

**DTH Based  
Disaster Warning  
Dissemination System**

# Functional Features

- Uses low-cost DTH-technology in Ku-band
- Especially modified DTH Set Top Box (STB)
- Allows user to watch FTA DTH bouquet during “quiet-period”.
- Interrupts current program to give warning
- Any STB or a group of STBs or all STBs can be selected for issuing warnings
- Warnings are preceded by a long hooter
- Warnings-issuing from multiple independent locations (remote head-ends) in local languages
- Doesn't need TV if aim is to receive only disaster-warnings.



# DWDS Receivers

## Outdoor Unit

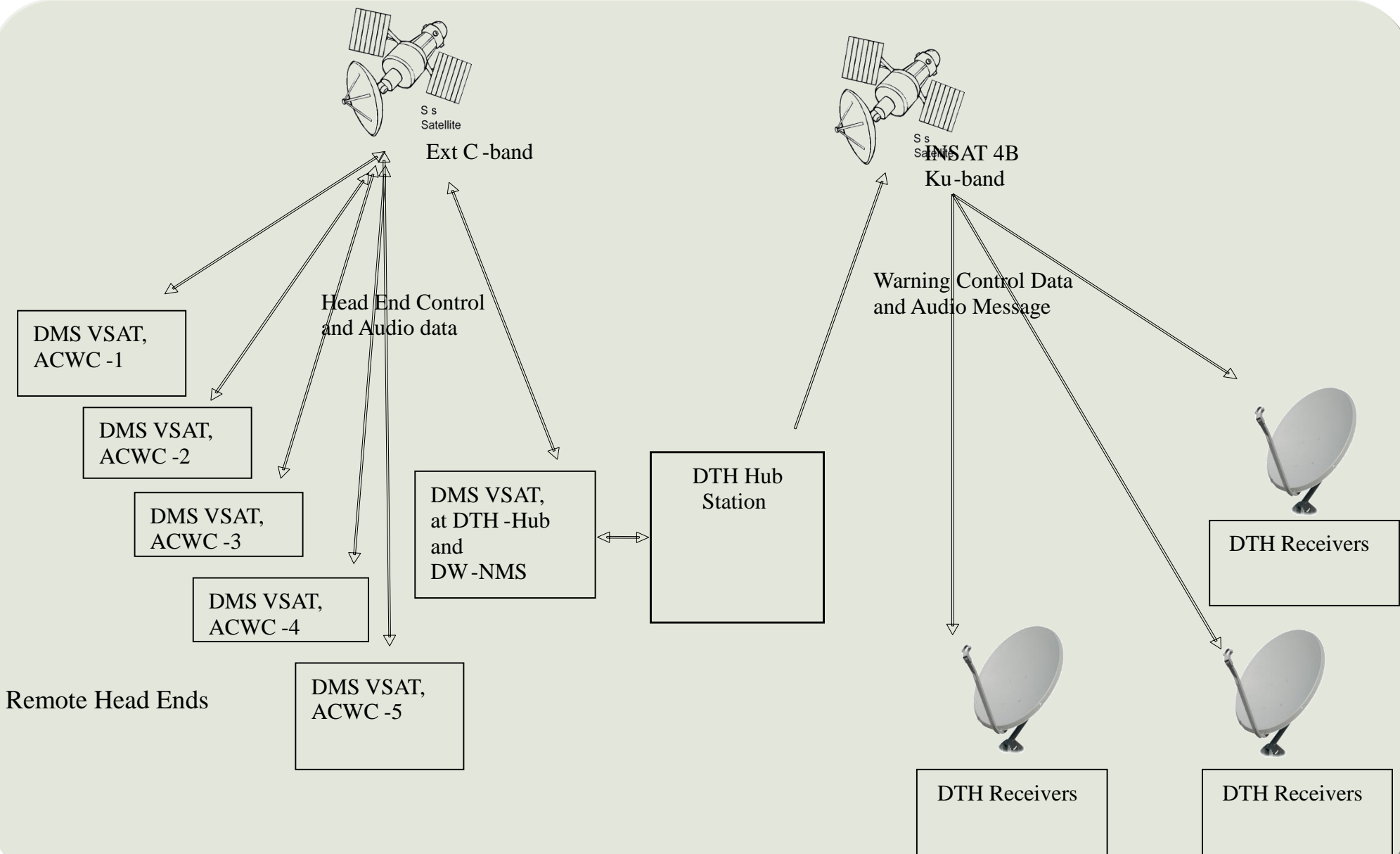
- 1.2m Ku-band rugged antenna to withstand 300 Kmph wind load
- Commercially available LNB

