

Accepted/Filed

WT 13-212

DOCKET FILE COPY ORIGINAL

OCT 24 2013

FCC Office of the Secretary

Mobile Relay Associates
Form 601
July, 2013

PUBLIC INTEREST; REQUEST FOR WAIVER

Mobile Relay Associates ("MRA", or "Applicant"), hereby requests waiver of Sections 2.106 and 90.35 of the Commission's Rules, and of such other Commission rules as the Commission may deem necessary or appropriate, in order to be licensed with station class FB8 *but only a 4 kHz emission designator* on the frequency pairs 462/467.5375 MHz and 462/467.7375 MHz (collectively, the "Requested Channels") in the Los Angeles metropolitan area, as a PMRS Industrial/Business ("I/B") licensee. A waiver is required here because the involved channel pairs are immediately adjacent to, but not included within, the specific frequencies allocated under section 90.35 to the I/B service.

I. SPECTRUM REQUESTED

With the 4 kHz emission designator requested herein, the edges of MRA's occupied bandwidth on the Requested Channels would be: as to 462.5375 MHz, 462.5355 MHz (lower) and 462.5395 MHz (upper); as to 462.7375 MHz, 462.7355 MHz (lower) and 462.7395 MHz (upper); as to 467.5375 MHz, 467.5355 MHz (lower) and 467.5395 MHz (upper); and as to 467.7375 MHz, 467.7355 MHz (lower) and 467.7395 MHz (upper).

II. CURRENT ALLOCATIONS

Although not allocated to I/B, neither are the Requested Channels allocated to any other Commission service. Rather, they are fallow "guardband" channels, serving as a sort of buffer among the allocations of I/B and either Part 95 or Part 80 services. Below is a narrative description of the current spectrum environment pertaining to each of the Requested Channels, and demonstrating that if MRA is licensed for the Requested Channels, there will be no spectral overlap with any other Commission-regulated operation.

Also, following is a chart illustrating in a pictorial manner the absence of spectral overlap. The four "Frequency Display" pages A-D in the chart correspond to the four subparts I.A-D immediately below.

A. 462.5375 MHz. The channel 462.53125 MHz is already allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, *i.e.*, for an

occupied bandwidth up to 462.53425 MHz. Under Section 95.621(a) of the Rules, the channel 462.5500 MHz is allocated to GMRS with a maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, *i.e.*, an occupied bandwidth down to 462.5400 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

B. 462.7375 MHz. The channel 462.7250 MHz is allocated as GMRS (Part 95), with maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth up to 462.7350 MHz. On the other side, the channel 462.7500 MHz is allocated as I/B (paging-only), with maximum emission designator of 11 kHz, or 5.5 kHz above/below that centerpoint, for an occupied bandwidth down to 462.7445 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

C. 467.5375 MHz. The channel 467.53125 MHz is already allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, *i.e.*, for an occupied bandwidth up to 467.53425 MHz. On the other side, there does not appear to any allocation in any of Parts 80, 90 or 95. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

D. 467.7375 MHz. The channel 467.7250 MHz is allocated as GMRS (Part 95), with maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth up to 467.7350 MHz. On the other side: (a) the channel 467.74375 MHz is allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, for an occupied bandwidth down to 467.74075 MHz; and (b) the channel 467.7500 MHz is allocated to the Maritime Service (Part 80), with a maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth down to 467.7400 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

III. RATIONALE FOR THIS WAIVER

A. With Narrowbanding, There Is No Longer Any Spectral Overlap

At the time the Commission created most of its allocations in this portion of the spectrum (or, at least those allocations which are other than Part 90), wideband channel operation (of at least 20 kHz occupied bandwidth) was the norm and even so-called "narrowband" operation (not yet mandated), was with 11 kHz occupied bandwidth. However, in the intervening years, there have been great strides in the evolution of narrowbanding; strides reflected in the new Part 90

rules but not yet reflected in assessing where and how much of a buffer between separate radio services is required or appropriate. The Commission has now permitted separate Part 90 licensees to be licensed closer together than before, without any fear of harmful interference because with the new narrowbanding, there is no spectral overlap between adjacent licensees.

For the exact same reason – that there is no longer any spectral overlap between adjacent licensees – the Requested Channels can now be licensed as 4 kHz occupied-bandwidth channels for I/B usage without causing any harmful interference whatsoever to users of other Part 80, Part 90, or Part 95 services.

B. There Is Widespread Congestion in Los Angeles among Part 90 Licensees

Even as narrowbanding means that the Requested channels are no longer needed as buffers, there is a critical shortage of Part 90 PMRS spectrum in metropolitan Los Angeles, the nation's most congested land mobile geographic area, by far. In response to the enactment of the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96 ("Spectrum Act"), which calls for the eventual migration of Public Safety (but not I/B) out of the T-Band, the Commission has imposed an indefinite filing freeze on new I/B T-Band applications. *See* Public Notice, DA 12-643, released April 26, 2012 ("*T-Band Freeze PN*"). This freeze came at a time when there already was virtually no unused Part 90 I/B spectrum in metropolitan Los Angeles, and not long after MRA and other PMRS licensees had been forced off of much of the 800 MHz SMR spectrum.

This freeze also came at a time when Motorola in particular, but also other manufacturers, began heavily marketing digital data equipment to operators of fleet-dispatch systems – equipment which is almost invariably being programmed to operate on a continuous basis and almost invariably installed by taxicab and similar fleet operators on shared spectrum, thereby blasting all co-channel licensees of the channel in violation of the Commission's rules with respect to shared spectrum. (*See, e.g.*, Section 90.403(e) of the Commission's Rules, which requires licensees of shared spectrum to monitor the channel for transmissions of co-channel licensees and to refrain from transmitting on top of such co-channel transmissions.)

These widespread instances of digital data operators usurping exclusive use of shared channels have resulted in MRA and its customers being thrown off many of MRA's licensed channels. Although MRA has complained mightily to the Commission's Los Angeles District Office about these intentional and continuing violations of Section 90.403(e) and other

Commission rules, and although the District Office has cited numerous of these violators, Commission policy is simply to cite these violators, not to shut them down when they refuse to cease their violations. As a result, the usurpation of these ostensibly shared channels continues to grow. Concomitantly, MRA and its customers, whose needs are growing, have less and less usable spectrum.¹

CONCLUSION

In summary, thanks to the availability of very-narrowband 4 kHz equipment in this band, the Commission can now issue licenses to MRA for the Requested Channels without causing any interference or other problems for any incumbent Commission-regulated operations, whether in Part 90 or other rule parts. The Los Angeles metropolitan area, where MRA operates and is proposing to operate an I/B system using the Requested Channels, is the nation's most congested PMRS geographic area, with virtually no PMRS spectrum left available.

Due to actions taken by the Commission -- including, among others, the decision to freeze not only Public Safety but also Industrial/Business applications for T-Band spectrum and the decision not to expend Commission resources to physically shut down those operating unlawfully in Part 90 spectrum (in contrast to Commission policy regarding, for example, broadcast spectrum) -- MRA and its customers have lost the use of significant portions of MRA's

¹ One illustrative example is the loss of the use of MRA call sign WQGW503, frequencies 151.5800 MHz and 159.9750 MHz, where MRA and its customers (except for areas terrain-shielded from Mt. Wilson) were knocked off their licensed channel pair by a pirate operation of Acumen Communications, which began continuous, non-monitoring digital transmission on the channel pair from Mt. Wilson last year. After MRA complained to the District Office, the District Office investigated and issued a Notice of Violation to Acumen. In response, Acumen filed an application with the Commission (File No. 0005614865) seeking to be licensed as a shared (FB6) licensee of the channel pair, and continued to operate in the same manner, as if it were licensed FB8, blocking other co-channel licensees from using the spectrum.

MRA filed a petition to deny the Acumen application (copy attached), and Acumen filed no opposition to the MRA petition to deny. However, Acumen continues to operate in the same manner and block other persons from using the spectrum. MRA eventually asked the Commission to grant MRA's unopposed petition to deny and eliminate any pretense that Acumen might have to operate on the channels in the guise of a "pending applicant." (Copy of this request attached.) Acumen did not oppose this request, although it was served with a copy. However, due to its choices concerning allocation of resources, the Commission has not acted, the Acumen application remains pending, and, except where terrain shielding blocks the Acumen signal, Acumen remains the *de facto* exclusive user of the spectrum.

