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OFFICE OF THE SECRETARY

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SUITE 601  
MCLEAN, VIRGINIA 22102  
(703) 749-6000  
TELECOPIER: (703) 749-6027

(202) 371-6000  
TELECOPIER: (202) 371-6279

2600 TEXAS COMMERCE TOWER  
600 TRAVIS  
HOUSTON, TEXAS 77002  
(713) 237-9034  
TELECOPIER: (713) 237-1216

WRITER'S DIRECT DIAL  
(202) 371-6060

April 11, 1994

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**BY HAND DELIVERY**

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
Room 222  
1919 M Street, N.W.  
Washington, D.C. 20554

RE: Ex Parte Presentation; PR Docket No. 92-235

Dear Mr. Secretary:

In accordance with Section 1.1206(a)(1) of the Commission's rules, we are filing herewith on behalf of the Association of American Railroads two copies of a written ex parte presentation that was sent today to the Chief of the Commission's Private Radio Bureau.

Any questions concerning this matter should be directed to the undersigned.

Respectfully submitted,



Thomas J. Keller

Attorney for the Association  
of American Railroads

Enclosures

cc: Mr. Ralph Haller

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(202) 371-6060

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**BY HAND DELIVERY**

Mr. Ralph Haller, Chief  
Private Radio Bureau  
Federal Communications Commission  
Room 5002  
2025 M Street, N.W.  
Washington, D.C. 20554

RE: "Spectrum Refarming," PR Docket No. 92-235

Dear Mr. Haller:

Enclosed for your information is a set of sixteen charts summarizing the position of the Association of American Railroads (AAR) on rechannelization of the VHF portion of the spectrum used for Private Land Mobile Radio Service, which is one of the topics under review by the Commission in PR Docket No. 92-235. These charts summarize the advantages of adopting the VHF channelization plan that has been recommended by AAR in its comments and reply comments filed in this proceeding.

A copy of this letter and the accompanying charts are being filed today with the Secretary in accordance with the requirements of the Commission's rules governing ex parte presentations.

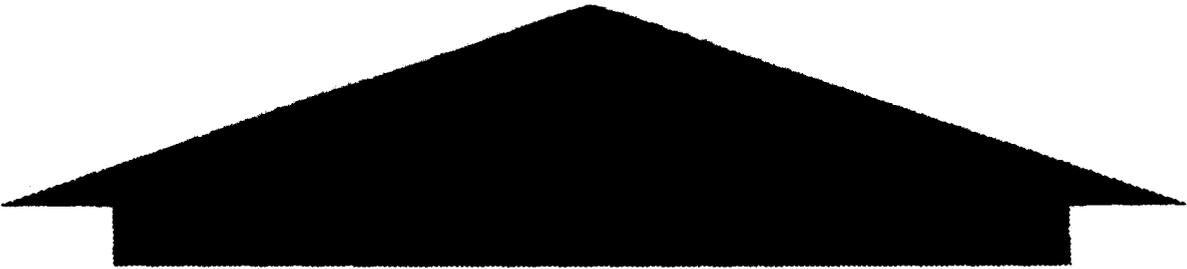
Respectfully submitted,



Thomas J. Keller

Attorney for the Association  
of American Railroads

Enclosure



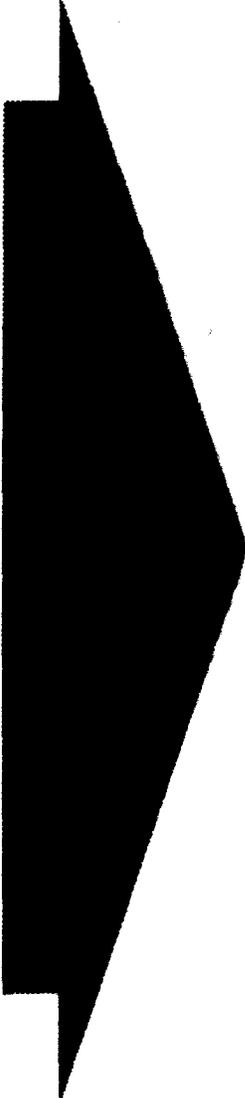
**Summary of AAR's  
Position on  
VHF  
Spectrum  
Rechannelization**

