiction will be done according to the processes already established by appropriate coordination and FCC licensing procedures.

2. BACKGROUND

2.1 In general, previous experience nationwide has shown that one channel assignment per each 25,000 population of a geographic area will meet the conventional dispatching requirements for law enforcement, fire protection, public works, emergency medical services, special emergency radio services, local government/emergency management, forestry/conservation, and other public safety functions for local and regional jurisdictions. (The 450 MHz EMRS-MED channels are outside the scope of this plan.) It is expected that the eventual demand for new and upgraded public safety radio communications services will exceed the channel availability totals from all frequency blocks, even when trunked loading standards are uniformly applied and frequency reuse is saturated. Trunking techniques and regional dispatching operations applied to all 800 MHz systems will result in greater spectrum efficiency. Procedures are established in this plan to prioritize channel requests when demand so requires.

2.2 A high degree of system design sophistication has been assumed for all channel assignments. This includes such factors as:

(i) Geographical tailoring of systems propagation patterns to reliably cover required service areas only, allowing for maximum frequency reuse.

(ii) Problems with interjurisdictional/multi-user shared dispatch (especially with smaller systems and users) being resolved at the governmental level to insure channel usage levels that meet spectrum efficiency requirements.

(iii) Engineering evaluation for give-back channels in the existing VHF-LB, VHF-HB, UHF, and UHF-T public safety blocks with the objective of jurisdictional regrouping to allow the design of spectrum efficient

locally oriented systems within existing frequency assignments.

2.3 When geographically allocated channel blocks approach full assignment, it will be necessary to apply a priority system development from the evaluation criteria contained in appendix C. The priority method of channel assignment will be applied when the Region 20 Regional Plan Review Committee (RPRC) determines that there is a projected date for channel saturation that will result in significant degradation of all available communications techniques. Please note that the possible hoarding of channels for future use will be closely monitored by the RPRC, and in any event, is closely controlled by FCC regulation.

2.4 The mutual aid interoperability/interservice sub-system raises a number of issues: some technical, some financial, and some governmental. The intent of General Docket 87-112 is that a fixed wide-area, five (5) channel network be constructed that will provide on-site and public safety answering point (PSAP) to PSAP interjurisdictional communications everywhere in the region. Mobile equipment so equipped would be able to access any such local mutual aid network nation wide. All users of this frequency block will be expected to have the capability to access all five (5) national mutual aid channels. In general, implementation of the interoperability network is expected to be the responsibility of the state and sub-regional jurisdictions.

2.5 All mobile and portable radios operating in the 806-809/851-854 MHz band must be capable of operating on the five (5) national mutual aid repeater channels and national mutual aid talk-around channels using the national CTCSS tone squelch of 156.7 Hz.

2.6 2.6 Region 20 has allocated thirteen (13) additional channels to enhance regional interoperability. All field units in Region 20 must be capable of operation on these channels, where appropriate.

2.7 Wide area coverage base stations operated on the mutual aid channel pairs shall be normally operated in a two frequency simplex (repeater disabled) mode, but shall be capable of repeat operation on command of the associated dispatch center.

3. GEOGRAPHIC AREAS OF OPERATION

3.1 The total geographic area of operation shall encompass Region 20 and it is the intent of this plan to include coordination with contiguous areas of Regions 28, 36, 42, and 44. Existing sub-regional communications agreements and systems may remain in effect.

4. NATIONAL CALLING AND TACTICAL CHANNELS

4.1 The calling channel no 1 (851.0125 Base/806.0125 Mobile) shall be in compliance with the National Plan. The calling channel is reserved for alerting PSAPS to an emergency and for requesting that involved agencies use one or more of the tactical channels.

4.2 The use of the tactical channels will be dictated by the specific emergency at hand. Although any properly equipped mobile unit may utilize the calling channel. In conformance with FCC regulations, the use of the tactical channels will be monitored, assigned, and controlled by the controlling PSAP/Dispatch Center. National mutual aid channels will not be used by any level agency for routine operations of that agency, but will be reserved for inter-agency operations requiring interoperability.

4.3 The user of mutual aid channels will be the public safety agencies, EMRS, and SERS as described. Commercial service providers that utilize radios are excluded from the use of interoperability channels unless they are included in an emergency plan under the auspices of a public safety or emergency management agency.

4.4 These channels would be utilized in support of area or sub-region wide mutual aid agreements where such agreements exist. Additionally, through the use of S-160 agreements, a licensee may permit Federal use of a non-Federal communications systems.

4.5 Such use, on other than the five (5) identified national mutual aid channels, is to be in full compliance with FCC requirements for federal government use of non-federal frequencies. (Title 47 CFR, Sec 2.103.)

4.6
TACTICAL CHANNELS AS SPECIFIED BY THE NATIONAL PLAN

FREQUENCIES	CHANNEL NO.	IDENTIFIED AS
851.5125 MHz (Base) 806.5125 MHz (Mobile)	39	TAC 1
852.0125 MHz (Base) 807.0125 MHz (Mobile)	77	TAC 2
852.5125 MHz (Base) 807.5125 MHz (Mobile)	115	TAC 3
853.0125 MHz (Base) 808.0125 MHz (Mobile)	153	TAC 4

5. INTEROPERABILITY BETWEEN SYSTEMS

5.1 There are thirteen (13) Regional Interservice (RINS) radio channels assigned by the Region 20 Plan. The RPRC is authorized to reallocate any or all of these RINS channels, with the exception of Channel 792, to general

pool assignments when the RPRC determines that the public interest would be better served by such a reassignment.

5.2 They are assigned to specific geographic areas, and are designated for specific services to provide mutual aid/interservice channels for daily interagency communications during normal conditions with flexible use during emergencies.

5.3 It is the objective of the interservice channels of this plan to foster interoperability of local, state, and federal agencies and provide interface capability for all public service radio bands of the various services.

5.4 The Regional Interservices Channels shall be assigned as follows:

CHANNEL	RINS NO.	REGION	SERVICE
12	5	Baltimore	Law Enforcement
28	6	Washington	Law Enforcement
32	7	Baltimore	Fire Service
64	8	Washington	Fire Service
100	9	Baltimore	Public Works / Utilities
94	10	Washington	Public Works / Utilities
126	11	Baltimore	SERS
114	12	Washington	SERS
102	13	Baltimore	EMS
66	14	Washington	EMS
192	15	Region Wide	LG / EM & CDA
150	16	Baltimore	LG / EM & CDA
134	17	Washington	LG / EM & CDA

5.5 The RINS channels are for the exclusive use by multi-agency users, multiple jurisdictions or single service users involved in inter-agency communications, both routine and emergency. Emergency traffic shall take precedence over routine traffic. These channels may be employed for large scale or extended emergency conditions.

5.6 It is the intent of this type of channel assignment to foster the interoperability of like service agencies employing all radio bands to interface on these channels and in due time to replace the present mutual aid radio systems which are in different frequency bands.

5.7 By creating the interservice channels for the various services we have provided each major service provider (fire, police, Highways, etc.) a dedicated communications channel to coordinate their activities. By having the

various RINS channels all in the same band, the users may (when required to cross service communicate) coordinate emergency responses of different service providers. Other services such as Forestry Conservation Communications Association may participate in more than one of the named service nets.

5.8 The operational management of the RINS channels should be conducted by those regional planning groups presently responsible for existing coordination of mutual aid systems in the Baltimore and Washington areas. The use of the RINS channels will be monitored, assigned and controlled by the controlling PSAP/Dispatch Center requiring the interservice communications. The primary PSAP/Dispatch Center will be the lead agency involved in the emergency. Should there be multiple emergency incidents requiring extensive communications links, these channels may be used in addition to the national mutual aid tactical channels.

5.9 The PSAP/jDispatch Center controlling the channels will relinquish control as soon as possible once the need for interoperability in an emergency incident no longer exists.

6. STATE WIDE CHANNELS

6.1 Having recognized and provided for requirements of the major sub-regions of the Baltimore and Washington metropolitan areas, the State of Maryland has certain additional requirements which will be addressed as wide area channels for "State Use Only".

6.2 It is the objective of this plan to designate these area-wide channels to provide the various state agencies with the channel capacity to insure the interoperability necessary when employing many different agencies and governmental service-providers over large areas and requiring command and control over such wide spread operations.

6.3 These channels shall be protected by guard band channels in a similar manner that the national calling and tactical channels are protected.

6.4 The RPRC is authorized to assign these State Wide channels to any eligible entity when an applicant can demonstrate that its system meets all co-channel and adjacent channel interference ratio protection criteria.

7. GUARD BAND CHANNELS

7.1 These channels shall be set aside as guard bands to the "State Use Only" state wide channels in a manner similar to the vacant slots adjacent to the national mutual aid calling and tactical channels.

[Editor's Note: 90.267 pertains to low power use in the 450-470 MHz Band.]

7.2 In this plan, however, we do not wish to allow the guard band channels to remain vacant. This Plan proposes to use these channels in systems where satisfactory operation can be accomplished with low power and restricted antenna heights. It is therefore proposed to allow Public Safety operations on these channels in compliance with the technical limitations as defined in the present rule 47 CFR 90.267 (a) (1), (2), (3), (4), (5), and (6). The RPRC is authorized to allow higher power and antenna height limits on these channels when an applicant can demonstrate that its system meets all co-channel and adjacent channel interference ratio protection criteria.

7.3 The guard band limitation shall be extended to cover channel numbers 191 and 193 in order to provide protection of channel 192, designated as a region wide interservice channel, also channel number 230 in order to provide protection for the cellular radio services operating on channel number 231 in this region. [Editor's Note: The last phrase of this (7.3) section is no longer applicable relative to cellular services. Ch. 230 and Ch. 231 are spaced at 25 KHz]

8. PRIMARY CONTROL AND OPERATING METHOD

8.1 Region 20 has designated the national mutual aid calling channel, 806.0125 MHz (Mobile) 851.0125 MHz (base), as the channel to be monitored by the primary PSAP/Dispatch Center of each sub-region. The primary sub-region PSAP/Dispatch Center (Appendix G) will be the primary network control point for the sub-region.

8.2 It is the responsibility of this PSAP/Dispatch Center to acknowledge calls for assistance from any unit or dispatch point equipped for this channel within the sub-region.

8.3 The Primary PSAP/Dispatch Center will coordinate the assignment of the mutual aid channels for ongoing emergency operations consistent with the geographic vicinity of the emergency. Other public safety licensees are encouraged to establish radio dispatch base/control stations on the calling channel. It is anticipated that at least one national mutual aid TAC channel mobile relay station will be operational in each sub-region.

8.4 Communications systems on national mutual aid TAC 1 through 4 and RINS 5 through 17 are expected to be implemented by participating agencies so that every sub-region is covered by at least one of the tactical channels. In areas not covered by national mutual aid TAC and/or RINS mobile relay stations, national mutual aid and/or RINS channels will be utilized through mobile talk-around. Mobile relays stations on TAC 1 through TAC 4 will be of a limited

coverage design to permit reuse of the channel several times within the region and in adjacent regions.

9. DIRECT ON-SCENE COMMUNICATIONS

9.1 Talk-around communications capability on all four (4) national mutual aid TAC channels and on the thirteen (13) Region 20 RINS channels will provide additional on-scene communications for designated user groups to supplement existing localized mobile relay systems. In addition, talk-around capability will provide on-scene communications in areas where no localized mobile relay system capability exists.

10. OPERATING PROCEDURES

10.1 On all common channels, plain English language is to be used at all times. The use of colloquial terms, slang, signal, and "10" series (aural brevity) codes, and other phrases which may not be clearly understood by other users shall not be used. The use of the Procedure Words (Appendix H) is encouraged. Interoperability between federal, state, and local government agencies will take place through use of local area or sub-region wide mutual aid agreements where such agreements are in effect.

11. SYSTEM LOADING REQUIREMENT

11.1 Systems that do not meet loading standards shall be required to share their frequencies on a non-exclusive basis. Those users requesting data only channels may be required to share channels with adjacent users where feasible or limit coverage to their geographic area. Exceptions will be considered on a case-by-case basis by the Region 20 Plan Review Committee.

11.2 Users requesting additional frequencies on their existing systems must demonstrate loading of 100% or more in their short term (three years or less) projections.

11.3 Should a demand for additional frequencies exist after assignable frequencies are exhausted, any system having frequencies assigned under this plan for four (4) or more years and not loaded to at least 70% may lose operating authority on some of those frequencies to attain the 70% loading on the remaining frequencies.

11.4 Any frequencies lost in this manner will be reallocated to other agencies to help satisfy the demand.

11.5 A user requesting a single frequency pair, to replace a lower band channel currently in use that will be turned back for reassignment, will not be required to meet the loading requirements in order to obtain the new frequency.

11.6 However, if the single frequency pair is not loaded to more than 70% of its loading requirements within four (4) years after the license is granted, the frequency pair may be available for assignment. Such assignment may be made to other agencies in the area on a shared basis in the event that other frequencies meeting the criteria for assignment are exhausted. Shared use of a frequency is not interference free.

11.7 Users of single frequency systems may be required to provide the RPRC "confirmation of loading" for mobiles and portables as a method of validating system loading.

11.8 This exception shall apply to users which have only one system and a single frequency pair. Agencies requesting additional channels or having multiple systems shall comply with the loading standards as outlined below or provide a "Traffic Loading Study" that meets the criteria of the following outline.

TRUNKED SYSTEM LOADING TABLES

PUBLIC SAFETY & SERS

CHANNEL	MINIMUM
1 – 5	70
6 – 10	75
11 – 15	80
16 – 16	85

11.9 As in the case of S-160 agreements or under similar agreements, it is permissible for a non-federal government license to increase projected channel loading requirements to account for up to 25% increase in mobile units, provided that documentable evidence exists to support such use by federal agencies.

11.10 Special service loading conditions shall be considered by the RPRC on a case-by-case basis.

APPLICATION PROCESS

12. APPLICATION PROCEDURES

12.1 Any request for frequencies to be used for public safety or special emergency operations (as described on part 90 of the FCC rules and regulations) must be submitted to the RPRC for approval.

12.2 If adequate spectrum is available, the RPRC will review the application to determine the applications compliance with the regional plan as described below. If there is inadequate spectrum or if the RPRC anticipates a shortage, the established evaluation procedure will be instituted.

12.3 If approved by the RPRC, the request for frequencies will be returned to the applicant to be forwarded to the Associated Public Safety Communications Officers, Inc. (APCO) for frequency coordination. If not approved by the RPRC the request will be returned to the applicant for revision and correction before being resubmitted to the RPRC for further consideration.

12.4 The request shall contain sufficient information to justify the frequencies requested and shall demonstrate compliance with the regional plan. At a minimum, this request shall consist of the following.

1. Appropriate Coordination and Licensing Application Forms

2. System Design

3. Funding Statement

4. Implementation Schedule

5. Traffic Loading Study (if offered)

6. Frequency Reuse (Give Back) Statement

13. APPLICATION EVALUATION

13.1 The RPRC will review and evaluate each request based on the sufficiency of the information contained in the six (6) sections listed previously. The information required in each section includes the following:

14. SYSTEMS DESIGN

14.1 A statement of the intended use of the requested frequencies and how they will be integrated into existing emergency and non-emergency operations will be required. The spectrum efficiency of 800 MHz frequencies depends greatly upon the design of the system itself. Specific criteria regarding system parameters are defined in the section, “System Engineering Exhibit”.

15. RESPONSIBILITY FOR CALCULATIONS

15.1 It will be the responsibility of the requesting users to calculate the proposed system engineering exhibits and to verify the accuracy of the calculations. The RPRC may provide assistance to any agency requesting help in generating such exhibits.

15.2 This assistance will be limited to the calculations associated with good engineering practice. It is the requesting user's responsibility to provide accurate proposed system parameters and procure "height above average terrain" radials as specified in 90.309 (a) (4) of the FCC Rules (Appendix E).

15.3 The RPRC's response to such requests for assistance shall be advisory in nature and considered to be tendered in good faith. No liability for errors will be assumed by the RPRC.

16. FUNDING STATEMENT

16.1 The applicant's commitment to the system must be ensured to maintain the efficient utilization of these 800 MHz frequencies. A funding statement must be included with the application. This statement must certify that the jurisdiction is committed to fund and implement the radio system.

17. IMPLEMENTATION SCHEDULE

17.1 The applicant needs to furnish an implementation schedule that shows the planned time cycle for consideration and operation of the proposed communications system.

18. TRAFFIC LOADING STUDY

18.1 Justification for adding frequencies, or retaining existing frequencies, can be provided by a traffic loading study in lieu of loading by number of units per channel. It will be the responsibility of the requesting agency to provide a verifiable study showing sufficient channel usage to merit additional frequencies. A showing of measured air time usage, excluding telephone

interconnect air time, during the peak busy hour greater than 70% of the time, per channel, on three consecutive days will be required to satisfy loading criteria.

19. FREQUENCY REUSE STATEMENT

19.1 It is anticipated that, in all but the most unusual cases, lower frequencies presently utilized by a licensee will be released for reassignment to other agencies within the FCC designated radio services, e.g., fire, local government, forestry, etc. The applicant is required to furnish the RPRC a list of all call signs and frequencies to be released as "give backs" with a time specified for release. The FCC authorized frequency coordinators for the appropriate service will be notified of any "give back" frequencies and their recommended reassignments.

19.2 The applicant evaluation criteria established in this Regional Plan are to be considered for recommendation purposes. In such cases where specific channels are requested by numerous applicants, the user prioritization by service and function, as outlined in this plan, will be utilized for making the recommendation. In all cases, area coverage and channel loading criteria as described in this plan will be applied. An agency will not be allowed to "farm down" frequencies to other services within their political structure unless it can be justified by loading and is approved by the RPRC in accordance with the normal coordination process. It is not consistent with the goals and objectives of this plan to permit the direct reassignment of radio frequencies between like agencies of different jurisdictions. Agencies failing to give back channels, as agreed, will be subject to recommended forfeiture of their 821-824/866/869 MHz channels. For example, if an agency applies for a five (5) channel trunked system to replace specific existing UHF channels and, after a reasonable implementation and testing time of its trunked system, should the agency decide not to give back its lower frequencies and be unable to justify that decision to the satisfaction of the RPRC, the RPRC may recommend to the FCC that all or part of the newly licensed frequencies be withdrawn.

20. SYSTEM ENGINEERING EXHIBIT

20.1 All requests to the RPRC for additional frequencies must include sufficient data for the RPRC to be able to determine proposed system operating parameters.

