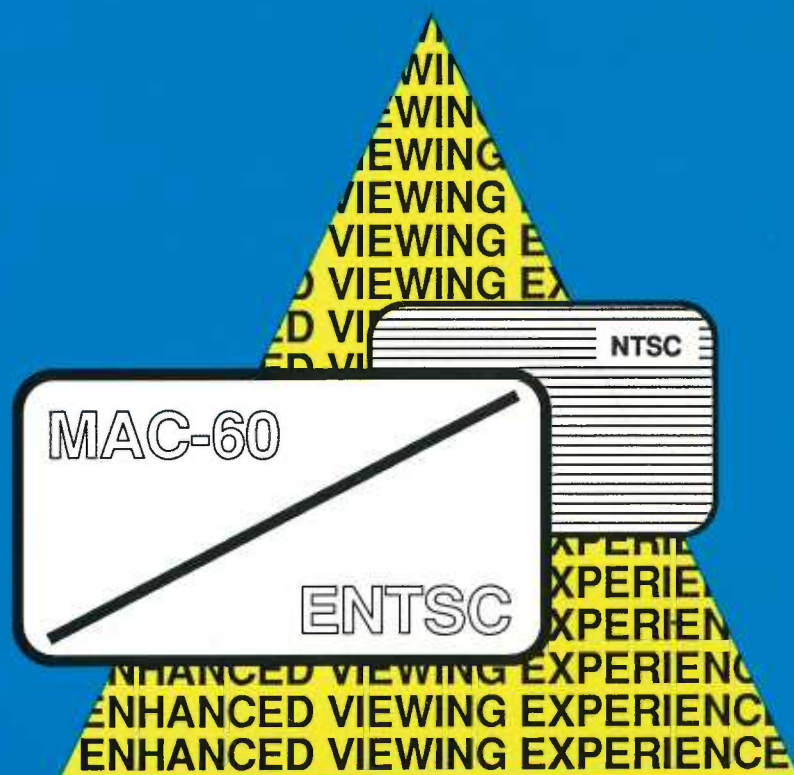


# ENTSC DEMONSTRATION



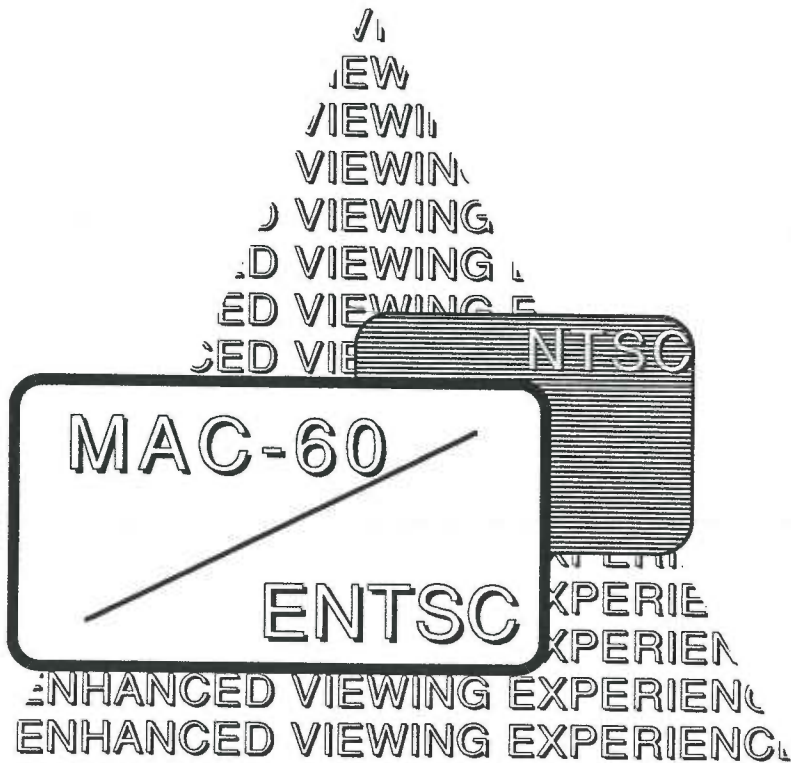
**PHILIPS** LABORATORIES - BRIARCLIFF  
NORTH AMERICAN PHILIPS CORPORATION

**ADVANCED**

**TELEVISION**

**SYSTEMS**

**CONCEPTS**



**NORTH AMERICAN PHILIPS CORPORATION**

**PHILIPS LABORATORIES, BRIARCLIFF MANOR, NEW YORK**

# MAC-60/ENTSC PRESENTATION AND ENTSC DEMONSTRATION

- \* WELCOME TO PHILIPS LABORATORIES
- \* MAC-60/ENTSC/NTSC CONCEPT
- \* DESCRIPTION OF ENTSC DEMONSTRATION
- \* COFFEE BREAK
- \* ENTSC DEMONSTRATION
- \* QUESTIONS AND ANSWERS
- \* CONCLUSIONS

## PRESENT STATUS

## DEFINITION OF TERMS ( USA)

### 1) INTSC (IMPROVED-NTSC)

- \* SIGNAL POST-PROCESSING IN RECEIVER
- \* FULL NTSC COMPATIBILITY

### 2) EDTV (ENHANCED DEFINITION TELEVISION)

- \* 525-LINE SCANNING
- \* ASPECT RATIO, TRANSMISSION FORMAT, SPECTRUM UTILIZATION MAY CHANGE RELATIVE TO NTSC

### 3) HDTV (HIGH DEFINITION TELEVISION)

- \* INCREASED SPATIAL RESOLUTION  
(>2 X THE NTSC RESOLUTION)