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# **AAR's Position on VHF Refarming Overview**

- 
- NPRM in Review**
  - AAR's Position**
  - VHF Channel Plans Being Considered**
  - Benefits of Option R**
  - Option R Support from APCO and UTC**
  - Voice Plus Data, the Path to World Class  
Railroading**

# **AAR's Position on VHF Reframing**

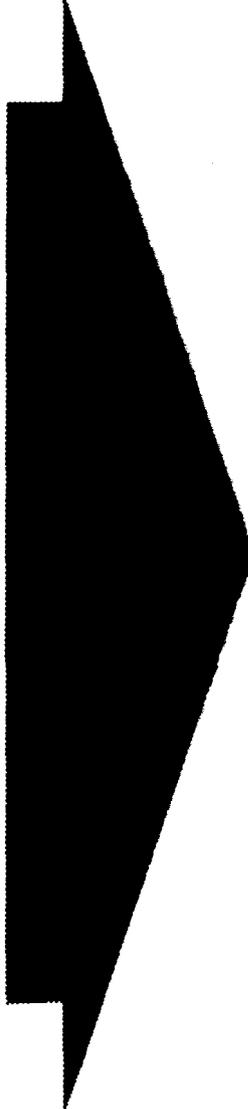
## **Overview**

**(cont.)**

- Trunking, a New Term for Railroading**
- High Tech Data Applications**
- Railroads Need a Digital Radio Standard**
- Railroads and APCO 25**
- Use of APCO 25 is Dependent on Option R**
- Summary**

# **AAR's Position on VHF Refarming**

## **NPRM in Review**

- 
- Loss of Contiguous Spectrum.**
  - Reduction of Deviation for All Radio Equipment by 1996.**
  - Reduction of Effective Radiated Power to 5 Watts for Antennas Above 590 feet.**
  - Replacement of All Radio Equipment to Meet Narrowband Requirements by 2012.**

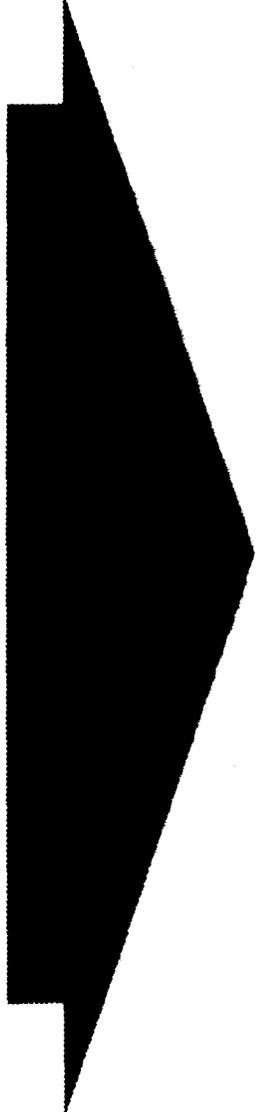
# **AAR's Position on VHF Refarming**

## **AAR's Position**

- Retain Contiguous Block of Spectrum for Railroad Use to Ensure Safety.**
- Eliminate Requirement to Reduce Deviation.**
- Follow ERP Guide Lines as Defined by LMCC.**
- Replace Only the Equipment in Major Metro Areas and Meet an Efficiency Standard.**