To repeat, MRA's loss of the 151.5800/159.9750 MHz spectrum is *just one of many examples MRA could cite*.

licensed spectrum and have no access to alternative spectrum. The Requested Channels are the spectrum that is available to MRA in the Los Angeles metro area, is not already in heavy use, and can be put to use easily without harming anyone else.

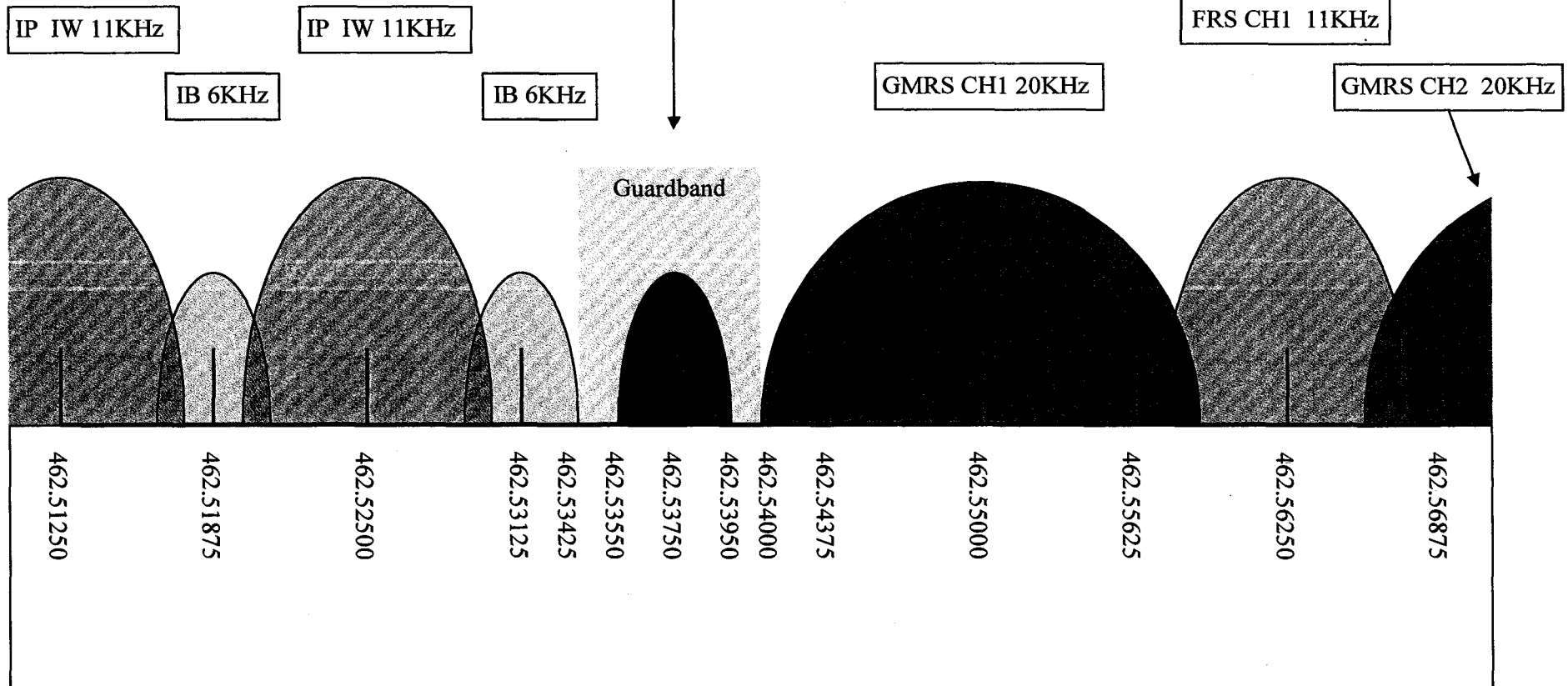
Accordingly, the Commission should grant the limited rule waiver which MRA seeks herein, and issue MRA licenses to use the Requested Channels at the specified locations in metro Los Angeles in the I/B service, with station class FB8.

