MSTV

MAXIMUM SERVICE TELEVISION

October 21, 2009

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

RE: Ex parte Communication
Gen. Docket No. 09-51

Dear Ms. Dortch:

On Tuesday, October 20, 2009, David L. Donovan, Bruce Franca and Victor Tawil of the Association for Maximum Service Television, Inc., met with the Honorable Mignon Clyburn, Commissioner, Federal Communications Commission and Mr. Rick Kaplan, Acting Media Advisor to the Commissioners.

We discussed at length the results of our research concerning VHF reception. In particular, we noted the problems with indoor VHF reception resulting from increases in the noise floor in the indoor environment. We presented the attached slide presentation outlining MSTV's analysis.

In addition, we discussed the relationship between over-the-air television broadcasting and the Commission's broadband proceeding. We noted that the off-air digital marketplace for HDTV and multicast services has just started. The mobile broadcast standard adopted recently will stimulate the deployment of an important service to the American public. Moreover, as a point-to-multipoint system, broadcasting is the most efficient way to transmit high quality HDTV and video content. In this regard, off-air television broadcasting is a key component of the overall wireless services architecture of this nation. In addition, American consumers spent billions of dollars recently on digital TV sets, antennas and converter boxes based on government statements that they would receive HDTV and multicast signals on free over-the-air TV. This should be kept in mind as the FCC looks for spectrum alternatives.

Sincerely,

David Donovan

Recent Field Measurements

TV Reception Group

VHF RECEPTION INVESTIGATION/ISSUES

Investigation of VHF Reception Issues

- MSTV investigation looked at three different sets of data (FCC, Chicago and Baltimore) to attempt to identify the various mechanisms that are likely to affect high VHF TV reception. MSTV also conducted a number of independent experiments in Washington to further investigate these mechanisms

MSTV Investigation of VHF Reception Bottom line

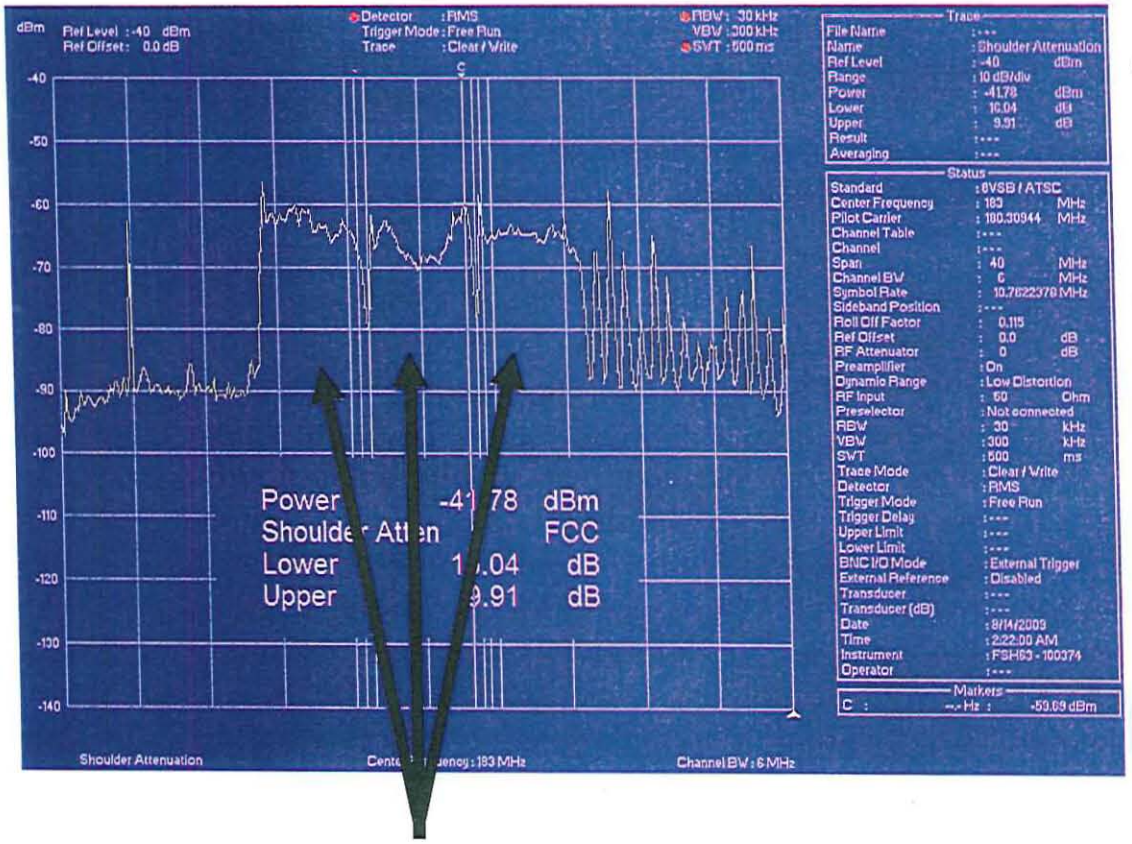
- Large number of VHF DTV reception failures despite adequate signal strength present
- Two main causes observed:
  - Very poor performance of indoor VHF receiving antennas
  - Noise/interference sources in the home difficult to trace or determine