## DEFINITION OF TERMS ( JAPAN)

### 1) IDTV (IMPROVED DEFINITION TELEVISION)

- \* SIGNAL POST-PROCESSING IN RECEIVER
- \* FULL NTSC COMPATIBILITY

### 2) EDTV (ENHANCED DEFINITION TELEVISION)

- \* SIGNAL PRE-PROCESSING AT SOURCE AND POST-PROCESSING IN RECEIVER
- \* FULL NTSC COMPATIBILITY, BUT EXTRA VIDEO DETAIL, DATA AND SOUND INFORMATION ADDED TO THE CONVENTIONAL NTSC SIGNAL

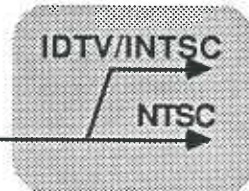
### 3) HDTV (HIGH DEFINITION TELEVISION)

- \* INCREASED SPATIAL RESOLUTION  
( $>2$  X THE NTSC RESOLUTION)
- \* 1125/60/16:9/2:1
- \* NOT COMPATIBLE WITH NTSC
- \* TRANSMITTED AS MUSE (8.4MHZ BASEBAND)
- \* PRIMARY CARRIERS: DBS, VCR, OPTICAL DISC

# IDTV/INTSC

**SOURCE**  
STUDIO,  
CATV HEADEND

