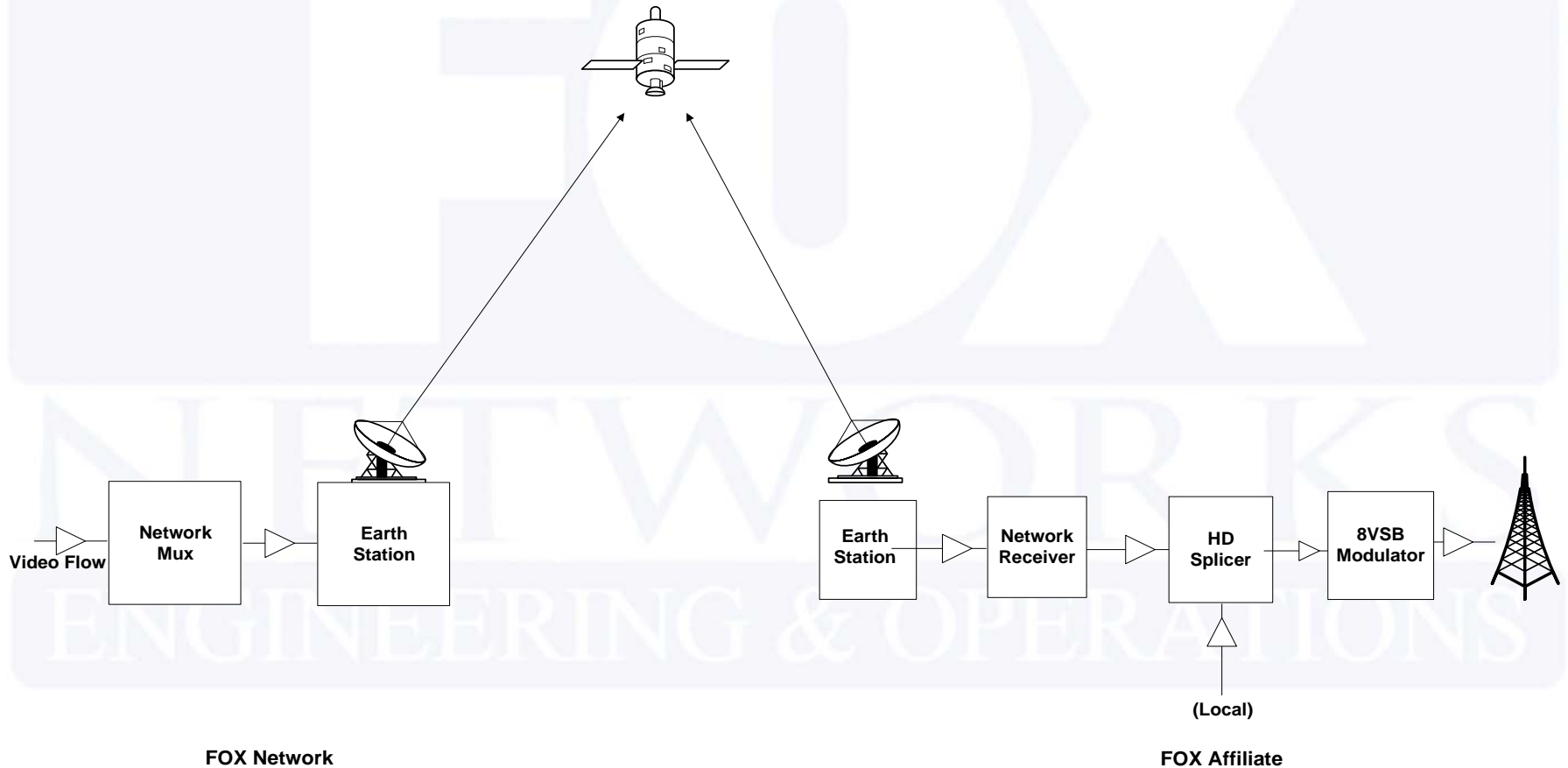


The DTV Transition Is It Over?

OR

Did it all go Wrong?