MSTV Washington Experiment

- Washington DC Tests focused on Noise contribution
  - Looked at Channels 7 and 9
  - LPTV Operation on Chanel 8

- Appears to be More Reception Problems with Channel 9 than Channel 7

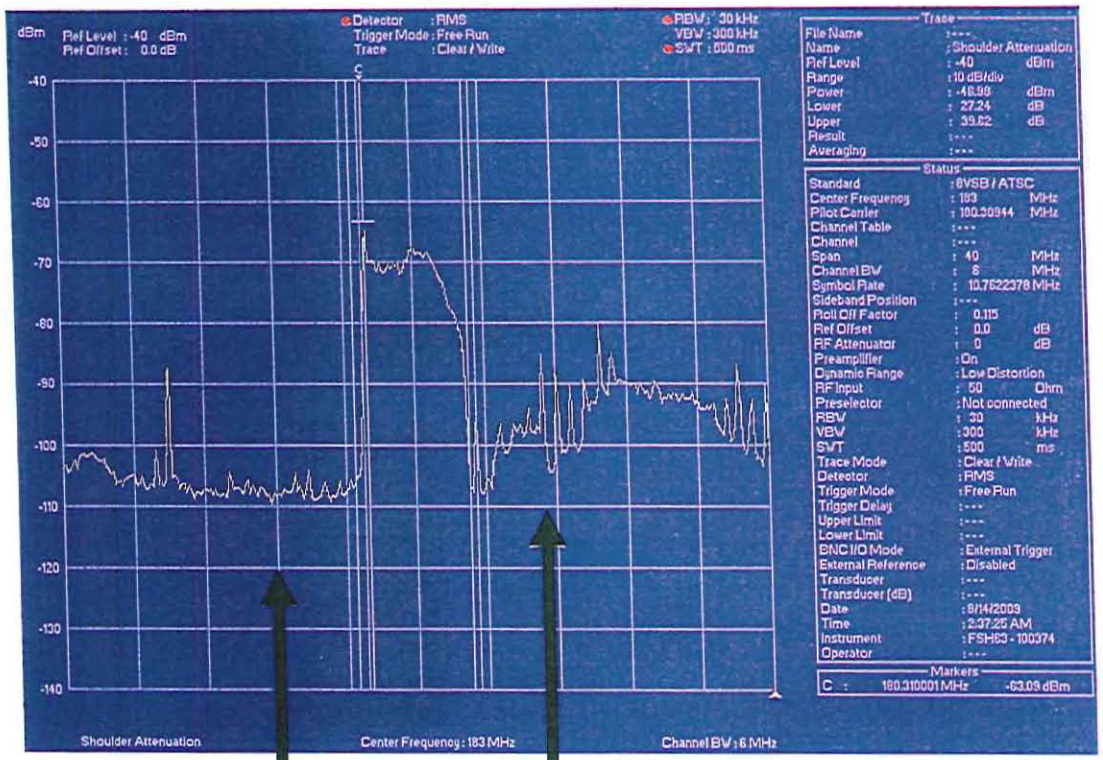
MSTV Washington VHF Tests



DTV Ch 7,8, 9

- Spectrum showing Chs. 7, 8, and 9
- Test location about three blocks from WUSA
- TV Dipole