20.2 The system engineering exhibit must contain at a minimum the following information:

1. Transmit output power.

2. Type of cavities (duplexer and combiner) and associated losses.

3. Type of transmission line and associated losses (including jumpers).

4. Each antenna model and gain.

5. Ground elevation above mean sea level at each site.

6. All antenna centerlines above ground level (AGL).

7. Height above average terrain (HAAT) of all antenna centerlines.

8. Effective radiated power (ERP) as determined by items 1 through 4.

9. Service area determinations.

10. Control station information.

11. Co-channel design protection.

12. Adjacent channel design protection.

21. DEFINITION OF SERVICE AREA

21.1 "Systems Coverage" or "Service Area" is defined as the boundary where received signal strength falls to 41 dBu. This represents a system use factor that should provide 95/95 coverage, which is the industry standard for public safety communications. dBu is a field strength measurement with one microvolt per square meter as a reference. 20 dB above 20 dBq provides for a system use factor that should provide 95/95 coverage, which is the industry standard for public safety communications.

22. CALCULATION OF SERVICE AREA

22.1 Three factors must be known to determine service area: (1) received signal strength, (2) antenna h eight above average terrain (HAAT), and (3) effective radiated power (ERP). Received signal strength has been defined, leaving two factors that can be modified to achieve the desired coverage.

22.2 It will be permissible for agencies requesting system authorization to determine the distance to the 41 dBu boundary on a radial-by-radial basis, with a minimum of eight equally spaced radials at 45 degree intervals, beginning at true north, and plot the service area boundary based on these points. This plot should be submitted with the request for frequencies to show that the service area outside the agency's political jurisdictions is being kept to a minimum.

23. PROPOSED SERVICEC AREA EXHIBIT

23.1 An agency shall provide, along with its request for frequencies, an exhibit showing the calculated service area, methodology used and the agency's jurisdictional boundaries. The boundaries must be drawn to scale on a 1:250,000 USGS map with a title block including the name of the requesting agency, height above average terrain, effective radiated power, latitude, longitude, ground elevation of the transmitting site, and the distance to the service area boundary in miles, as calculated.

23.2 An additional exhibit showing the average elevation of the terrain of each of the eight main radials will be required. If an outside source is used for the calculations of average terrain, a copy of this report can be substituted for the average elevation exhibit. (See 90.309 (4) (2), copy attached as Appendix E)

24. CONTROL STATION

24.1 Control stations shall use directional antennas. The received signal at the repeater shall be no more than 41 dBu. Proposed control stations shall be located within the service area, unless documented proof is given showing that more power and/or additional station(s) out of the primary service area are required for system access.

24.2 A list of proposed control station locations; including latitude, longitude, effective radiated power, and height of antenna above ground level; shall be provided with the request for frequencies.

25. CO-CHANNEL DESIGN

25.1 The signal strength of the proposed system is to be calculated by the same method as outlined in "Calculation of Service Area," elsewhere in this plan.

25.2 After the distance from the proposed transmitter site to the existing service area contour is determined, the received signal strength of the proposed system can be found by calculation using antenna height above average terrain, effective radiated power, topographical features, and distance. If it is determined that the margin of protection is insufficient, the proposed system must be modified to meet the protection criteria. Step-by-step procedure for performing the series of interference calculations is included in Appendix D.

26. ADJACENT CHANNEL DESIGN

26.1 Proposed systems must also be designed for interference free operation with adjacent channel licenses. The 25 dBu contour of the proposed system shall not intersect or touch the 41 dBu contour of any existing system with one or more adjacent channels. The method of determination is identical to that of co-channel design as detailed in Appendix D, with the exception of the existing-to-proposed signal margin criteria. In the case of adjacent channel system, this margin will be reduced by 20 dB. All other calculations will remain the same.

26.2 It should be noted that the FCC has adopted technical standards for transmitters which will reduce adjacent channel interference and permit closer geographical adjacent channel use. However, the commission has not adopted improved receiver technical standards. It is the position of the commission that receivers do not cause interference, nor do they threaten effective operation of the public safety network, as would substandard transmitters.

26.3 Because of the heavy demand for limited spectrum, it is the intent of this plan to provide efficient spectrum utilization within current technological capabilities. Users should carefully consider the receiver selectivity specifications of any equipment to be purchased. All Channel assignments from this plan will be recommended in accordance with equipment specifications from the National Plan.

27. FREQUENCY REUSE

27.1 Careful adherence to the system technical design requirements of this plan will allow for maximum co-channel usage within this region. Because of the close proximity of adjacent channel frequencies, adjacent channel considerations must be planned similarly to that of co-channel design.

27.2 A user requesting frequencies that have been previously licensed within this region or an adjacent region must show that their proposed system will operate without harmful interference with any existing co-channel system. Requesting users must demonstrate that the proposed system will provide an existing-to-proposed signal margin of at least 36 dB at the service area boundary of the existing system.

28. TRUNKING GUIDELINES

28.1 As referenced in the National Plan, trunking is mandated for any new system with five or more channels in the 806-809/851-854 MHz spectrum. Requests for exceptions will be considered by the RPRC for mobile data use,

encrypted signals, and telemetry stations. Other requests for waiver of the trunking requirement will be considered after presentation of evidence by the requesting agency. Waiver of the trunking requirement will be based on the individual merits of the situation, but must be in compliance with the Report and Order.

29. AIRCRAFT OPERATIONS

29.1 Since aircraft operation of trunked radios tends to disrupt adjoining systems because of the height of the transmitting aircraft above ground level, aircraft use of the plan channels is prohibited under most circumstances unless compelling reasons are presented to and approved by the RPRC.

29.2 This will not apply to the National Mutual Aid Calling or TAC channels. Simplex (talk-around) operation of aircraft radios on the ground is suggested for on-scene communications. The effective radiated power of all aircraft transmitters shall be limited to 1 watt maximum on trunked systems.

30. COMMERCIAL RADIO-TELEPHONE USE

30.1 The use of a mobile radio as a telephone via interconnect through an 800 MHz trunked radio system or other two-way radio communications system will normally require an excessive amount of air time compared to dispatch traffic. Therefore, the use of a defeatable interconnect for radio telephone use, although not prohibited, is discouraged for systems implemented under this Regional Plan except where no cellular service is available. The use of cellular telephones for automatic service on the PSTP is recommended. Utilization of cellular telephone networks will not impact radio systems requirements implemented under this plan.

31. USE OF LONG-RANGE COMMUNICATIONS

31.1 During incidents of major proportions where public safety requirements might include the need for long range communications into and out of a disaster area, alternate radio communications plans are to be addressed by lead agencies within the region. These agencies shall integrate the appropriate interface to the five national Channels as a minimum. Such long distance radio communications might include amateur radio operations, satellite communications and/or long-range emergency preparedness communications systems. Any or all should be incorporated as part of the communications plans of those lead agencies. They then could provide the means to communicate outside the area for themselves and the smaller agencies which might need assistance. Instances as addressed in the National Public Safety Planning Advisory Committee's Plan such as earthquakes, hurricanes, floods, widespread

forest fires or nuclear rector problems could be a cause for such long-range communications needs.

32. INTERREGIONAL COORDINATION PROCEDURES

32.1 By adhering the FCC accepted method of computer generated frequency packing as provided by C.E.T., Inc., the Region 20 Planning Committee believes this plane complies with the coordinating requirements. This compliance is based on the timing of the computer run which was purposely delayed to allow the Region 28 frequency packing to run to be accomplished before the Region 20 run was performed, therefore taking into account the edge affected on our northeastern border.

32.2 We further believe any plan submitted by other bordering regions should be performed by C.E.T., Inc. in order to provide a consistent consideration of the edge effect as each region is fitted into the Mid-Atlantic States. The plan specifies that the RPRC will continue to coordinate with bordering regions to address any potential further problem involving repacking and reuse of frequencies. Letters have been received from the chairmen of Regions 28, 36, and 42 indicating their concurrence with this plan.

REGION 20 COMMITTEES

33. THE REGIONAL PLAN REVIEW COMMITTEE (RPRC)

33.1 A communications plan that is as broad in scope as this regional plan requires periodic modification due to advances in technology, omissions in the original document, or other unforeseen circumstances. Therefore, a RPRC shall be established to periodically review the plan and submit requests for significant changes to the FCC and to allow eligibles a forum to address problems relating to the plan. Moderate changes will be provided to the FCC to keep their plan current.

33.2 The RPRC shall accept comments and requests at six (6) month intervals and be prepared to file requests for modifications to the plan once each calendar year. A schedule for receiving and filing of comments shall be adopted and advertised by the Committee.

33.3 In order to facilitate the timely filing of applications for frequencies, the APCO Frequency Coordinator shall establish a subcommittee of the RPRC to review and process applications. This subcommittee will meet at no less than bi-monthly intervals if there are applications pending to ensure timely scheduling of acceptance, review and processing of applications. The RPRC shall be responsible for naming individuals to serve on the Applications Committee.

33.4 The RPRC shall be representative of all eligibles in the region. To ensure appropriate representation, the committee shall have thirteen (13) members and be constituted as outlined below:

1. APCO, Mid-Eastern Chapter, MD-DC, Frequency Coordinator
2. The RPC shall appoint three (3) representatives (one each) from the following areas:

    a. City of Baltimore
    b. Environmental Agency
    c. Baltimore Metropolitan Area local government

3. The COG shall appoint three (3) representatives (one each) from the following areas.

    a. Northern Virginia
    b. Washington, D.C.
    c. Maryland (Washington, D.C. Metropolitan Area)

4. Maryland State Police Electronic Services Commander or his/her designee.
5. Public Works/Utilities
   This position may be filled by a state or local employee representing these service providers.
6. Special emergency Radio Services/Emergency Medical Service (SERS/EMS)

   a. This position may be filled by a representative with statewide authority.
   b. A local government representative may serve as alternate.

7. Emergency Management/Civil Defense Agency (EM/CDA)

   a. This position will be filled by a State of Maryland Emergency Management representative.
   b. A local government representative will serve as alternate.

8. Law enforcement Services
   This position will be filled by a local agency representative.

9. Fire Services
   This position will be filled by a local agency representative.

33.5 The APCO Frequency Coordinator will serve as Chairperson Pro Tem until the RPRC is constituted, meets and elects a chairperson and other officers deemed necessary by the Committee.

33.6 The Region 20 Planning Committee will appoint the first RPRC once the Region 20 plan has been approved by the FCC. This appointment will be the last official act of the Region 20 Planning Committee. Once appointed the RPRC will assume responsibility for the administration of this plan.

34. **TERMS OF APPOINTMENT**

34.1 Membership on the RPRC will be for two (2) years, except for the APCO Frequency Coordinator and the Maryland State Police Electronic Services Commander, who are permanent members of the committee. All members of the committee shall continue to serve in office until their successors are appointed.

34.2 In odd number years, the following positions will be filled for two (2) year terms (except for the first year which will be a one 91) year term).

1. RPC, City of Baltimore Representative

2. RPC, Environmental Agency Representative
3. COG, Washington, D.C. Representative
4. Public Works/Utilities Representative
5. SERS/EMS Representative
6. EM/CDA Representative

34.3 In even number years, the following positions will be filled for two (2) year terms.

1. RPC, Baltimore Metropolitan Area Local Government Representative
2. COG, Northern Virginia Representative
3. COG, Maryland (Washington, D.C. Metropolitan Area) Representative
4. Law Enforcement Services Representative
5. Fire Services Representative

35. FILLING VACANCIES

35.1 To fill a vacancy which occurs during a representative's term of office, the Agency/Service representative will notify the Committee Chairperson, in writing, of the resignation from the Committee. The Committee will appoint another person to complete the unexpired term.

35.2 To fill normally occurring vacancies, the RPRC will appoint a nominating committee to seek nominees for those positions becoming vacant. These nominees will be presented to the annual public meeting of eligible services for election. Nominations will also be accepted from the floor prior to elections.

36. MEETINGS

36.1 Regular meetings of the RPRC will be held semi-annually in (MONTH) and (MONTH), or as called by the Chairperson.

36.2 Written notice giving date, time, and locations of all regular meetings must be e-mailed to members at least two (2) weeks prior to the meeting date.

36.3 Special meetings may be called by the Chairperson, or upon written request of five (5) members of the RPRC. Notification of special meetings may be made by telephone, e-mail, or other means, provided that notice is given to all members or their appointing authority not less than forty-eight (48) hours prior to the meeting date.

36.4 Meetings shall be conducted in accordance with Roberts Rules of Order.

37. OFFICERS

37.1 CHAIRPERSON

The Chairperson shall call meetings, set the agenda for meetings, preside at meetings, and, with concurrence from the RPRC, appoint sub-committees when needed. In the event of an emergency, the chairperson may initiate any action deemed appropriate. Emergency conditions are defined as circumstances or events that require immediate action. The Chairperson will notify the RPRC members, in writing, of the action taken in such circumstances. Any emergency action taken by the Chairperson will be subject to approval, revision, or rescission by the RPRC at the next regular or special meeting.

37.2 VICE CHAIRPERSON

The Vice chairperson shall assume the duties of the Chairperson in his/her absence. The Vice Chairperson shall also perform other duties assigned by the chairperson.

37.3 SECRETARY

The Secretary shall notify members of all meetings, shall record the minutes of all meetings, and shall distribute copies of the minutes to all RPRC members and others designated by the Chairperson. The Secretary shall maintain any other RPRC records required and also perform any other duties assigned by the Chairperson.

37.4 OTHER OFFICERS

The RPRC may elect any other officers to serve as it deems necessary and appropriate.

38. QUORUM

38.1 A quorum shall consist of a combined total of no fewer than seven (7) RPRC members or appointed alternates present and eligible to vote at any regular or special meeting.

39. RESPONSIBILITIES, RULES, AND POLICIES

39.1 The RPRC shall assume the following responsibilities and establish rules and policies which will benefit the Public Safety and special Emergency Radio Services within Region 20:

- ~ elect a Chairperson
- ~ with FCC approval, modify RPRC membership
- ~ publish meeting schedules
- ~ determine RPRC voting standards
- ~ set response time to process received frequency applications
- ~ develop applicant appeal process
- ~ audit implementation schedules of those systems subject to the guidelines established in this plan
- ~ enact policy in reference to give-back frequencies
- ~ maintain coordination with neighboring regional committees
- ~ participate in the annual meeting of all regional committees
- ~ promulgate other rules and procedures as necessary to benefit the aforementioned services.

40. [Skipped - Does Not Exist in Document]

CHANNEL ASSIGNMENTS BY GEOGRAPHY & POPULATION IN REGION 20

41. CHANNEL ASSIGNMENTS

41.1 The computer generated frequency assignment of this plan has been performed by C.E.T., Inc. using their database information. This planning committee provided the geographic areas and population projections for the year 2000.

41.2 With the limited frequency resources available to the region, it would be impossible to satisfy the requests if many of the public safety and special emergency providers expressed interest in licensing systems in the 800 MHz band. This committee elected to provide a frequency assignment plan based on the population of each given geographic area within the region in order to establish a maximum use alignment with an equitable distribution of the available 800 MHz frequencies as set forth in General Docket No. 87-112.

41.3 We recognize that many public safety or special emergency providers will not choose to implement 800 MHz systems. It can be expected these providers will want to expand their present systems and will be awaiting the lower band frequencies to be returned for reassignment.

41.4 This planning committee, therefore, urges the RPRC to encourage the various agencies to cooperate with each other and with the appropriate frequency coordinators in the processor exchanging radio frequencies to the benefit of all public safety and special emergency service providers.

41.5 By the equal distribution of these 800 MHz allocations, the service provider agencies in each area of the region has vested interest in the cooperative effort.

41.6 To provide the interoperability required for coordinating the various services, this planning committee has prescribed certain intraregional channels for all like services on different frequency bands to interface with each other via console patch technology in a similar manner presently used with the limited mutual aid systems. This planning committee believes that by providing a plan of maximum frequency use as contained in the initial document and fostering a cooperative effort in the assignment of “give back” frequencies. This limited allocation of 800 MHz frequencies can and must alleviate the present frequency shortage in the Baltimore-Washington area while tending to produce a higher level of efficiency in both the new and older frequency allocations.

See Appendix I – Channel Assignment

APPENDICES

APPENDIX A

Participation Compliance & Committee Selection Process

The selection of the Region No. 20 Planning Committee proceeded using the guidelines as set forth in General Docket No. 87-112.

The Governor established eligibility to include the participants representing the radio services as described in FCC Part 90 under subpart (B) Public Safety Radio Services and subpart (C) Special Emergency Radio Services.

Early meetings were held using the established public safety communications committee of the Metropolitan Washington Council of Governments (COG) and the Baltimore Regional Planning Council (RPC). Each of these agencies participated in the planning and advertising of the public meeting required to establish the Public Safety Communications Planning Committee for Region No. 20, as described in the docket under Appendix B. The burden of advertising and notifications were shared equally by COG and the RPC, with the State of Maryland absorbing the monetary costs of the advertising.

The public meeting notice, related advertising and notifications are attached as Tabs 1, 2, 3 and 4 of this appendix. In addition to the public notice being placed in the two major newspapers covering the area, the notice was carried in the Maryland Register and municipal Maryland publications. To further ensure coverage, both the RPC and COG made mailings to all county and major city heads of government in the region.

The public meeting held on May 25, 1988, was attended by participants listed on roster attached as Tab 5. At this meeting, each participant was requested to fill out a registration form, a copy of which is attached as Tab 6.

This form contained questions concerning qualifications, experience, major interest, etc. From that information the Operational and Technical Committee Chairmen was able to recruit members for their committers from all eligible services.

At the public meeting, the Convenor was elected as the Chairman of the Regional Planning Committee, and the Operational and Technical Committee Chairmen were selected. A copy of the agenda and meeting notes are attached as Tabs 7 and 8 of this Appendix.

Committee meeting schedules were proposed. Each committee shall meet monthly or more often if required. Every quarter, or as declared appropriate, both committees shall hold a joint meeting open to the public for their comments and input.

Proposed completion of the planning process was set as June 30, 1989.