# **AAR's Position on VHF Refarming**

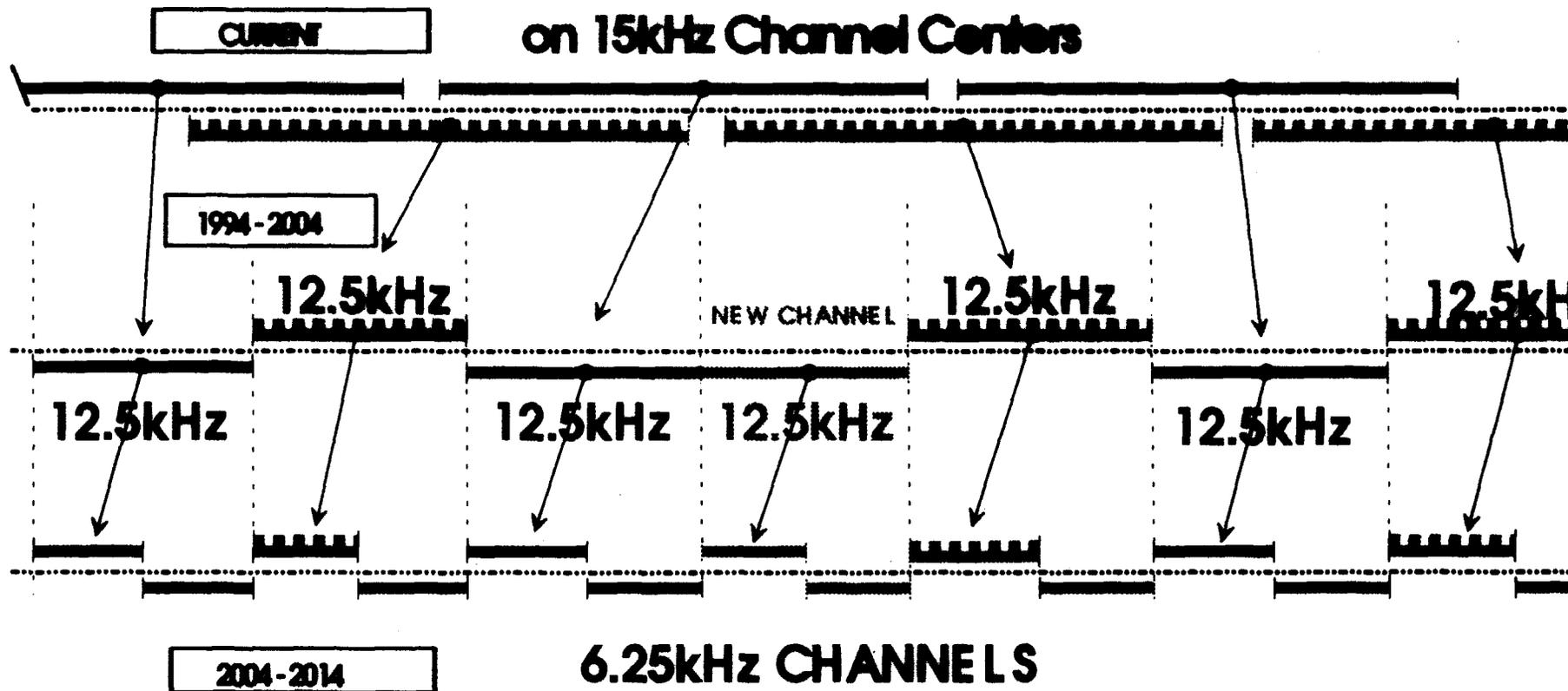
## **VHF Channel Plans**

- 
- LMCC Option A, Two Step Migration to 6.25 kHz Channel Widths - "Shift and Pack"**
  - LMCC Option B, One Step Migration to 6.25 kHz Channel Widths - "Large System Chaos"**
  - AAR Option R, Offset Overlay Utilizing 12.5 kHz Channels - "A More Palatable Solution"**