Washington VHF Tests

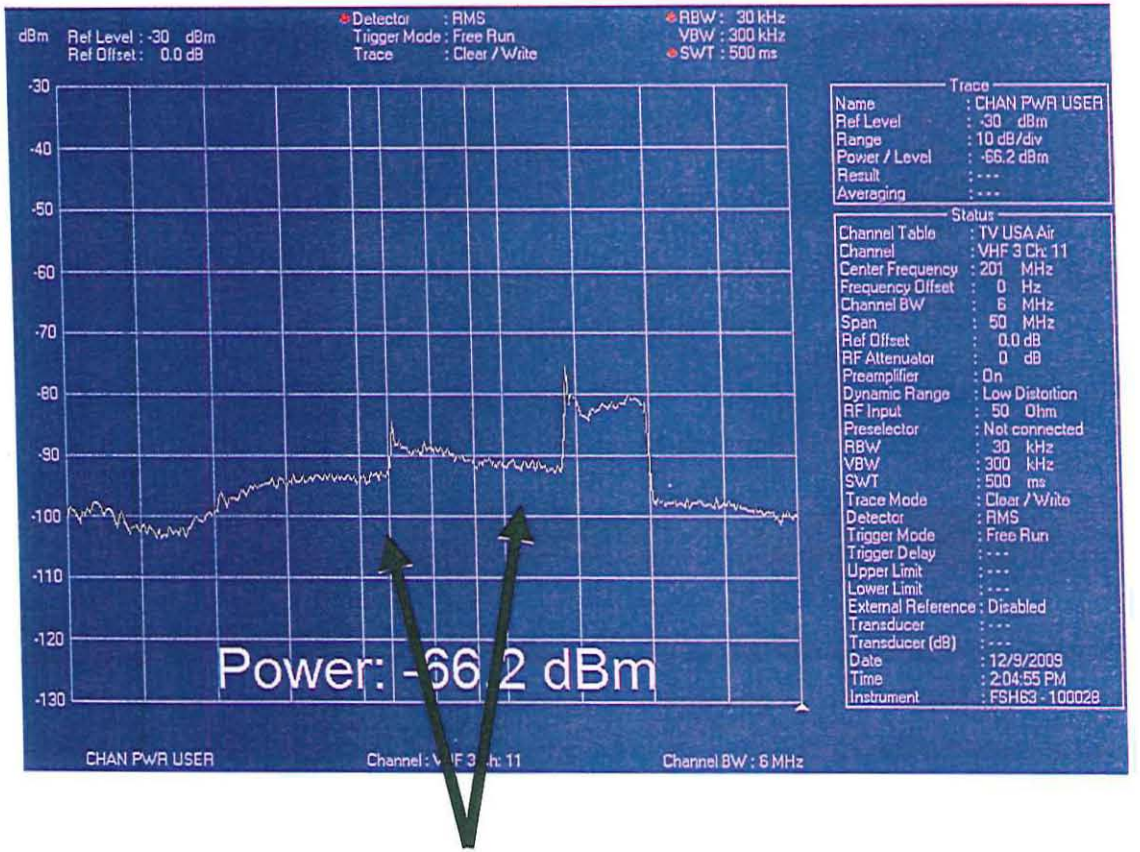


Low Noise On Ch 7

High Noise Level on Ch 9

- Channels 7 and 9 "shut-off"
- Test location about three blocks from WUSA
- Whip Antenna

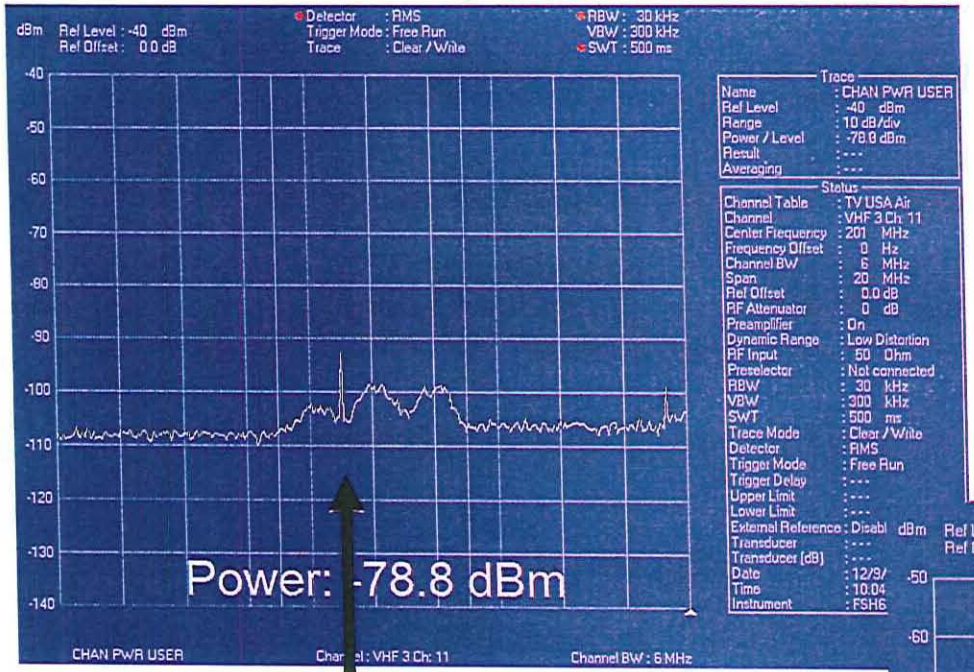
Impact of Increase in Noise Floor (Cordless Phone)