## Indoor Unit

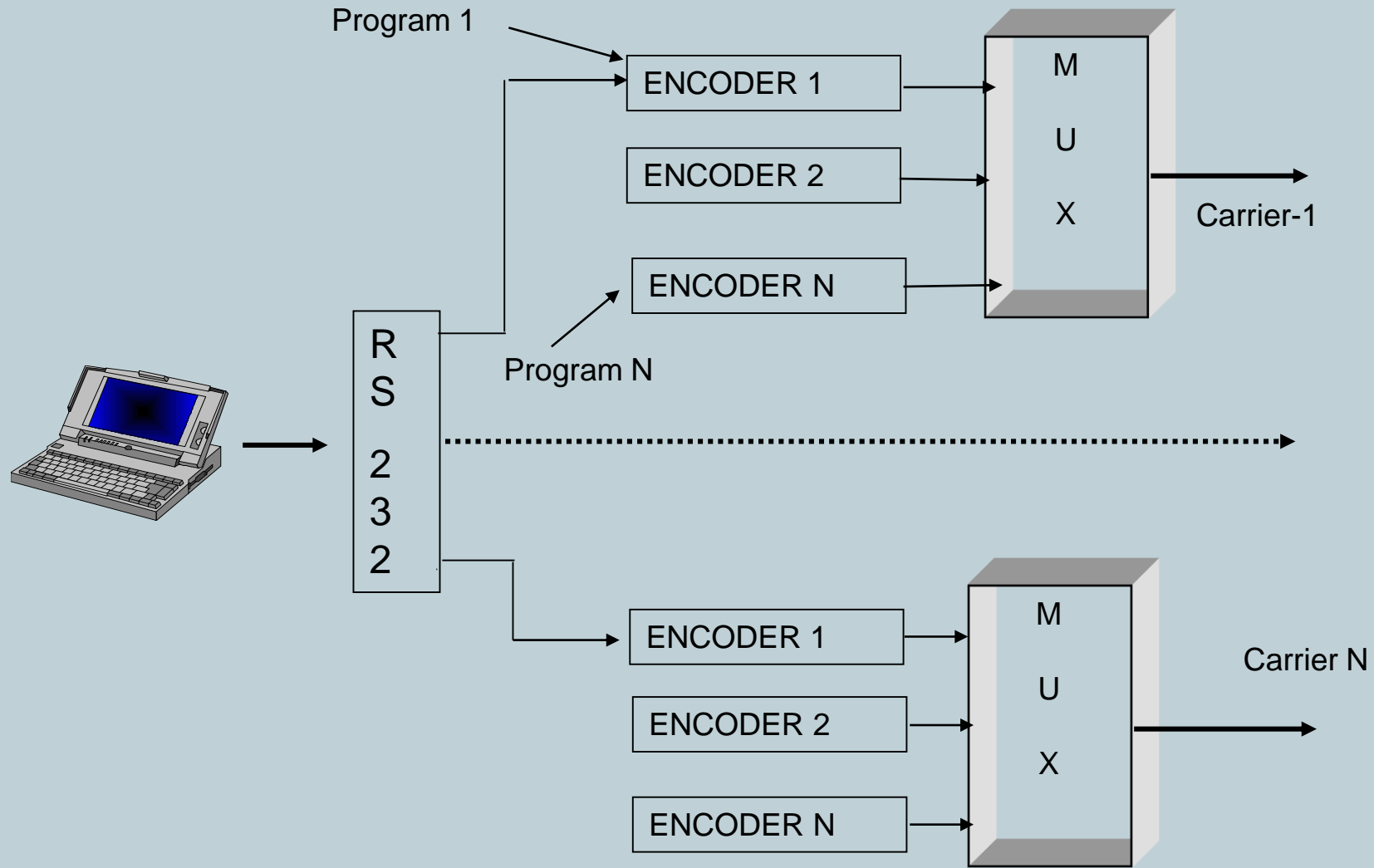
- Commercially available STB modified to make them controllable remotely
- Works on both 230V AC and 24V DC
- No UPS required – directly works on Battery
- Built-in Speakers – TV not necessary
- Built-in Signal Strength Indicator
- Separate Volume control for Warning mode



# System Configuration



# Integration of Warning Channel with Existing Hub



# Comparative Advantages



- Low-cost substitute to existing CWDS
  - STBs costs Rs. 8000/-.
  - Uses commercially available systems. No separate hub required
  - No separate satellite bandwidth needed
- Ease of maintenance (no proprietary system)
- Supports multiple warning-issuing locations
- Low power consumption of STB enables increased battery backup (6 to 7 days)
- Allows user to watch DD's DTH bouquet during “quiet-period”.

31 Aug एमसीडी के स्लम डायरेक्टर गिरफ्तार

लिए और 1 से 3 बजे तक पुरुषों के लिए डील  गाजियाबाद : भौपुरा में

# Major Milestones

- Conceptualization & development of proto-units: 2007
- Demonstrations to stake-holders: 2008
- Configuration design, Project approval & Ordering: 2009
- Factory Acceptance Testing: 2009
- Pilot-phase: 2009-2010
- Ordering for Up-gradation of the system: 2010-2011
- Tripartite MOU between ISRO, IMD & DD: March 2011
- Constitution of inter-agency Project Monitoring Committee: 2011
- 59 Systems dispatched to TN during Apr-2012

## MOU Highlights (signed in March 2011)

- DD to facilitate insertion of disaster audio-warnings in its DTH Bouquet through its DTH-hub at Delhi with no spectrum charges.
- ISRO to supply and deploy 500 receivers, 6 remote head-ends & modify DTH hub and provide technical support in future.
- IMD to have a lead role in overall implementation:
  - Identifying the sites and ensuring sites-readiness for installation
  - Holding the ownership & safe custody of the equipments soon after installation
  - Operations, utilization and maintenance of the system