TAB 1

State of Maryland
Department of General Services

WILLIAM DONALD SCHAEFER
Governor

EARL F. SEBODA, P.E.
Secretary

DESIGN & CONSTRUCTION
RECORDS MANAGEMENT
PLANT MANAGEMENT
SPACE MANAGEMENT
LAND ACQUISITION
PRINTING & PUBLICATION
TELECOMMUNICATIONS
PURCHASING & MATERIALS MANAGEMENT
ADMINISTRATIVE & FISCAL SERVICES
MULTISERVICE CENTERS

PUBLIC NOTICE

Having been duly certified to the Federal Communications Commission (FCC) by the Associated Public-Safety Communications Officers, Inc. (APCO) to convene an initial public meeting of interested parties eligible for radio licensing in the FCC Part 90, Public-Safety and Special Emergency Radio Services, and to establish a Regional Planning Committee for the area encompassing the State of Maryland, Washington D. C. and the six Northern Virginia Counties of Arlington, Fairfax, Fauquier, Loudoun, Prince William and Stafford, and the cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park hereinafter described as Region 20, I hereby give Public Notice that such an initial meeting shall be held on May 25, 1988 at 1:00 PM (1300 hours) at the University of Maryland Campus, Training Academy Class Room Building, Fire Rescue Institute, Rhode Island Avenue and Rossbourgh Drive, College Park, Maryland (301) 454-2419.

The responsibility of this committee will be to develop and submit for FCC approval a plan for use of the recently allocated 800 Mhz frequency spectrum in compliance with the FCC Report and Order in General Docket No. 87-112 released on December 18, 1987.

Copies of the Report and Order are available from the FCC's duplication contractor, International Transcription Services, Inc., suite 140, 2100 M Street NW, Washington, D.C. 20037, Phone (202) 857-3800.

Weldon P. Hale, Convenor
Region Twenty of NPSPAC
State of Maryland
Department of General Services
Office of Telecommunications Management
301 W. Preston Street - Room 1304
Baltimore, Maryland 21201

(301) 225-4219

Weldon P. Hale
Convener

March 8, 1988
Date

TPNWPH.SL

Office of Telecommunications Management
301 WEST PRESTON STREET, ROOM 1304, BALTIMORE, MARYLAND 21201 (301) 225-4200
TTY for Deaf: Balto Area 383-7555
D.C. Metro 565-0451

TAB 2

THE BALTIMORE SUN COMPANY
P. O. BOX 75
BALTIMORE, MARYLAND 21203-9901

I N V O I C E

For advertising in " THE BALTIMORE SUN "

Ad # 30598

State of Md-Weldon Hale
Telecommunications Mgmt.
301 W. Preston Street Room 1304
Baltimore, Maryland 21201

Date	Description	Lines	Time	Amount
3/13/88	Legal Notice	72	1	$270.72

WE CERTIFY THAT THIS ADVERTISEMENT APPEARED ON THESE DATES, THAT THE ATTACHED BILL IS CORRECT, AND THAT PAYMENT HAS NOT BEEN RECEIVED.

THE BALTIMORE SUN CO.
Federal ID # 95-4066880

By S. Wisniewski, 3/19/88
Date

PAYMENT DUE UPON RECEIPT

If you have any questions regarding this balance please call (301) 332-6723

512

39 committee will be to develop
40 and submit for FCC approval a
41 plan for use of the recently
42 allocated 800 Mhz frequency
43 spectrum in compliance with
44 the FCC Report and Order in
45 General Docket No. 87-112
46 released on December 18,
47 1987.<cl>
48 <m>Copies of the Report and

OUTPUT TEXT

REGION 20 OF NPSPAC
COMMUNICATIONS PLANNING
PUBLIC NOTICE
<m>Having been duly certified to the Federal Communications Commission (FCC) by the Associated Public-Safety Communications Officers, Inc. (APCO) to convene an initial public meeting of interested parties eligible for radio licensing in the FCC Part 90, Public-Safety and Special Emergency Radio Services, and to establish a Regional Planning Committee for the area encompassing the State of Maryland, Washington, D. C. and the six Northern Virginia counties of Arlington, Fairfax, Fauquier, Loudoun, Prince William and Stafford, and the cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park hereinafter described as Region 20, I hereby give Public Notice that such an initial meeting shall be held on May 25,1988 at 1:00 PM (1300 hours) at the University of Maryland Compus, Training Academy Class Room Building, Fire Rescue Institute, Rhode Island Avenue and Rossbourgh Drive, College Park, Maryland (301) 454-2119.
<m>The responsibility of this committee will be to develop and submit for FCC approval a plan for use of the recently allocated 800 Mhz frequency spectrum in compliance with the FCC Report and Order in General Docket No. 87-112 released on December 18, 1987.
<m>Copies of the Report and

Order are available from the
FCC's duplication contractor,
International Transcription Services, Inc., suite 140, 2100 M
Street NW, Washington, D.C.
20037, Phone (202)
857-3800.
Weldon P. Hale, Convenor
Region Twenty of NPSPAC
State of Maryland
Department of General
Services
Office of Telecommunications
Management
301 W. Preston Street
Room 1304
Baltimore, Maryland 21201
(301) 225-4219

THE BALTIMORE SUN
BALTIMORE, MARYLAND 21278-0001

MAR 23 1988
..... 19 .....

WE HEREBY CERTIFY, *that the annexed advertisement of*

STATE OF MARYLAND
WELD ON HALE TELECOMMUNICATIONS
MGMT

was published in "THE BALTIMORE SUN" *a daily newspaper printed and published in the City of Baltimore*

MAR 13 1988

The Baltimore Sun Company,

By .....

367

REGION 20 OF NPSPAC
COMMUNICATIONS PLANNING
PUBLIC NOTICE

Having been duly certified to the Federal Communications Commission (FCC) by the Associated Public-Safety Communications Officers, Inc. (APCO) to convene an initial public meeting of interested parties eligible for radio licensing in the FCC Part 90 Public-Safety and Special Emergency Radio Services and to establish a Regional Planning Committee for the area encompassing the State of Maryland, Washington, D.C. and the six Northern Virginia counties of Arlington, Fairfax, Fauquier, Loudoun, Prince William and Stafford and the cities of Alexandria, Fairfax, Falls Church, Manassas, Manassas Park hereinafter described as Region 20, I hereby give Public Notice that such an initial meeting shall be held on May 25, 1988 at 10 AM (1300 hours) at the University of Maryland Campus, Training Academy Class Room Building, Fire Rescue Institute, Rhode Island Avenue and Rossbourgh Drive, College Park, Maryland 1201 454-2118

The responsibility of the committee will be to develop and submit for FCC approval a plan for use of the recently allocated 800 MHz frequency spectrum in compliance with the FCC Report and Order in General Docket No. 87-112 released on December 11, 1987

Copies of the Report and Order are available from the FCC's duplication contractor, International Transcription Services, Inc., suite 140, 2100 M Street NW, Washington, DC 20037, Phone (202) 857-3800

Weldon P. Hale, Convenor
Region Twenty of NPSPAC
State of Maryland
Department of General Services
Office of Telecommunications Management
301 W. Preston Street
Room 1304
Baltimore, Maryland 21201
(301) 225-4219

TAB 3

Ad # 141287 Name METRO WASH COUNCIL OF GOVT Size 57 lines
Class 120' Authorized by ZELINKA Account C6393570

PROOF OF PUBLICATION

The Washington Post

District of Columbia, ss., Personally appeared before me, a Notary Public in and for the said District, Patricia McCartney well known to me to be Credit Manager of The Washington Post a daily newspaper printed and published in the City of Washington, District of Columbia, and making oath in due form of law that an advertisement containing the language annexed hereto was published in said newspaper on the date mentioned in the certificate herein.

I Hereby Certify that the attached advertisement was printed and published in The Washington Post, a daily newspaper, upon the following date at a cost of $322.05.

Date 3/13/88
Account C6393570

Patricia A. Cartney

Witness my hand and official seal this 17th day of March 1988

H. Wilkerson Jr.

My commission expires March 14, 1992

PUBLIC NOTICE
Having been duly certified to the Federal Communications Commission (FCC) by the Associated Public-Safety Communications Officers, Inc. (APCO) to convene an initial public meeting of interested parties eligible for radio licensing in the FCC Part 90, Public-Safety and Special Emergency Radio Services, and to establish a Regional Planning Committee for the area encompassing the State of Maryland, Washington, D.C., the six northern Virginia counties of Arlington, Fairfax, Fauquier, Loudoun, Prince William and Stafford, and cities of Alexandria, Fairfax, Falls Church, Manassas and Manassas Park, hereinafter described as Region 20, I hereby give Public Notice that such an initial meeting shall be held on May 25, 1988 at 1:00 p.m. (1300 hours) at the Uni-

versity of Maryland Campus,
Training Academy Class Room
Building, Fire Rescue Institute,
Rhode Island Avenue and Ross-
bourgh Drive, College Park, Mary-
land, (301) 454-2119.
The responsibility of this committee
will be to develop and submit for
FCC approval a plan for use of the
recently allocated 800 Mhz fre-
quency spectrum in compliance
with the FCC Report and Order in
General Docket No. 87-112 re-
leased on December 18, 1987.
Copies of the Report and Order are
available from the FCC's duplica-
tion contractor, International Tran-
scription Services, Inc., Suite 140,
2100 M St., N.W., Washington, D.C.
20037, phone (202) 857-3800.
Weldon P. Hale, Convenor
Region Twenty of NPSPAC
State of Maryland
Department of General Services
Office of Telecommunications
Management
301 W. Preston St. Rm. 1304
Baltimore, Maryland 21201
(301) 225-4219

TAB 4

State of Maryland
Department of General Services

WILLIAM DONALD SCHAEFER
Governor

EARL F. SEBODA, P.E.
Secretary

DESIGN & CONSTRUCTION
RECORDS MANAGEMENT
PLANT MANAGEMENT
SPACE MANAGEMENT
LAND ACQUISITION
PRINTING & PUBLICATION
TELECOMMUNICATIONS
PURCHASING & MATERIALS MANAGEMENT
ADMINISTRATIVE & FISCAL SERVICES
MULTISERVICE CENTERS

April 6, 1988

Mr. Ralph Haller, Chief
Private Radio Bureau
Federal Communications Commission
2525 "M" Street N.W.
Washington, D.C. 20554

Dear Mr. Haller:

This is a brief report to inform you of the progress of the NPSPAC Region No. 20 convenor and the local communications task groups efforts to comply with the public notice requirements as stated in docket No. 87-112.

The attached copy of the notice announcing a public meeting to be held on May 25, 1988 has been run in the Washington Post and the Baltimore Sun in an effort to notify those eligibles of the general public.

In addition to the newspaper adds we are having this notice placed in the Maryland Register and the Municipal Maryland publications in an effort to cover all governmental eligibles. The communications committees of the Baltimore Regional Planning Council and the Washington Council of Governments are also sending out copies of this notice to each of the county or major city heads of government in their designated areas of coverage.

To date we are getting a relative good coverage report and we would appreciate any further distribution your office may be able to provide.

Sincerely yours,

Weldon P. Hale

Weldon P. Hale, Convenor
NPSPAC Region NO. 20

WPH:bgb

Attachment

Office of Telecommunications Management
301 WEST PRESTON STREET, ROOM 1304, BALTIMORE, MARYLAND 21201 (301) 225-4200
TTY for Deaf: Balto Area 383-7555
D.C. Metro 565-8551

TAB 5

REGIONAL PLANNING COUNCIL
2225 North Charles Street
Baltimore, Maryland 21218
554-5626, 554-5660

COMMITTEE: REGION 20 PUBLIC SAFETY COMMUNICATIONS PLANNING DATE: 25 May 88

TOPIC: PUBLIC MEETING

SPONSORING AGENCY: RPC AND LOCAL JURISDICTIONS, ET AL.

LOCATION: TRAINING ACADEMY CLASS ROOM, COLLEGE PARK HOURS: 1:00 p.m.-

RECORD OF MEETING ATTENDANCE

NAME	TITLE	AGENCY
William Goodwin	Fire Captain	Prince George's Co. Fire
Gene Kim Dimmitt	Adm Spec	Regional Planning Council
BILL TAYLOR	COMM OFFICER	A. A. COUNTY
Weldon Hale	Radio Admin	ST. of MD.
WALT DIXON	RADIO SPECIALIST	STATE OF MD.
TOM MILLER	CHIEF, MIEMSS COMM ENGR	MIEMSS UOM
Alan T. Keeley	Radio Tech. Supv.	STATE OF MD. DNR
Tom TRUSCOTT	Motorola	
Jeff Hutter	Comm. Officer	Alleg. Co. Civil Def
OWEN N MORRIS	DIRECTOR	ALLEG. CO. CIVIL DEF
Frank K. Price	Asst Chief Traffic	D.C. Dept. of Public
Janet Omeat	Systems Licensing Manager	Motorola
JOSEPH J ZELINKA	PUBLIC SAFETY PLANNER	COUNCIL OF CONTS (C
RICHARD JORDAN	ADMIN. AIDE	HOWARD COUNTY (MD) CENTRAL COMM.
NORMA BAIR	Admin. Assist / Emerg. Serv.	Carroll Co. Gov
Howard S. Redman Jr.	Admin. of Emergency Services	Carroll Co. Gov
Dr. Michael C. Trahos	Physician and Telecomm. Engineer, Jefferson (Memorial) Hospital	Jefferson Hospital
HARRY J MILLER	SR PUBLIC ENGR	STATE OF VA
CHUCK DENNIS	ASST. SUPERINTENDENT	BALTO. CO. ELECTRONICS
WAYNE RICHARDSON	MOTOROLA - INT. SALES MGR.	MOTOROLA

REGIONAL PLANNING COUNCIL
2225 North Charles Street
Baltimore, Maryland 21218
554-5626, 554-5600

ahvs
:CBG

COMMITTEE: REGION 20 PUBLIC SAFETY COMMUNICATIONS PLANNING DATE: 25 May 80

TOPIC: PUBLIC MEETING

SPONSORING AGENCY: RPC AND LOCAL JURISDICTIONS, ET AL.

LOCATION: TRAINING ACADEMY CLASS ROOM, COLLEGE PARK HOURS: 1:00 p.m.-

RECORD OF MEETING ATTENDANCE

NAME	TITLE	AGENCY
✓ Roy B. Shreve, Jr	Communications Engineer	Fairfax County AIV Comm
✓ Frank Stoda	Electronic Equip Super.	Fairfax County, Comm
✓ Mike Pitcher	Supt. Balto Co. CSD	Balto. Co.
✓ Thomas D. Mack	Deputy Chief	Baltimore County Fire Dept
✓ Denis G. McMahon	Batt. Chief	Balto. City FD
✓ Lee Brandt	Comsec Sprv.	Annapolis City PD
✓ Steve Shanck	Area Sales Manager	Motorola.
✓ Bernie Cook	Montgomery County Emergency Management	
✓ RAY MULHALL	Mont. City FIRE/RESCUE - CAPT.	
✓ Michael E. Bennett	Freq. Coord. - MSP - CPL.	M.S.P.
✓ W. MITCHELL VACKE	CAPTAIN	HARFORD CO EOC
✓ Jonathan P. Bigony	Communications Specialist	Prince George's County Govt
✓ Robert Barry	Chief Communications	Calvert Control Center
✓ Marty Barringer	Staff Engineer	Frederick G. Greffing P.C.
✓ STANLEY A. SINES	SERGEANT	METROPOLITAN POLICE D.C.
✓ THOMAS J. ABERNETHY	OFFICER	METROPOLITAN POLICE D.C.
✓ Howard KANE	MANA	G E Co
✓ RICH TOUROONJIAN	PROJECT ENGR	RAM COMMUNICATIONS
✓ Harry O. Hance	Comm. Commander	Alexandria Police
✓ Donald Tenner	Director	Frederick Co. Fire D

REGIONAL PLANNING COUNCIL
2225 North Charles Street
Baltimore, Maryland 21218
554-5620, 554-5600

akvs
1086

COMMITTEE: REGION 20 PUBLIC SAFETY COMMUNICATIONS PLANNING DATE: 25 May 80

TOPIC: PUBLIC MEETING

SPONSORING AGENCY: RPC AND LOCAL JURISDICTIONS, ET AL.

LOCATION: TRAINING ACADEMY CLASS ROOM, COLLEGE PARK HOURS: 1:00 p.m.-

RECORD OF MEETING ATTENDANCE

NAME	TITLE	AGENCY
JOHN WALTER	Asst Central Sec Off	Anne Arundel Co.
[illegible]	[illegible]	A.A. Co.
LARRY BALL	Disp Director	Mont Co. Communications
DAVID T. Yohman	1/LT - CMDR, E.S.P.	Md State POLICE
RICHARD E. SHAFER	Training Disp	Harford County
Jeffrey Krauss	Consultant	—
Bobby Osborne	Service Communication Office	Direct Control Center
Timothy M. Kimble	Asst. Chief Disp. Transportation-S.U.	Fauquier Co. Sheriff's Dept
Tom W. Reese Sr.	Chief Disp.	Fauquier Co. S.U.
F.I. Hiller	Chief Equipment Arlington	Arlington Co.
Sgt. Don O'Neil	Administrative Sergeant	Greenbelt Police Dept.
Bill Holland	Communications Supervisor	" "
Bernd Fering	GE Sales Manager	GE
Joe FRIEND	Dep Administrator Nat'l Res. M/	MD DNR
Andrew D. Marsh	Fire Rescue Coordinator	Frederick County
Charles H. Couture	Emergency Comm. Tech	Alexandria Fire Dept
Karen Davis	City of Fairfax PD Va	—
~~LEE SIMMS~~	~~Loudoun Co. SO Leesburg VA~~	—
LEE SIMMS	CHIEF OF COMMUNICATIONS	LOUDOUN SHERIFF'S OFFICE
BILL JOHNSON	COMMANDER, COMM. DIV.	PR. GEO. COUNTY POLI

REGIONAL PLANNING COUNCIL
2225 North Charles Street
Baltimore, Maryland 21218
554-5626, 554-5600

akvs
1086

COMMITTEE: REGION 20 PUBLIC SAFETY COMMUNICATIONS PLANNING DATE: 25 May 88

TOPIC: PUBLIC MEETING

SPONSORING AGENCY: RPC AND LOCAL JURISDICTIONS, ET AL.