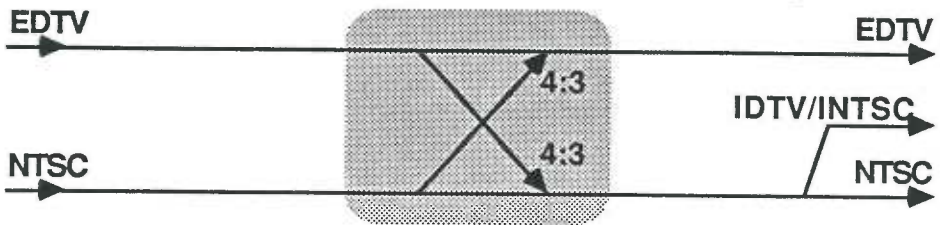
**SINK**  
CONSUMER  
PREMISES



# EDTV

SOURCE  
STUDIO,  
CATV HEADEND

SINK  
CONSUMER  
PREMISES

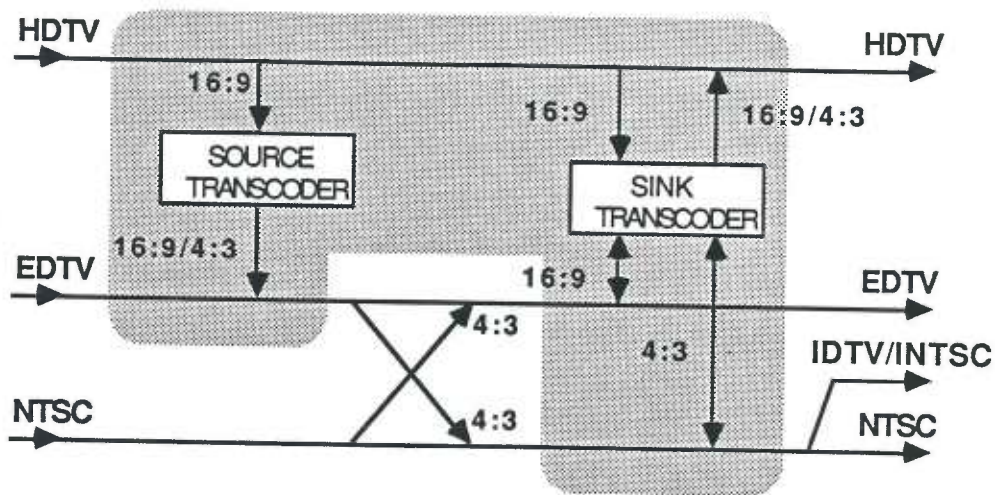




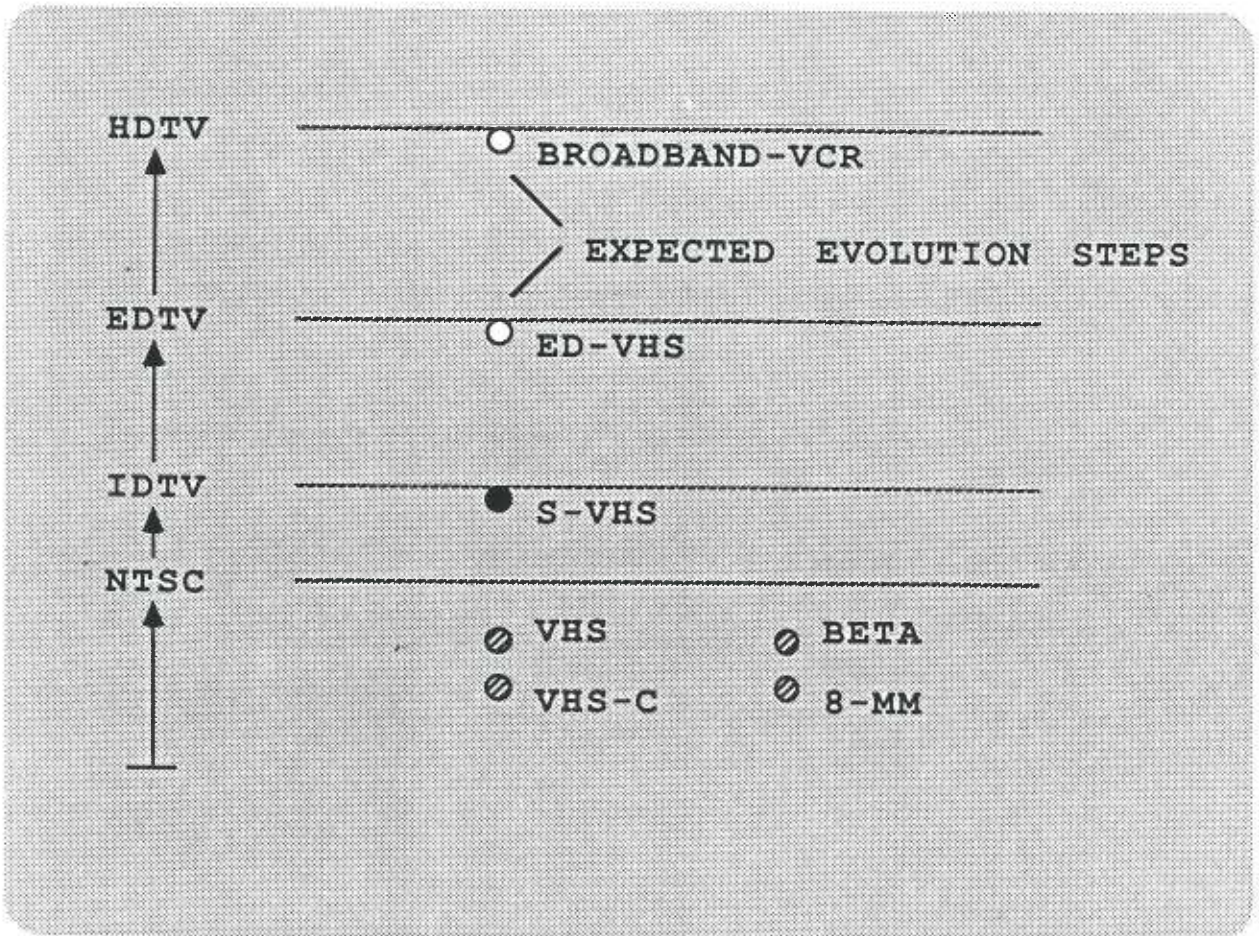
# HDTV

SOURCE  
STUDIO,  
CATV HEADEND

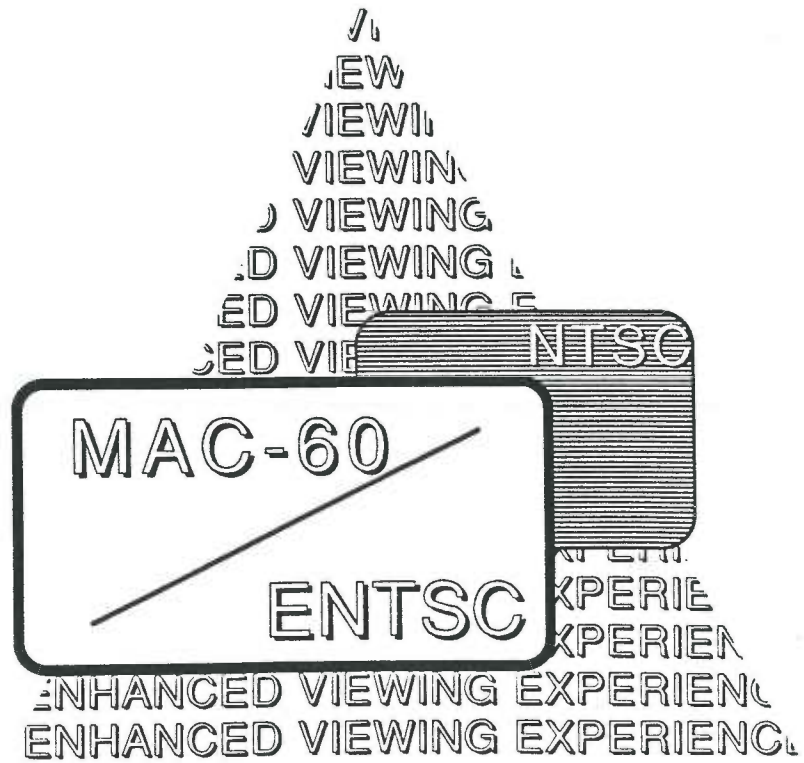
SINK  
CONSUMER  
PREMISES



# VCR



PROPOSED HIERARCHICAL EVOLUTION STRUCTURE



DEFINITION OF TERMS-MAC-60  
(NORTH AMERICAN PHILIPS)

- HIGH DEFINITION MULTIPLEXED ANALOG COMPONENT  
(MAC) TELEVISION TRANSMISSION SYSTEM
- USING SINGLE SATELLITE TRANSPONDER
- "NTSC-FRIENDLY" EASILY TRANSCODABLE  
SIGNAL TO:
  - \* NTSC (END-USER REQUIREMENT)
  - \* ENTSC (CATV HEADEND AND END-USER REQUIREMENT)
- PROVIDES COMMON NETWORK FEED TO ANY VIDEO  
SERVICE

