

DVB-T Network Planning issues

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SRG SSR idée suisse

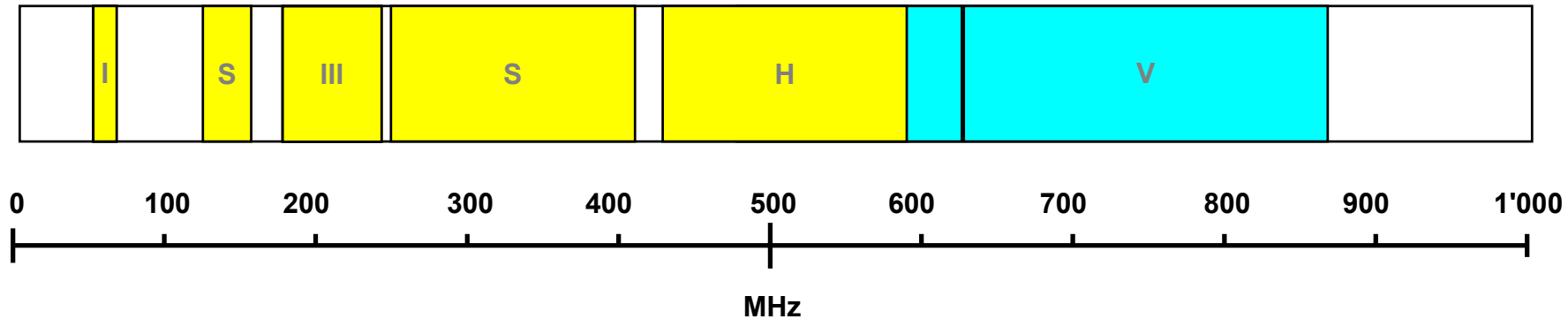


Agenda



- TVA Planning vs. DVB-T Planning
- MFN vs. SFN
- DVB-T vs. DVB-H

Die Frequenzbereiche TV



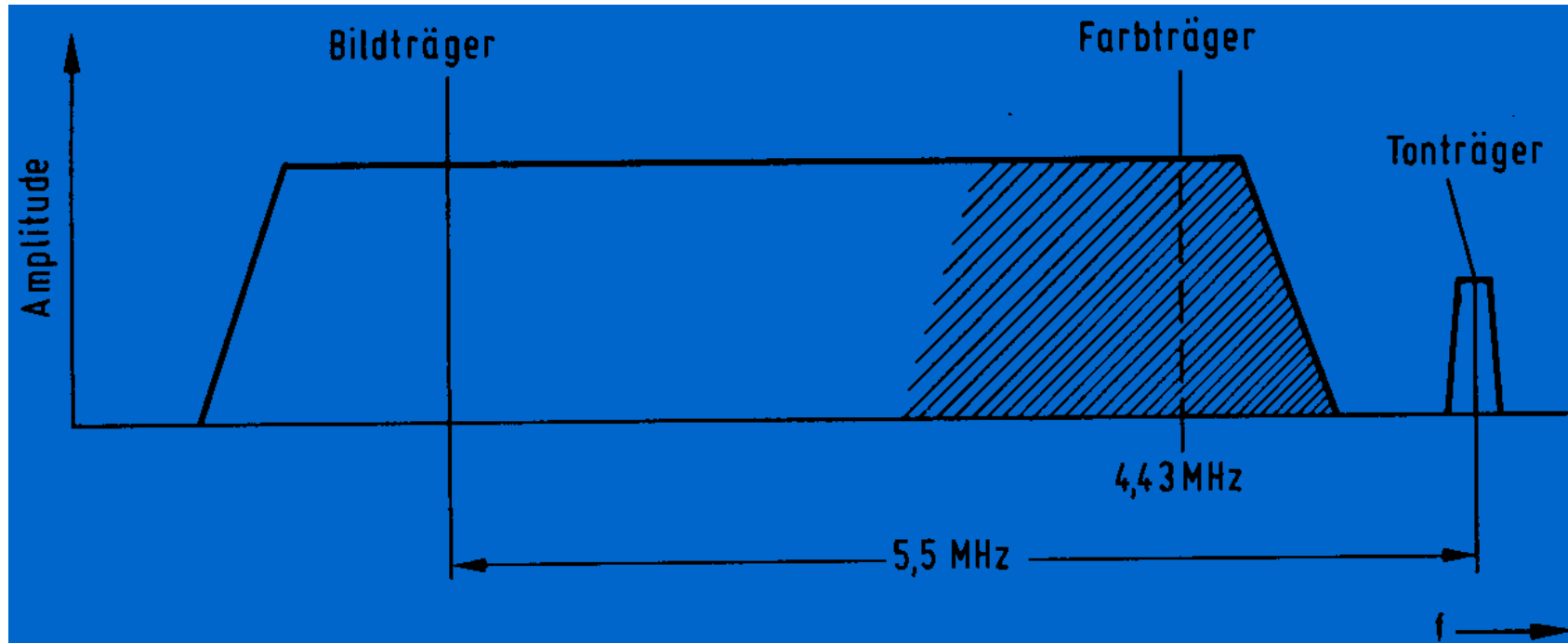
Terrestrisch

Kabel TV