LOCATION: TRAINING ACADEMY CLASS ROOM, COLLEGE PARK HOURS: 1:00 p.m.-

RECORD OF MEETING ATTENDANCE

NAME	TITLE	AGENCY
E. William Enright Jr.	Dep. Chief Engr. - Maint.	MD SHA.
Clifford T. Yingling	Chief Bureau Communications	MD SHA
Don A. Premo	Disaster Comm Chmn	Am Red Cross
Jim Bird	Sgt. Comm. Bureau	Pr. Wm. Co. P.D.
Wayne Ayers	Lt.	Prince William Co. Fire
Sam Somers	Communications Engineer	County of Prince William, Tahrum.
[illegible]	Captain Comm. Center	Balto City Police Dept
[illegible]	PG Co. FD / IAFF Comm Cen	MAJOR
W. Van Aller	Montgomery Co	Comms
Gregg Obuch	Montgomery County Govt	Telecommunications
Kevin McGee	EMS Operations Lieutenant	Prince William Co. Fire-Rescue
Laurence Demmeo	on Office	
Steve Souder	on Office	

Tab 6

PUBLIC SAFETY COMMUNICATIONS PLANNING COMMITTEE

REGION # 20

REGISTRATION FORM

NAME: _____

HOME ADDRESS: _____

CITY: _____

STATE: _____ ZIP: _____

HOME TELEPHONE: ___(___)_____

AGENCY OR BUSINESS ADDRESS: _____

CITY: _____ STATE: _____

AGENCY OR BUSINESS TELEPHONE: ___(___)_____

I (would) (would not) be willing to serve on a standing committee. (once a month)

Signature _____

Qualifications and experience:
Please check all that apply

___Administration
___Operation
___Maintenance
___Engineer
___Technican
___Commercial
___Consultant
___Other _____

PUBLIC SAFETY

___Police/Law Enforcement
___Local Government
___Fire
___Highway
___Forestry/Conservation
___Federal
___Other _____

SPECIAL EMERGENCY

___Medical
___Rescue
___Physically Handicapped
___Disaster Relief
___School Buses
___Beach Patrols
___Other _____

CIRCLE ONE MAJOR INTEREST

Tab 7

BALTIMORE-WASHINGTON REGIONAL PUBLIC SAFETY COMMUNICATIONS PLANNING ADVISORY COMMITTEE

PRIMARY GOAL: To develop a growth management plan for the Public Safety radio services which will provide a structured plan for use of the 800 MHz spectrum ion which the general Public Safety and support services will be able to develop the desired interoperability while satisfying their agency communications requirements.

SPECIFICS TO BE ADDRESSED:

1. This plan will address a group of channels in addition to the five (5) national channels on which interservice and intraservice communications will be conducted.

2. An assignment of frequencies which will be reserved for growth of State and Local Government agencies on a regional basis fostering the reuse of the channels within and on the perimeter of the region.

3. The plan may reserve blocks of channels to be made available through structured time frames to ensure any agency investing in this band will be assured of some growth potential over a period of at least 15 to 20 years.

4. Develop a plan for the release and reuse of frequencies in the lower bands as agencies migrate to the 800 band.

   EXAMPLE: T band channels should be used to expand existing systems before being offered for building new systems which would only increase the probability of over loading the existing systems as there are no new frequencies either available or expected in this portion of the spectrum.

5. This plan shall be reviewed by a select committee of users and there shall be provided a 15-day window each year in which modifications to the plan may be submitted to the FCC for evaluation and consent.

6. Develop a guideline for those agencies operating on the 800 MHz systems to enable the cross communications or interoperability of system users.

7. Provide operational guidelines and techniques for the out of band users to be able to interface with the 800 MHz systems as they come on line.

Tab 8

MINUTES OF

REGION 20 PUBLIC MEETING ON

INITIATION OF A REGIONAL PLANNING PROCESS

FOR IMPLEMENTATION OF THE FCC

NATIONAL PLAN FOR USE OF THE 821-824/866-869 MHZ

BANDS BY THEPUBLIC SAFETY SERVICES

CALL TO ORDER

A public meeting to initiate the regional planning process in Region 20 for implementation of the FCC National Plan for the Public Safety and Special Emergency Radio Services Communities' use of the 821-824/866-869 MHz bands was called to order at 1:15 p.m. on May 25, 1988 at the Maryland Fire Rescue Institute Training Academy, Rhode Island Avenue and Rossbourgh Drive, College Park, Maryland. Attendees are listed on sign-in sheets as enclosure.

CONVENOR

Mr. Weldon P. Hale, State of Maryland, Office of Telecommunications Management, called the meeting to order and introduced himself as the Convenor for Region 20 planning. He was appointed Convenor by the Associated Public-Safety Communications Officers, Inc. (APCO), acting under its frequency coordination responsibilities. Mr. Hale appointed Joseph J. Zelinka, Metropolitan Washington Council of Governments, as temporary Secretary for the purpose of recording the Minutes of the Meeting.

PURPOSE

Mr. Hale explained that the purpose of this meeting is to meet the mandates as set forth in FCC docket 87-112, which is an allocation docket of 800 MHz frequencies for Public Safety and special Emergency Radio Services.

REQUIREMENTS

The Docket also states that the Associated Public-Safety Communications Officers, Inc. (APCO), acting under its frequency coordination responsibilities, will be responsible for convening a meeting to initiate the planning process for

each region. At the first meeting, a Regional Chairman must be elected. APCO will certify the name to the Chief, Private Radio Bureau. In developing the regional plans, the committees should take into account the National Plan criteria, local needs, and inter-regional considerations. Once the plan for a region has been finalized, an original and five (5) copies of the plan should be forwarded by the Regional Planning Chairman to the Secretary, Federal Communications Commission, Washington, D.C.

HISTORY OF NATIONAL PLAN

Mr. Hale next gave a brief history of the development of the National Public Safety Plan for the 800 MHz spectrum. This history is included as an enclosure.

CONTENT OF NATIONAL PLAN

Following the history, Mr. Hale reviewed the content of the national Plan. This review is included as an enclosure.

ELIGIBLES

The next item discussed by Mr. Hale was the subject of "eligibility". The FCC "Notice of Proposed Rule Making" defines "public safety authorities" as entities licensed in the Public Safety Radio Services and the Special Emergency Radio Services (SERS), eligible to operate in the new public safety bands. Public Safety defined in sub-paragraph c includes: local government, police, fire, highway maintenance and forestry conservation. Special Emergency Radio Services include: medical, rescue, physically handicapped, veterinarians, disaster relief, school buses, beach patrols, and other miscellaneous organizations.

NATIONAL PLAN ELEMENTS

Mr. Hale then read the twelve (12) elements that must be addressed in a regional Plan. These elements are as enclosure.

CONCLUDING REMARKS

In brief remarks concluding his background discussion, Mr. Hale recommended that the regional planning committee take advantage of certain standing committees already in existence in the Washington area with the council of Governments and in the Baltimore area with the Regional Planning Council. The diagram as enclosure was displayed which depicts certain functional area alignments for a regional planning committee. Mr. Hale went on to explain that Region 20 encompasses the entire State of Maryland, the District of Columbia

and the following six counties and five independent cities in Northern Virginia: Stafford, Fauquier, Loudoun, Prince William, Fairfax, Arlington, Alexandria, Falls Church, Fairfax City, and Manassas Park.

SELECTION OF CHAIRMAN

The next order of business was to accept nominations for Chairman, Region 20 Planning Committee. Lt. David Yohman, Commander, Electronics Services Division, Maryland State Police placed in nomination the name of Weldon Hale. This nomination was seconded by Tom Miller from the Maryland Institute of Emergency Medical Services System (MIEMSS). There being no other nominations, a vote was taken and Weldon Hale was elected Chairman of the Region 20 Planning Committee.

SELECTION OF VICE CHAIRS

The new chairman asked that a motion be made that would permit him to appoint, rather than elect, vice chairs and to assign committee responsibilities. Such a motion was made by John Bigony of Prince George's County and seconded by W. Van Aller, Montgomery County Engineer. A vote was taken and the motion passed.

The Chairman then appointed Stephen H. Souder, Administrator of the Arlington County Emergency Communications Center and Chairman of the Washington Area Task Group as a vice Chairman to chair the "Operational" Task Group. Walter Dixon, present chairman of the Baltimore Area Task Group, was appointed as a vice Chairman to chair the "Technical" Task Group.

COMPOSITION OF REGIONAL COMMITTEE

The Chairman remarked that he is looking to the Vice Chairs to do the bulk of the work in developing the regional plan. Also, the Chairman asked the Vice chairs to limit membership on their respective Task Groups to not fewer than six (6) and no more then ten (10) members. He is looking for representation from the Washington and Baltimore Communications Groups and from eligibles represented at this meeting. The functional area representatives will act as conduits for all eligibles to have their concerns addressed.

. .

ASSIGNMENTS TO TASK GROUPS

The Chairman next asked Messrs. Souder and Dixon to fill-in names against positions on a diagram of the two Task Groups. The following names were added:

OPERATIONAL

Emergency Management
Bennie Cook, Montgomery County

EMS
Lt. Kevin McGee
Prince William County FD

Fire
Captain Randy Mottram
Fairfax County FD

David Wise
Howard County FD

Highways
Rick Hiller, DPW/Arlington Co.

Local Government
Bill Curry, DC/OEP

Police
Captain Bill Johnson
Prince George's County Police

Lt. David Yohman
Maryland State Police

TECHNICAL

TBD*
William Taylor, Anne Arundel County

TBD*
Mike Pitcher
Baltimore County

EMS
Tom Miller, Maryland Institute of
Emergency Medical Services System

Natural Resources
Alan Kealey
Department of Natural Resources

TBD*
William Van Aller
Montgomery County

* Functional Area to be determined.

The Chairman also directed the Vice Chairs to Look through the registration forms completed at this meeting to determine if other functional areas need to be added. The goal is for every eligible to have a contact on one or both Task Groups.

PLANNING GUIDELINES

The Chairman presented each Vice Chair with a set of planning guidelines and reviewed the headings of the guidelines with all present at the meeting. No county review is required. For all other guidelines, responsibility was assigned to either an Operational, Technical or Joint Task Group. The Chairman discussed the need for a standing committee to address frequency reassignments and an annual open period for changes to the plan. The Plan cannot be rigid but must adapt to new technologies.

MEETING SCHEDULE

The Chairman called on Steve Souder to explain future meetings. The Task Groups will meet once a month for the next three months (June, July, and August). The third such meeting (in August) will be open to all interested parties. All eligible members can submit agenda items to the Task Groups if provided two weeks in advance of the meeting date. FCC and APCO liaison will be conducted by the REgional Chairman and the two Vice Chairs. These same people will serve as an inter-regional liaison with Richard Renolds of Delaware for Philadelphia Region 28 and with Harry Miller for Virginia Region 42.

PLAN COMPLETION DATE

The next item on the agenda concerned an objective on June 30, 1989 for completion and submission of the Regional Plan to the FCC. In order to meet this objective in thirteen months, the Chairman commented that both task groups have their work cut-out for them.

QUESTION AND ANSWER PERIOD

The Chairman next opened the meeting for questions from the floor.

Mr. Van Aller - Montgomery County. Is there anything in the guidelines as to what the FCC is looking for?

Mr. Hale. The guidelines are a skeleton of a plan on which to hang the meet of our plan. The guidelines can be accepted in their entirety or rejected.

Mr. Van Allers. Did the guidelines come from the FCC?

Mr Hale. No. They came from New York with some modifications done by myself.

Wayne Richardson - Motorola. What is the attitude of vendors being involved in these Committees (Task Groups).

Mr. Hale. Committee members should call on the expertise of vendors and consultants whenever and wherever needed.

Mr. Hale next commented on a movement to hold up planning under Docket 87-112 in order to address "Open Architecture". He suggested that Open Architecture, although a good concept, shouldn't be attached to Docket 87-112 because of the delay implied.

Major Grandados - Prince George's Fire Department. Noticed shortage of veterinarians and other unusual special interest groups. Why are they not in attendance? They shouldn't be overlooked.

Mr. Hale. All were invited through the public notices in area newspapers and state publications and spots are built into the Task Groups to accommodate all eligibles.

Mr. Van Aller. Will the individual regional plans be developed into a National Plan?

Mr. Hale. No. there is already a National Plan which allows for a regional plan to be tailored to each region's unique needs. The regional plan must conform to certain general guidelines in the National Plan and if a conflict arises, the National Plan will prevail.

Ken Anderson - baltimore City Police Communications. Don't put vendors on the Committees, we could be open to criticism for reason of conflict of interest. Call on them for their expertise as needed but outside the committee structure. Comments was acknowledged.

Walt Dixon - MD Office of Telecommunications Management. Is a vote needed on the Open Architecture issue to leave it out of the plan for the present?

Bill Ensor - Maryland SHA. Why rush the address Open Architecture if not required.

Mr. Hale. Open Architecture is not a particular problem for Region 20 but could cause delays in regions with frequency binds. Any delay could cut into the five (5) year period for submitting plans before losing a percentage of frequencies. Open Architecture is a technical problem and not an allocation problem and it belongs in a separate petition to the FCC and not attached to Docket 87-112.

Bill Goodwin - Prince George's Fire Department. Biggest impact of Plan is being told to give up existing lower band frequencies. This Plan is intended to eliminate the politics said to exist in the lower frequency allocations. It is in your best interest to participate in the planning, if not for 800 MHz frequencies, then to

protect your lower band frequencies. We should support Open Architecture through involvement with APCO but still concentrate on working with the present National Plan.

Tom Mack - Baltimore County Fore Department. Supports vendors being on the Committees. NEPS and insurance companies use vendors for writing standards for fire departments. Vendors can be helpful in this planning effort and they would know we are serious in our concerns and begin gearing up for this potential market.

ADJOURNMENT

There being no further comments from the floor, the Chair asked for a motion for adjournment. Ric Hiller of Arlington County made a motion for adjournment which was seconded by Lt. Dave Yohman of the Maryland State Police. There being no further business, the meeting adjourned at approximately 2:45 p.m.

/s/ Joseph J. Zelinka
Joseph J. Zelinka, Secretary
Metropolitan Washington
Council of Governments

/s/ Weldon P. Hale
Weldon P. Hale, Chairman
Region 20 Public Safety
Communications Planning
Committee

APPENDIX B

Population & Trends

APPENDIX B

Region 20 – Populations & Trends

Maryland Counties *1	Est. Population 1985	Projection Population 2000	2010
Allegany	76,000	73,000	72,000
Anne Arundel	396,000	466,000	486,000
Baltimore	666,000	707,000	714,000
Calvert	41,000	62,000	72,000
Caroline	24,000	26,000	27,000
Carroll	107,000	145,000	169,000
Cecil	66,000	76,000	80,000
Charles *2	85,000	120,000	137,000
Dorchester	30,000	30,000	30,000
Frederick *2	127,000	165,000	183,000
Garrett	26,000	30,000	31,000
Harford	153,000	183,000	193,000
Howard	141,000	216,000	251,000
Kent	17,000	17,000	17,000
Montgomery *2	628,000	785,000	820,000
Prince George's *2	677,000	772,000	841,000
Queen Anne's	29000	40,000	44,000
St. Mary's	65,000	83,000	91,000
Somerset	19,000	23,000	23,000
Talbot	27,000	30,000	31,000
Washington	114,000	122,000	123,000
Wicomico	68,000	79,000	83,000
Worcester	35,000	43,000	46,000
Baltimore City *1	756,000	721,000	708,000
District of Columbia *2	627,000	634,000	628,000
Virginia Counties *2			
City of Alexandria	108,000	112,000	114,000
Arlington	160,000	173,000	179,000
Fairfax (Incl. Cities of Fairfax & Falls Church)	698,000	930,000	969,000
Fauquier *3	47,000	52,000	59,000
Loudoun	66,000	146,000	211,000
Prince William (Incl. Cities of Manassas & Manassas Pk.)	202,000	362,000	390,000
Stafford *4	40,000	64,000	84,000
Regional Total	6,321,000	7,478,000	7,906,000

*1 Maryland Department of State Planning, Office of Planning Data, Revisions, September 1987, except as otherwise noted.
*2 Washington Council of Governments Cooperative Forecasting Summary, June 27, 1988 except as otherwise noted.
*3 Rappahanock/Rapidan Regional Planning Department.
*4 Stafford County Planning Office.

APPENDIX C

Evaluation Criteria

APPENDIX C

Evaluation Criteria

The criteria, when instituted, incorporate a filing window concept which will provide for the evaluation of all applications for available spectrum within a set time period. The evaluation is a sequence of events that will be followed in the allocation of the six (6) megahertz of 800 MHz spectrum. The flow chart (pages 54 and 55) shows the sequence of events that will be followed in the allocation of the six (6) megahertz of 800 MHz spectrum. This process follows the guidelines established under the National Plan.

The frequency pool consists of all available frequencies in the plan (Block #1 of flow chart). If frequencies are available in the pool (a repeat of the evaluation could occur if all frequencies are not allocated on the first iteration) a window opening announcement is made (Block #2). The first window period will be thirty (30) days (Blocks # 3 and 4) with applications received late returned to the requesting agency (Block #5). The second window will open upon the completion of processing of applications received in the first window period. The RPRC will determine if the application is in compliance with Region 20's plan (Blocks #6 and 7). An application that is not in compliance with the plan will be returned to the applicant with an explanation of the reason(s) for the return (Block #8).

The implementation of the evaluation matrix will result in the award of a score for each application (Block #9). That score is the total of points in seven categories as outlined below, with a maximum possible score of 1000 points. Prior to the allocation of points for the seven categories, a needs assessment review is conducted (Block #10). The applicant submits a statement of need for the requested frequencies. This statement of need serves as an overview of the proposed system. The seven categories are as follows:

1. <u>Service</u> (Block #11) (maximum score, 300 points) Each of the eligible services has a predetermined point value (see Tab 1 of Appendix C). That point value is multiplied by ten (10) to determine the score for the Service Category. An applicant with multiple services will be scored on the basis of the percentage that each service represents of his total system. That is, a system that is 50 percent police and 50 percent local government (school administration) would be awarded the total 50 percent of the point value for police plus 50 percent of the point value for school administration.

2. <u>Intersystem Communications</u> (Block #12) (maximum score, 100 points). The application is scored on the degree of interoperability that is demonstrated, with range of points from 0 to 100. This category does not rate the application on the inclusion of the mandated five common channels for interoperability. This category does rate the application on its

proposed ability to communicate with different levels of government and services during times of emergency.

3. Loading (Block #13) (maximum score, 150 points). Those applicants that have demonstrated that they are part of a cooperative, multi-organization system will be scored on a range of 0 to 100 points depending upon the extent of the cooperation. An expansion of an existing 800 MHz system will be scored on a range of 0 to 50 points, depending upon the degree of expansion. A system could be an expansion of an existing 800 MHz and a cooperative system, and as a result, receive the combined point values for these two subcategories for a maximum value of 150 points.