Broadband Noise from Cordless Telephone Power Supply Causing Interference to Channel 11 Reception

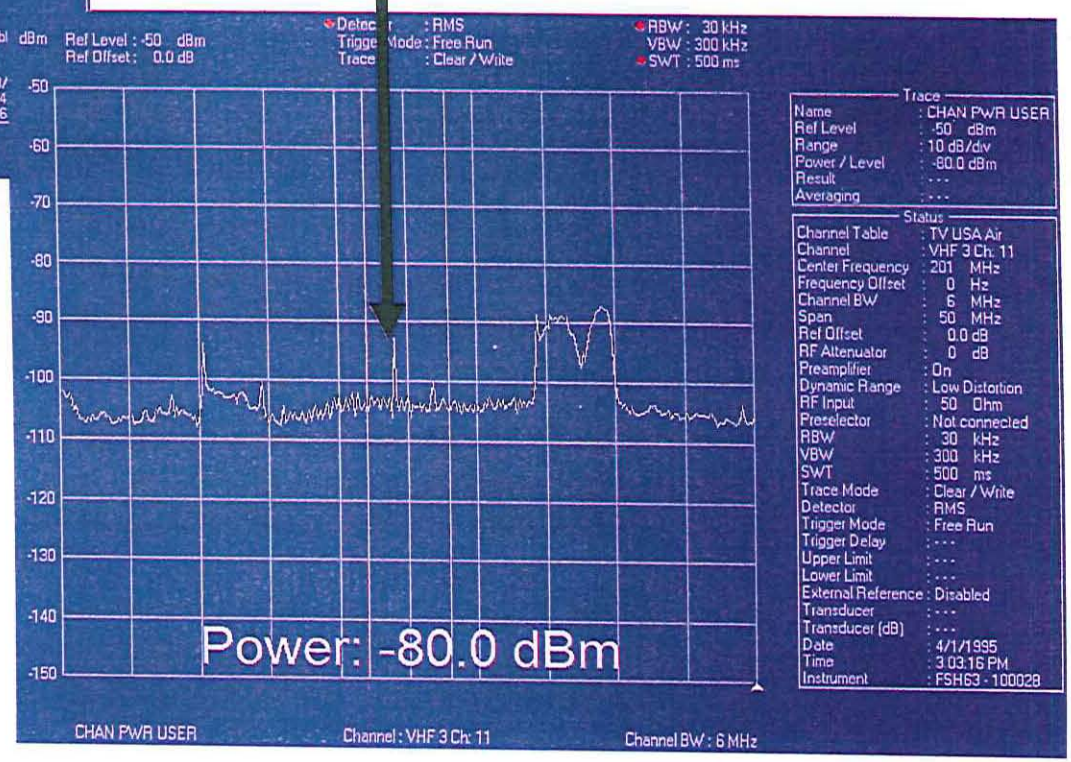
- Increase in Noise Floor Degrades DTV Receiver and Prevents Reception
- Interference from Cordless Phone Depicted
- No DTV Reception Despite Relatively Strong Signal (-66.2 dBm)