Frequency Display A - 462.5375MHz



Mobile Relay Associates

*When Communications
are Essential*



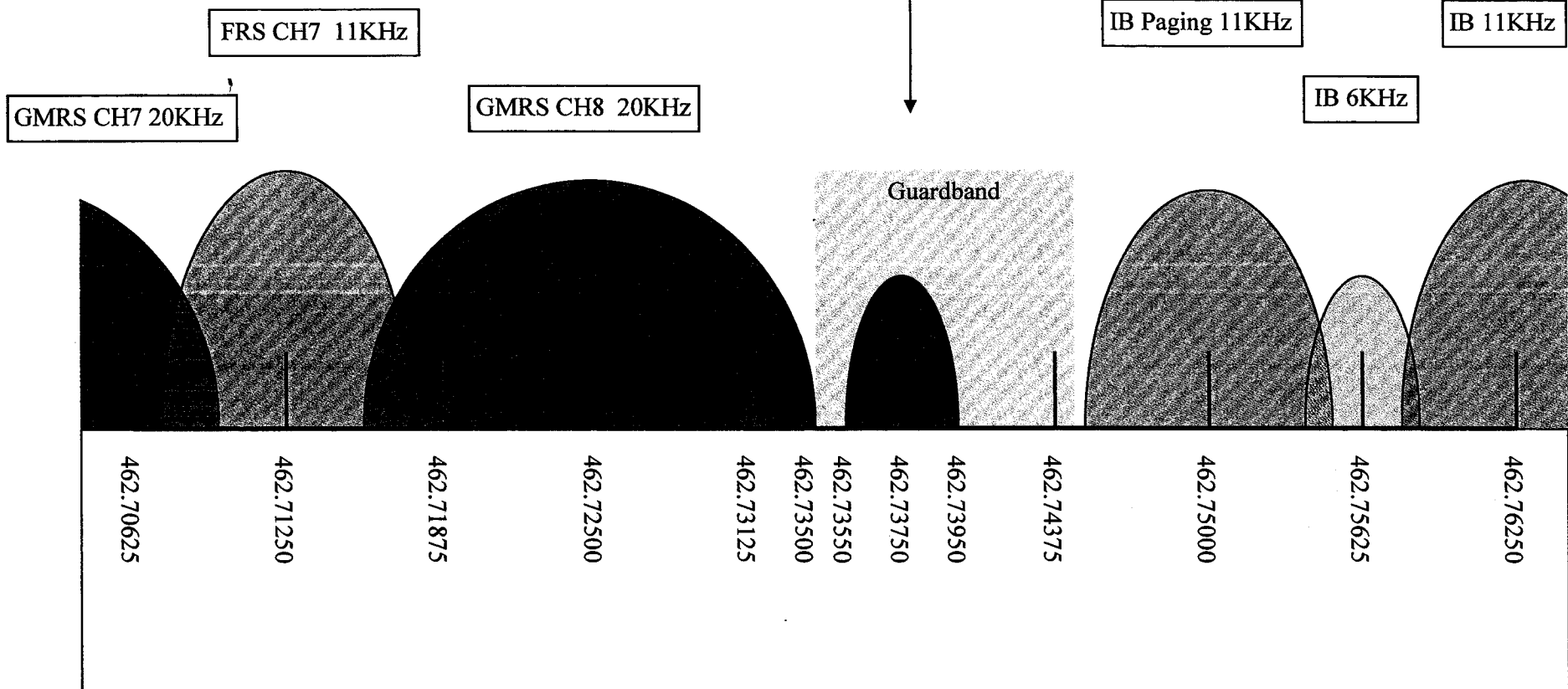
Frequency Display B - 462.7375MHz



Organization

Mobile Relay Associates

*When Communications
are Essential*



Frequency Display C - 467.5375MHz



Organization
Mobile Relay Associates

*When Communications
are Essential*

IP IW 11KHz

IP IW 11KHz

IB 6KHz

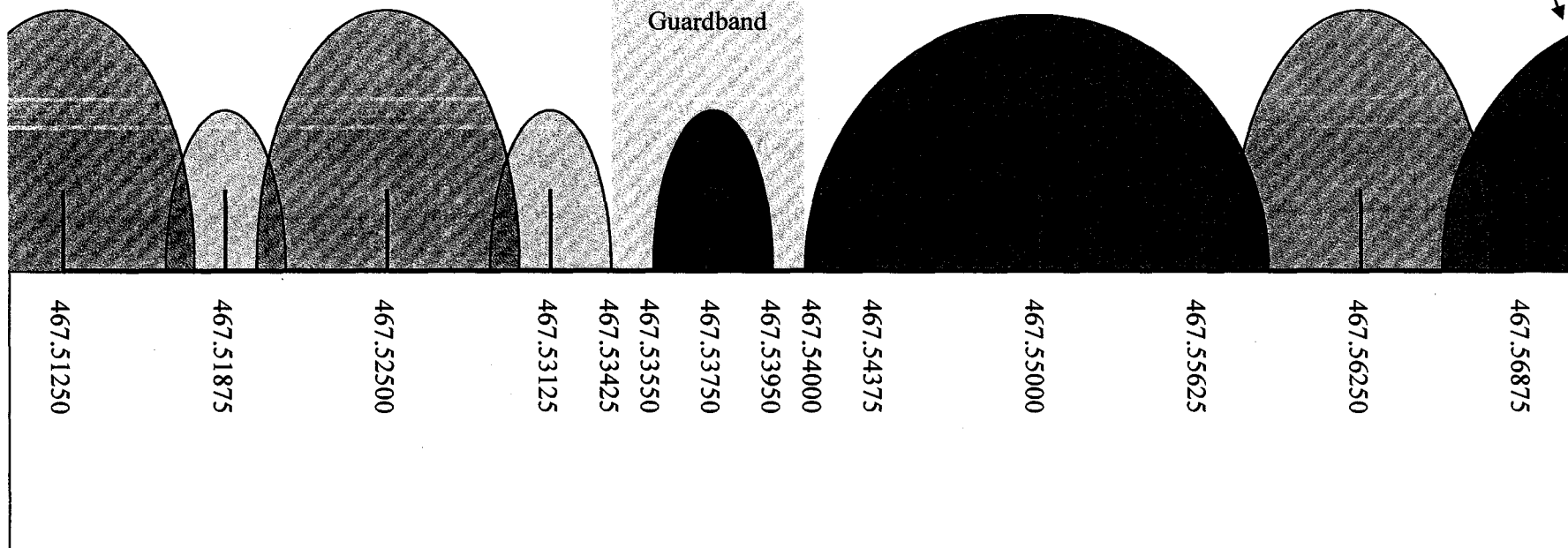
IB 6KHz

GMRS CH1 20KHz

FRS CH1 11KHz

GMRS CH2 20KHz

Guardband

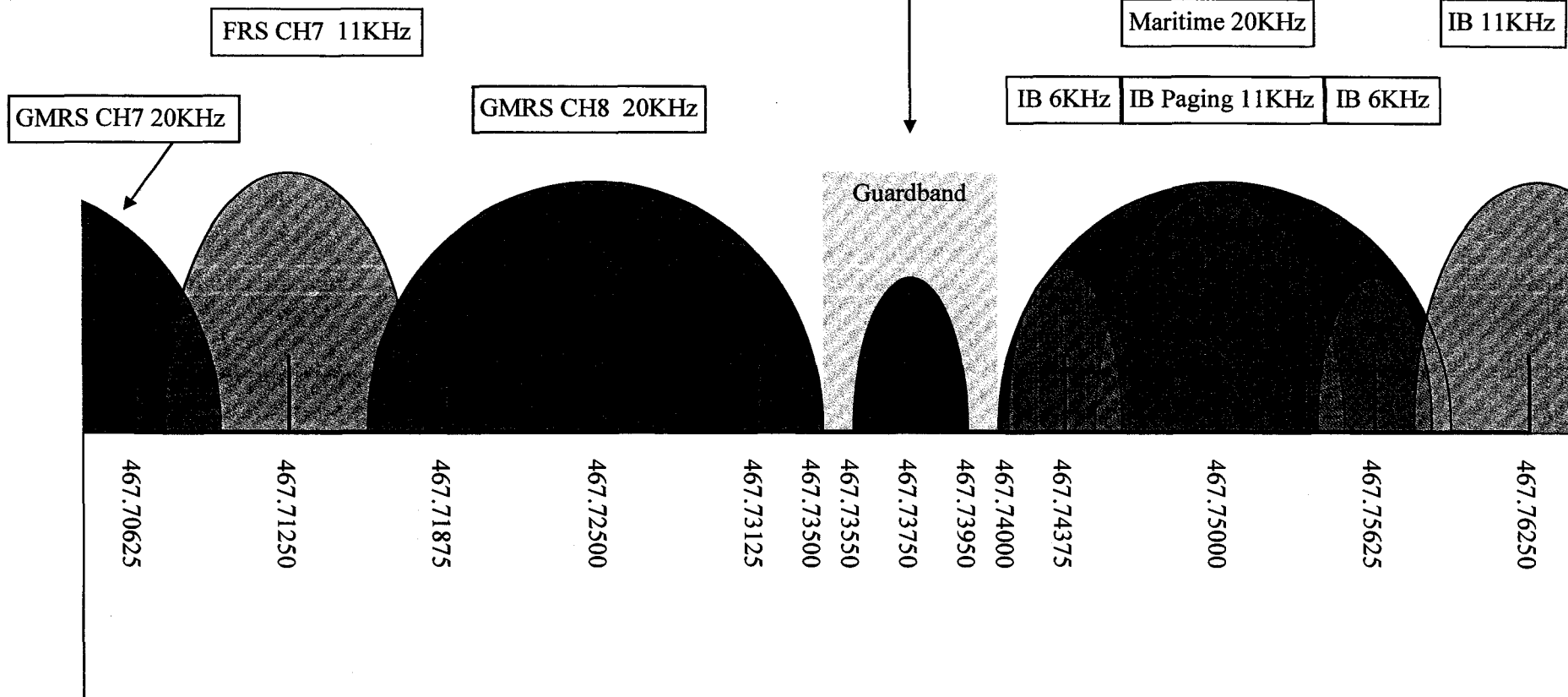


Frequency Display D - 467.7375MHz


Organization

Mobile Relay Associates

*When Communications
are Essential*



PUBLIC INTEREST; REQUEST FOR WAIVER

Mobile Relay Associates (“MRA”, or “Applicant”), hereby requests waiver of Sections 2.106 and 90.35 of the Commission’s Rules, and of such other Commission rules as the Commission may deem necessary or appropriate, in order to be licensed with station class FB8 *but only a 4 kHz emission designator* on the frequency pairs 462/467.5375 MHz and 462/467.7375 MHz (collectively, the “Requested Channels”) in the Denver, Colorado metropolitan area, as a PMRS Industrial/Business (“I/B”) licensee. A waiver is required here because the involved channel pairs are immediately adjacent to, but not included within, the specific frequencies allocated under section 90.35 to the I/B service.

I. SPECTRUM REQUESTED

With the 4 kHz emission designator requested herein, the edges of MRA’s occupied bandwidth on the Requested Channels would be: as to 462.5375 MHz, 462.5355 MHz (lower) and 462.5395 MHz (upper); as to 462.7375 MHz, 462.7355 MHz (lower) and 462.7395 MHz (upper); as to 467.5375 MHz, 467.5355 MHz (lower) and 467.5395 MHz (upper); and as to 467.7375 MHz, 467.7355 MHz (lower) and 467.7395 MHz (upper).

II. CURRENT ALLOCATIONS

Although not allocated to I/B, neither are the Requested Channels allocated to any other Commission service. Rather, they are fallow “guardband” channels, serving as a sort of buffer among the allocations of I/B and either Part 95 or Part 80 services. Below is a narrative description of the current spectrum environment pertaining to each of the Requested Channels, and demonstrating that if MRA is licensed for the Requested Channels, there will be no spectral overlap with any other Commission-regulated operation.

Also, following is a chart illustrating in a pictorial manner the absence of spectral overlap. The four “Frequency Display” pages A-D in the chart correspond to the four subparts II.A-D immediately below.

