DIO SITES

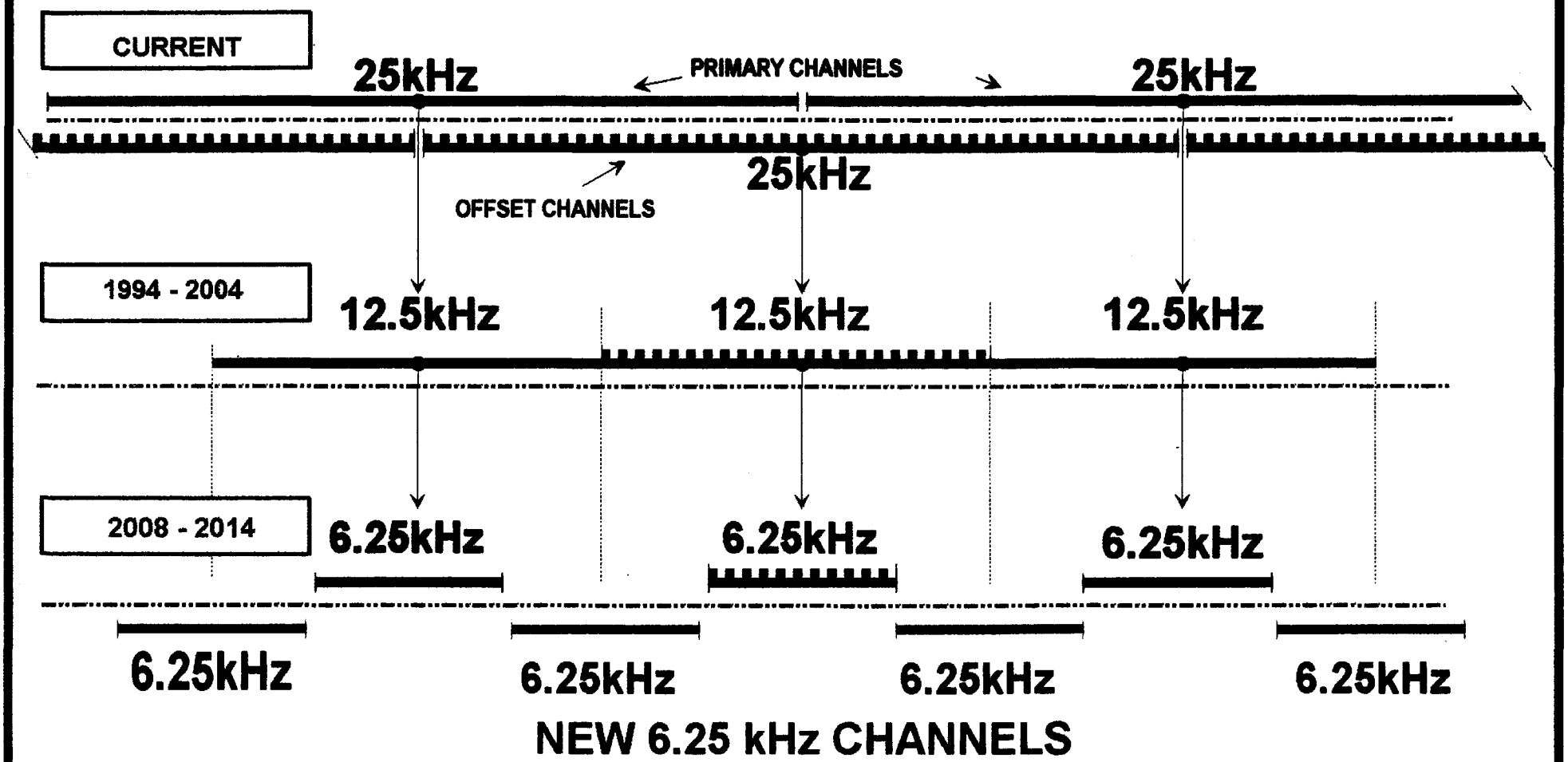
MICHIGAN
NEW YORK
PENNSYLVANIA
OHIO
VIRGINIA
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA