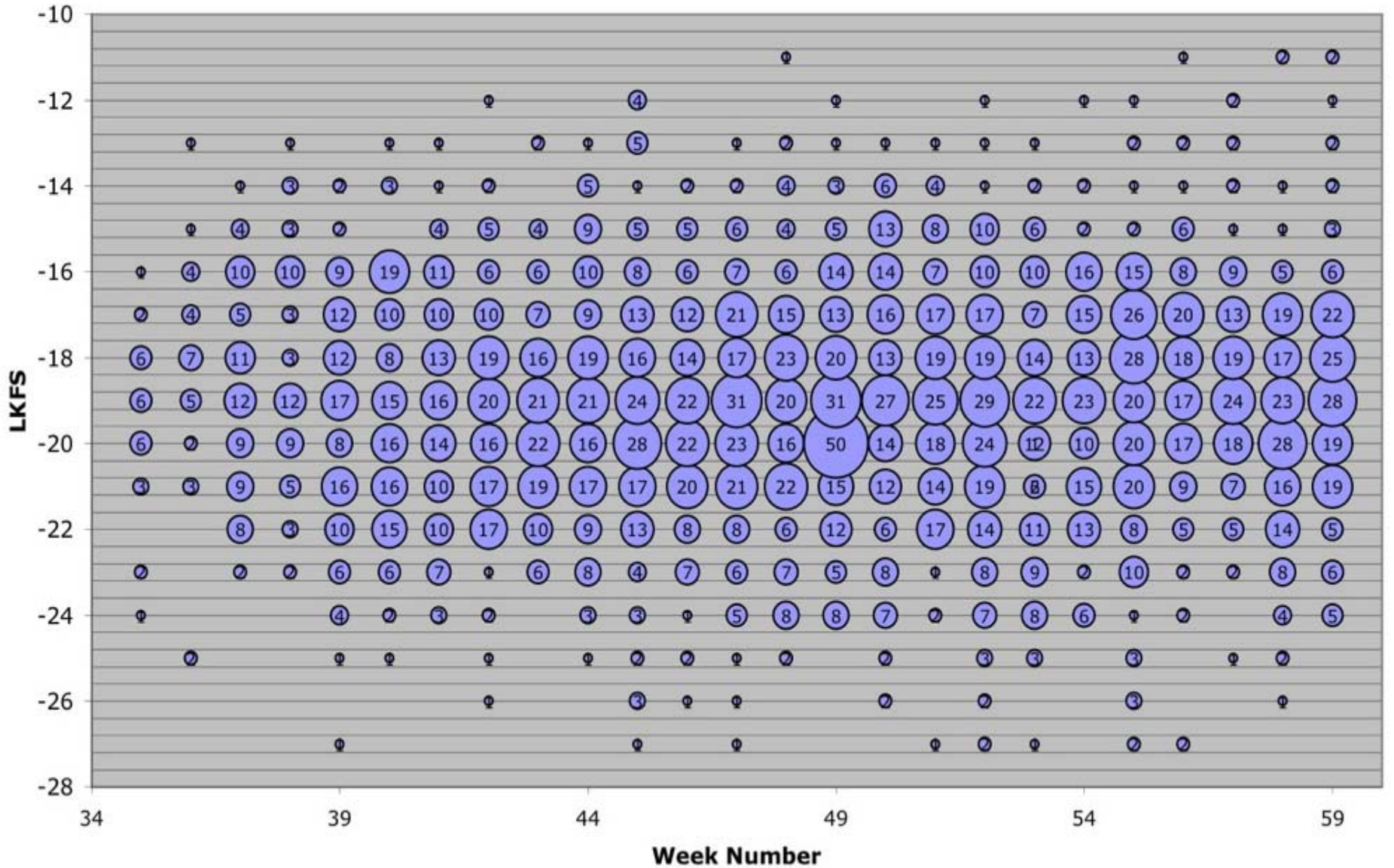
FOX SATELLITE SYSTEM



Loudness Goal

To present to the viewer
consistent audio loudness
across commercials, programs
and channel changes.