Example: Narrowband CW-like Interference

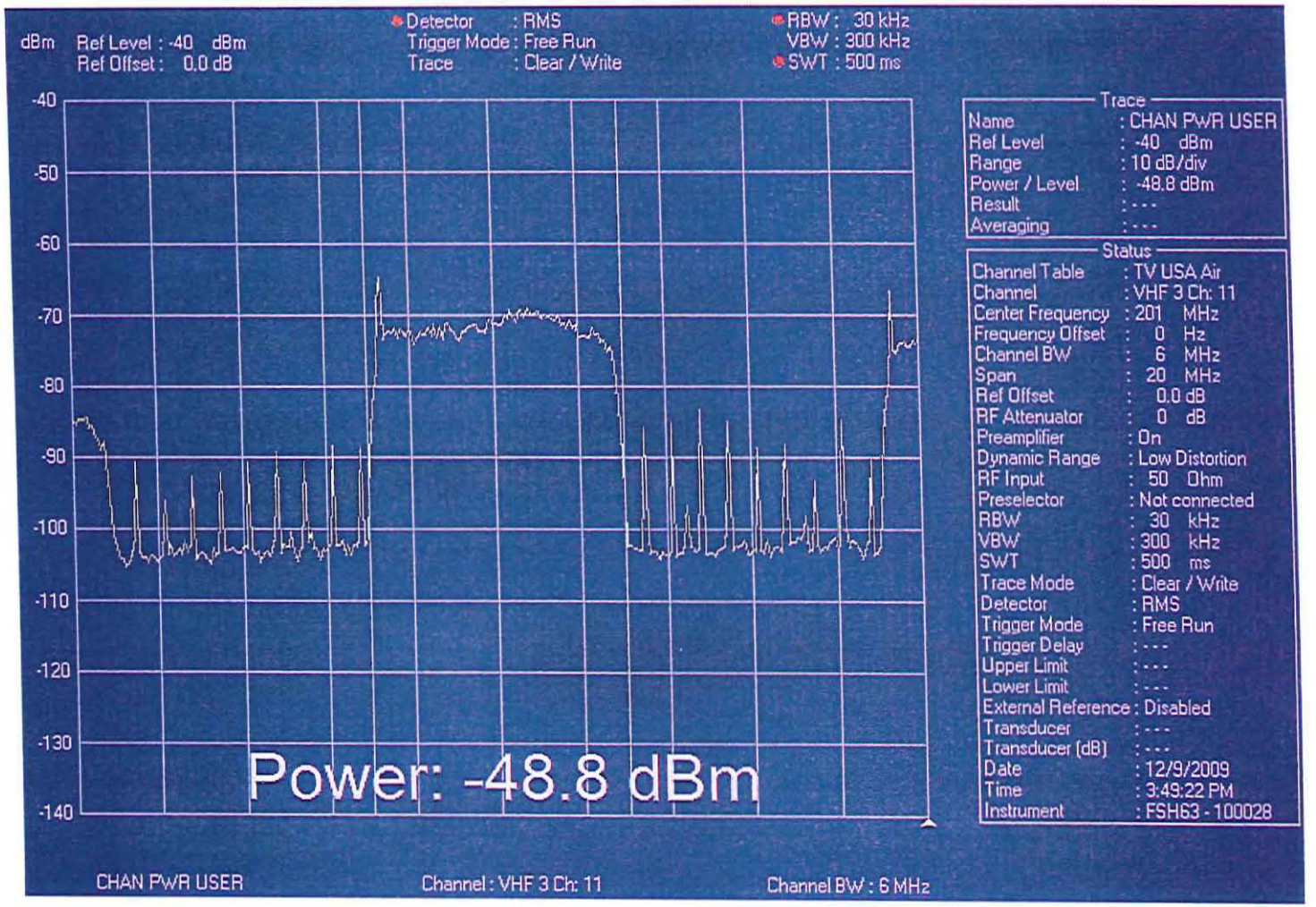


Narrowband CW-like interference.
DTV transmitter is On