# VHF Migration

VNB = 6.25kHz  
LMCC Option A

25kHz EQUIPMENT  
on 15kHz Channel Centers

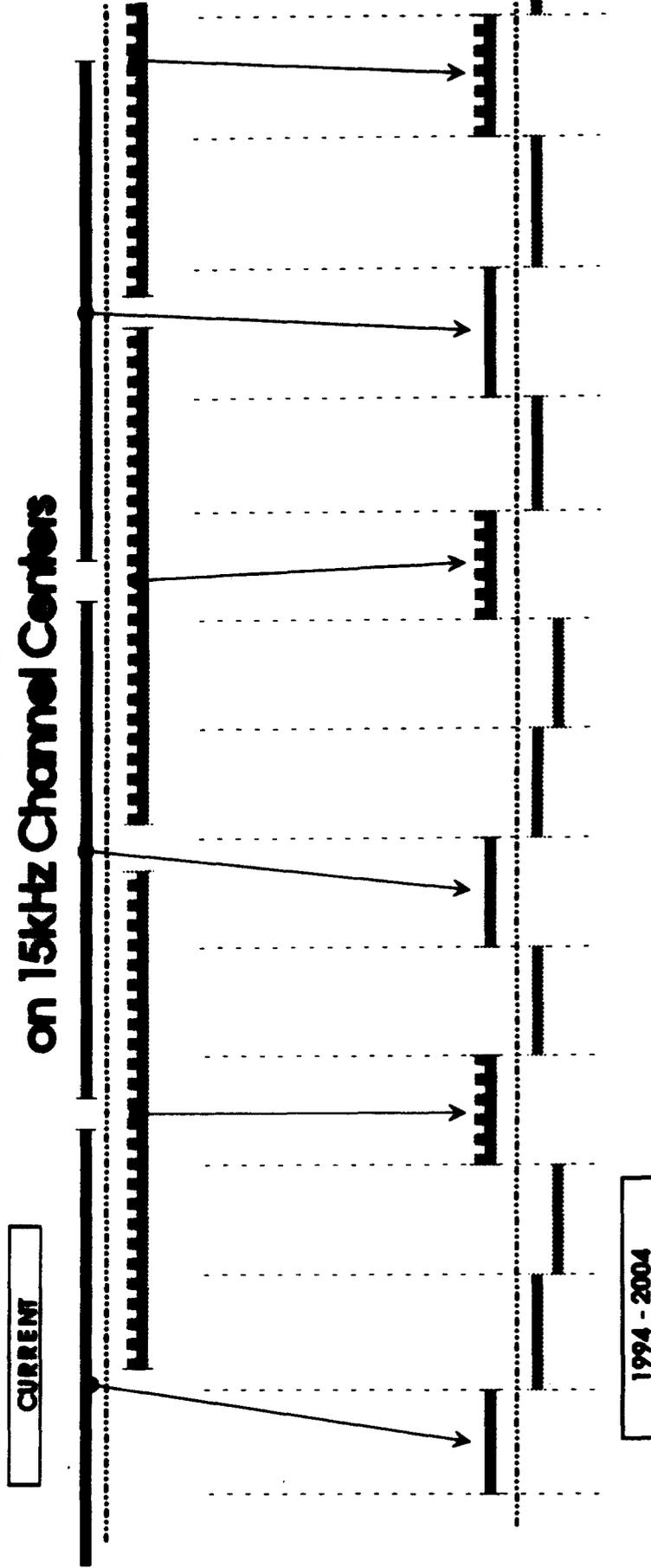


# VHF Migration

VNB = 6.25KHZ

LMCC Option B

25KHZ EQUIPMENT  
on 15kHz Channel Centers



6.25KHZ CHANNELS

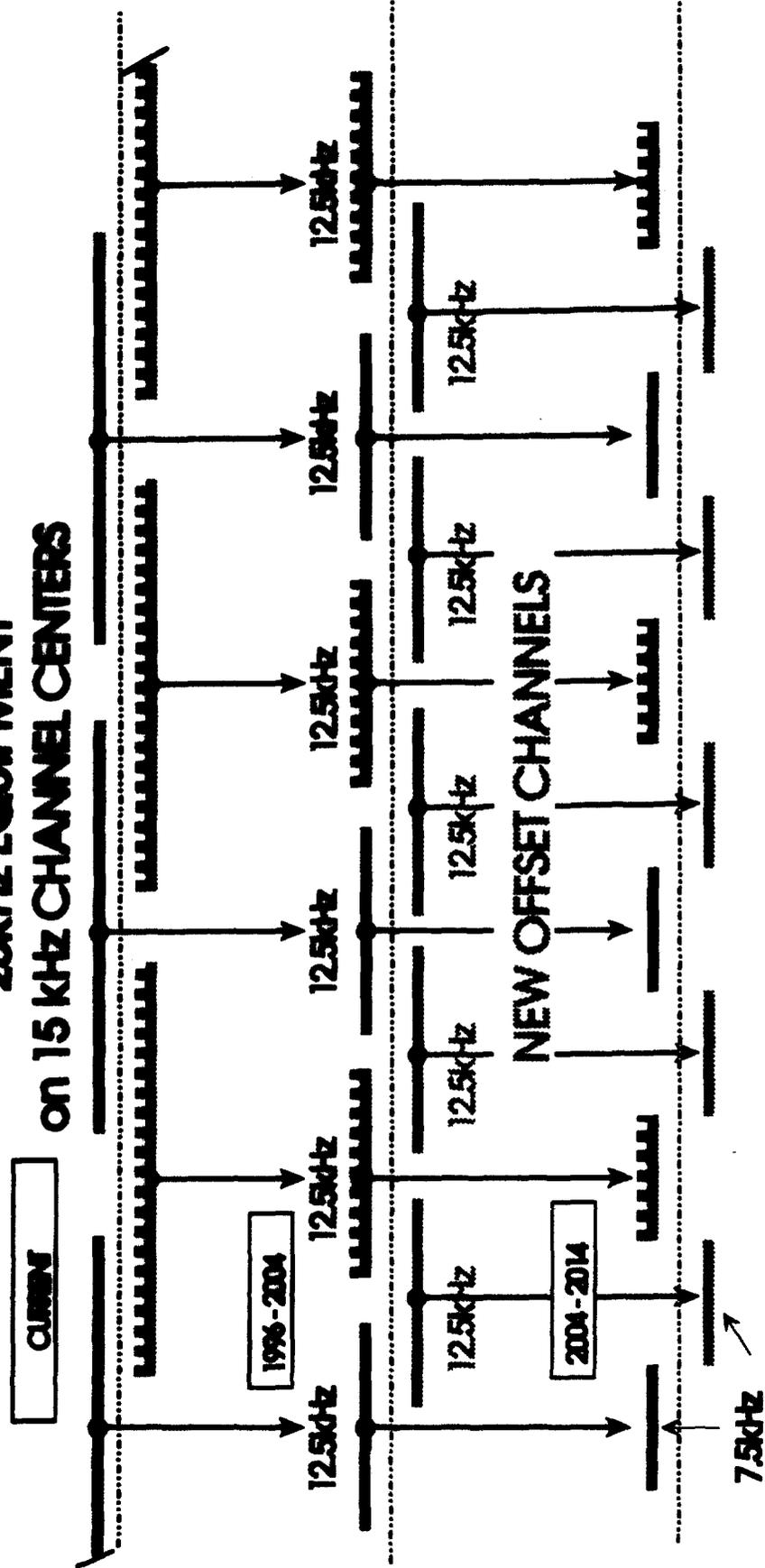


# VHF Migration

AAR Offset Overlay

VNB = 7.5kHz

25kHz EQUIPMENT  
on 15 kHz CHANNEL CENTERS



7.5kHz CHANNELS on 7.5kHz CENTERS

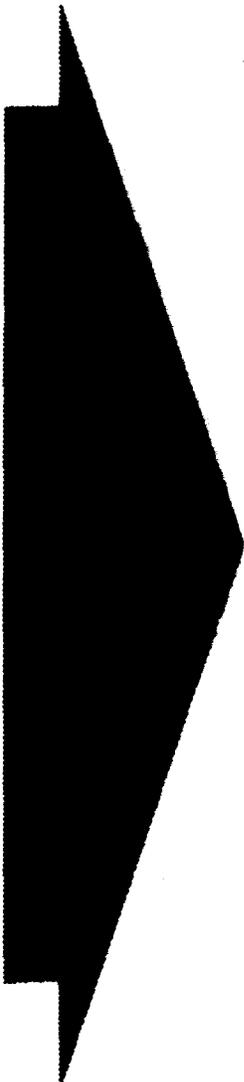
# **AAR's Position on VHF Reframing**

## **Voice Plus Data, the Path to World Class Railroading**

- Data Requirements From Remote Locations  
Surface on a Constant Basis.**
- Data Communications Provide a Vital Link  
to Field Operations.**
- Voice and Data Communications on One  
System is Very Cost Effective.**