4. Spectrum Efficient Technology (Block #14) (maximum score, 100 points). This category scores the application on the degree of spectrum efficient technology that the system demonstrates. A point value range of 0 to 100 points can be awarded for this category. A trunked system would be considered a "spectrum efficient technology" as well as any technological systems feature which is designed to enhance the efficiency of the system and provide for the efficient use of spectrum.

5. Systems Implementation (Block #15) Factors (maximum score, 50 points). This category scores the application on two factors: budgetary commitment and planning completeness. The degree of budgetary commitment is scored on a range of 0 to 25 points. Each application will be scored on the degree of commitment in funding that the proposed system will receive. The system with the higher degree of commitment in funding the proposed system will receive the higher score. Each application will be scored on the degree of planning completeness with a range of scoring 0 to 25 points. Applications must include a timetable for the implementation of the communications system or systems.

6. Geographic Efficiency (Block #16) (maximum score, 100 points). Each application will be scored on the level of geographic efficiency. Scoring will be based upon two factors: the ratio of mobiles to area covered and the channel reuse potential. The ratio of mobiles to area covered measures the level of efficient coverage that a system demonstrates. The higher the ratio (mobile divided by square miles of coverage) the more efficient the use of the frequencies. The ratio of mobiles to area covered is scored on a scale of 0 to 50 points. Those systems which cover large geographic areas will have a greater potential for channel reuse and will therefore receive a high score in this subcategory. The level of channel reuse potential is scored on a scale of 0 to 50 points

7. Givebacks (Block #17) (maximum score, 200 points). The application is scored on two factors: the number of channels given back and the degree of reusability of those channels to others. The greater the number of

channels given back, the higher the score will be with range of 0 to 100 points. The greater the reusability of the "give backs", the higher the score will be for this factor, up to a maximum of 100 points.

Points are totaled for each application (Block #18) and the applications are prioritized by the RPRC (Block #19). The frequency pool is allocated (Block #20) and the Regional Plan is updated to reflect the frequency assignments. The applications are then coordinated by APCO (Block #21). After this point, the FCC would grant the license(s) to the applicant (Block #22). Systems implementation is monitored by the RPRC which determines if progress is being made (Block #24). If progress is not made, the licensee will be warned of the consequences of the lack of progress (Block #26). If continued monitoring indicates that sufficient progress is still not being made, the licensee is notified of pending action (FCC notification) (Block #27). The notified licensee can appeal this action or can allow the FCC to withdraw the license. If the allocated frequencies are withdrawn, they will be added back to the frequency pool (Blocks #31 and 32).

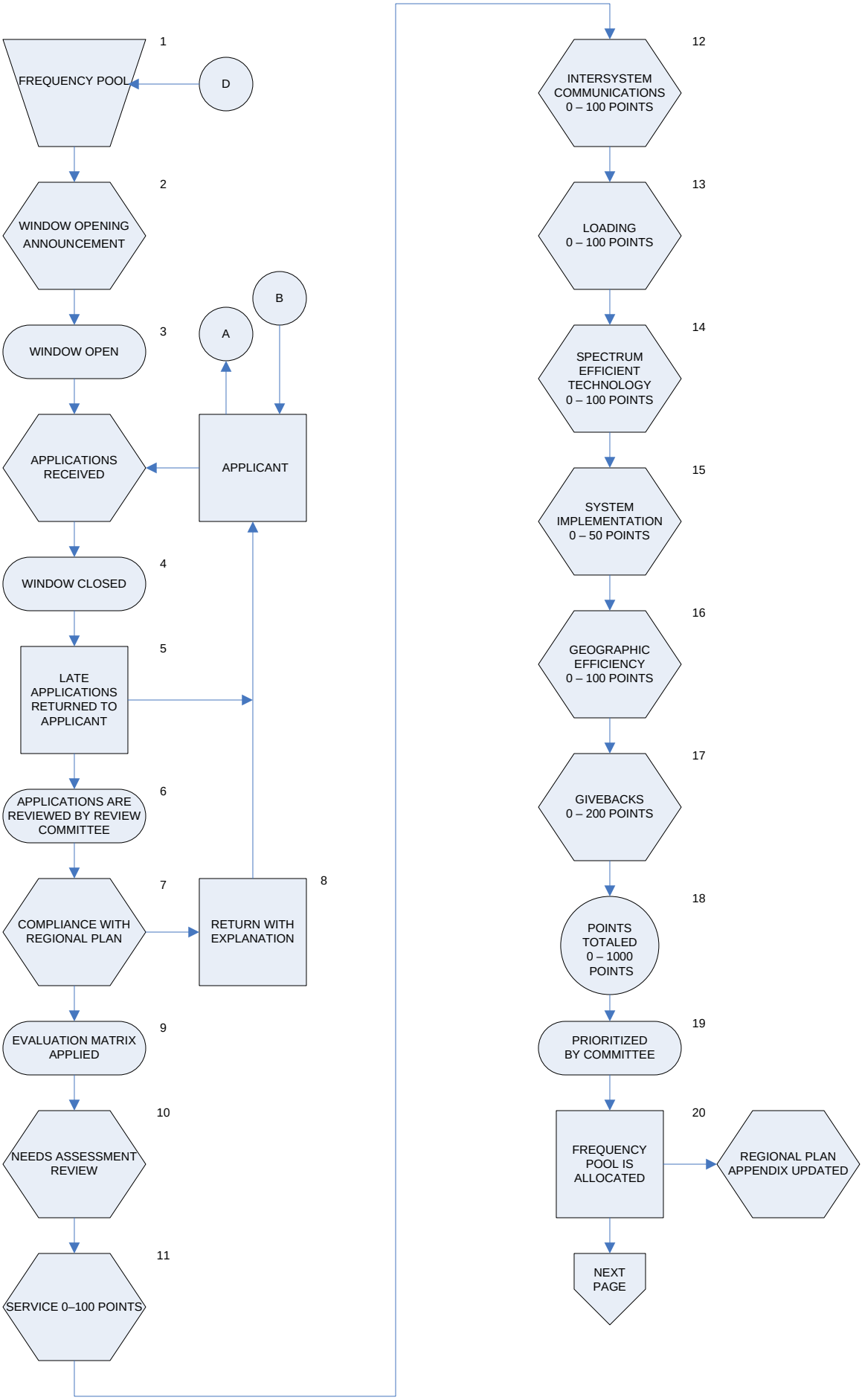
APPEAL PROCESS

Through the frequency allocation process, applicants are given opportunities to appeal decisions which have caused the return of their application. The appeal process has three (3) levels:

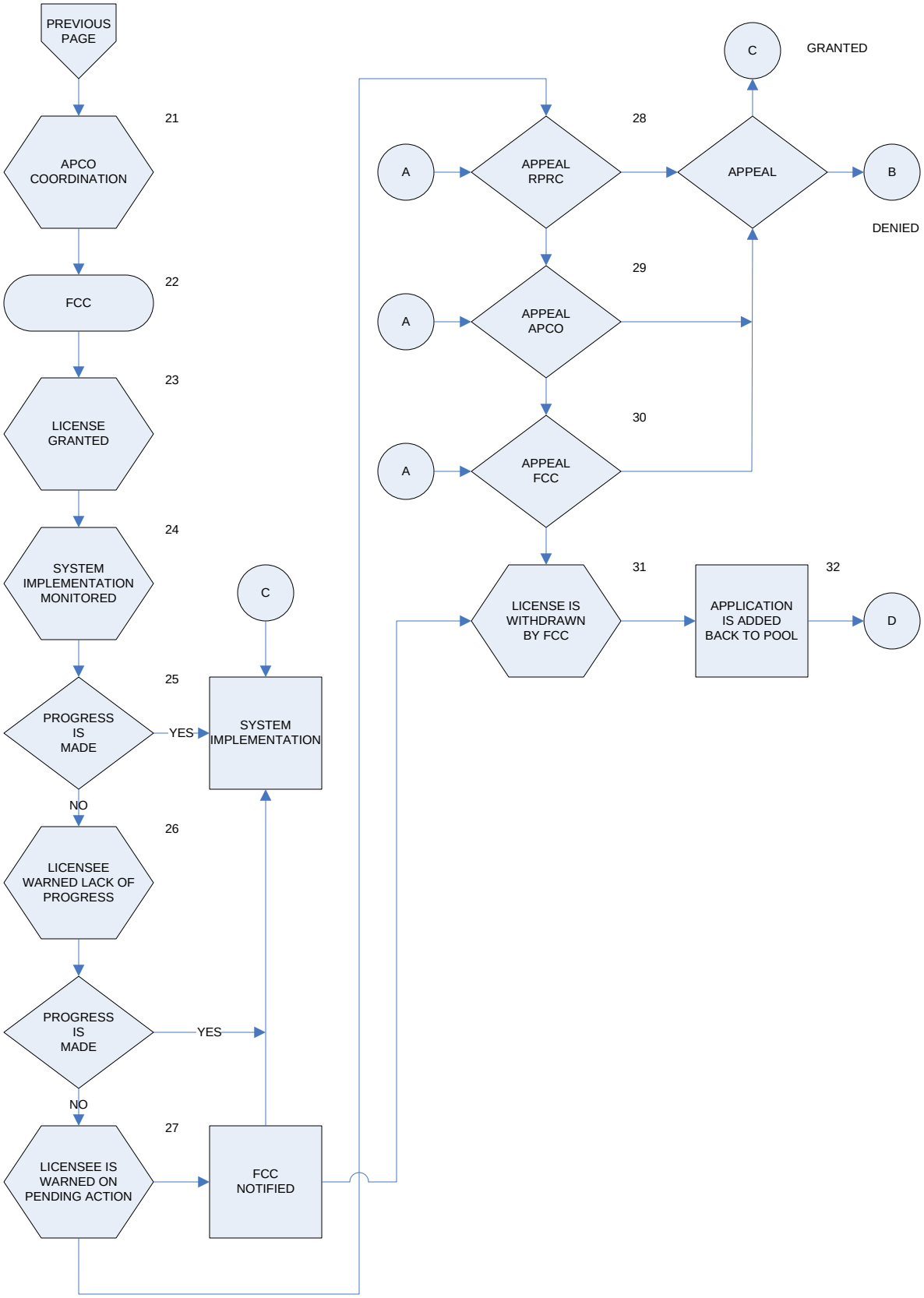
1. The RPRC
2. National APCO
3. The FCC

An applicant who decides to appeal a rejection should file the appeal with the RPRC within 15 working days of the receipt of the returned application. If the applicant is not satisfied with the RPRC's final decision based on the appeal, the applicant may file an appeal with the national APCO and the FCC. The FCC's decision will be final and binding upon all parties.

FLOW CHART


1
FREQUENCY POOL
D
2
WINDOW OPENING ANNOUNCEMENT
3
WINDOW OPEN
A
B
APPLICATIONS RECEIVED
APPLICANT
4
WINDOW CLOSED
5
LATE APPLICATIONS RETURNED TO APPLICANT
6
APPLICATIONS ARE REVIEWED BY REVIEW COMMITTEE
7
COMPLIANCE WITH REGIONAL PLAN
8
RETURN WITH EXPLANATION
9
EVALUATION MATRIX APPLIED
10
NEEDS ASSESSMENT REVIEW
11
SERVICE 0–100 POINTS
12
INTERSYSTEM COMMUNICATIONS 0 – 100 POINTS
13
LOADING 0 – 100 POINTS
14
SPECTRUM EFFICIENT TECHNOLOGY 0 – 100 POINTS
15
SYSTEM IMPLEMENTATION 0 – 50 POINTS
16
GEOGRAPHIC EFFICIENCY 0 – 100 POINTS
17
GIVEBACKS 0 – 200 POINTS
18
POINTS TOTALED 0 – 1000 POINTS
19
PRIORITIZED BY COMMITTEE
20
FREQUENCY POOL IS ALLOCATED
REGIONAL PLAN APPENDIX UPDATED
NEXT PAGE

FLOW CHART (Cont'd)



Tab 1

SERVICE POINT RATING	MINIMUM VALUE	MAXIMUM VALUE
Local Government		
Transit System	5.0	30.0
School Boards	0.0	20.0
Administration	0.0	25.0
Facilities Maintenance	5.0	25.0
Utility Operations	0.0	25.0
Security Patrols	0.0	25.0
Other Functions	0.0	25.0
Primary Law Enforcement	35.0	35.0
Fire	35.0	35.0
Forest Fire Suppression	15.0	35.0
Forestry/Conservation	10.0	35.0
Highway	5.0	30.0
Medical Services		
Hospitals	5.0	25.0
Invalid Coach	0.0	10.0
Physicians & Oral Surgeons	0.0	20.0
Rescue – BLS & ALS	30.0	35.0
Physically Handicapped	0.0	10.0
Veterinarians	0.0	10.0
Disaster Relief Organizations	5.0	20.0
School Buses		
Private Under Contract	0.0	10.0
Local Government Operated	0.0	15.0
Part of EMA Evacuation Plan	5.0	35.0
Beach Patrols	0.0	30.0
Isolated Area Communications	0.0	15.0
Communications Standby Facilities	0.0	5.0
Repair of Communications Facilities	0.0	5.0

Eligibility for the above services shall be as defined in the FCC Rules and Regulations, Part 90, Code of Federal Regulations 47.

APPENDIX D
Co-Channel Interference

APPENDIX D
Co-Channel Interference Procedure

1. Determine distance from the proposed station to the existing station.

2. If not previously known, determine service area boundary of existing stations.

3. Find distance from proposed station to closest point of service area boundary of the existing station. (subtract #2 from #1)

4. Based on mileage from #3 (above), Effective Radiated Power (ERP) and Height Above Average Terrain (HAAT) of the proposed station, use the same methods as used in service area calculation to determine signal strength at the adjacent jurisdiction's service area contour.

5. Subtract this dBu level from 41. If result is greater than 25, the proposed system will conform with the interference parameters. If the result is less than 25, the proposed system must be redesigned by lowering power, antenna height, or both until the 25 dB protection ratio is met.

Note: If the terrain between the two systems would provide additional protection that would not be evident from using the normalized HAAT's, it will be permissible to calculate the HAAT of both existing and proposed systems along the radial line directly connecting the two stations. The resulting service area boundary of the existing station and the dBu level of the proposed station at that point would then be used to calculate the protection ratio.

<u>E X A M P L E</u>

	Station A (proposed)	Station X (existing)
ERP:	100W (-10dBk)	200W (-7dBk)
HAAT:	500 feet	200 feet
	Distance from A to X: 46 miles	
Service Area		
	Boundary: 13 mi.	11 mi.

45 miles – 11 miles = 35 miles, distance from proposed to service area boundary of existing station.

From radial calculations, dBu level at 35 miles from station with an ERP of 100 watts and HAAT of 500 feet may be: 25.5 – 10 = 15.5 dBu.

Subtracting this amount from the defined 41 dBu level at the service area boundary of the existing stations gives 25.5 db of protection, or 0.5 db more than the minimum required.

APPENDIX E

FCC Part 90.309 (a) (4)FCC Part 90.309 (a) (4)

In determining the average elevation of the terrain, the elevations between 2 and 10 miles (3 and 16 kilometers) from the antenna site are employed. Profile graphs shall be drawn for a minimum of 8 radials beginning at the antenna site and extending 10 miles (16 kilometers). The radials should be drawn starting with true north. At least one radial should be constructed in the direction of the nearest co-channel and adjacent channel UHF television station. The profile graph for each radial shall be plotted by contour intervals of from 40 to 100 feet (12 to 30 meters) and, where the data permits, at least 50 points of elevation (generally uniformly spaced) should be used for each radial. For very rugged terrain, 200 to 400 feet (61 to 122 meters) contour intervals may be used. Where the terrain is uniform or gently sloping, the smallest contour interval indicated on the topographic chart may be used. The average elevation of the 8 mile distance between the 2 and 10 miles (2 and 16 kilometers) from the antenna site should be determined from the profile graph for each radial. This may be obtained by averaging a large number of equally spaced points, by using a planimeter, or by obtaining the median elevation (that exceeded by 50 percent the distance) in sectors and averaging those values. In the preparation of the profile graphs, the elevation or contour intervals may be taken from U.S. Geological Survey Maps, U.S. Army Corps of Engineers Maps, or Tennessee Valley Authority Maps.

Maps with a scale of 1:250000 or larger (such as 1:24000) shall be used. If such maps are not published for the area in question, the next best topographic information should be used. In lieu of maps, the average terrain elevations may be computer generated, except in cases of dispute, using elevations from a 30 second point or better topographical data file such as those available from the U.S. Geological Survey's National Cartographic Information Center or the National Oceanic and Atmospheric Administration's national Geophysical Data Center.

APPENDIX F

Glossary, Definitions & Terms

APPENDIX F

Glossery/Definition Terms

ALS	Advanced Life Support ambulance unit
BLS	Basic Life Support ambulance unit
COG	Metropolitan Washington Council of Governments
COMMERCIAL VENDOR	Equipment/Service provider outside of government
CONTROL AGENCY	(see Incident commander)
DATA	Information (Status/message/Alarm/Alert/Text/TIM, etc.) transmitted by means of machine coded channel modulation at transmission rates of 300 bits per second (or faster), but meeting voice channel modulation standards.
DISPATCH CENTER	Primary control point for public safety radio systems
EMA	Emergency Management Agency
EMS	Emergency Medical Services – Systems which provide emergency medical care to be administered to patients at the incident scene and during transit to a medical facility.
FMARS	Fire Mutual Aid Radio System
HARMFUL INTERFERENCE	(From ITU via FCC with apologies to ARRL) "Harmful interference is not merely the presence of audible signals on the channel, but is interference that seriously degrades or obstructs local communications on a continuing basis."
INCIDENT COMMANDER	Responsible individual from the appropriate public safety agency of the affected jurisdiction on the incident scene, who manages available manpower and equipment to achieve the maximum benefit.
INTEROPERABLE	Equipment with the necessary external parameters (frequency, modulation, signaling tone) for common channel communication.