Commercial LKFS Summer 2009 - Feb 2010

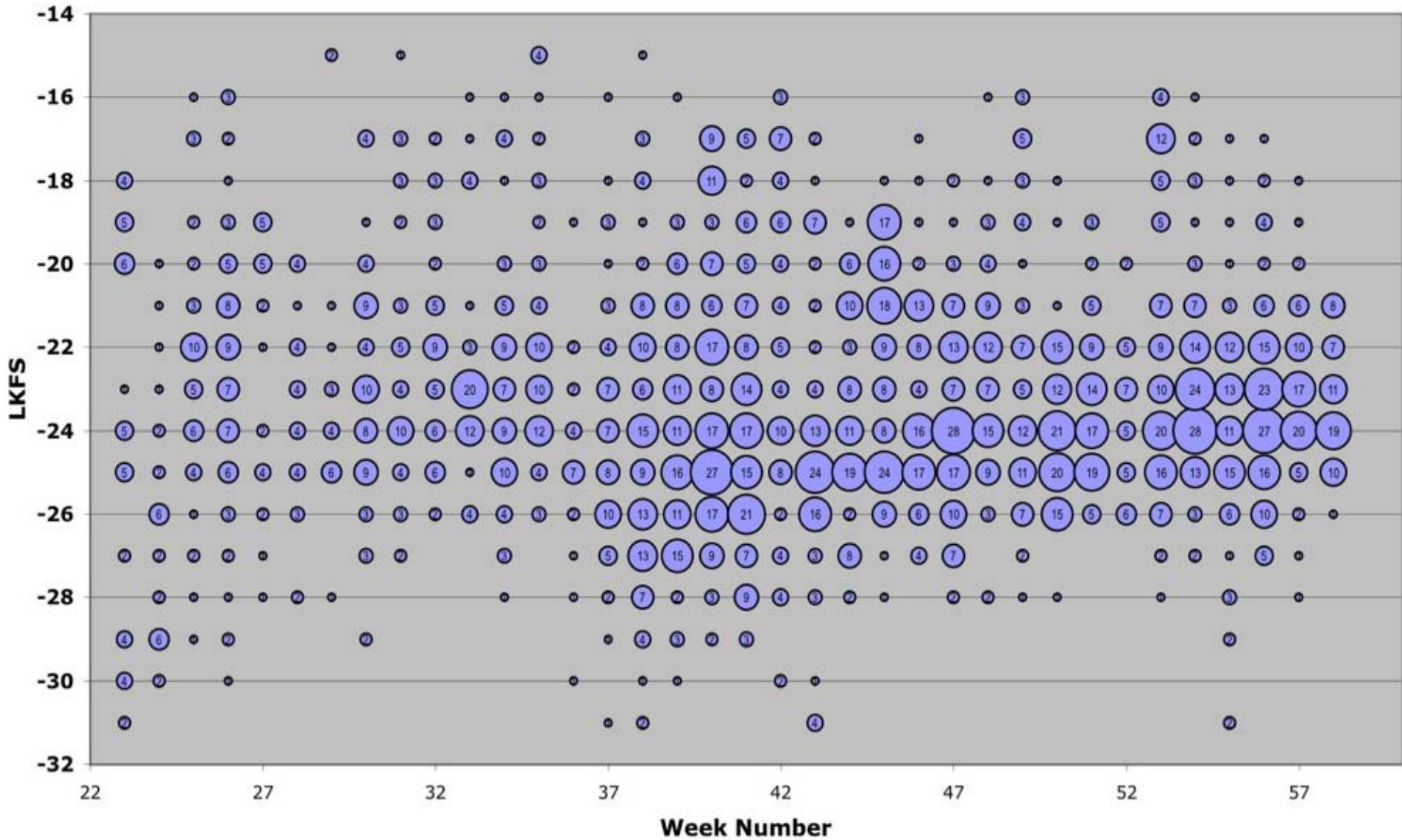


It's Also a Dynamic Range Problem

- Analog Era
 - Limited by media/medium
 - Audio processing was ubiquitous
- Digital Era (Today)
 - “unlimited” dynamic range
 - Theatrical or DVD mixes