## MAC-60 TRANSMISSION SIGNAL

**\* PROVIDES**

- HDTV VIDEO
- MULTI-CHANNEL DIGITAL STEREO SOUND
- DIGITAL DATA AND CONTROL
- SECURE SIGNAL TRANSMISSION

**\* CARRIES THE INFORMATION IN THE FORMAT OF**

- TIME DIVISION MULTIPLEXED LUMINANCE,  
CHROMINANCE AND LINE DIFFERENTIAL VIDEO  
SIGNAL

**DEFINITION OF TERMS-ENTSC**  
**(NORTH AMERICAN PHILIPS)**

**\* A TWO-CHANNEL WIDE ASPECT RATIO  
NTSC-COMPATIBLE ENHANCED DEFINITION  
TELEVISION SYSTEM**

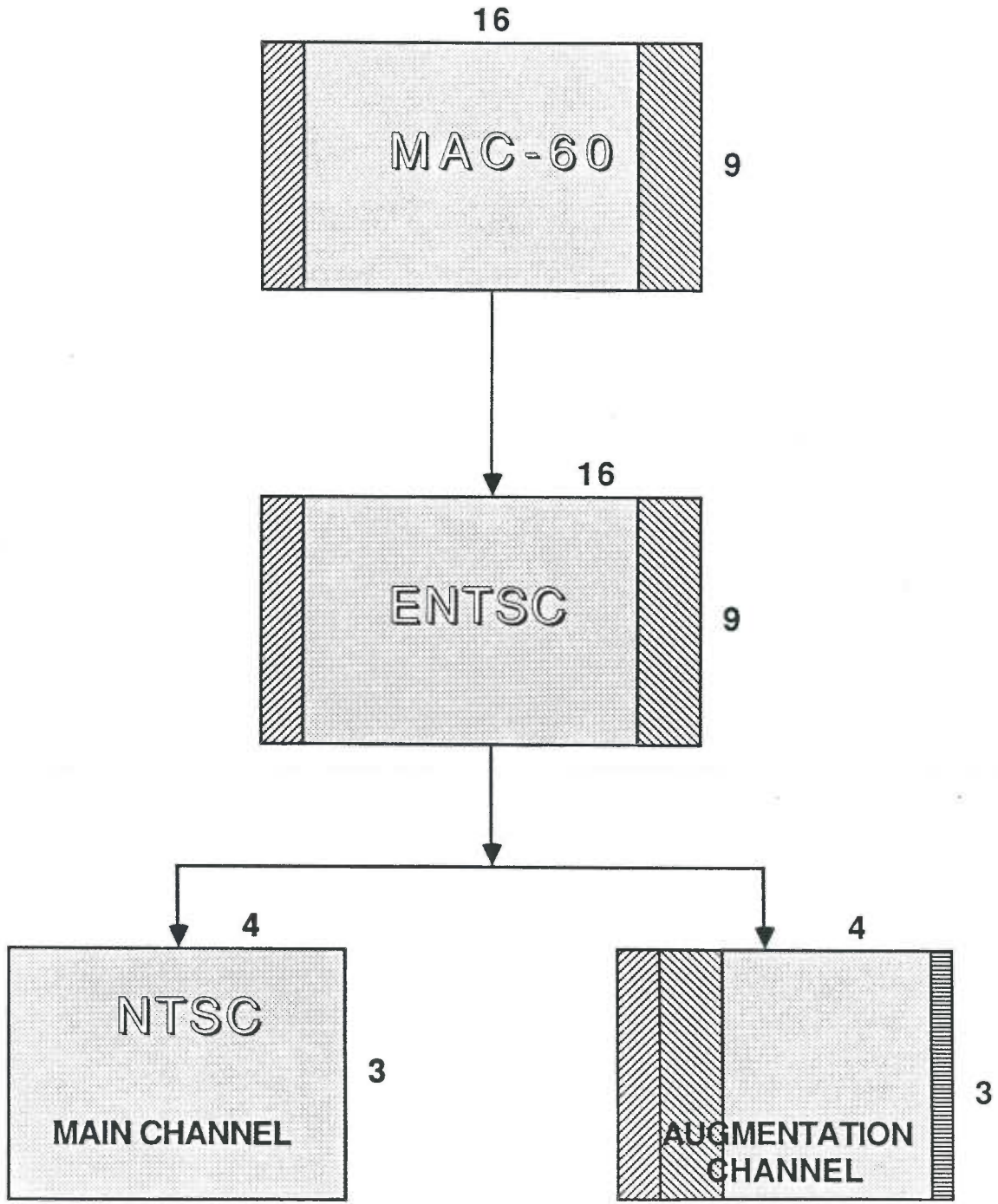
**\* MAIN CHANNEL**

- 6 MHz
- FULLY COMPATIBLE WITH NTSC

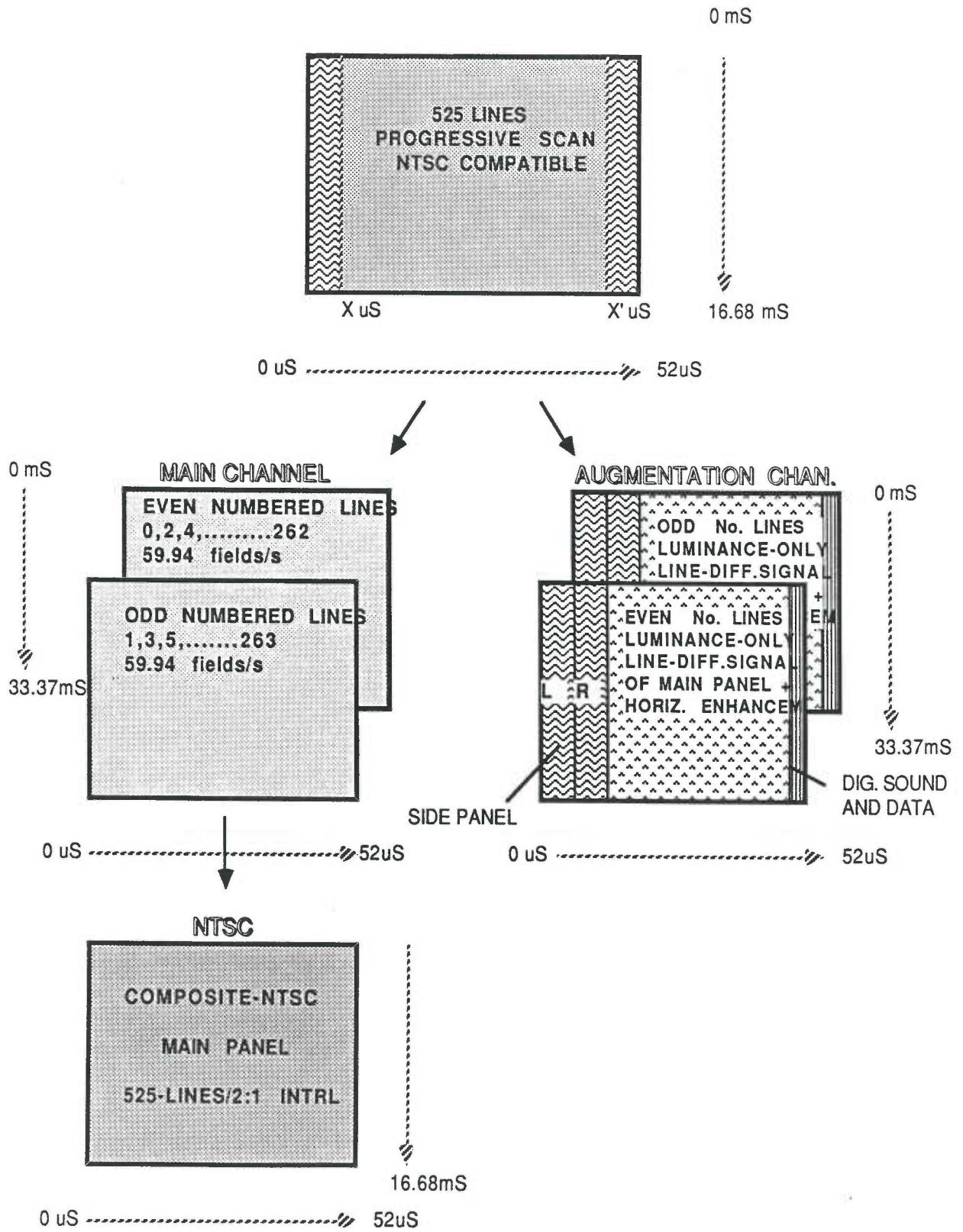
**\* AUGMENTATION CHANNEL**

- 6 MHz
- EXTRA VIDEO INFORMATION FOR THE SIDE-PANELS
- DIGITAL DATA CHANNEL FOR STEREO AUDIO,  
TELETEXT AND OTHER DATA TYPE MESSAGING