2

ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

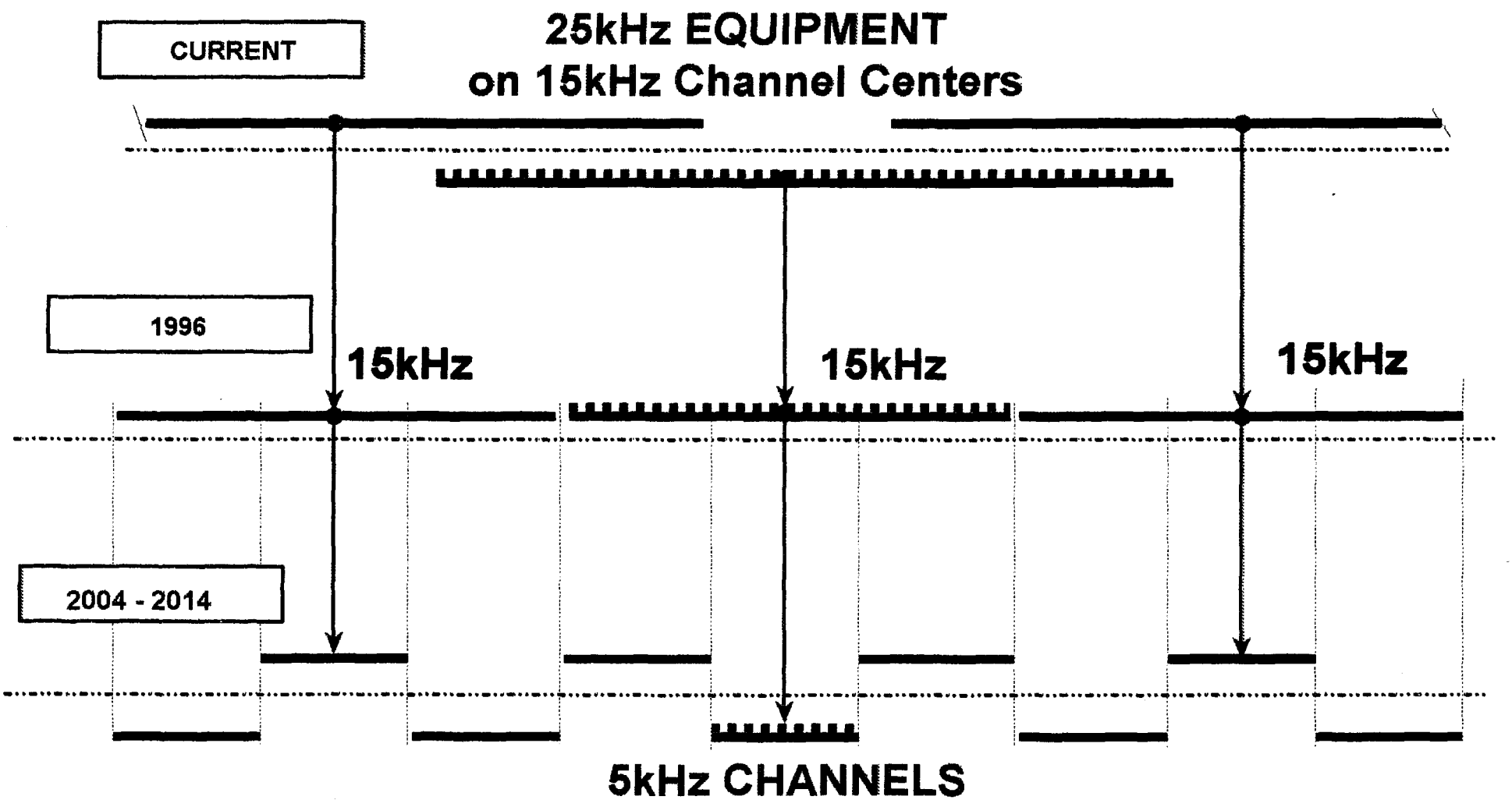
ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