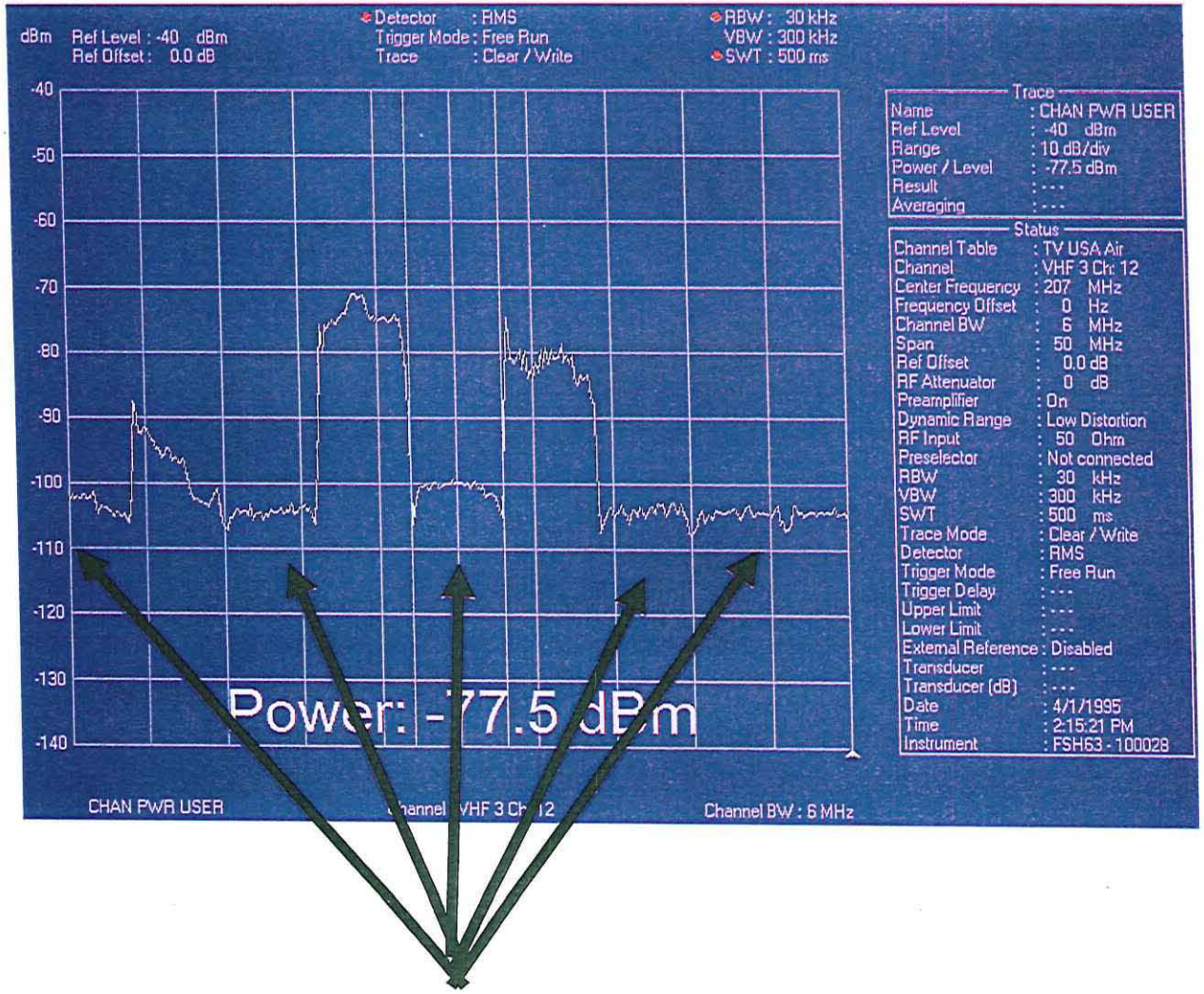
Narrowband CW-like interference.
DTV transmitter is Off



Example: Impulse Noise Interference (Leaf Blower)