# MAC-60/ENTSC/NTSC HIERARCHICAL TELEVISION SYSTEM

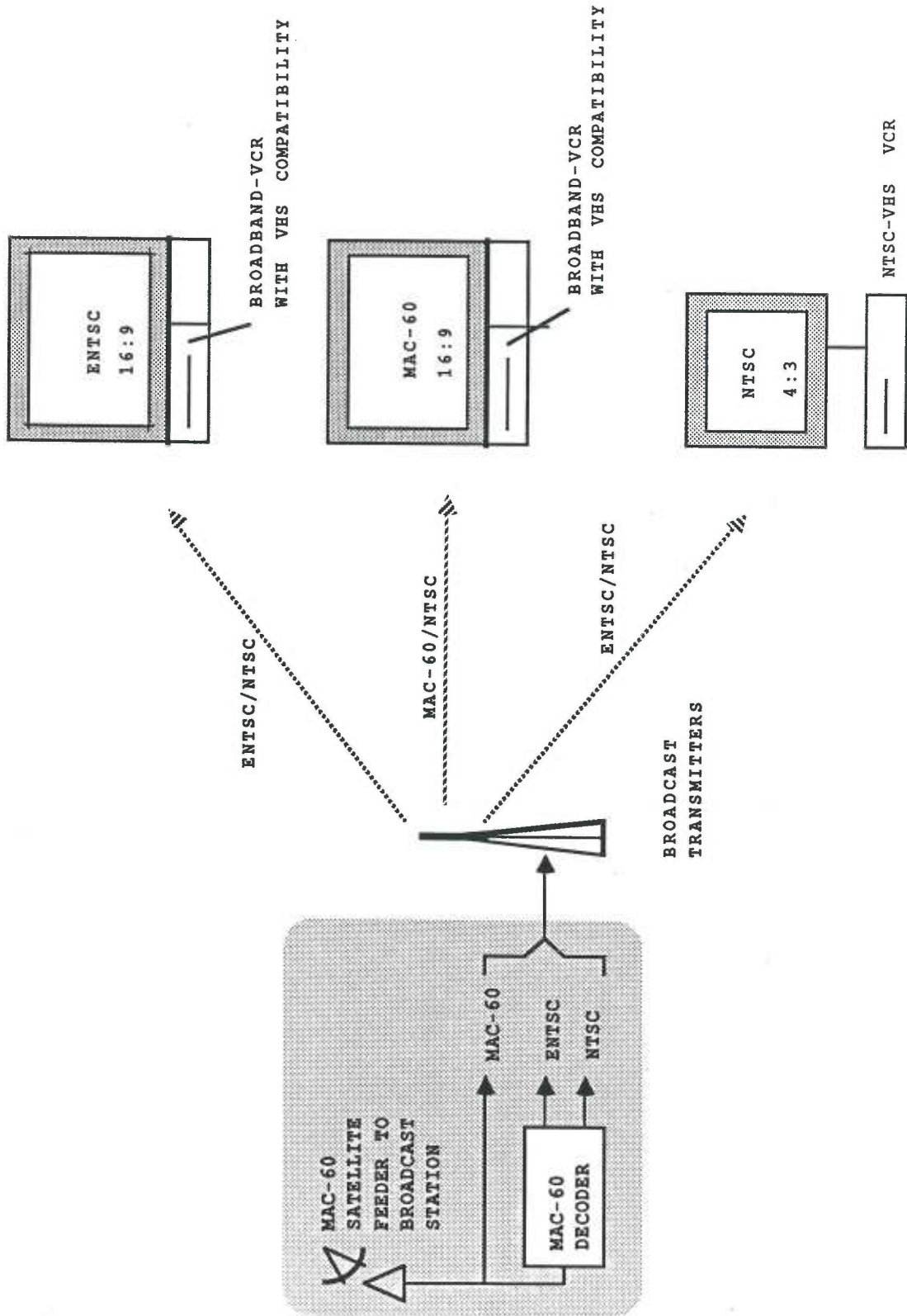


# ENTSC

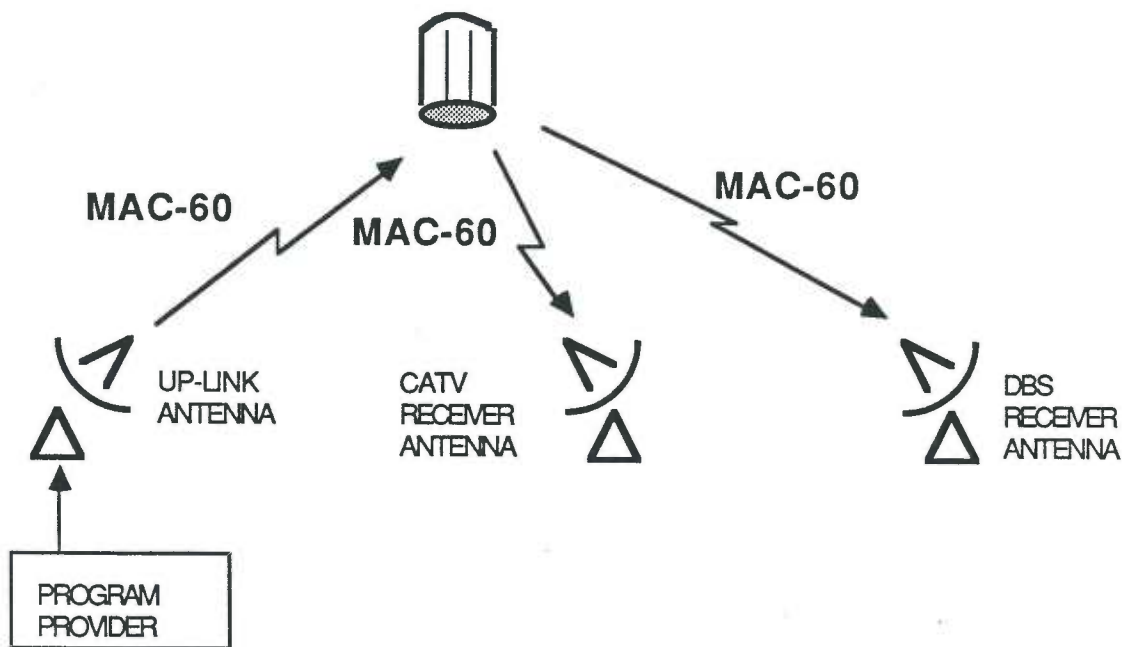




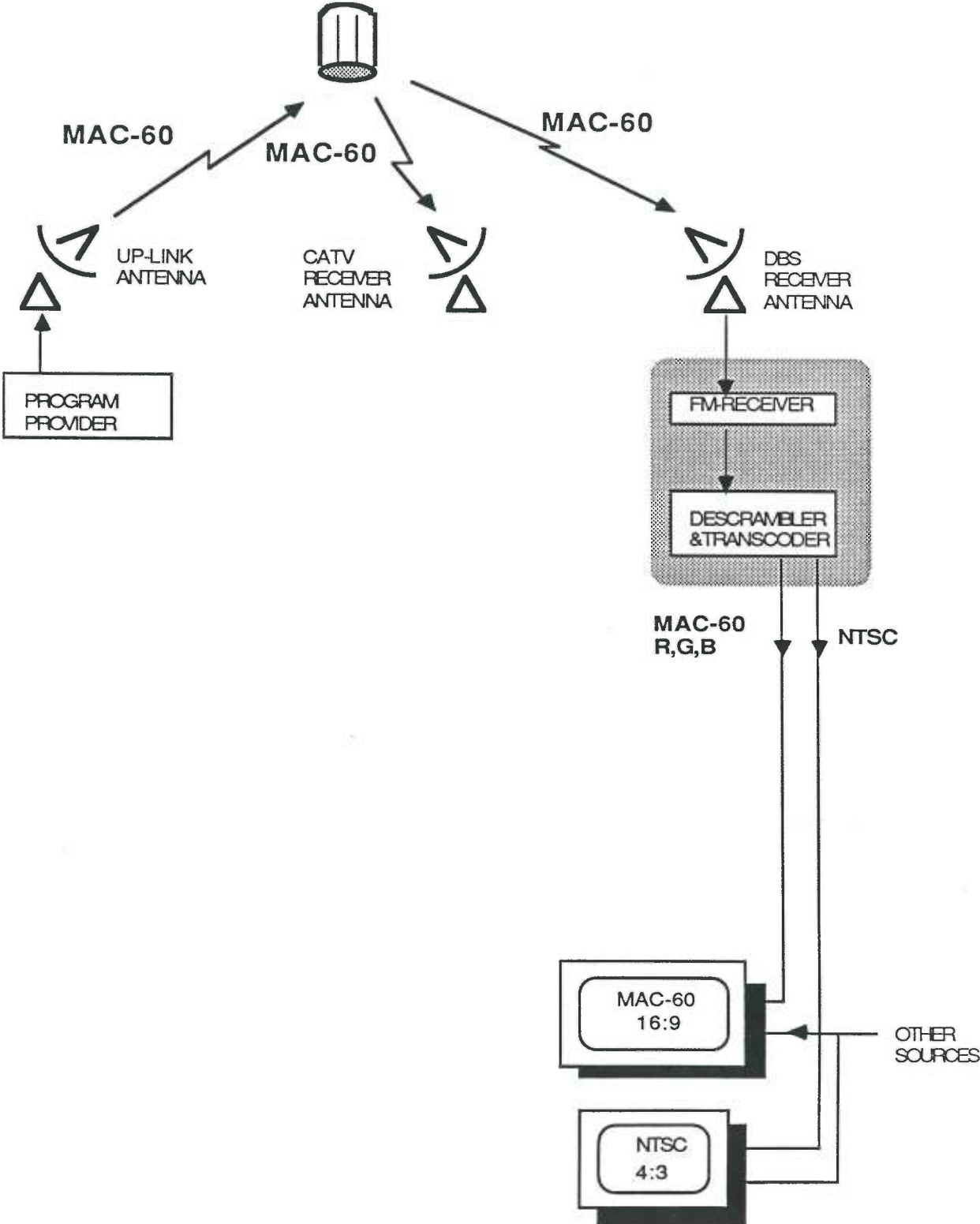