UHF Migration
VNB = 6.25kHz
AAR and LMCC



ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

VHF Migration
VNB = 5kHz
NPRM Proposal



VHF Migration
VNB = 6.25kHz
LMCC Option A

25kHz EQUIPMENT
on 15kHz Channel Centers

ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

VHF Migration
VNB = 6.25kHz

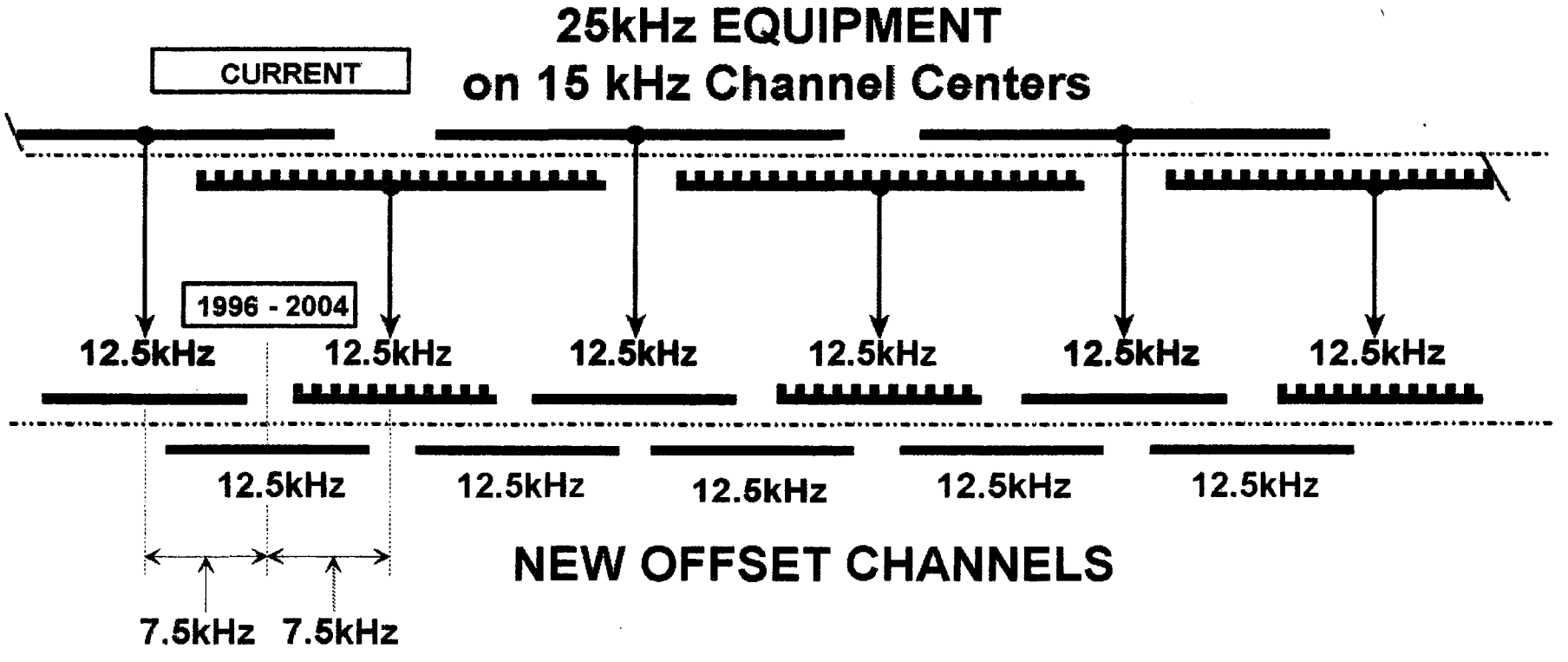
LMCC Option B

25kHz EQUIPMENT

ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

VHF Migration

AAR Offset Overlay

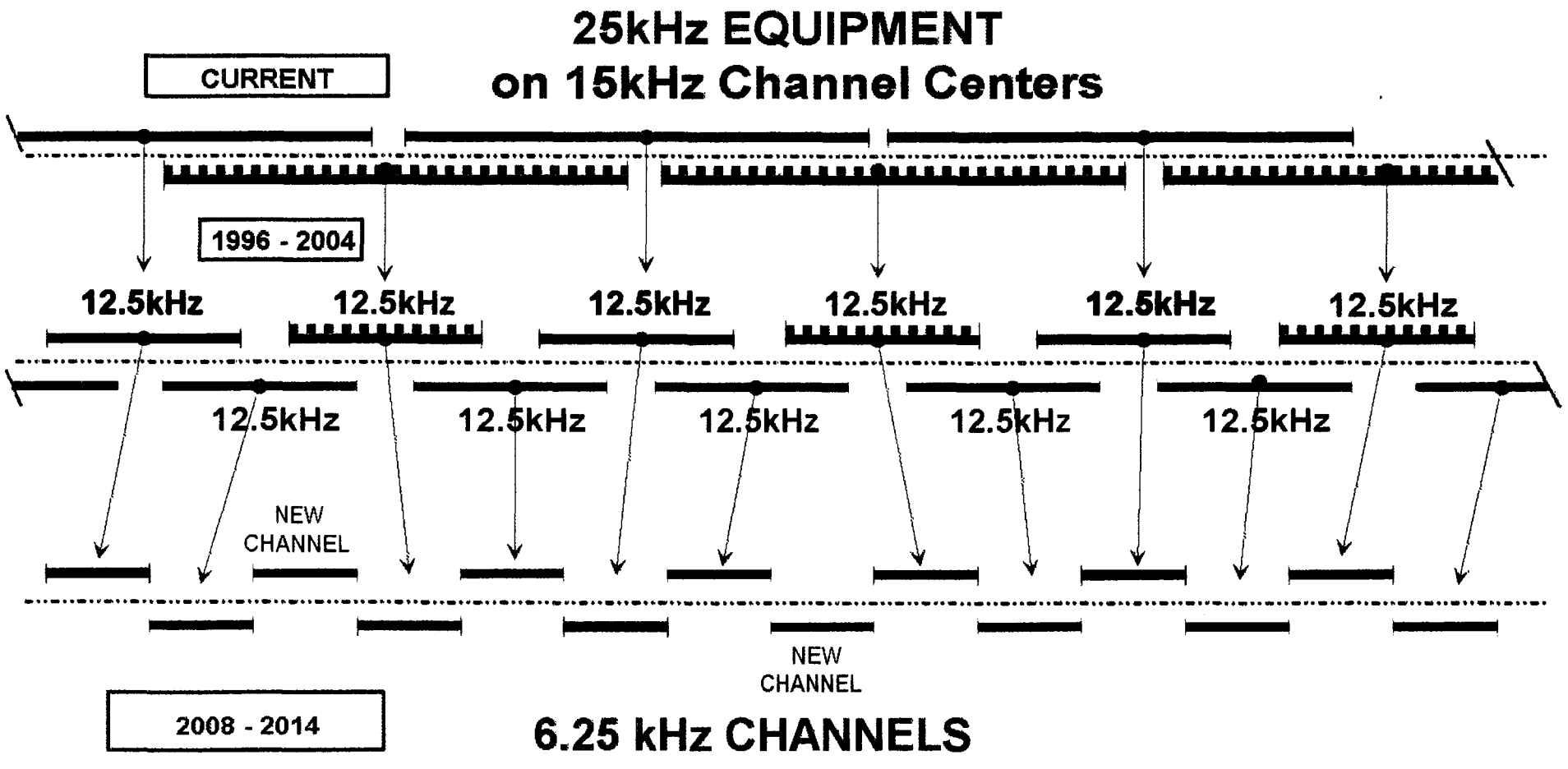


ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

VHF Migration

AAR Offset Overlay

