

# **Satellite Signal Theft**

**Presentation to  
AEPOC**

**The Coalition Against Satellite Signal Theft  
(CASST)**

November 2005

# COALITION AGAINST SATELLITE SIGNAL THEFT

## MEMBERSHIP LIST

- A & E Television Networks
- Bell ExpressVu
- Canadian Association of Broadcasters
- Canadian Broadcasting Corporation - Radio Canada
- Canadian Cable Television Association
- Canadian Film and Television Production Association
- Canadian Retransmission Collective
- Canadian Television Fund
- Canadian Motion Picture Distribution Association
- Directors Guild of Canada
- DIRECTV
- Film and Video Security Office
- Nagravision
- North American Broadcasters Association
- Society of Composers, Authors, Music Publishers of Canada
- Star Choice

## **CASST OBJECTIVE**

**Representatives of the Canadian Broadcasting System are collaborating to:**

- Act collectively to curtail the proliferation of unauthorized satellite systems;**
- Work with the federal government to implement a plan involving policy/legislative/enforcement solutions along with education and communications activity.**
- Stop the growth of unauthorized satellite services in Canada.**

# CASST INDUSTRY INITIATIVES

## Activities to date:

- 66 files under investigation derived from CASST initiatives.
- 16 new files opened since September 2005
- Recent enforcement activities
  - 4 seizures conducted in Ontario
  - 1 seizure conducted in British Columbia
  - 15 seizures conducted in Quebec (8 of these seizures are related to the investigation of “DSS Angels”)

## INDUSTRY INITIATIVES (CONT'D)

- 15 sentences were handed out in 2005.
- Ranging up from \$ 25 000 to \$ 5 million + the confiscation of seized material related to theft activities.
- CASST has also initiated civil actions against some of these parties.
- 4 other parties have not reached the trial stage, they are scheduled for January 2006.
- CASST has a few tons of seized equipment in a warehouse in Ottawa. We recently got permission from the judge to destroy this equipment.

# SATELLITE SIGNAL THEFT

- **Three systems utilize Access Cards**
  - **Bell ExpressVu**
  - **DirecTV**
  - **Dish Network**
- **One system utilizes internal E-Prom**
  - **Star Choice**
  - **Star Choice: still secure, has never been hacked.**
- **Current status of satellite theft:**
  - **DirecTV: still secure there is no working hack for the P4/D1 smart cards.**

# SATELLITE SIGNAL THEFT

- **Current status of satellite theft (cont'):**
  - **Bell ExpressVu: still secure, there is no working hack for the ROM102 NAGRA2 data stream.**
  - **Dish Network: started their card swap in late 2004 with a run of 10 000 ROM101 NAGRA2 smart cards, followed by ROM102 cards for the rest of their subscriber base.**

**Starting in August 2005, pirate websites started offering ROM101 programming. Shortly after, hackers extracted the ROM101 image and were able to incorporate it into hacked binary file for the firmware of some FTA receivers.**

# SATELLITE SIGNAL THEFT

- **Current status of satellite theft (cont'):**
  - **Dish Network (cont'):** since supply of ROM101 cards was very limited, hackers have recently produced 2 new programmable cards: AVR-X and Syndrom cards. These have better processors and need to be programmed by the dealer. These cards work only with the 2700 and 3100 model receivers.
  - **Some pirate websites claim they can program the ATMEGA 128 card with the same data but we have no proof.**
  - **According to NagraVision, Dish Network should have completed their transition to NagraVision 2 ROM102 by the end of this year.**

# SATELLITE SIGNAL THEFT

- **Current status of satellite theft (cont’):**
  - **The only remaining problem is account stacking/false activation where dealers try to max out the number of IRDs per subscription.**
  - **This practice specially targeted DirectTV in Canada through gray market subscriptions using false US addresses.**
  - **Dealers would obtain subscriptions through mailboxes with large amount of IRDs (8 to 50) and invoice clients to make them believe they were legitimately paying DirectTV. One dealer in the Toronto area built a 40 000 clients subscriber base.**
  - **These people were arrested and are being sued by DirectTV.**

# FUTURE CHALLENGES

- **The market place is changing, moving towards an IP/digital environment.**
- **In Canada telephone companies have entered the domain of videodistribution through IP technology, while cable operators have entered in the telephone business through VOIP.**
- **This competitive surge has accelerated the digital distribution penetration.**
- **Mobile operators are now offering video content.**
- **Producers are now offering their prime time content on VOD (Video On Demand) or SVOD (Subscription Video On Demand).**
- **PVR penetration increases on a monthly basis.**

# FUTURE CHALLENGES

- These new technologies and platforms operate in a digital environment making the distribution of content more portable.
- Digital rights management are the new frontier in the protection of Intellectual Property.
- Consumer will need to be educated and informed through multimedia marketing campaigns.
- Copyright legislation will need to be updated.
- Legislation will need to be modified, such as Bill C-74 *Modernization of Investigative Techniques Act* tabled at the House of Commons in Canada on November 15, 2005.

## CONCLUSION

- **As satellite encryption systems become more secure, CASST will remain vigilant for other types of piracy either through fraudulent activation or peer to peer content sharing.**
- **CASST and its membership are pleased by the response of the satellite distribution industry in securing their signals.**
- **The Canadian subscriber base of authorized distribution undertakings has shown interesting growth.**
- **CASST will remain active to ensure that any piracy related activities are noticed as soon as they surface.**