# NTSC/ENTSC/MAC-60 TERRESTRIAL BROADCAST POSSIBILITIES



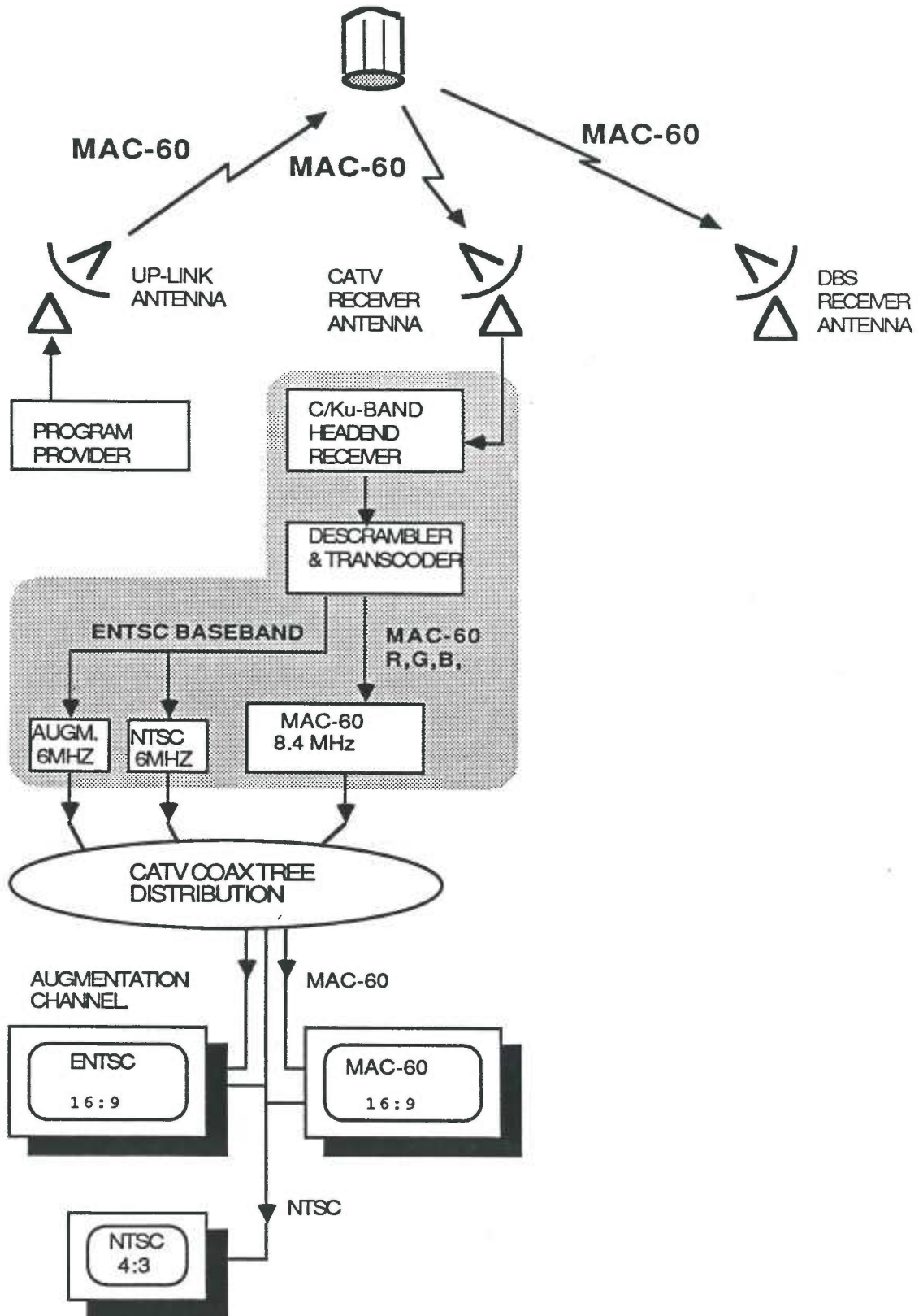
# SATELLITE DISTRIBUTION OF ADVANCED TELEVISION SIGNAL



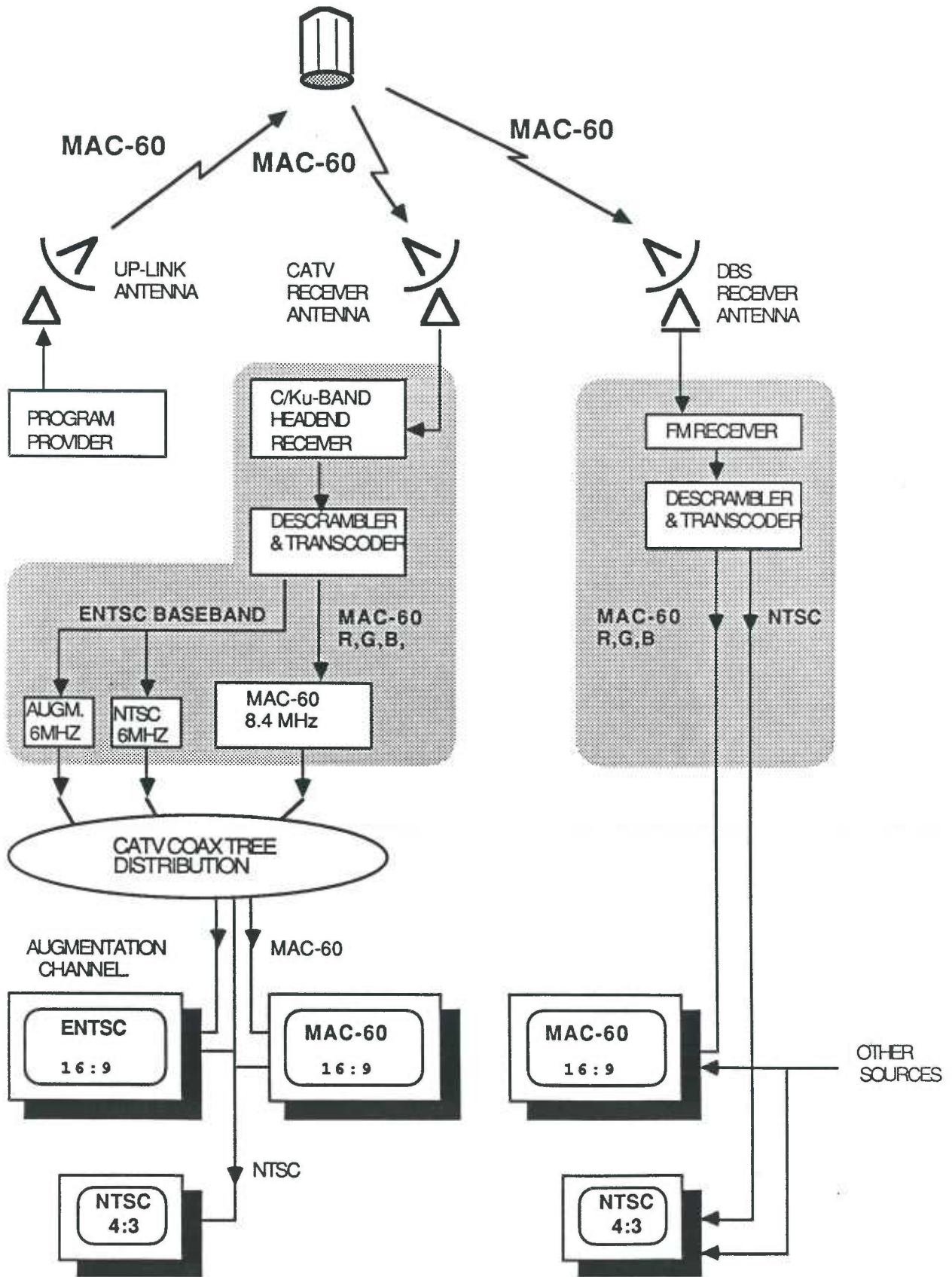
# DIRECT BROADCAST SATELLITE



# CATV DISTRIBUTION OF ADVANCED TELEVISION SIGNAL



# NTSC/ENTSC/MAC-60 DISTRIBUTION



# TELEPHONY NETWORK DISTRIBUTION OF ADVANCED TELEVISION SIGNAL