LEAD AGENCY	An agency within whose jurisdiction an incident occurs and initiates the control or management of such incident.
PMARS	Police Mutual Aid Radio System.
PEAK HOUR	Any specific one hour interval over a one year span showing the most personnel on duty, or the greatest amount of radio traffic.
PSAP	Public Safety Answering Point – A 24-hour public safety communications and dispatch center with the equipment capability to operate according to this Plan.
PSRS	Public Safety Radio Service – Agencies with responsibilities within the region to ensure the safety of the public. For the purpose of this Plan, such agencies include: Airport Authority Emergency management Agencies – County, State, RACES Government EMS providers Hospitals Environmental Protection Departments – County, State Fire – City, County, Corporations, etc., State & Local Fire marshal Offices Forestry/Conservation Departments Area Government – County, Multi-Jurisdictional Government, State & Federal Governments Health – Local Government, State Military – Coast Guard, National Guard, State Guard Installations/Bases Police – City, County, State, Federal, & Transit Authority Public Works & Governmental utilities – City, County, State Sheriff Departments Transportation – City, County, State
PSTN	Public Switched Telephone Network
Regional Plan Review Committee	The standing committee constituted for long-term oversight of this Plan.
RINS	Regional Interservice Channels

RPC	Regional Planning Council (Baltimore Metropolitan Area)
Note:	RPC name changed to Baltimore Regional Council of Governments (7/1/1989)
SMA	Statistical Metropolitan Area
SUB REGION	Subdivisions of the region 20 area comprised of one or more jurisdictions which are governed by a common superseding elected body.
TALK-AROUND	Mobile/Portable operation in a simplex mode on a repeater output frequency.
TRUNKING	A means of dynamically assigning radio channel usage in a multi-channel system in response to changing operational conditions.
TWO FREQUENCY SIMPLEX	A channel use of a repeater system without repeat and hence usable <u>only</u> for mobile-to-base two-way communications.
UNIT COUNT	(For channel loading purposes) – will be determined by a weighted point system; total points per channel required to meet FCC standards or 50 for a conventional P.S. channel and 70 for trunked P.S. channel. Definition of UNIT COUNT: Police – Total number of officers on duty, peak hour x 1.5 Fire = 0.8 x (the number of pieces of apparatus) plus 2.0 x (the number of portables on duty, peak hour) Local Government – Actual radio (Mobile and Portable) count Highway/utility – Same as Local Government School Buses – 0.3 x (radio total) Mobile Data – 0.2 x (radio total) SERS units: Hospitals 2 x (radio total) Medical ambulance BLS/ALS 3 x (radio total) Invalid coach .5 x (radio total)

Handicapped transport
0.5 x (radio total)
Physicians & Oral Surgeons
2 x (radio total)
Veterinarians
1 x (radio total)
Disaster relief
1 x (radio total)
Beach patrol
1 x (radio total)
Isolated area Comms.
.5 x (radio total)
Comms. Stby. Maintenance
.5 x (radio total)

APPENDIX G

Subregions in region 20

APPENDIX G

Sub-Regions

Region 20 is divided into sub-regions as determined by major jurisdictional boundaries. In general, each primary PSAP is responsible for serving all local government agencies within the boundary of the sub-region. It is recognized that in some cases there may exist agreements between the jurisdiction's primary PSAP and other municipalities and/or agencies within the jurisdiction pertaining to the receipt of emergency calls and dispatch of emergency services. Within each sub-region the primary PSAP identified as follows:

Regional Jurisdiction	Sub Region No.	Local Jurisdiction	PSAP Responsibility
Commonwealth of Virginia	1	City of Alexandria	Police Dept.
	2	Arlington County	Emergency Communications Center (EOC)
	3	Fairfax County	Public Safety Communications Center (PSCC)
	4	Fauquier County	Sheriff's Office
	5	Loudoun County	Sheriff's Office
	6	Prince William Co.	Emergency Operations Ctr. (Exc. Manassas Manassas Pk.)
	7	Stafford County	Stafford County
District of Columbia	8	District of Columbia	Metropolitan Police D.C.
State of Maryland	9	City of Baltimore	Police Dept.
	10	Allegany County	Emergency Management and Civil Defense
	11	Anne Arundel County	Police Dept.
	12	Baltimore County	Central Communications Services
	13	Calvert County	Department of Public Safety – Communications Division

14	Caroline County	Public Works
15	Carroll County	Civil Defense/ Emergency Operating Center
16	Cecil County	Civil Defense
17	Charles County	Communications Center
18	Dorchester County	Cambridge City Police Department
19	Frederick County	9-1-1 Center
20	Garrett County	Communications Center
21	Harford County	Central Alarm
22	Howard County	Fire Department
23	Kent County	Emergency Management and Civil Defense
24	Montgomery County	Emergency Communications Center
25	Prince George's County	Central Communications Facility
26	Queen Anne's County	Fire Board
27	St. Mary's County	Civil Defense
28	Somerset County	Civil Defense
29	Talbot County	Civil Defense
30	Washington County	Fire and Rescue
31	Wicomico County	Emergency Communications Center
32	Worcester County	9-1-1 Center/ Worcester Co. Fire Department

APPENDIX H

Suggested Operating Procedures – Pro Words

APPENDIX H

Procedure Words (PROwords)

The following is suggested as information regarding operating procedures.

The use of procedure words (PROwords) is strongly encouraged. PROwords are words and phrases used to speed the transmission of voice radio messages. The following is an abbreviated table of PROwords and their meanings:

PROWORD	MEANING
"Disregard This Transmission"	The transmission was in error, disregard it.
"I say Again"	Repeating my last transmission or portion thereof.
"Out"	end of transmission; no response necessary.
"Over"	Go ahead, or this is the end of my transmission and a reply is needed.
"Relay (Unit No.)"	I (Unit No.) can relay the radio message for the station not being heard.
"Roger"	I satisfactorily received your last transmission.
"Say Again"	Repeat your transmission.
"Speak Slower"	Reduce the speed at which you are talking.
"That is Correct"	Acknowledgement of a correct/corrected transmission.
"This is"	From; e.g., "Fairfax Fire 'this is' Montgomery Fire, over."

In addition to proword usage, a few other words should always be used instead of more common phrases and/or words. Use "Affirmative" and "negative" when one wishes to say "yes" or "no". This is extremely helpful when operating under marginal or stressful conditions. The word "acknowledge" is not a proword, but is used to request an acknowledgement or answer. It is short and concise in its meaning. When operating a radio, remember: 1) listen before transmitting; 2) speak clearly and distinctly; and 3) pause (release your push-to-talk button) momentarily, when possible, when transmitting long messages or instructions, allow any station with higher precedence messages to break in

APPENDIX I

Channel Assignments
(Original Computer Sort)

)

APPENDIX I

Original Computer Assigned Channels

Computer channel assignment assigned channel by Sub Region

Note: Channel Number designations are from 47 CFR 90.613 as they were at the time of the assignment. These number designations are updated later in this document.

ARLINGTON COUNTY, VA	651	814	671	768		691	
ALEXANDRIA CITY, VA	759						
BALTIMORE CITY, MD	667 767 712	821 689	687 747	801 672	707 765	196 692	669 745
CHARLES COUNTY, MD	781	625	821				
DISTRICT OF COLUMBIA	621 744	766 675	653 722	746	673	764	655
DORCHESTER COUNTY, MD	630						
GARRETT COUNTY, MD	828						
SOMERSET COUNTY, MD	609						
STAFFORD COUNTY, VA	827	606					
TALBOT COUNTY, MD	816						
* BALTIMORE REGION CH	700	726	750	632	*6U*	702	
* WASHINGTON REGION CH	694	714	734	664	628	666	
ALLEGANY COUNTY, MD	606	826					
CALVERY COUNTY, MD	668	779					
CAROLINE COUNTY, MD	615						
CECIL COUNTY, MD	784	706					
FREDERICK COUNTY, MD	811	646	789	670	769		
HARFORD COUNTY, MD	659	176	709	813	619		
HOWARD COUNTY, MD	752	710	732	815	794	728	
KENT COUNTY, MD	787						
~ QUEEN ANNE'S COUNTY, MD	617						
ST MARY'S COUNTY, MD	823	622					
WICOMICO COUNTY, MD	827	611					

WORCHESTER COUNTY, MD	819						
ANNE ARUNDEL COUNTY MD	730	777	798	647	818	742	658
	804	775	824				
CARROLL COUNTY, MD	736	771	644				
FAIRFAX COUNTY,VA	657	776	685	751	705	762	688
	738	609	633	697	758	725	611
	631	749	699	797	817	623	708
LOUDOUN COUNTY, VA	613						
PRINCE WILLIAM COUNTY, VA	778	654	747	674	727	669	765
	701	745	620	676	743		
FAUQUIER COUNTY, VA	615						
MONTGOMERY COUNTY, MD	820	740	780	760	800	626	806
	786	649	826	822	802	616	782
	638	773					
PRINCE GEORGES COUNTY, MD	788	662	808	828	618	790	645
	770	607	812	614	660	784	636
	682	810					
WASHINGTON COUNTY, MD	824	619	804				
* BALTIMORE COUNTY, MD	698	654	634	610	674	724	622
	652	704	684	696	656	676	624
	720						

*Old equipment requiring even channel numbers

Maximum field strength for co-channel operation is 5.00 dBu.

Maximum field strength for adj.-channel operation is 25.00 dBu.

Iterations required for solution = 10

Number of channels used for solution = 200

Total number of channels assigned = 182

Total number of unassigned channels = 40

Total number of reserved channels = 24

Total number of co-channels assigned = 21

Probability of interference with the nearest:

Co-channel user is between 0% and 1%.
Adj. -channel user is between 0% and 1%.
Estimated assuming a 40 dBu signal at the boundary.

APPENDIX I
Channel Assignments
(At Close of First Window)

APPENDIX I
REGION 20 CHANNEL LIST
(First Filing Window Closure)

Note: Channel Number designations are from 47 CFR 90.613 as they were at the time of the assignment. These number designations are updated later in this document.

ALEXANDRIA CITY, VA	720						
ALLEGANY COUNTY, MD	606	826					
ANNE AROUNDEL COUNTY, MD	636	658	777	798	818		
ARLINGTON COUNTY, VA	814						
BALTIMORE CITY, MD	608	615	617	627	634	647	650
	663	665	667	779	672	687	689
	692	707	710	712	739	745	747
	752	759	761	763	765	767	775
	787	796	801	807	810	821	827
BALTIMORE COUNTY, MD	622	674	676	720			
CALVERT COUNTY, MD	670	686	690	695	779		
CECIL COUNTY, MD	706	784					
CHARLES COUNTY, MD	821						
DORCHESTER COUNTY, MD	630						
FAIRFAX COUNTY, VA	609	611	623	631	633	657	685
	688	697	699	705	708	725	738
	749	751	758	762	776	791	797
	817						
FAUQUIER COUNTY, VA	615	669	672	692	747	767	807
FREDERICK COUNTY, MD	646	670	769	789	811		
GARRETT COUNTY, MD	828						
HARFORD COUNTY, MD	709	776					
LOUDOUN COUNTY, VA	606	613	635	661	765	778	809
	829						

MARYLAND, STATE OF[1]							
CENTRAL	602	604	640	642	678	680	716
	718	722	728	730	732	742	754
	756	784	794	804	815	824	
NORTH EAST	619	622	624	659	674	676	696
	698	724	736	771	813		
NORTH WEST	610	629	644	652	654	656	684
	704						
SOUTHERN	620	625	648	662	701	772	774
	781						
METRO AIRPORT, D.C.	651	668	671	691	703	710	712
	768						
MONTGOMERY COUNTY	616	626	638	649	740	744	746
	760	764	766	773	780	782	786
	800	802	806	820	822	826	
PRINCE GEORGE'S COUNTY	607	614	618	645	660	682	770
	788	790	812	828			
PRINCE WILLIAM COUNTY, VA	654	727	743	745	765	778	
SOMERSET COUNTY, MD	609						
ST. MARY'S COUNTY, MD	823						
STAFFORD COUNTY, VA	606						
TALBOT COUNTY, MD	816						
WASHINGTON COUNTY, MD	619	804	824				
WASHINGTON, D.C. FIRE	621	653	655	673	675		
WICOMICO COUNTY, MD	611	827					
WORCESTER COUNTY, MD	819						
NATIONAL CHANNELS	601	639	677	715	753		
REGIONAL INTERSERVICE CHANNELS							

REGION-WIDE	792						
BALTIMORE	712	632	700	702	726	750	
WASHINGTON, D.C.	628	664	666	694	714	734	
REGIONAL USE	637	667	683	693	711	713	721
	723	729	731	733	735	737	741
	748	783	785	795	799	803	805
	825						
GUARD BAND	603	605	641	643	679	681	717
	719	755	757	793	730		

1. Maryland, State of

Central:	Anne Arundel, Howard, Montgomery, and Prince George's Counties
North East:	Baltimore, Cecil, Harford, and Kent Counties
North West:	Carroll and Frederick Counties
South:	Calvert, Charles, and St. Mary's Counties

APPENDIX 1
Channel Assignments
(At Close of Second Window)

APPENDIX I
REGION 20
PUBLIC SAFETY COMMUNICATIONS PLAN
MARYLAND, WASHINGTON, D.C., AND NORTHERN VIRGINIA

The following list of channel assignments reflects:

a. The Region 20 channel assignments following, and resulting from, two (2) application "open window" periods and the associated FCC licenses that were subsequently granted. This list reflects FCC Adoption Order DA94-131, dated February 10, 1994.

b. The available frequencies yet to be assigned or licensed.

c. Frequencies that which have been reserved and have not/will not be assigned except by individual evaluation.

To assist in the use of this Appendix, please refer to the explanations and legend presented below.

EXPLANATIONS

1. The original channel allocations were computer generated to pack channels into subregions throughout Region 20 in a manner which would make efficient use of the spectrum and which would integrate with the existing channel packing of adjoining regions. At this point, these channels were not assigned to any particular entity; rather, they were allocated to a geographical area, to be available on a first come, first served basis.

2. In applications received subsequent to public announcement of "open windows", individual eligible entities requested and justified a higher channel count than was originally allocated to their specific subregion. Meanwhile in adjoining subregions, little or no interest was shown in the allocated channels in that region. Therefore, to best serve the expressed legitimate need of the applicant(s), channels were assigned to the applicant(s) from adjoining or nearby subregions where no interest in the channels allocated their subregion was expressed or where no successful applications were filed.

3. When a particular subregion's channel allocation is depleted and additional channels are needed, the "reassignment" of available channels to that subregion from adjoining or nearby subregions results in the least amount of disruption to the overall regional channel packing, thus providing the greatest equity in fulfilling the requirements of those eligible entities which apply for channels.

4. As a result, the original channel allocations have been modified to meet the demonstrated need for channels. Subsequently, the Region 20 Plan itself is modified after the conclusion of the application process to reflect those changes. This dynamic process has proved necessary to make the most effective use of the available spectrum.

LEGEND

Channel Pair – a three digit number, i.e., XXX

Channel Pairs that **have been** licensed, i.e., XXX L

National Calling Channel – one (1) channel pair reserved by the FCC for use nationwide and region 20-wide for one jurisdiction to call another jurisdiction (base station to base station) – i.e., XXX **NCC**.

National Tactical Channels – four (4) channel pairs reserved by the FCC for use nationwide and Region 20-wide for on-scene command and control of events (unit-to-unit) – i.e., XXX **NTC**.

Regional Interservice (RINS) Channels – thirteen (13) channel pairs reserved by the region 20 Committee for use by public safety agencies within the region for mutual response/mutual aid operations. Six (6) channel pairs are assigned to the Metropolitan Baltimore Area, six (6) channel pairs assigned to the metropolitan Washington area, and one (1) channel pair reserved for Region 20-wide use – i.e., XXX **RINS**.

Guard Band Channels – twelve 912) channel pairs reserved by the FCC and Region 20 to provide low power separation between channels to avoid interference – i.e., XXX **GBC**.

In the following listing, geographical areas presented in upper case letters are:

- The Counties of Maryland and Northern Virginia
- The City of Washington, D.C.
- The City of Baltimore, MD
- The State of Maryland
  (listed by one of four subregions)

Lower case listings are:

- The actual entities within the appropriate geographical area that have been issued licenses.

(Note: Where a geographic area does not have frequencies listed, no successful application was made by an eligible entity from that subregion. These channels originally allocated have been redistributed and assigned to eligible entities that have met all channel assignment criteria and have been licensed for these channels.)

APPENDIX I

COMPLETE REGION 20 CHANNEL ASSIGNMENTS
AS OF CLOSING OF 2ND FILING WINDOW

Note: Channel Number designations are from 47 CFR 90.613 as they were at the time of the assignment. These number designations are updated later in this document.