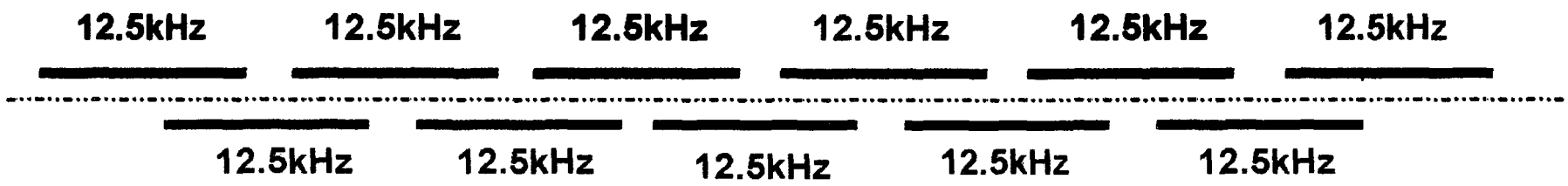
VNB = 6.25 kHz



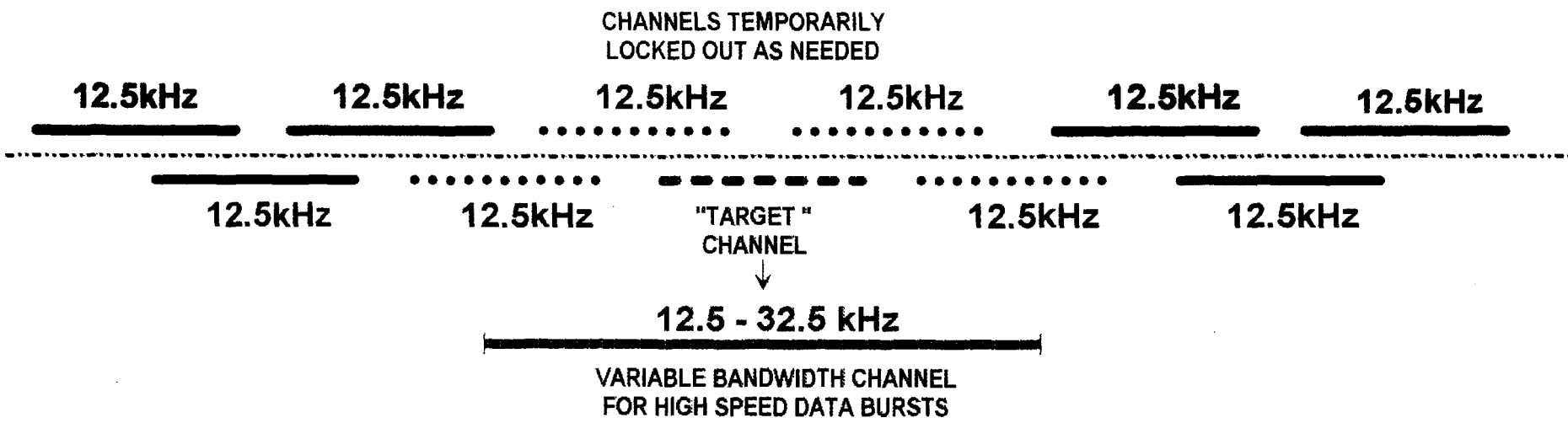
VHF Migration

AAR Offset Overlay
Bandwidth on Demand

STANDARD CHANNEL OPERATION



CHANNELS OPERATING IN BANDWIDTH ON DEMAND



ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

NPRM vs AAR
IMPLEMENTATION COST ANALYSIS

	BASE	DEF. DET.	PORT.	MOB.	TRCK EQ.	LOCOS.	LO-COTRL	EOTD	MATERIAL COSTS	LABOR COSTS	TOTAL COSTS
NPRM COST EST.	16,360	5,484	124,689	40,351	5,591	34,731	860	21,463	**$1,117,857,900**	**$45,070,423**	**$1,162,928,323**
AAR COST EST.	6,748	2,233	58,647	40,351	3,121	34,731	405	21,463	**$522,629,000**	**$16,150,937**	**$538,779,937**

	BASE	DEF. DET.	PORT.	MOB.	TRCK EQ.	LOCOS.	LO-COTRL	EOTD
6.25 kHz EQUIP. COSTS	$20,400	$3,000	$3,200	$2,300	$2,300	$4,000	$7,000	$5,500
12.5 kHz EQUIP. COSTS	$14,000	$2,000	$2,000	$1,800	$1,800	$3,100	$6,000	(6.25kHz) $5,500
MAN-HRS	9	3.5	1	5.1	5.1	1.8	1.8	1.7
RATE($/hr)	$36	$36	$36	$36	$36	$36	$36	$36

LEGEND:

- **BASE - Base Stations**
- **DEF. DET. - Defect Detectors**
- **PORT. - Portable Radios**
- **MOB. - Mobile Radios**
- **TRCK EQ. - Track Equipment Radios**
- **LOCOS. - Locomotive Radios**
- **LOCOTRL - Locotrol Radios**
- **EOTD - End of Train Devices**

ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

Summary of Costs
NPRM vs AAR

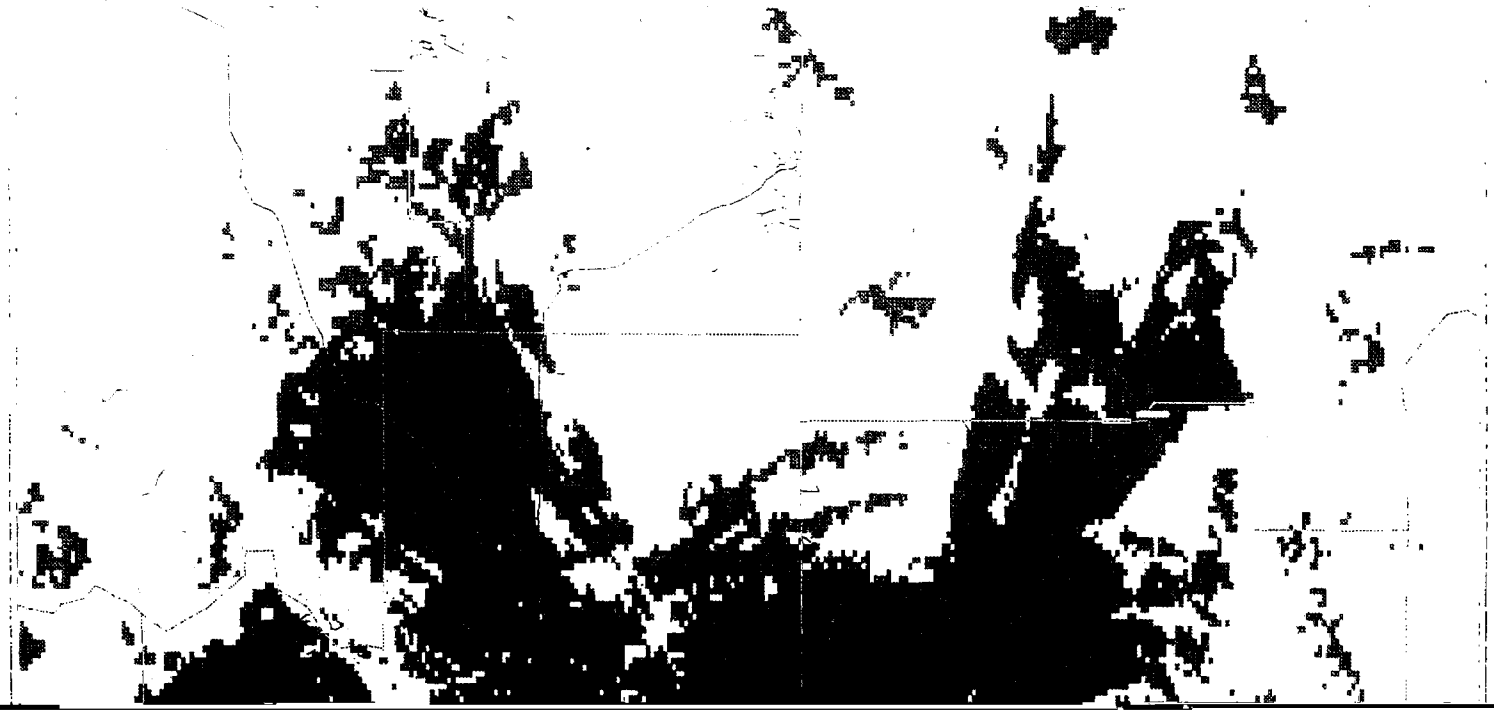
- **NPRM COST IMPACT:**

ANDREWS OFFICE PRODUCTS CAPITOL HEIGHTS, MD (K)

Freq : 160.0 Mhz
A/Ht : 114.8 Ft.
HAAT : 2276.9 Ft.

Mica Peak

Lat : 47 37 22.0
Long : 116 59 14.0
Elev : 4747.4 Ft.



Railroad Industry Cost Impact
1996 Mandate - ERP Reduction

NEW SITE COSTS:

UNION PACIFIC -	$24.3 MILLION
CSX -	$10.5 MILLION
CONRAIL -	$8.4 MILLION
BN -	$14.7 MILLION
SANTA FE -	$25.2 MILLION

TOTAL - $83.1 MILLION