A. 462.5375 MHz. The channel 462.53125 MHz is already allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, *i.e.*, for an

occupied bandwidth up to 462.53425 MHz. Under Section 95.621(a) of the Rules, the channel 462.5500 MHz is allocated to GMRS with a maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, *i.e.*, an occupied bandwidth down to 462.5400 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

B. 462.7375 MHz. The channel 462.7250 MHz is allocated as GMRS (Part 95), with maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth up to 462.7350 MHz. On the other side, the channel 462.7500 MHz is allocated as I/B (paging-only), with maximum emission designator of 11 kHz, or 5.5 kHz above/below that centerpoint, for an occupied bandwidth down to 462.7445 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

C. 467.5375 MHz. The channel 467.53125 MHz is already allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, *i.e.*, for an occupied bandwidth up to 467.53425 MHz. On the other side, there does not appear to any allocation in any of Parts 80, 90 or 95. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

D. 467.7375 MHz. The channel 467.7250 MHz is allocated as GMRS (Part 95), with maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth up to 467.7350 MHz. On the other side: (a) the channel 467.74375 MHz is allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, for an occupied bandwidth down to 467.74075 MHz; and (b) the channel 467.7500 MHz is allocated to the Maritime Service (Part 80), with a maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth down to 467.7400 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

III. RATIONALE FOR THIS WAIVER

A. With Narrowbanding, There Is No Longer Any Spectral Overlap

At the time the Commission created most of its allocations in this portion of the spectrum (or, at least those allocations which are other than Part 90), wideband channel operation (of at least 20 kHz occupied bandwidth) was the norm and even so-called "narrowband" operation (not yet mandated), was with 11 kHz occupied bandwidth. However, in the intervening years, there have been great strides in the evolution of narrowbanding; strides reflected in the new Part 90

rules but not yet reflected in assessing where and how much of a buffer between separate radio services is required or appropriate. The Commission has now permitted separate Part 90 licensees to be licensed closer together than before, without any fear of harmful interference because with the new narrowbanding, there is no spectral overlap between adjacent licensees.

For the exact same reason – that there is no longer any spectral overlap between adjacent licensees – the Requested Channels can now be licensed as 4 kHz occupied-bandwidth channels for I/B usage without causing any harmful interference whatsoever to users of other Part 80, Part 90, or Part 95 services.

B. There Is Increasing Congestion in Denver among Part 90 Licensees

Even as narrowbanding means that the Requested Channels are no longer needed as buffers, there is an increasing shortage of Part 90 PMRS spectrum in metropolitan areas across the United States. Recently, Motorola in particular, but also other manufacturers, began heavily marketing digital data equipment to operators of fleet-dispatch systems – equipment which is almost invariably being programmed to operate on a continuous basis and almost invariably installed by taxicab and similar fleet operators on shared spectrum, thereby blasting all co-channel licensees of the channel in violation of the Commission's rules with respect to shared spectrum. (*See, e.g.*, Section 90.403(e) of the Commission's Rules, which requires licensees of shared spectrum to monitor the channel for transmissions of co-channel licensees and to refrain from transmitting on top of such co-channel transmissions.)

These widespread instances of digital data operators usurping exclusive use of shared channels have exacerbated the pre-existing spectrum shortage. As a result, there is less and less usable spectrum available.

These issues come on the heels of the 800 MHz rebanding, where MRA and other PMRS licensees in Denver had been forced off of much of the 800 MHz SMR spectrum.

CONCLUSION

In summary, thanks to the availability of very-narrowband 4 kHz equipment in this band, the Commission can now issue licenses to MRA for the Requested Channels without causing any interference or other problems for any incumbent Commission-regulated operations, whether in Part 90 or other rule parts. The Denver metropolitan area, where MRA is proposing to operate an I/B system using the Requested Channels, is highly congested, with less and less PMRS spectrum available.

Due to actions taken by the Commission -- including, among others, the decision to freeze not only Public Safety but also Industrial/Business applications for T-Band spectrum -- MRA and its customers have no access to alternative spectrum. The Requested Channels are the most appropriate spectrum available to MRA in the Denver metro area, is not already in heavy use, and can be put to use easily without harming anyone else.

Accordingly, the Commission should grant the limited rule waiver which MRA seeks herein, and issue MRA licenses to use the Requested Channels at the specified locations in metro Denver in the I/B service, with station class FB8.

Frequency Display A - 462.5375MHz



Mobile Relay Associates

*When Communications
are Essential*

IP IW 11KHz

IP IW 11KHz

IB 6KHz

IB 6KHz

GMRS CH1 20KHz

FRS CH1 11KHz

GMRS CH2 20KHz

Guardband

462.51250

462.51875

462.52500

462.53125

462.53425

462.53550

462.53750

462.53950

462.54000

462.54375

462.55000

462.55625

462.56250

462.56875

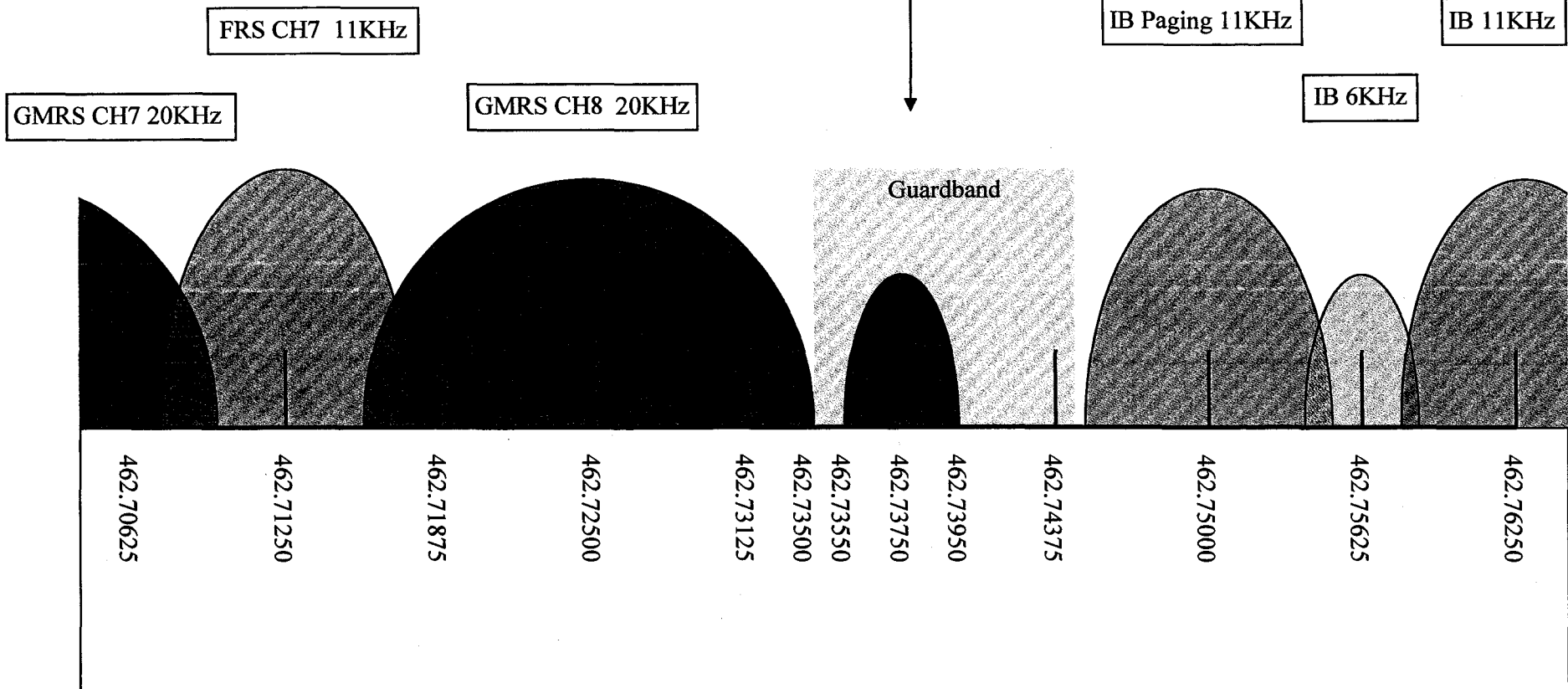
Frequency Display B - 462.7375MHz



Organization

Mobile Relay Associates

*When Communications
are Essential*



Frequency Display C - 467.5375MHz



Organization
Mobile Relay Associates

*When Communications
are Essential*

IP IW 11KHz

IP IW 11KHz

IB 6KHz

IB 6KHz

GMRS CH1 20KHz

FRS CH1 11KHz

GMRS CH2 20KHz

Guardband

467.51250

467.51875

467.52500

467.53125

467.53425

467.53550

467.53750

467.53950

467.54000

467.54375

467.55000

467.55625

467.56250

467.56875

Frequency Display D - 467.7375MHz


Organization

Mobile Relay Associates

*When Communications
are Essential*

FRS CH7 11KHz

Maritime 20KHz

IB 11KHz

GMRS CH7 20KHz

GMRS CH8 20KHz

IB 6KHz IB Paging 11KHz IB 6KHz

Guardband

467.70625

467.71250

467.71875

467.72500

467.73125

467.73500

467.73550

467.73750

467.73950

467.74000

467.74375

467.75000

467.75625

467.76250

PUBLIC INTEREST; REQUEST FOR WAIVER

Mobile Relay Associates (“MRA”, or “Applicant”), hereby requests waiver of Sections 2.106 and 90.35 of the Commission’s Rules, and of such other Commission rules as the Commission may deem necessary or appropriate, in order to be licensed with station class FB8 *but only a 4 kHz emission designator* on the frequency pairs 462/467.5375 MHz and 462/467.7375 MHz (collectively, the “Requested Channels”) in the Miami-Ft. Lauderdale-West Palm Beach, FL (“Southeast Florida”) metropolitan area, as a PMRS Industrial/Business (“I/B”) licensee. A waiver is required here because the involved channel pairs are immediately adjacent to, but not included within, the specific frequencies allocated under section 90.35 to the I/B service.

