1998 was a spectacular year for new beginnings. Not only were large numbers of satellites ordered, but new services were initiated.

Radio Broadcasting Is Brilliant

- Terrestrial radio has limited range and variety
  - US drivers have long commutes to work
- European consumers may also favor DARS
- Satellite broadcasting is cost effective
  - User population is not constrained by the satellites
  - Sell the same bits to multiple subscribers
- Analyses show that the business model can work

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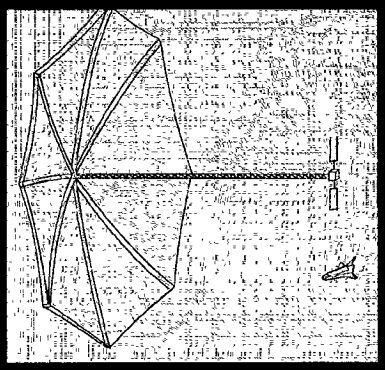
Early Satellite Radio Ideas

GEO Satellite for HF Radio



- Voice of America / NASA Shortwave (HF) Studies in 1983-4
  - Performed by MIT, TRW, and Martin Marietta
  - *LEO & GEO satellites*
  - National Research Council Review 1984-5
  - HF (26 MHz) was difficult, but S-band looked feasible

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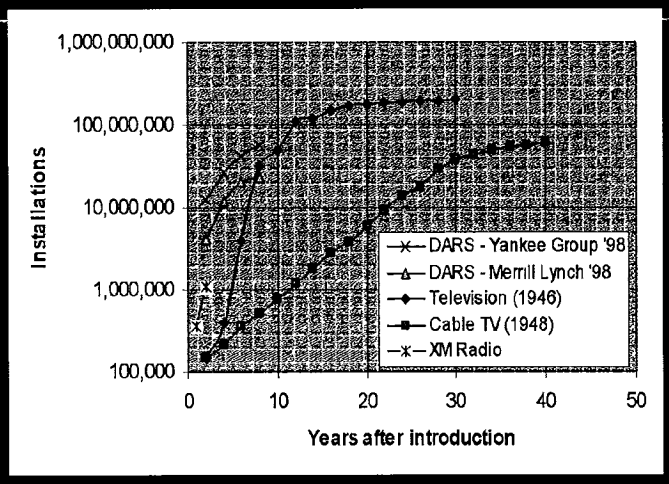
Growth Trends Favor Broadcasting



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Perfect Execution is Paramount

- Management skills will determine success
  - Sell the service and drive down costs
- Interoperable receivers could be decisive
  - Production economies for radio receivers
  - Mandated by the FCC
- Consumer acceptance is essential
  - Satellite radio must "cross the chasm"
  - Each system will need about 8 million subscribers

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