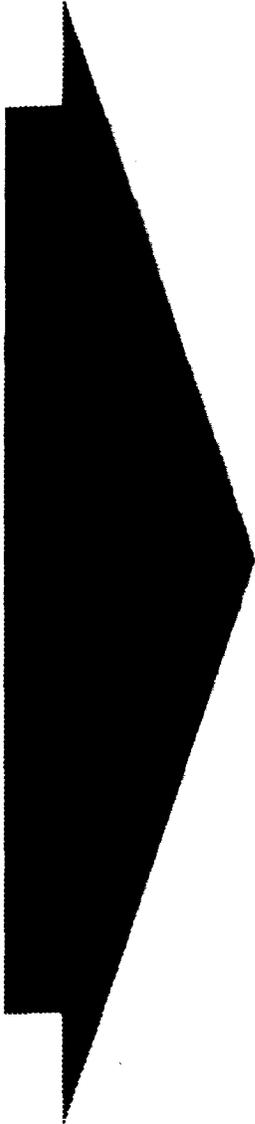
# **AAR's Position on VHF Refarming**

## **Trunking, a New Term for Railroads**

- 
- In the Highly Congested Areas, Trunking Will Provide Relief.**
  - Logical Working Groups Will be Organized into Safer Communications Groups.**
  - Users in the Field Will be Less Frustrated by Listening Only to Their Work Group.**

# **AAR's Position on VHF Refarming**

## **High Tech Data Applications**

- 
- Data Links to the Track Equipment for Asset Management.**
  - Data Links to the Locomotive for Health Monitoring, Fuel Management, etc.**
  - Data Links from Defect Detectors to the Locomotive Crews.**
  - Data Links at Intermodal Facilities.**

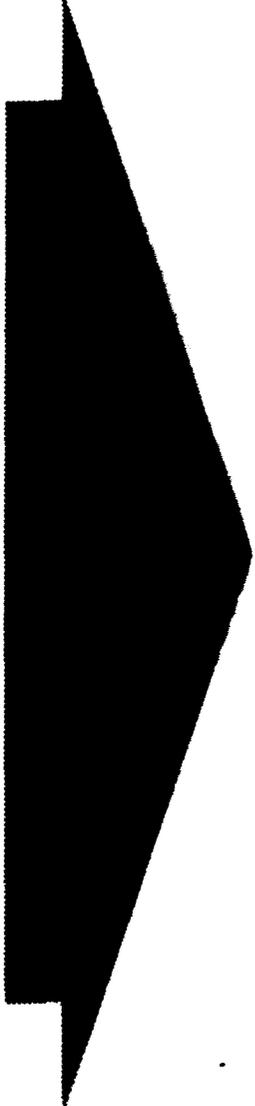
# **AAR's Position on VHF Refarming**

## **Railroads Need a Digital Radio Standard**

- Railroads are Interoperable, Radios on All Railroads Must be able to Interoperate.**
- A Standard Will Insure Multiple Vendors.**
- A Standard Will Eliminate "Custom" Railroad Radios Resulting in Lower Cost Radios. (Off the Shelf User Equipment)**

# **AAR's Position on VHF Refarming**

## **The AAR and APCO 25**

- 
- The AAR has had a Representative Actively Involved with the Specification Development for Almost Three Years.**
  - APCO 25 is an Open Architecture.**
  - APCO 25 Appears to Meet the Railroad Industry's Needs.**

# **AAR's Position on VHF Refarming**

## **Use of APCO 25 is Dependent on Option R**

- Must Have the Offset Overlay Channel Plan to "Create" Symmetric Trunking Channels.**
- Must Have the 12.5 kHz Channel Widths to Operate In an APCO 25 Mode.**

# **AAR's Position on VHF Refarming**

## **Summary**

- Railroads are a Unique Member of the Private Radio Bureau.**
- Railroads Interoperate Nationally With Employee and Public Safety a Top Priority.**
- The AAR's Plan Will Meet the FCC's Spectrum Efficiency Standard.**
- Railroad Comm. Needs Continue to Grow, the FCC Should Allow the Railroads to Retain Current Spectrum for Future Needs.**