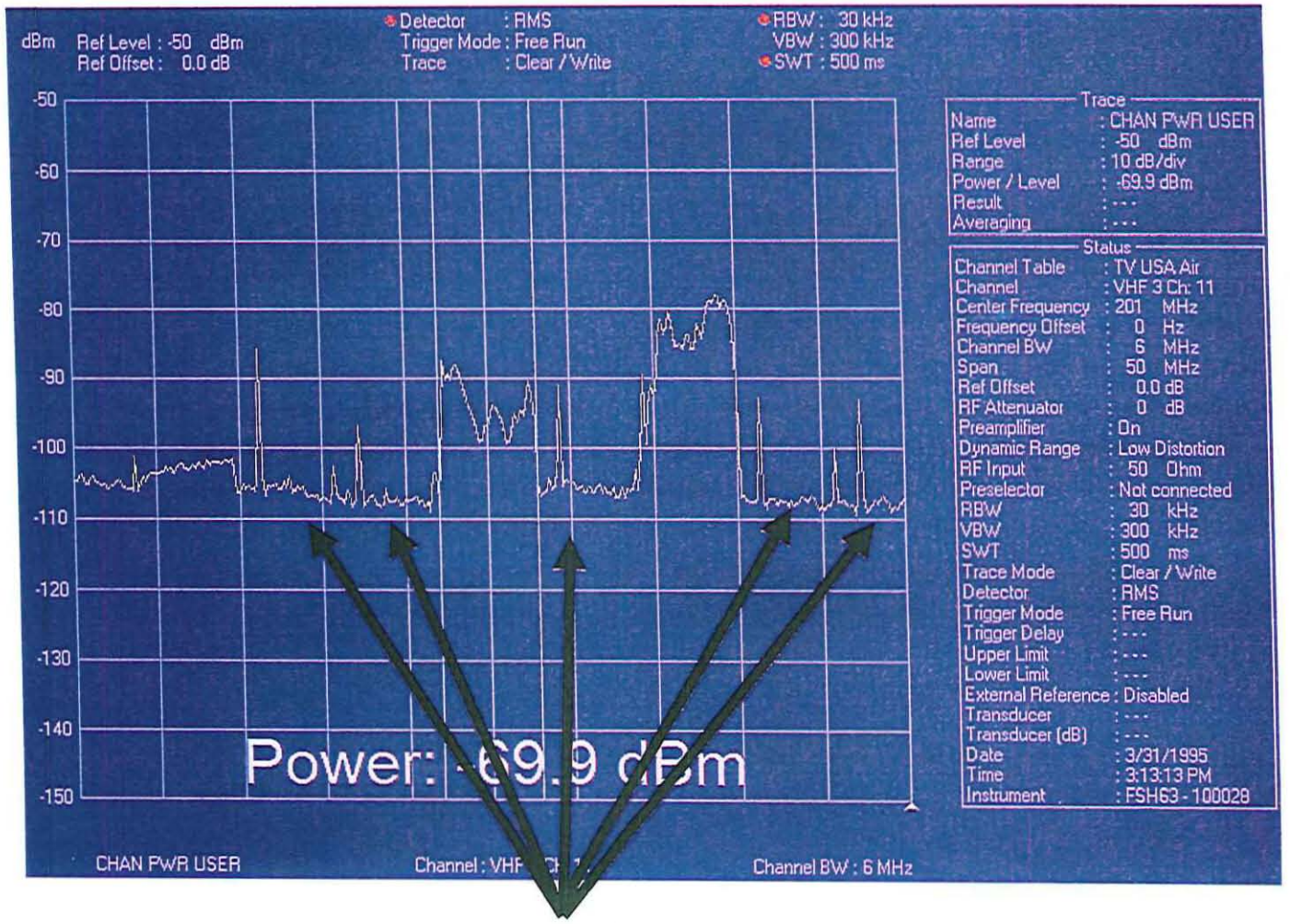


Example: Cable/FiOS Digital Leakage



Cable/FiOS digital leakage

Example: Analog CATV Leakage

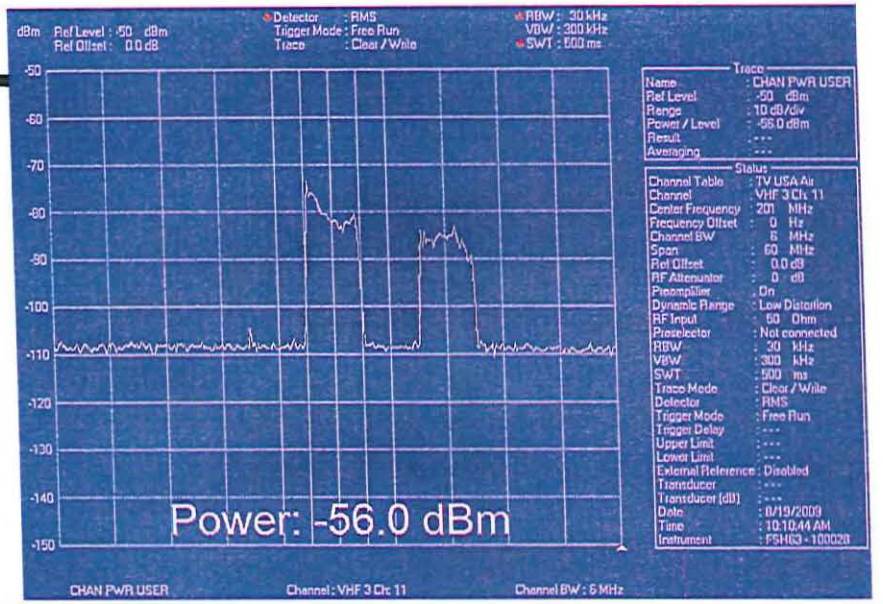


CATV analog leakage

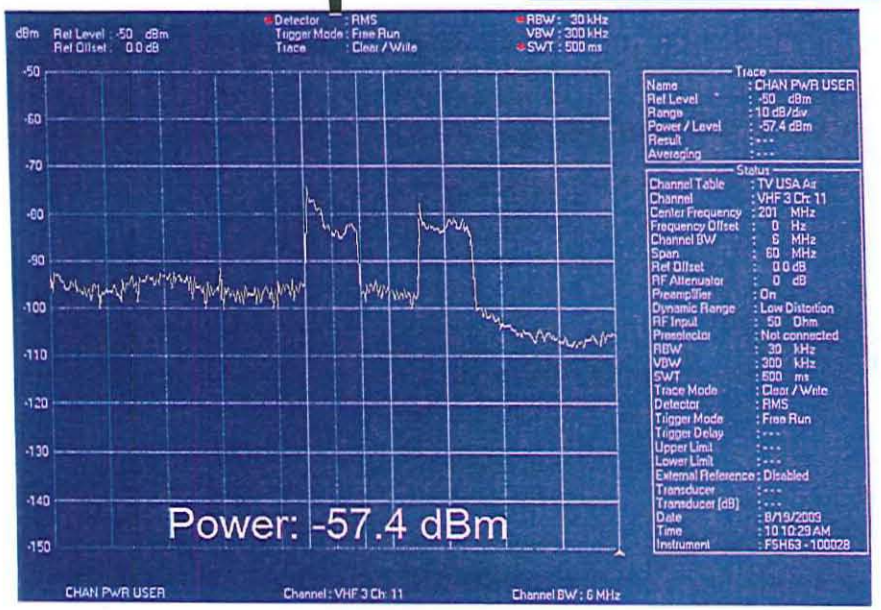