Program Segment LKFS

Jun 2009 - Feb 2010

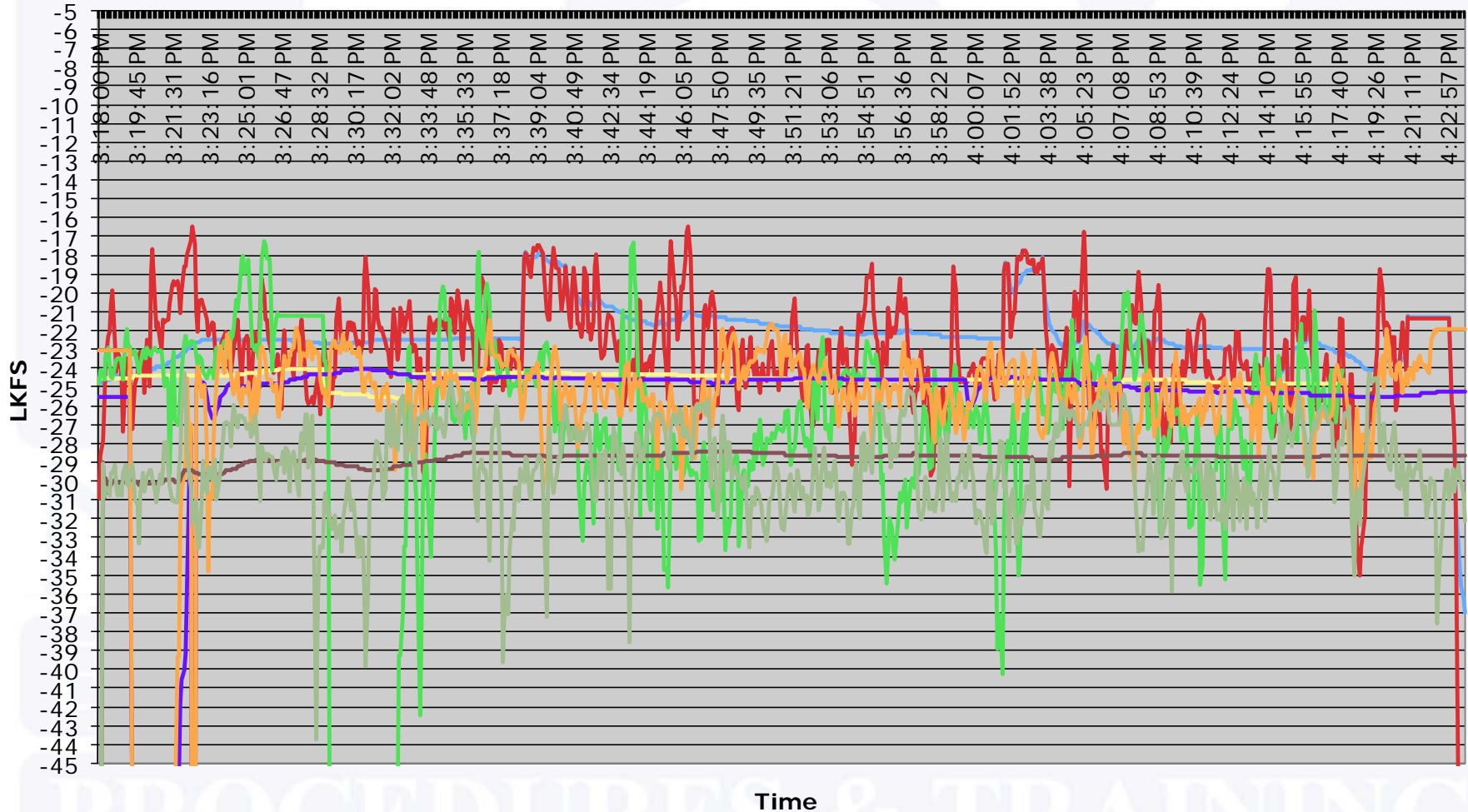


Dynamic Range Considerations

Program producers must create shows recognizing interstitial material (i.e. commercials) will be inserted between acts!

Shameless plug for Friday's Audio Loudness Panel

Networks Loudness - 2nd Hour



- Network D infin
- Network D short
- Network C infin
- Network C short
- Network A infin
- Network A short
- Network B infin
- Network B short

Much of the industry took the transition seriously, but, did the stations?