I. SPECTRUM REQUESTED

With the 4 kHz emission designator requested herein, the edges of MRA’s occupied bandwidth on the Requested Channels would be: as to 462.5375 MHz, 462.5355 MHz (lower) and 462.5395 MHz (upper); as to 462.7375 MHz, 462.7355 MHz (lower) and 462.7395 MHz (upper); as to 467.5375 MHz, 467.5355 MHz (lower) and 467.5395 MHz (upper); and as to 467.7375 MHz, 467.7355 MHz (lower) and 467.7395 MHz (upper).

II. CURRENT ALLOCATIONS

Although not allocated to I/B, neither are the Requested Channels allocated to any other Commission service. Rather, they are fallow “guardband” channels, serving as a sort of buffer among the allocations of I/B and either Part 95 or Part 80 services. Below is a narrative description of the current spectrum environment pertaining to each of the Requested Channels, and demonstrating that if MRA is licensed for the Requested Channels, there will be no spectral overlap with any other Commission-regulated operation.

Also, following is a chart illustrating in a pictorial manner the absence of spectral overlap. The four “Frequency Display” pages A-D in the chart correspond to the four subparts II.A-D immediately below.

A. 462.5375 MHz. The channel 462.53125 MHz is already allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, *i.e.*, for an occupied bandwidth up to 462.53425 MHz. Under Section 95.621(a) of the Rules, the channel 462.5500 MHz is allocated to GMRS with a maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, *i.e.*, an occupied bandwidth down to 462.5400 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

B. 462.7375 MHz. The channel 462.7250 MHz is allocated as GMRS (Part 95), with maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth up to 462.7350 MHz. On the other side, the channel 462.7500 MHz is allocated as I/B (paging-only), with maximum emission designator of 11 kHz, or 5.5 kHz above/below that centerpoint, for an occupied bandwidth down to 462.7445 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

C. 467.5375 MHz. The channel 467.53125 MHz is already allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, *i.e.*, for an occupied bandwidth up to 467.53425 MHz. On the other side, there does not appear to any allocation in any of Parts 80, 90 or 95. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

D. 467.7375 MHz. The channel 467.7250 MHz is allocated as GMRS (Part 95), with maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth up to 467.7350 MHz. On the other side: (a) the channel 467.74375 MHz is allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, for an occupied bandwidth down to 467.74075 MHz; and (b) the channel 467.7500 MHz is allocated to the Maritime Service (Part 80), with a maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth down to 467.7400 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

III. RATIONALE FOR THIS WAIVER

A. With Narrowbanding, There Is No Longer Any Spectral Overlap

At the time the Commission created most of its allocations in this portion of the spectrum (or, at least those allocations which are other than Part 90), wideband channel operation (of at least 20 kHz occupied bandwidth) was the norm and even so-called "narrowband" operation (not

yet mandated), was with 11 kHz occupied bandwidth. However, in the intervening years, there have been great strides in the evolution of narrowbanding; strides reflected in the new Part 90 rules but not yet reflected in assessing where and how much of a buffer between separate radio services is required or appropriate. The Commission has now permitted separate Part 90 licensees to be licensed closer together than before, without any fear of harmful interference because with the new narrowbanding, there is no spectral overlap between adjacent licensees.

For the exact same reason – that there is no longer any spectral overlap between adjacent licensees – the Requested Channels can now be licensed as 4 kHz occupied-bandwidth channels for I/B usage without causing any harmful interference whatsoever to users of other Part 80, Part 90, or Part 95 services.

B. There Is Widespread Congestion in Southeast Florida among Part 90 Licensees

Even as narrowbanding means that the Requested Channels are no longer needed as buffers, there is a critical shortage of Part 90 PMRS spectrum in Southeast Florida, one of the nation's most congested land mobile geographic areas. In response to the enactment of the Middle Class Tax Relief and Job Creation Act of 2012, Pub. L. No. 112-96 ("Spectrum Act"), which calls for the eventual migration of Public Safety (but not I/B) out of the T-Band, the Commission has imposed an indefinite filing freeze on new I/B T-Band applications. *See* Public Notice, DA 12-643, released April 26, 2012 ("*T-Band Freeze PN*"). This freeze came at a time when there already was virtually no unused Part 90 I/B spectrum in southeastern Florida, and not long after PMRS licensees had been forced off of much of the 800 MHz SMR spectrum.

This freeze also came at a time when Motorola in particular, but also other manufacturers, began heavily marketing digital data equipment to operators of fleet-dispatch systems – equipment which is almost invariably being programmed to operate on a continuous basis and almost invariably installed by taxicab and similar fleet operators on shared spectrum, thereby blasting all co-channel licensees of the channel in violation of the Commission's rules with respect to shared spectrum. (*See, e.g.*, Section 90.403(e) of the Commission's Rules, which requires licensees of shared spectrum to monitor the channel for transmissions of co-channel licensees and to refrain from transmitting on top of such co-channel transmissions.)

These widespread instances of digital data operators usurping exclusive use of shared channels have exacerbated the pre-existing spectrum shortage. As a result, there is less and less usable spectrum available.

CONCLUSION

In summary, thanks to the availability of very-narrowband 4 kHz equipment in this band, the Commission can now issue licenses to MRA for the Requested Channels without causing any interference or other problems for any incumbent Commission-regulated operations, whether in Part 90 or other rule parts. The Southeast Florida metropolitan area, where MRA is proposing to operate an I/B system using the Requested Channels, is the one of the nation's most congested PMRS geographic areas, with virtually no PMRS spectrum left available.

Due to actions taken by the Commission -- including, among others, the decision to freeze not only Public Safety but also Industrial/Business applications for T-Band spectrum -- MRA and its customers have no access to alternative spectrum. The Requested Channels are the spectrum that is available to MRA in the Southeast Florida metro area, is not already in heavy use, and can be put to use easily without harming anyone else.

Accordingly, the Commission should grant the limited rule waiver which MRA seeks herein, and issue MRA licenses to use the Requested Channels at the specified locations in metro Southeast Florida in the I/B service, with station class FB8.