GEORGRAPHIC AREA Jurisdiction	CHANNELS ALLOCATED				
ALEXANDRIA, VA					
City of Alexandria	673 L	675 L	810 L		
MCT Medical Services	720 L				
ALLEGANY COUNTY, MD	606 NL	826 NL			
ANNE ARUNDEL COUNTY, MD					
Anne Arundel County	636 L	658 l	777 L	798 L	818 L
ARLINGTON COUNTY, VA	814 NL				
Metro. Wash. Airport Auth.	651 L	668 L	671 L	691 L	703 L
	768 L	808 L			
BALTIMORE, MD					
City of Baltimore	608 L	615 L	617 L	627 L	634 L
	647 L	650 L	663 L	665 L	667 L
	669 L	672 L	687 L	689 L	692 L
	707 L	710 L	712 L	739 L	745 L
	747 L	752 L	759 L	761 L	763 L
	765 L	767 L	775 L	787 L	796 L
	801 L	807 L	810 L	821 L	827 L
BALTIMORE COUNTY, MD					
CALVERT COUNTY, MD					
Calvert County	670 L	686 L	690 L	695 L	779 L
CAROLINE COUNTY, MD					
CARROLL COUNTY, MD					
Carroll County	686 L	690 L	693 L	706 L	709 L
	711 L	713 L	720 L	748 L	
CECIL COUNTY, MD					

CHARLES COUNTY, MD					
DISTRICT OF COLUMBIA					
DORCHESTER COUNTY, MD					
FAIRFAX COUNTY, VA					
Fairfax County	609 L	611 L	623 L	631 L	633 L
	657 L	685 L	688 L	697 L	699 L
	705 L	708 L	725 L	738 L	749 L
	751 L	758 L	762 L	776 L	791 GBCL
	797 L	817 L			
Metro. Wash. Airport Authority	651 L	668 L	671 L	691 L	703 L
	768 L	808 L			
MCT Medical Services	720 l				
FAUQUIER COUNTY, VA					
Fauquier County	615 L	669 L	672 L	692 L	747 L
	767 L	807 L			
FREDERICK COUNTY, MD					
Frederick County	646 L	670 L	769 L	789 L	811 L
GARRETT COUNTY, MD	828 NL				
HARFORD COUNTY, MD	776 NL				
HOWARD COUNTY, MD					
KENT COUNTY, MD					
LOUDON COUNTY, VA	829 NL				
Metro. Wash. Airport Authority	651 L	668 L	671 L	691 L	703 L
	768 L	808 L			
MONTGOMERY COUNTY, MD					
Montgomery County	616 L	626 L	638 L	649 L	740 L
	744 L	746 L	760 L	764 L	766 L
	773 L	780 L	782 L	786 L	800 L
	802 L	806 L	820 L	822 L	826 L
PRINCE GEORGE’S COUNTY, MD					

Prince George's County	607 L 614 L 618 L 645 L 660 L 682 L 770 L 788 L 790 L 812 L 828 L
PRINCE WILLIAM COUNTY, VA	
Prince William County	606 L 608 L 613 L 635 L 637 L 653 L 655 L 674 L 676 L 731 L 736 L 743 L 745 L 765 L 778 L 783 L 785 L 799 L 801 L 819 L 821 L 827 L
QUEEN ANNE'S COUNTY, MD	
SOMERSET COUNTY, MD	609 NL
ST. MARY'S COUNTY, MD	823 NL
STAFFORD COUNTY, VA	
STATE OF MARYLAND	SEE BELOW
TALBOT COUNTY, MD	
WASHINGTON COUNTY, MD	619 NL 804 NL 824 NL
WICOMICO COUNTY, MD	611 NL
WORCESTER COUNTY, MD	
STATE OF MARYLAND	
Central:	ANNE ARUNDEL CO., HOWARD CO., MONTGOMERY CO., PRINCE GEORGE'S CO. 602 L 604 L 640 L 642 L 678 l 680 L 716 L 718 L 722 L 728 L 730 L 732 L 742 L 754 L 756 L 784 L 794 L 804 L 815 L 824 L
STATE OF MARYLAND	
Northeast:	BALTIMORE CO., CECIL CO., HARFORD CO., KENT CO. 619 L 622 L 624 L 659 L 674 L 676 L 696 L 698 L 724 L 736 L 771 L 813 L
Northwest:	CARROLL CO., FREDERICK CO.,

	WASHINGTON CO. 610 L 629 L 644 L 652 L 654 L 656 L 684 L 704 L
Southern	CALVERT CO., CHARLES CO., ST. MARY'S CO. 620 L 625 L 648 L 662 L 701 L 722 L 774 L 781 L
NATIONAL CHANNELS AVAILABLE REGION WIDE	601 NCC 639 NTC 677 NTC 715 NTC 750 NTC
REGIONAL INTERSERVICE (RINS) CHANNELS	
Regionwide	792 RINS
Baltimore Area	612 RINS 632 RINS 700 RINS 702 RINS 726 RINS 750 RINS
Washington Area	628 RINS 664 RINS 666 RINS 694 RINS 714 RINS 734 RINS
CURRENTLY NOT ALLOCATED TO AN AREA:	683 NL 721 NO 723 NL 729 NL 733 NL 735 NL 737 NL 741 NL 795 NL 803 NL 805 NL 825 NL
GUARD BAND (Low Power) per FCC 90:267(a)(1), (2), (3), (4), (5), (6)	603 GBC NL 605 GBC NL 641 GBC NL 643 GBC NL 679 GBC NL 681 GBC NL 717 GBC NL 719 GBC NL 755 GBC NL 757 GBC NL 791 GBC NL 793 GBC NL 830 GBC NL

APPENDIX I
(At Close of Third Window)

Approved December 17, 2001

Appendix I
REGION 20 FREQUENCY ASSIGNMENTS
Windows 1, 2 and 3[1]

Note: Channel Number designations are from 47 CFR 90.613 as they were at the time of the assignment. These number designations are updated later in this document.

Jurisdiction/Geographic Area			***Assigned Channels***		
Alexandria City, VA	673	675	810		
Anne Arundel County, MD	636	750*[2]	777	798	818
Arlington County, VA	654*	662*	727*	766*	
Baltimore City, MD	608	615	617	627	634
	647	650	663	665	667
	669	672	687	689	692
	707	710	712	739	745
	747	752	759	761	763
	765	767	775	787	796
	801	807	810	821	827
Baltimore Washington Airport Baltimore, MD	620*	655*	697*	701*	742*
Calvert county, MD	670	686	690	695	779
Carroll County, MD	612*[2]	686	702*[2]	709	711
	713	720	748	778*[2]	
Charles County, MD	625*	803*	823*		
Fairfax County, VA	609	611	623	632	633
	657	685	688	697	699
	705	708	725	738	749
	751	758	762	776	791
	797	817			
Fauquier County, VA	710*	729*	741*	747*	787*
	795*				
Frederick County, MD	646	670	769	789	811
Harford County, MD	619*[3]	622*	659*	698*	704*

	736*	781*[3]	813*	816*	
Howard County, MD	602*	604*	630*	640*	643*
	652*	674*	676*	684*	724*
	737*	754*	756*		
Loudoun County, VA	641*	644*	661*[4]	678*[4]	681*[4]
	701*	755*	804*[4]	813*	824*
Manassas City, VA	606	608	743	783	785
Maryland Central Booking Baltimore City, MD	606*	611*	623*	726*	784*
Montgomery County, MD	616	621*[2]	626	638	649
	732*	740	744	746	760
	764	773	780	782	786
	800	802	806	820	822
	826				
Metro Washington Airport Authority Arlington, Loudon & Fairfax Counties, VA	603*	651	668	671	691
	703	716*	718*	768	808
	815*				
Prince George's County, MD	607	614	618	645	660
	682	722*	770	788	790
	812	828			
Prince William County, VA	613	635	637	653	655
	674	676	731	736	745
	765	778	799	801	819
	821	827			
RINS – Washington DC Metro Area	792				
Saint Mary's County, MD	612*	634*	658*	713*	724*
	735*	748*	763*	809*	814*
SERS 01*[5] Alexandria, VA	720				
Upper Maryland Eastern Shore	644*	653*[6]	661*	675*	719*
	785*[6]	789*	793*	805*	830*
University of Maryland College Park College Park, MD	632*	726*	784*	794*	830*

Washington Council of Governments	628	664	666	694	714
Washington D.C. Metro Area	734				

File: Appendix 1 5-20-01a.doc

---

[1] * = Window 3 assignment.
[2] Window 3 reassignment as part of Inter-Regional Matrix rework (2/99) with Regions 20, 28 & 36.
[3] **License limitations per Region 28 concurrence**. (1) Harford County is to include a copy of their letter to Region 28 (dated July 11, 2000) with their APCO/FCC submittal. This letter contains provisions relating to criteria to be used in resolution of possible harmful interference to the State of Delaware. (2) Harford County obtains a Letter of Concurrence from the State of Delaware relating to item one of this section. The Letter of Concurrence will provide protection to the State of Delaware should there be harmful interference, and shall be included with the APCO/FCC submittal.
[4] **License limitations per Region 36 concurrence**. (1) Licenses for the Loudoun Heights location, or nearby, oriented at 330 degrees and implemented with at least 3 degrees of down tilt per discussions between Region 36 and Loudoun county representatives. (2) Loudoun County maintains its system design such that its 40 dBu contour does not extend closer than three (3) miles south of the Pennsylvania service area border. (3) Region 20 and Loudoun county agree that the Loudoun County allocation does not entitle Loudoun County from adjacent-channel protection from the Commonwealth of Pennsylvania's deployment of channels 682 and 805 in Adam County and channels 662 and 679 in Franklin County, provided that the Commonwealth maintains its operations within the 40 dBu contour defined by a line three miles outside its service areas.
[5] **Administrative change**. Channel 720 was originally listed to "*MCT Medical Services*," Alexandria, VA; it is now designated as "*SERS 01*", Alexandria, VA to more closely reflect the category of use as assigned [Per: "Before the Federal Communications Commission, Washington, D.C. 20554 In the matter of))
Washington, D.C. Metropolitan Area) Regional Public Safety Plan) Gen. Docket No. 90-7 (Region 20))) Philadelphia Metropolitan Area) Regional Public Safety Plan) Gen. Docket No. 89-573 (Region 28)) ORDER Adopted: December 9, 1996 Released: December 9, 1996;" paragraphs 16, 17 & 18.]
[6] **License limitations per Region 28 concurrence**. Sudlersville site shall use a BMR 12H antenna at 345 degrees with a 1.5 degree electrical down tilt and an additional 1.5 degree mechanical down tilt at 345 degrees. The maximum ERP at 75 – 255 degrees shall be no more than 468 watts with the antenna center no higher than 275 AGL.

WINDOW 3 FCC APPROVED December 17, 2001

Region 20 - 821MHz Regional Planning Committee

District of Columbia, State of Maryland and Northern Virginia

Alan T. Kealey, Chairman
% Maryland Department of Natural Resources
580 Tavlor Avenue. (E-3)
Annapolis, Maryland 21401

410-260-8887 E-mail akealey@dnr.state.md.us 410-260-8878 (fax)

DOCKET FILE COPY ORIGINAL

January 22,2003

RECEIVED & INSPECTED
JAN 27 2003
FCC - MAILROOM

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Portals II, TW-A325
Washington, DC 20554

R E NPSPAC 821MHz Region 20, FCC GN. Docket No. 90-7
Revised Frequency Assignment Table (Window 3B) and Plan Amendment

Dear Secretary Dortch

This letter, with attachments is being filed as an amendment to the Region 20-821 MHz NPSPAC plan, FCC GN. Docket No. 90-7.

1) Attachment 1 is the revised Frequency Assignment Table, titled *Appendix* I, dated 12-21-02. This revision reflects the following changes which are shown with a "**" next to the affected channel.

   a. Correct an assignment error made by Region 20 between Fauquier County, VA and the Washington Metropolitan Airport Authority.

   b. Completion of the required adjacent region concurrence of four (4) channels to Charles County, MD. These channels were removed from the total original Window 3 amendment to prevent all Window 3 applicants from suffering any delay as concurrence was sought for these channels.

2) Attachment 2 contains the concurrence from each region adjacent to Region 20 for the channel assignments as revised in this amendment. They are Region 28, Region 36, Region 42 and Region 44.

3) Attachment 3 is the executed *Infer-Regional Coordination* Procedures *Agreement*, dated August 21, 1998 between Region 20 and Region 28. This agreement is to formally be included as part of the Region 20 Plan during this plan amendment.

Given the importance of these assignments to Region 20 applicants, please notify me when the FCC has approved this plan amendment. Feel free to contact me at 410-260-8887 if you have any questions.

Sincerely,

Alan T. Kealey

Alan T. Kealey, Chairman
Region 20 - 821 MHz

No. of Copies rec'd 0+3
List ABCDE

cc: Region 20-821 MHz Secretary

Attachment 1

Region 20-821 MHz

Frequency **Assignment Table**

Appendix I 12-21-02

2

Appendix I

REGION 20 FREQUENCY ASSIGNMENTS

Windows 1, 2 and 3'

Jurisdiction / Geographic Area	*Assigned Channels*				
Alexandria City, VA	613	675	810		
Anne Arundel County, MD	636	750*[2]	777	198	818
Arlington County, VA	654*	662*	727*	766*	
Baltimore City, MD	608	615	611	621	634
	647	650	663	665	667
	669	612	687	689	692
	707	710	112	139	745
	747	752	759	161	763
	765	767	775	787	196
	801	807	810	821	827
Baltimore Washington Airport Baltimore, MD	620*	655*	697*	701*	742*
Calvert County, MD	670	686	690	695	779
Carroll County, MD	612*[2]	686	702*[2]	709	711
	713	120	748	778*[2]	
Charles County, MD	625*	642**	680**	772**	781**
	803*	823*			
Fairfax County, VA	609	611	623	631	633
	657	685	688	697	699
	705	108	725	138	749
	751	758	162	776	791
	797	811			
Fauquier County, VA	729*	741*	747*	787*	795*
	808**				
Frederick County, MD	646	610	769	189	811

Harford County, MD	619*[3]	622*	659*	698*	704*
	736*	781*[3]	813*	816*	
Howard County, MD	602*	604*	630*	640*	643*
	652*	674*	676*	684*	724*
	737*	754*	756*		
Loudoun County, VA	641*	644*	661*[4]	678*[4]	681*[4]
	701*	755*	804*[4]	813*	824*
Manassas City, VA.	606	608	743	783	785
Maryland Central Booking Baltimore City, MD	606*	611*	623*	726*	784*
Montgomery County, MD	616	621*[2]	626	638	649
	732*	740	744	746	760
	764	713	780	782	786
	800	802	806	820	822
	826				
Metro Washington Airport Authority **Arlington,** Loudon & Fairfax **Counties, VA**	603*	651	668	671	691
	703	710**	716*	718*	768
	815*				
Princes George's County, MD	607	614	618	645	660
	682	722*	770	788	790
	812	828			
Prince William County, **VA**	613	635	631	653	655
	614	676	731	736	745
	765	778	799	801	819
	821	821			
RINS –Washington DC Metro Area	792				
Saint Mary's County, MD	612*	634*	658*	713*	724*
	735*	748*	763*	809*	814*
SERS 01*[5] Alexandria, VA	720				

Upper Maryland Eastern Shore Talbot **and** Queen Anne's Counties, MD	644* 785*[6]	653*[6] 789*	661* 793*	675* 805*	719* 830*
University of Maryland College **Park** College **Park,** MD	632*	726*	784*	794*	830*
Washington Council of Governments Washington DC Metro **Area**	**628** **734**	**664**	**666**	**694**	**714**

File: Appendix I 12-21-02.doc

[1] * = Window **3** assignment, ** =Window 3B assignment to (1) correct Region **20** assignment error between Fauquier County, VA. and Metro Washington Airport Authority and **(2)** complete original channel assignments for Charles County, MD.

[2] Window 3 reassignment as part of Inter-Regional Matrix rework (2/99) with Regions **20, 28 & 36.**

[3] ***License limitations ver Region 28 concurrence.*** (1) Harford County is to include a copy of their letter to Region **28** (dated July 11, 2000) with their APCO/FCC submittal. This letter contains provisions relating to criteria to be used in resolution of possible harmful interference to the State of Delaware. **(2)** Harford County obtains a Letter of Concurrence from the State of Delaware relating to item one of this section. The Letter of Concurrence will provide protection to the State of Delaware should there be harmful interference, and shall be included with the APCO/FCC submittal.

[4] ***License limitations ver Repion 36 concurrence.*** (1) Licenses for the Loudoun Heights location. or nearby (within 1 mile) additional or replacement sites, require the use of directional antenna arrays with the null oriented at **330** degrees and implemented with at least **3** degrees of down tilt per discussions between Region **36** and Loudoun County representatives. **(2)** Loudoun County maintain its system design such that its 40 dBu contour does not extend closer than three miles south of the Pennsylvania service area border. **(3)** Region **20** and Loudoun County agree that the Loudoun County allocation does not entitle Loudoun County from adjacent-channel protection from the Commonwealth of Pennsylvania's deployment of channels **682** and **805** in Adam County and channels **662** and **679** in Franklin County, provided that the Commonwealth maintains its operations within the **40** dBu contour defined by **a** line three miles outside its service areas.

[5] ***Administrative change***, Channel **720** was originally listed to "*MCT Medical Services,*" Alexandria, VA; it is **now** designated **as** "*SERS 01,*" Alexandria, VA to more closely reflect the category of use **as** assigned. [Per: "Before the Federal Communications Commission Washington, D.C. **20554** In the matter of)) Washington. DC Metropolitan Area) Regional Public Safety Plan) Gen. Docket No. **90-7** (Region **20)))** Philadelphia Metropolitan Area) Regional Public Safety Plan) Gen. Docket No. **89-573** (Region **28))** ORDER Adopted: December **9, 1996** Released December **9, 1996;"** paragraphs **16, 17** & 18.1

[6] License ***limitations per Region 28 concurrence.*** Sudlersville site shall **use** a BMR 12H antenna at **345** degrees with **a 1.5** degree electrical down tilt and **an** additional 1.5 degree mechanical down tilt at **345** degrees. The maximum **ERP** at **75 – 255** degrees shall be no more than **468** watts with the antenna center no higher than **275** AGL.

Attachment 2

Region 20-821 MHz
Adjacent Region Concurrence

Summary of Adjacent Region Concurrence
(Concurrencesfollow this page)

Applicant	Channel	Region 28	Region 36	Region 42	Region 44
Fauquier County, VA	808	Present	Present	Present	Present
Metropolitan Washington Airport Authority	710	Present	Present	Present	Present
Charles County, MD	642	Present	Present	Present	Present
Charles County, MD	680	Present	Present	Present	Present
Charles County, MD	772	Present	Present	Present	Present
Charles County, MD	781	Present	Present	Present	Present

Note: Charles County, MD has two (2) concurrence pages from Region 42.

REGION-20 PUBLIC SAFETY REGIONAL PLAN REVIEW COMMITTEE

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WIRELESS TELECOMMUNICATIONS BUREAU
PRIVATE WIRELESS DIVISION
WASHINGTON, D.C. 20554

In *the* Matter of	)	
	)	
Washington, DC Metropolitan Area Regional Publ Safety Plan (Region-2C	)	GN Docket NO. 90-7
	)	
Philadelph Metropolitan Area Regional Public *Safety* Plan (Region-28)	)	GN Docket No. *89573*

INTER-REGIONAL COORDINATION PROCEDURES AGREEMENT

By and Between:

Region-20 Public Safety Regional Plan Review Committee
Mr. Stephen H. Souder - Chairman
And
Region-28 Public Safety Planning Update Committee

July 31, 1998

REGION-20 PUBLIC SAFETY REGIONAL PLAN REVIEW COMMITTEE

Before the
Federal Communications Commission
Wireless Telecommunications Bureau
Private Wireless Division
Washington, D.C. 20554

In the Matter of Washington, DC Metropolitan Area Regional Public Safety Plan (Region-20)	)))))	GN Docket No. 90-7
Philadelphia Metropolitan Area Regional Public Safety Plan (Region-28)	)))	GN Docket No. 89-573

INTER-REGIONAL COORDINATION PROCEDURES AGREEMENT

By and Between:

Region-20 Public Safety Regional Plan Review Committee
Mr. Stephen H. Souder - Chairman
And
Region-28 Public Safety Planning Update Committee
Mr. Richard R. Reynolds - Chairman

July 31, 1998

I. INTRODUCTION

1. Pursuant to the conditional acceptance **ORDER** regarding the Region-20 and 28 Plans[1], *infra* is the mutually agreed upon **INTER-REGIONAL COORDINATION PROCEDURES AGREEMENT (AGREEMENT)**.