NETWORKS

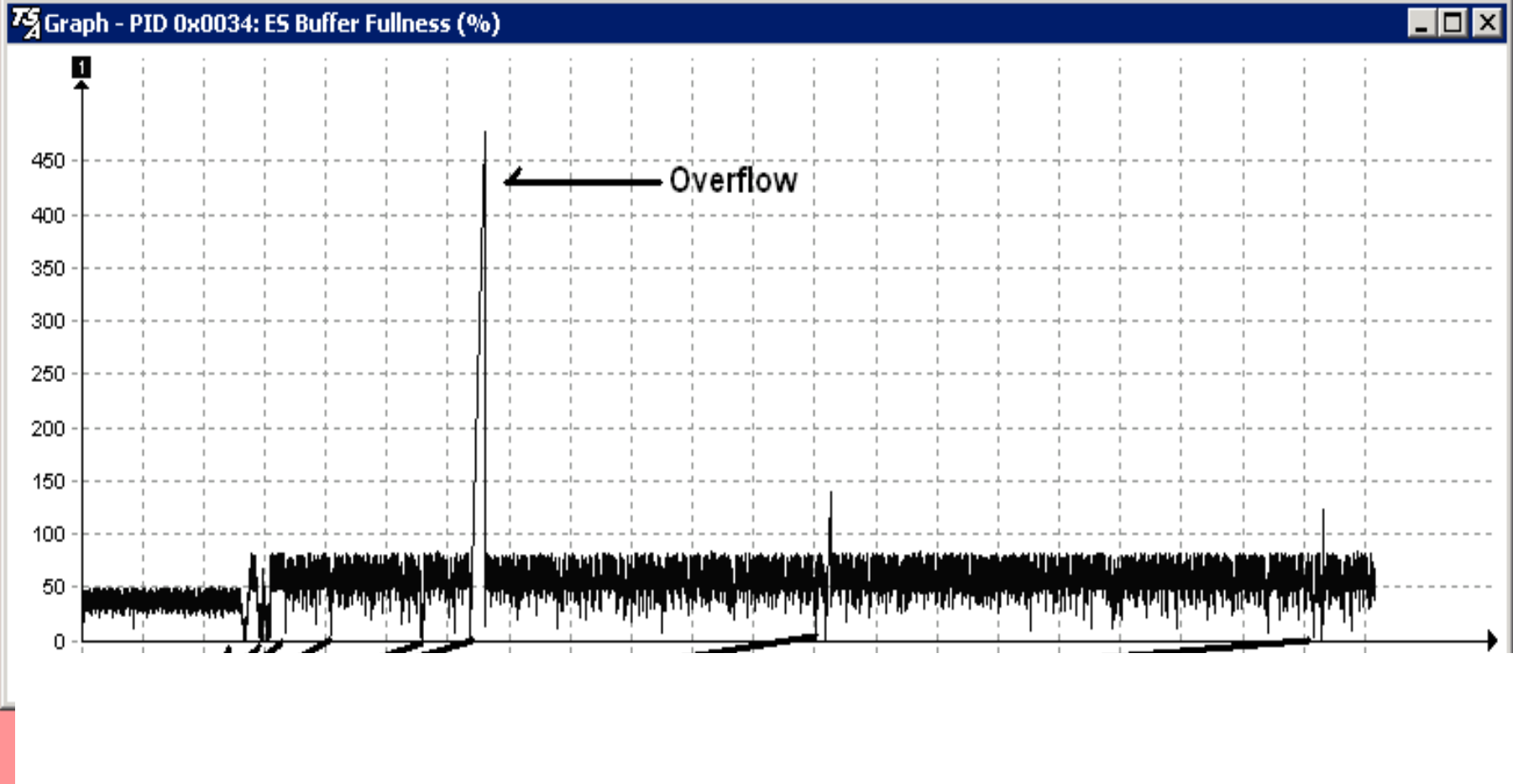
ENGINEERING & OPERATIONS

PROCEDURES & TRAINING

Affiliate Issues

- Excessive PCR Jitter i.e. serious buffer management problems
- Single biggest out of ATSC tolerance issue
- Any device in the ASI air chain can contribute to the problem
- Serious lack of understanding at the station level

Example: Audio Buffer Errors



More Station Issues

- Should they select center-cut or letterbox? What's AFD?
- PSIP, understanding still an issue!
- Lack of understanding over test tools
- ATSC RP A/78A can help station engineers

More Stations Issues

- Audio Loudness
 - Must emit a dial norm that matches their audio content
- Generally not aware how deeply MVPD's affect their signals and their audience

MVPD / MSO Issues

- At the end of a long DTV System
- AFD
- Loudness
- PCR Jitter
- It's a System Problem
- True for all networks (not just FOX)

Is the DTV Transition Over?

- Yes and No
- No, still system issues and the analog crutch is gone
- Yes, It's being worked through but additional system work has to be done

Thank You

And thanks to:

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