Frequency Display A - 462.5375MHz



Organization
Mobile Relay Associates

*When Communications
are Essential*

IP IW 11KHz

IP IW 11KHz

IB 6KHz

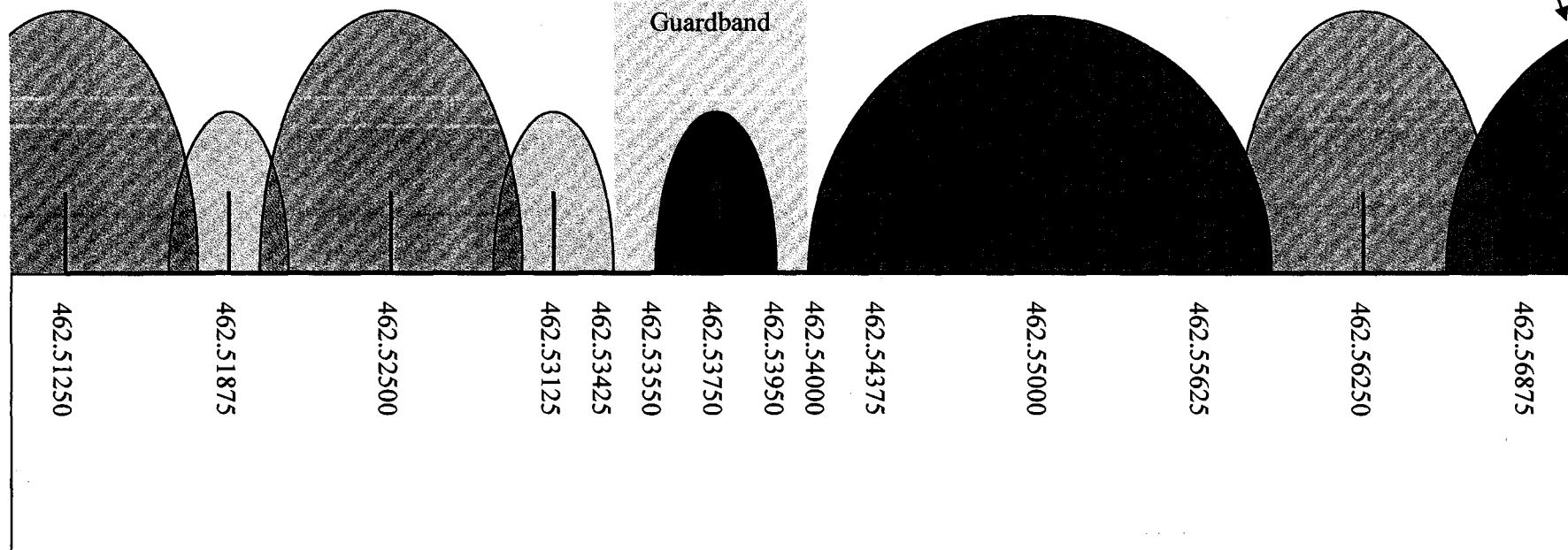
IB 6KHz

GMRS CH1 20KHz

FRS CH1 11KHz

GMRS CH2 20KHz

Guardband



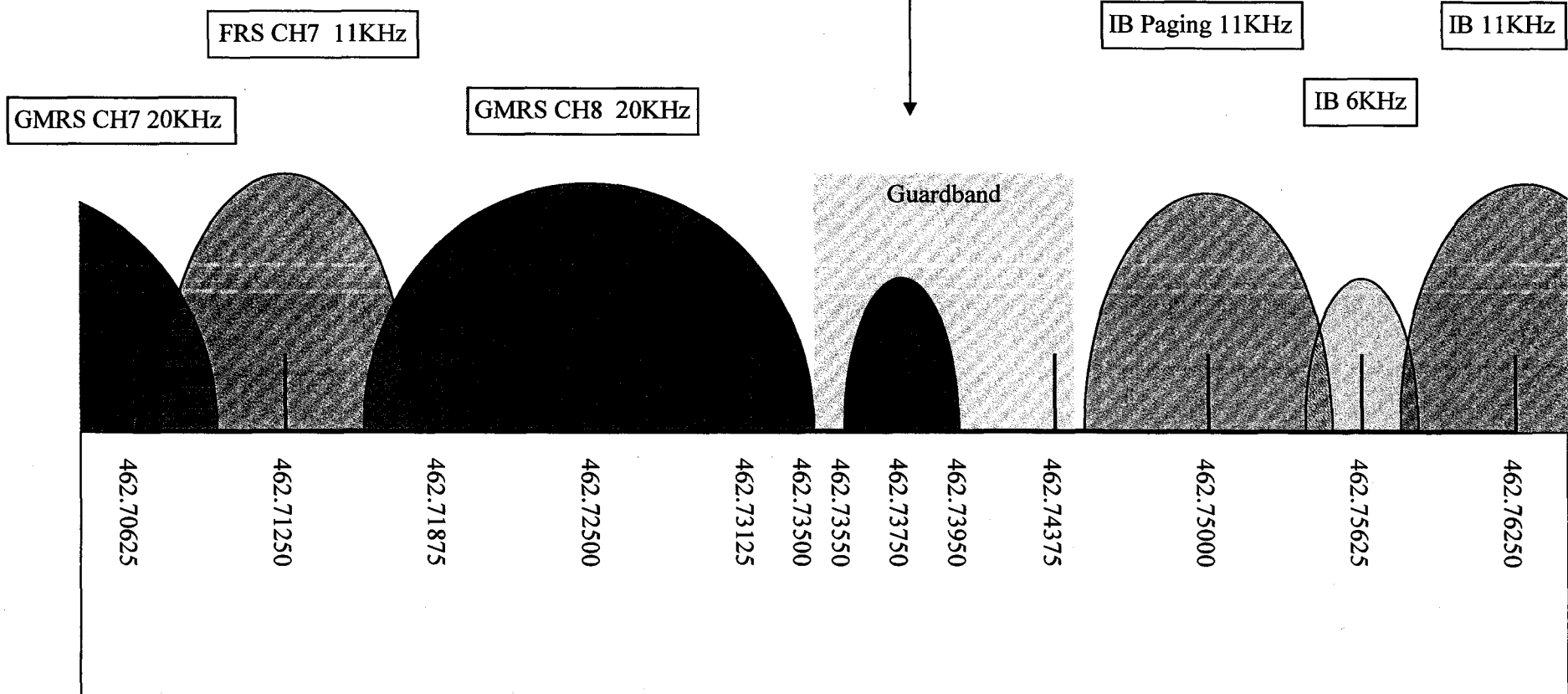
Frequency Display B - 462.7375MHz



Organization

Mobile Relay Associates

*When Communications
are Essential*



Frequency Display C - 467.5375MHz



Organization
Mobile Relay Associates

*When Communications
are Essential*

IP IW 11KHz

IP IW 11KHz

IB 6KHz

IB 6KHz

GMRS CH1 20KHz

FRS CH1 11KHz

GMRS CH2 20KHz

Guardband

467.51250

467.51875

467.52500

467.53125

467.53425

467.53550

467.53750

467.53950

467.54000

467.54375

467.55000

467.55625

467.56250

467.56875

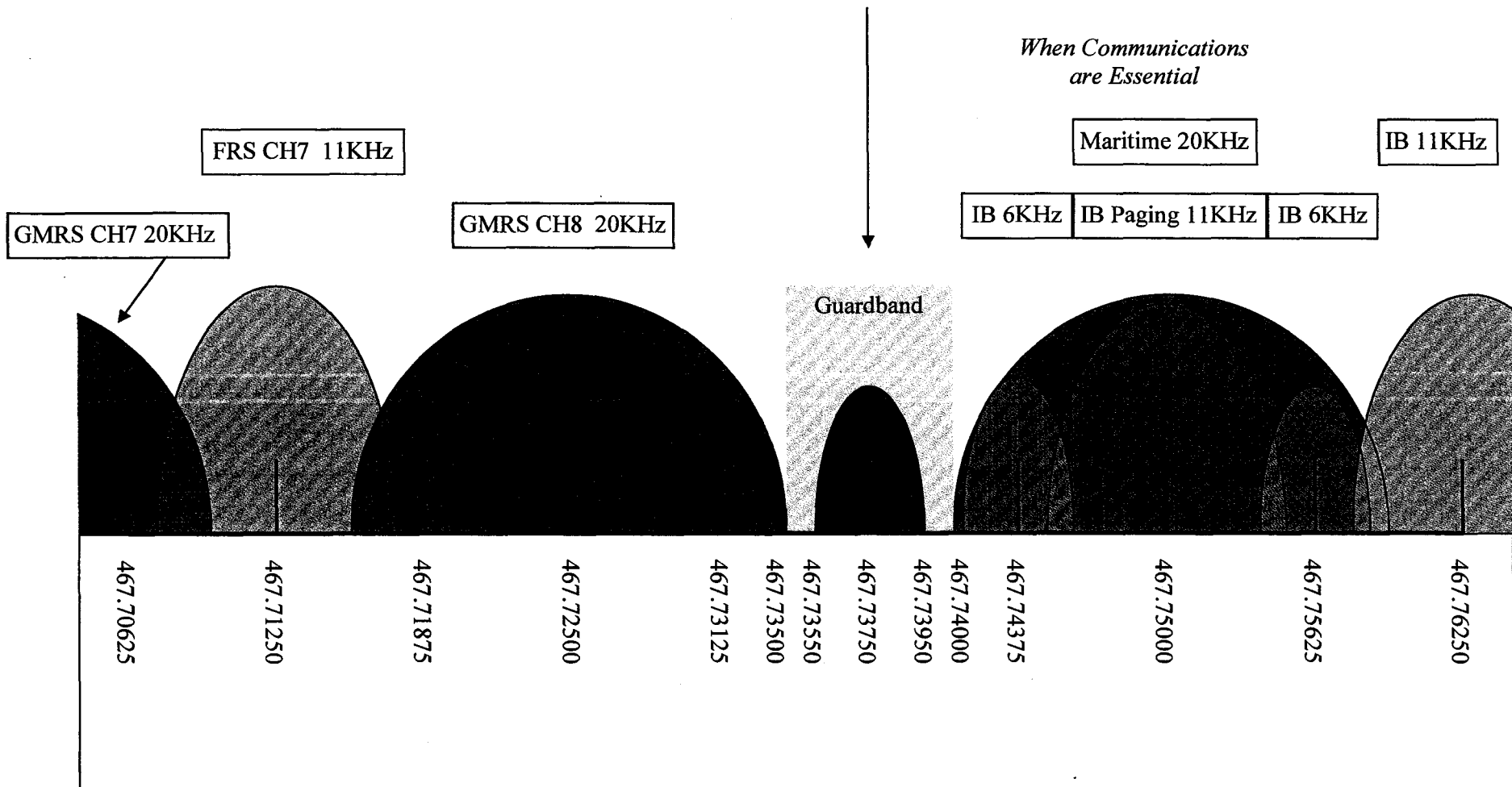
Frequency Display D - 467.7375MHz



Organization

Mobile Relay Associates

*When Communications
are Essential*



PUBLIC INTEREST; REQUEST FOR WAIVER

Mobile Relay Associates (“MRA”, or “Applicant”), hereby requests waiver of Sections 2.106 and 90.35 of the Commission’s Rules, and of such other Commission rules as the Commission may deem necessary or appropriate, in order to be licensed with station class FB8 *but only a 4 kHz emission designator* on the frequency pairs 462/467.5375 MHz and 462/467.7375 MHz (collectively, the “Requested Channels”) in the Las Vegas, NV metropolitan area, as a PMRS Industrial/Business (“I/B”) licensee. A waiver is required here because the involved channel pairs are immediately adjacent to, but not included within, the specific frequencies allocated under section 90.35 to the I/B service.

I. SPECTRUM REQUESTED

With the 4 kHz emission designator requested herein, the edges of MRA’s occupied bandwidth on the Requested Channels would be: as to 462.5375 MHz, 462.5355 MHz (lower) and 462.5395 MHz (upper); as to 462.7375 MHz, 462.7355 MHz (lower) and 462.7395 MHz (upper); as to 467.5375 MHz, 467.5355 MHz (lower) and 467.5395 MHz (upper); and as to 467.7375 MHz, 467.7355 MHz (lower) and 467.7395 MHz (upper).

II. CURRENT ALLOCATIONS

Although not allocated to I/B, neither are the Requested Channels allocated to any other Commission service. Rather, they are fallow “guardband” channels, serving as a sort of buffer among the allocations of I/B and either Part 95 or Part 80 services. Below is a narrative description of the current spectrum environment pertaining to each of the Requested Channels, and demonstrating that if MRA is licensed for the Requested Channels, there will be no spectral overlap with any other Commission-regulated operation.

Also, following is a chart illustrating in a pictorial manner the absence of spectral overlap. The four “Frequency Display” pages A-D in the chart correspond to the four subparts II.A-D immediately below.

A. 462.5375 MHz. The channel 462.53125 MHz is already allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, *i.e.*, for an

occupied bandwidth up to 462.53425 MHz. Under Section 95.621(a) of the Rules, the channel 462.5500 MHz is allocated to GMRS with a maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, *i.e.*, an occupied bandwidth down to 462.5400 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

B. 462.7375 MHz. The channel 462.7250 MHz is allocated as GMRS (Part 95), with maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth up to 462.7350 MHz. On the other side, the channel 462.7500 MHz is allocated as I/B (paging-only), with maximum emission designator of 11 kHz, or 5.5 kHz above/below that centerpoint, for an occupied bandwidth down to 462.7445 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

C. 467.5375 MHz. The channel 467.53125 MHz is already allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, *i.e.*, for an occupied bandwidth up to 467.53425 MHz. On the other side, there does not appear to any allocation in any of Parts 80, 90 or 95. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

D. 467.7375 MHz. The channel 467.7250 MHz is allocated as GMRS (Part 95), with maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth up to 467.7350 MHz. On the other side: (a) the channel 467.74375 MHz is allocated as I/B, with a maximum emission designator of 6 kHz, or 3 kHz above/below that centerpoint, for an occupied bandwidth down to 467.74075 MHz; and (b) the channel 467.7500 MHz is allocated to the Maritime Service (Part 80), with a maximum emission designator of 20 kHz, or 10 kHz above/below that centerpoint, for an occupied bandwidth down to 467.7400 MHz. Thus, MRA's proposal does not spectrally overlap with any other Commission-regulated operations.