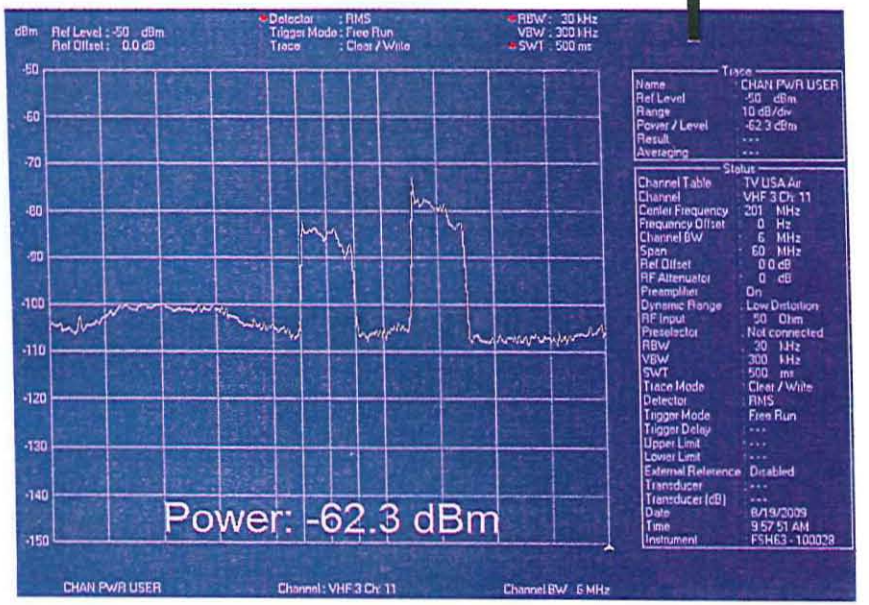
Example: Impulse Noise
(Power line 60 Hz)

Example: Television and DVD Interference

TV and DVD turned "off "



TV and DVD turned "on "



TV turned "on" and DVD turned "off "