[1] **ORDER**, GN Docket Nos. 90-7 & 89-573, DA 96-2066, December 9, 1996, Paragraphs 10 (a) and 11.

REGION-20 PUBLIC SAFETY REGIONAL PLAN REVIEW COMMITTEE

II. INTER-REGIONAL COORDINATION PROCEDURES AGREEMENT

2. To provide adequate protection to adjacent regions, proper engineering design must be implemented. This engineering must be based upon actual signal strength contours and in adherence to 47 CFR 90.205 and 90.635.

3. The Region-20[2] and 28[3] Plans differ with respect to *intra*-regional system protection criteria. This **AGREEMENT** does not, nor does it attempt to, alter this aspect of the Plans respectively.

4. Regions-20 and 28 are in agreement on several basic/underlying principles of *inter*-regional coordination. They are:

- [A]. To ensure adequate protection to adjacent regions, it has been agreed that co-channel and adjacent channel interference-free signal strength protection F (95,95) contours not fall within any adjacent region, operational service area signal strength, F (95,95) contours.[4]
- [B]. That any and all *inter*-regional coordination must be signal strength based.
- [C]. Ensuring interference-free signal strength protection dictates that all signal strength contours ≥ 5 dBu of a proposed system do not extend beyond its designated regional

[2] WASHINGTON, D.C. METROPOLITAN AREA REGIONAL PUBLIC SAFETY PLAN (REGION-20), GN Docket No. 90-7, DA 94-131, February 10, 1994, Sections 25 & 26, Pages 26 & 27.

[3] PHILADELPHIA METROPOLITAN AREA REGIONAL PUBLIC SAFETY PLAN (REGION-28), GN Docket No. 89-573, December 16, 1993, Appendix F-1, Page 38 & 7.

[4] Example: An adjacent region F (95,95) 5 dBu contour does not fall *inter*-regional within a co-channel system F (95,95) 40 dBu contour. [See also Footnote 7 infra.]

boundary unless pre-license authorization concurrence from the adjacent region(s) has been properly secured.

- [D]. *Inter*-regional signal strength emission contours ≥ 5 dBu, that radiate into an adjacent region, shall further abide by mutually agreed to *inter*-regional co-channel and/or adjacent channel interference-free separation protection criteria.[5]

5. The following is the specific procedure for *inter*-regional coordination which has been agreed upon *by* Regions-20 and 28, and which will be used by the Regions in establishing *inter*-regional coordination procedures with its other adjacent Regional Planning Committees.[6]

- A. *An* application filing window is opened.
- B. Applications by eligible entities are accepted.
- C. An application filing window is dosed after appropriate time interval
- D. *Intra*-regional review and coordination takes place, including a technical review resulting in assignment of channels
- E. After *intra*-regional review, a copy of the frequency-specific application including a definition statement of proposed service area shall then be forwarded to the adjacent region(s) for review. The agreed upon format for this exchange of data shall be based *on the APCO* FDR-2 form, included as an application Attachment, and accompanied by the applicant's proposal service area definition (*map* or narrative).[7] This information will be sent to the adjacent regional chairperson(s) by a next day delivery system.

---

[5] The F (95,95) 5 dBu co-channel and F (95,95) 25 dBu adjacent channel *inter*-regional contours of a proposed system must not intersect (*must be non-overlapping*) with the 40 dBu contour of an existing adjacent region licensee.

[6] Ibid., at Footnote 1, Paragraph 14.

[7] Service area shall normally be defined as the area included within the geographical boundary of the applicant plus three (3) miles. Other definitions of service area shall be justified with an accompanying *Memoranda of Understanding* or other applicable documentation. Should a proposed service area extend into an adjacent Public Safety region(s), then the proposed service area must be approved by the affected regions.

REGION-20 PUBLIC SAFETY REGIONAL PLAN REVIEW COMMITTEE

- F. The adjacent region reviews the application. Where unconditional concurrence exists, a letter of concurrence shall be sent, via next-day delivery system, to the initiating regional chairperson within 60 calendar days.

  [1]. If only partial or non-concurrence exists, a working group comprised of representatives of the two regions shall be convened within 30 calendar days. The working group shall then report its findings within 30 calendar days to the regional chairperson via next-day delivery system. Findings may include, but not be limited to:

  (I) unconditional concurrence;

  (ii) conditional concurrence contingent upon modification of applicant's technical parameters; or

  (iii) partial or total denial of proposed frequencies due to inability to meet co-channel/adjacent channel interference free protection to existing licensees within the adjacent region.[8]

  [2]. If resolution is unobtainable by the working group, then the matter shall be forwarded, for evaluation, to the APCO[9] regional frequency advisors, who service the affected regions. These frequency advisors will, within 30 calendar days, report their recommendation(s) to the regional chairpersons via next-day delivery system.

- G. Where adjacent region concurrence has been secured, and the channel assignments would result in no change to the region's currently Commission approved channel assignment matrix, the initiating region may then advise the applicant(s) that their application may be forwarded to APCO for processing and forwarding to the Commission.

- H. Where adjacent region concurrence has been secured, and the channel assignments would result in a change to the region's currently Commission approved channel assignment matrix, then the initiating region shall file with the Commission a ***PETITION TO AMEND*** their current regional plan's frequency matrix, reflecting the new channel assignments, with a copy of the ***PETITION*** sent to the adjacent regional chairperson(s).

- I. Upon Commission issuance of an ***ORDER*** adopting the amended channel assignment matrix, the initiating regional chairperson will send a courtesy copy of

[8] The non-concurring region shall identify the affected licensee(s), the engineering propagation model user and the specific engineering technical criteria applied to the model.

[9] ***Memorandum of Understanding***, APCO & FCC, Report No. CI 98-12, July 17, 1998.

REGION-20 PUBLIC SAFETY REGIONAL PLAN REVIEW COMMITTEE

this ***ORDER*** to the adjacent regional chairperson and may then advise the applicant(s) that they may forward their applications to APCO for processing and forwarding to the Commission.

J. This procedure will apply to all *intra/inter*-regional applications coordinated by Regions-20 and 28.

III. CONCLUSION

6. **IN AGREEMENT HERETO,** Regions-20 and 28 do hereunto set their signatures the day and year first above written.

Respectfully,

Stephen H. Souder

Mr. Stephen H. Souder
Chairman - Region-20 Public Safety
Regional Plan Review Committee

Richard R. Reynolds

Mr. Richard R. Reynolds
Chairman - Region-28 Public Safety
Planning Update Committee

APPENDIX I
(At Close of Fourth Window)

Region 20 – 821 MHz Regional Planning Committee

District of Columbia, State of Maryland and Northern Virginia

G. Edward Ryan, II, Chairman
c/o Maryland Department of Budget and Management
301 West Preston Street, Suite 1304
Baltimore, Maryland 21201
Phone: 410-767-4219 e-mail: ryan@dbm.state.md.us Fax: 410-333-5163

December 8, 2004

RECEIVED & INSPECTED
DEC 2 0 2004
FCC-MAILROOM

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Portals II, TW-A325
Washington, DC 20554

DOCKET FILE COPY ORIGINAL

RE: NPSPAC 821 MHz Region 20, FCC GN. Docket No. 90-7
Revised Frequency Assignment Table (Window 4A) and Plan Amendment

Dear Secretary Dortch:

This letter, with attachments is being filed as an amendment to the Region 20-821 MHz NPSPAC plan, FCC GN. Docket No. 90-7.

1) **Attachment 1** is the revised **Frequency Assignment Table**, titled *Appendix I*, dated 12-3-04. This revision reflects the following changes which are shown with a "**" next to the affected channel.

   a. Modification of operating perimeters of existing channels in Fairfax County, Virginia.

   b. Completion of the required adjacent region concurrence of one (1) channel to Charles County, Maryland.

   c. Completion of the required adjacent region concurrence of two (2) channels to Fauquier County, Virginia.

   d. Completion of the required adjacent region concurrence of one (1) channel to Loudoun County, Virginia.

   e. Completion of the required adjacent region concurrence of one (1) channel to the UMES (Upper Maryland Eastern Shore) Queen Anne's, Talbot and Caroline Counties, Maryland.

   f. Completion of the required adjacent region concurrence of one (1) channel to Carroll County, Maryland.

No. of Copies rec'd 0
List ABCDE

2) **Attachment 2** contains the concurrence from each region adjacent to Region 20 for the channel assignments as revised in this amendment. They are Region 28, Region 36, Region 42 and Region 44.

Given the importance of these assignments to Region 20 applicants, please notify me when the FCC has approved this plan amendment. Feel free to contact me at 410-767-4219 if you have any questions.

Sincerely,

G. Edward Ryan, II
Chairman
Region 20-821 MHz Committee

cc: Howard Redman, Secretary, Region 20 – 821 MHz
Sam Somers, Vice-Chair, Region 20 – 821 MHz
Gary McKelvey, Chair, Technical Subcommittee
Applicants

REGION 20 FREQUENCY ASSIGNMENTS

Windows 1, 2, 3, and 4A[1]

Jurisdiction / Geographic Area	*Assigned Channels*				
Alexandria City, VA	673	675	810		
Anne Arundel County, MD	636	750	777	798	818
Arlington County, VA	654	662	727	766	
Baltimore City, MD	608	615	617	627	634
	647	650	663	665	667
	669	672	687	689	692
	707	710	712	739	745
	747	752	759	761	763
	765	767	775	787	796
	801	807	810	821	827
Baltimore Washington Airport Baltimore, MD	620	655	697	701	742
Calvert County, MD	670	686	690	695	779
Carroll County, MD	612	686	702	709	711
	713	720	748	778	829*
Charles County, MD	605*	625	803	823	
Fairfax County, VA[2]	609	611	623	631	633
	657	685	688	697	699
	705	708	725	738	749
	751	758	762	776	791
	797	817			
Fauquier County, VA	615*	710	729	741	747
	787	795	829*		
Frederick County, MD	646	670	769	789	811
Harford County, MD*[3]	619	622	659	698	704
	736	781	813	816	
Howard County, MD	602	604	630	640	643

REGION 20 FREQUENCY ASSIGNMENTS

	652	674	676	684	724
	737	754	756		
Loudoun County, VA	641	644	661	678	681
	701	722*	755	804	813
	824				
Manassas City, VA.	606	608	743	783	785
Maryland Central Booking Baltimore City, MD	606	611	623	726	784
Montgomery County, MD	616	621	626	638	649
	732	740	744	746	760
	764	773	780	782	786
	800	802	806	820	822
	826				
Metro Washington Airport Authority Arlington, Loudon & Fairfax Counties, VA	603	651	668	671	691
	703	716	718	768	808
	815				
Princes George's County, MD	607	614	618	645	660
	682	722	770	788	790
	812	828			
Prince William County, VA	613	635	637	653	655
	674	676	731	736	745
	765	778	799	801	819
	821	827			
RINS – Washington DC Metro Area	792				
Saint Mary's County, MD	612	634	658	713	724
	735	748	763	809	814
SERS 01 Alexandria, VA	720				

REGION 20 FREQUENCY ASSIGNMENTS

Upper Maryland Eastern Shore Talbot and Queen Anne's Counties, MD	644 773*[4]	653 785	661 789	675 805	719 830
University of Maryland College Park College Park, MD	632	726	784	794	830
Washington Council of Governments Washington DC Metro Area	628 734	664	666	694	714

File: Appendix I 12-3-04.doc

[1] * = Window 4A assignment.
[2] ***Modification to licenses granted by the Commission in the Region 20 Window 1.***
[3] ***Modification to licenses granted by the Commission in the Region 20 Window 3.***
[4] ***Channel 793 has been replaced with channel 773.***

Appendix I - Window 1, 2, 3, & 4A Assignments Post Rebanding Ch. No.

REGION 20 FREQUENCY ASSIGNMENTS

Windows 1,2,3, and 4A[1]

Alexandria City, VA	73	75	210		
Anne Arundel County, MD	36	150	177	198	218
Arlington County, VA	54	62	127	166	
Baltimore City, MD	8	15	17	27	34
	47	50	63	65	67
	69	72	87	89	92
	107	110	112	139	145
	147	152	159	161	163
	165	167	175	187	196
	201	207	210	221	227
Baltimore Washington Airport Baltimore, MD	20	55	97	101	142
Calvert County, MD	70	86	90	95	179
Carroll County, MD	12	86	102	109	111
	113	120	148	178	229*
Charles County, MD	5*	25	203	223	
Fairfax County, VA[2]	9	11	23	31	33
	57	85	88	97	99
	105	108	125	138	149
	151	158	162	176	191
	197	217			
Fauquier County, VA	15*	110	129	141	147
	187	195	229*		
Frederick County, MD	46	70	169	189	211
Harford County, MD*[3]	19	22	59	98	104
	136	181	213	216	
Howard County, MD	2	4	30	40	43
	52	74	76	84	124
	137	154	156		

(continued next page)

Loudoun County, VA	41	44	61	78	81
	101	122*	155	204	213
	224				
Manassas City, VA.	6	8	143	183	185
Maryland Central Booking	6	11	23	126	184
Montgomery County, MD	16	21	26	38	49
	132	140	144	146	160
	164	173	180	182	186
	200	202	206	220	222
	226				
Metro Washington Airport Authority	3	51	68	71	91
Arlington, Loudon & Fairfax Counties, VA	103	116	118	168	208
	215				
Princes George's County, MD	7	14	18	45	60
	82	122	170	188	190
	212	228			
Prince William County, VA	13	35	37	53	55
	74	76	131	136	145
	165	178	199	201	219
	221	227			
RINS -Washington DC Metro Area	192				
Saint Mary's County, MD	12	34	58	113	124
	135	148	163	209	214
SERS 01	120				
Alexandria, VA					
Upper Maryland Eastern Shore	44	53	61	75	119
Talbot and Queen Anne's Counties, MD	173* [4]	185	189	205	230
University of Maryland College Park	32	126	184	194	230
College Park, MD					
Washington Council of Governments	28	64	66	94	114
Washington DC Metro Area	134				

1 * - Window 4A assignment.
2 Modification to licenses granted bv the Commission in the Region 10 Window 1.
3 Modification to licenses granted bv the Commission in the Region 10 Window 3.
4 Channel 793 has been replaced with channel 773.

Frequencies Available

Table of 806–824/851–869 MHz Channel Designations (Copied from 47 CFR 90.613)

Channel No.	Base frequency (MHz)
1	851.0125
2	.0375
3	.0500
4	.0625
5	.0750
6	.0875
7	.1000
8	.1125
9	.1250
10	.1375
11	.1500
12	.1625
13	.1750
14	.1875
15	.2000
16	.2125
17	.2250
18	.2375
19	.2500
20	.2625
21	.2750
22	.2875
23	.3000
24	.3125
25	.3250
26	.3375
27	.3500
28	.3625
29	.3750
30	.3875
31	.4000
32	.4125
33	.4250
34	.4375
35	.4500
36	.4625
37	.4750
38	.4875
39	.5125
40	.5375
41	.5500
42	.5625
43	.5750
44	.5875
45	.6000
46	.6125
47	.6250
48	.6375
49	.6500
50	.6625
51	.6750
52	.6875
53	.7000
54	.7125
55	.7250
56	.7375
57	.7500
58	.7625

Channel No.	Base frequency (MHz)
59	851.7750
60	.7875
61	.8000
62	.8125
63	.8250
64	.8375
65	.8500
66	.8625
67	.8750
68	.8875
69	.9000
70	.9125
71	.9250
72	.9375
73	.9500
74	.9625
75	.9750
76	.9875
77	852.0125
78	.0375
79	.0500
80	.0625
81	.0750
82	.0875
83	.1000
84	.1125
85	.1250
86	.1375
87	.1500
88	.1625
89	.1750
90	.1875
91	.2000
92	.2125
93	.2250
94	.2375
95	.2500
96	.2625
97	.2750
98	.2875
99	.3000
100	.3125
101	.3250
102	.3375
103	.3500
104	.3625
105	.3750
106	.3875
107	.4000
108	.4125
109	.4250
110	.4375
111	.4500
112	.4625
113	.4750
114	.4875
115	.5125
116	.5375

Channel No.	Base frequency (MHz)
117	852.5500
118	.5625
119	.5750
120	.5875
121	.6000
122	.6125
123	.6250
124	.6375
125	.6500
126	.6625
127	.6750
128	.6875
129	.7000
130	.7125
131	.7250
132	.7375
133	.7500
134	.7625
135	.7750
136	.7875
137	.8000
138	.8125
139	.7375
140	.8375
141	.8500
142	.8625
143	.8750
144	.8875
145	.9000
146	.9125
147	.9250
148	.9375
149	.9500
150	.9625
151	.9750
152	.9875
153	853.0125
154	.0375
155	.0500
156	.0625
157	.0750
158	.0875
159	.1000
160	.1125
161	.1250
162	.1375
163	.1500
164	.1625
165	.1750
166	.1875
167	.2000
168	.2125
169	.2250
170	.2375
171	.2500
172	.2625
173	.2750
174	.2875

Channel No.	Base frequency (MHz)
175	853.3000
176	.3125
177	.3250
178	.3375
179	.3500
180	.3625
181	.3750
182	.3875
183	.4000
184	.4125
185	.4250
186	.4375
187	.4500
188	.4625
189	.4750
190	.4875
191	.5000
192	.5125
193	.5250
194	.5375
195	.5500
196	.5625
197	.5750
198	.5875
199	.6000
200	.6125
201	.6250
202	.6375
203	.6500
204	.6625
205	.6750
206	.6875
207	.7000
208	.7125
209	.7250
210	.7375
211	.7500
212	.7625
213	.7750
214	.7875
215	.8000
216	.8125
217	.8250
218	.8375
219	.8500
220	.8625
221	.8750
222	.8875
223	.9000
224	.9125
225	.9250
226	.9375
227	.9500
228	.9625
229	.9750
230	.9875

806 - 809 MHz Separation Scheme

500 KHz

CxR

f

- REGION 20 -

*	1	*	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
*	39	*	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
*	77	*	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114
*	115	*	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152
*	153	*	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230

* Protection for Mutual Aid Channels

Channel #s per FCC numbering scheme, the center of the box represents the carrier frequency.

- Assignment by Sub Region
- National Mutual Aid Channels
- State of Maryland Region Wide Channels
- Guard Bands - Subject to low power assignments
- Baltimore Regional Interservice Assignments
- Washington Regional Interservice Assignments
- Unassigned - for Committee assignment only to avoid interference conflict
- Region Wide - Emergency Management

END.