III. RATIONALE FOR THIS WAIVER

A. With Narrowbanding, There Is No Longer Any Spectral Overlap

At the time the Commission created most of its allocations in this portion of the spectrum (or, at least those allocations which are other than Part 90), wideband channel operation (of at least 20 kHz occupied bandwidth) was the norm and even so-called "narrowband" operation (not yet mandated), was with 11 kHz occupied bandwidth. However, in the intervening years, there have been great strides in the evolution of narrowbanding; strides reflected in the new Part 90

rules but not yet reflected in assessing where and how much of a buffer between separate radio services is required or appropriate. The Commission has now permitted separate Part 90 licensees to be licensed closer together than before, without any fear of harmful interference because with the new narrowbanding, there is no spectral overlap between adjacent licensees.

For the exact same reason – that there is no longer any spectral overlap between adjacent licensees – the Requested Channels can now be licensed as 4 kHz occupied-bandwidth channels for I/B usage without causing any harmful interference whatsoever to users of other Part 80, Part 90, or Part 95 services.

B. There Is Increasing Congestion in Las Vegas among Part 90 Licensees

Even as narrowbanding means that the Requested Channels are no longer needed as buffers, there is an increasing shortage of Part 90 PMRS spectrum in metropolitan areas across the United States. Metro Las Vegas (*i.e.*, Clark County) is one of the fastest-growing areas in the United States over the past generation. In the 1990 census, its population was 741,459. By the 2000 census, the metro area's population had mushroomed to 1,375,765, an increase of 85.5%! By the 2010 census, the population was up to 1,951,269, and increase of 41.8% over the population ten years earlier, and a cumulative 163% population increase in twenty years. Separate from this population, Las Vegas has one of the largest populations of incoming tourists in the United States, all of which have to be serviced by the Las Vegas hospitality industry and most of which also have to be serviced by its gaming industry. This creates ever-increasing demand for spectrum within a small, confined, geographic area.

Recently, Motorola in particular, but also other manufacturers, began heavily marketing digital data equipment to operators of fleet-dispatch systems – equipment which is almost invariably being programmed to operate on a continuous basis and almost invariably installed by taxicab and similar fleet operators on shared spectrum, thereby blasting all co-channel licensees of the channel in violation of the Commission's rules with respect to shared spectrum. (*See, e.g.*, Section 90.403(e) of the Commission's Rules, which requires licensees of shared spectrum to monitor the channel for transmissions of co-channel licensees and to refrain from transmitting on top of such co-channel transmissions.)

These widespread instances of digital data operators usurping exclusive use of shared channels have exacerbated the pre-existing spectrum shortage. As a result, there is less and less usable spectrum available.

In particular, many of the casino operators in Las Vegas are now operating such “*de facto* exclusive” shared licenses. Indeed, the huge telecom needs of the large casinos, for security, fraud prevention and other important functions, result in a demand for PMRS spectrum in Las Vegas all out of proportion to its population size.

These issues come on the heels of the 800 MHz rebanding, where MRA and other PMRS licensees in Denver had been forced off of much of the 800 MHz SMR spectrum.

CONCLUSION

In summary, thanks to the availability of very-narrowband 4 kHz equipment in this band, the Commission can now issue licenses to MRA for the Requested Channels without causing any interference or other problems for any incumbent Commission-regulated operations, whether in Part 90 or other rule parts. The Las Vegas metropolitan area, where MRA is proposing to operate an I/B system using the Requested Channels, is highly congested, with less and less PMRS spectrum available.

Due to actions taken by the Commission -- including, among others, the decision to freeze not only Public Safety but also Industrial/Business applications for T-Band spectrum -- MRA and its customers have no access to alternative spectrum. The Requested Channels are the most appropriate spectrum available to MRA in the Las Vegas metro area, is not already in heavy use, and can be put to use easily without harming anyone else.

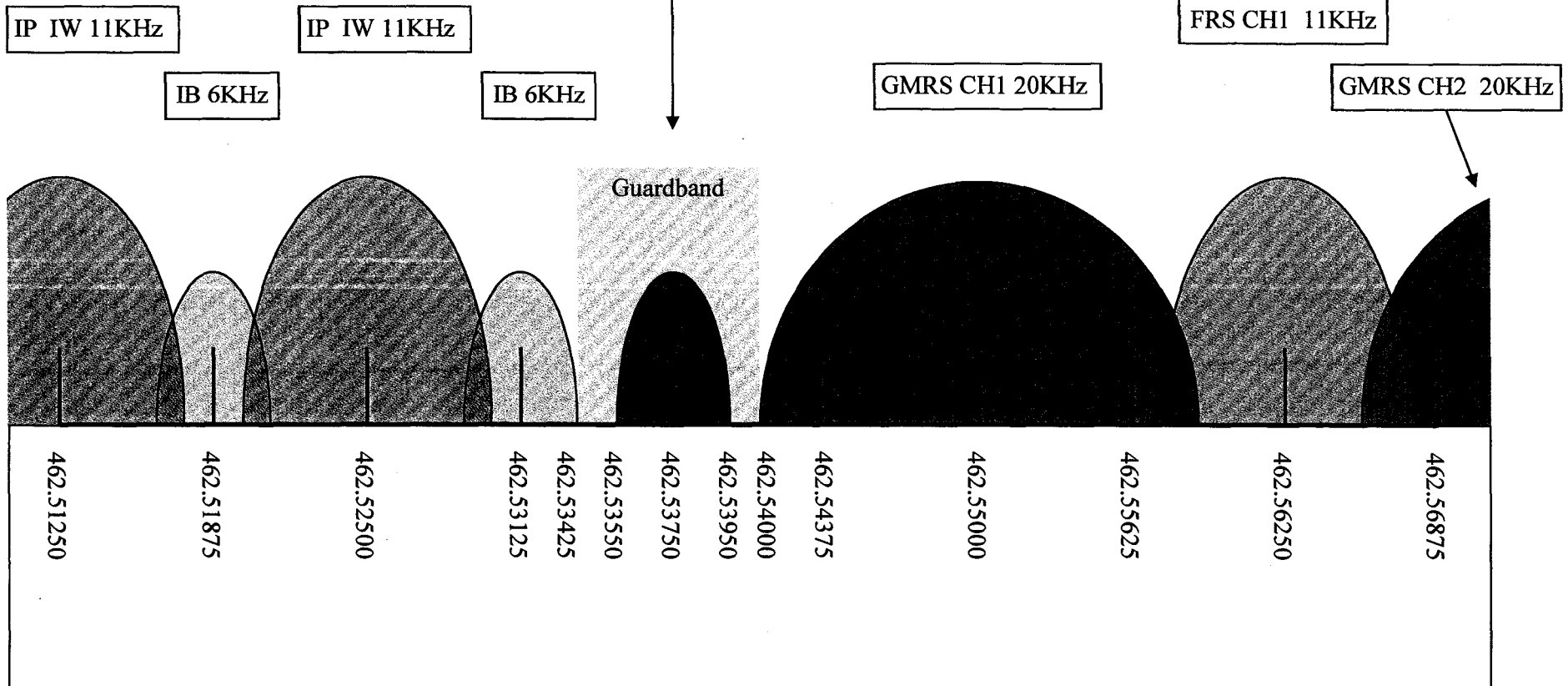
Accordingly, the Commission should grant the limited rule waiver which MRA seeks herein, and issue MRA licenses to use the Requested Channels at the specified locations in metro Las Vegas in the I/B service, with station class FB8.

Frequency Display A - 462.5375MHz



Organization
Mobile Relay Associates

*When Communications
are Essential*



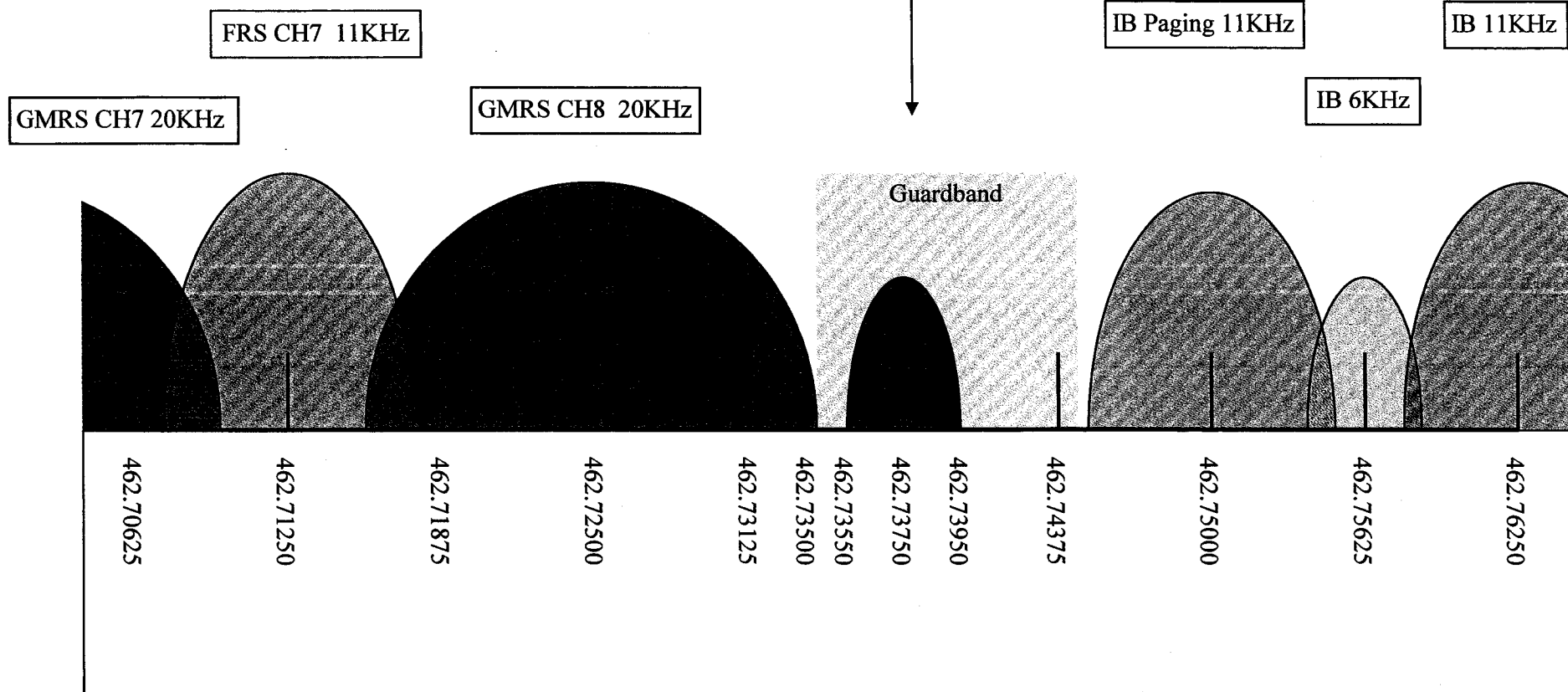
Frequency Display B - 462.7375MHz



Organization

Mobile Relay Associates

*When Communications
are Essential*



Frequency Display C - 467.5375MHz



Organization

Mobile Relay Associates

*When Communications
are Essential*

IP IW 11KHz

IP IW 11KHz

IB 6KHz

IB 6KHz

GMRS CH1 20KHz

FRS CH1 11KHz

GMRS CH2 20KHz

Guardband

467.51250

467.51875

467.52500

467.53125

467.53425

467.53550

467.53750

467.53950

467.54000

467.54375

467.55000

467.55625

467.56250

467.56875

Frequency Display D - 467.7375MHz


Organization

Mobile Relay Associates

*When Communications
are Essential*