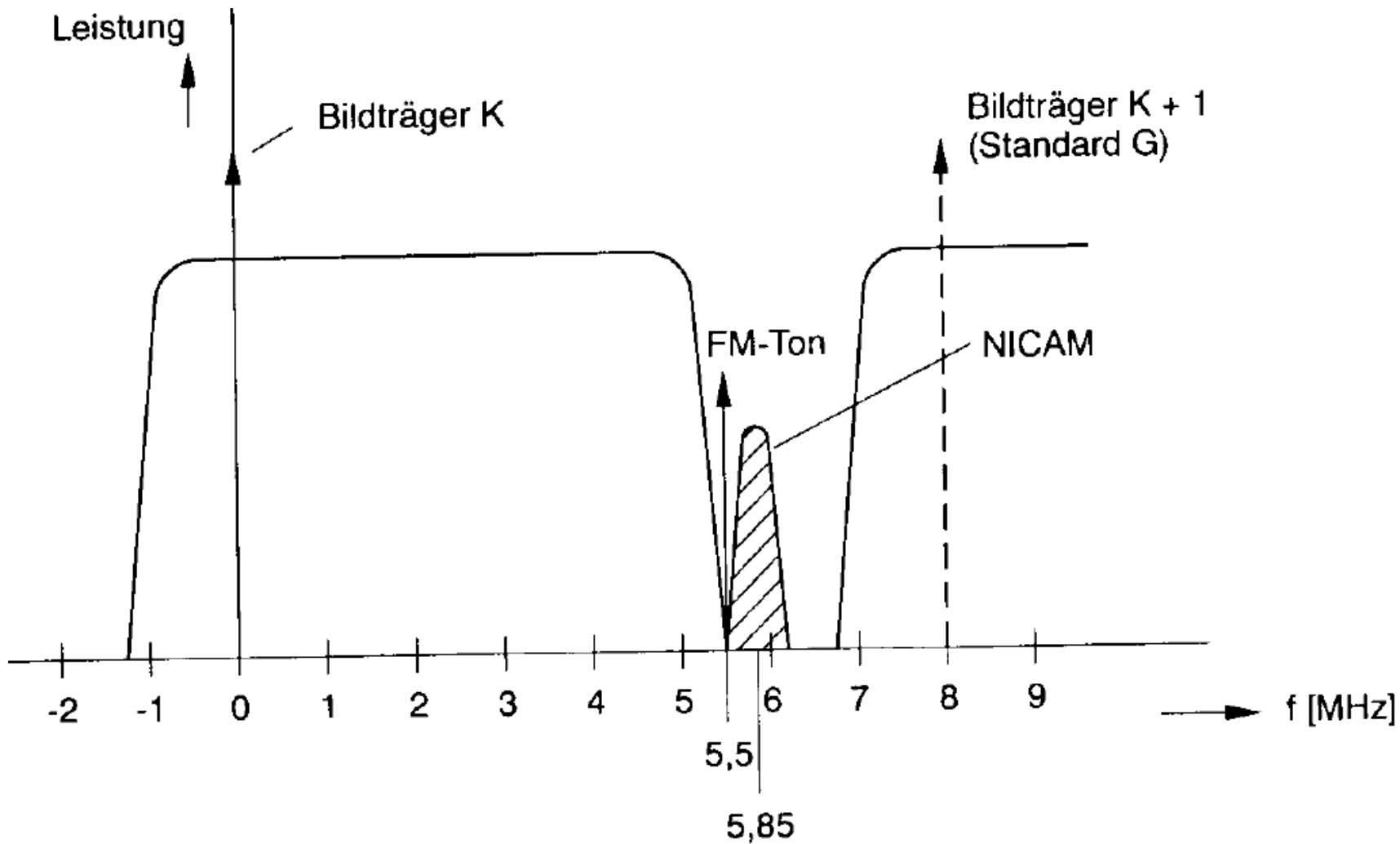
TVAnalog Network Planning

- VHF channel bandwidth 7 MHz
- UHF channel bandwidth 8 MHz
- Signal bandwidth always 7 MHz
- Fixed Outdoor Planning
- Multifrequency Networks, Assignment Planning
- No adjacent channel in same area
- Precision Offset
- Up to 6 coverages in same area

The Analog TV Channel Spectrum



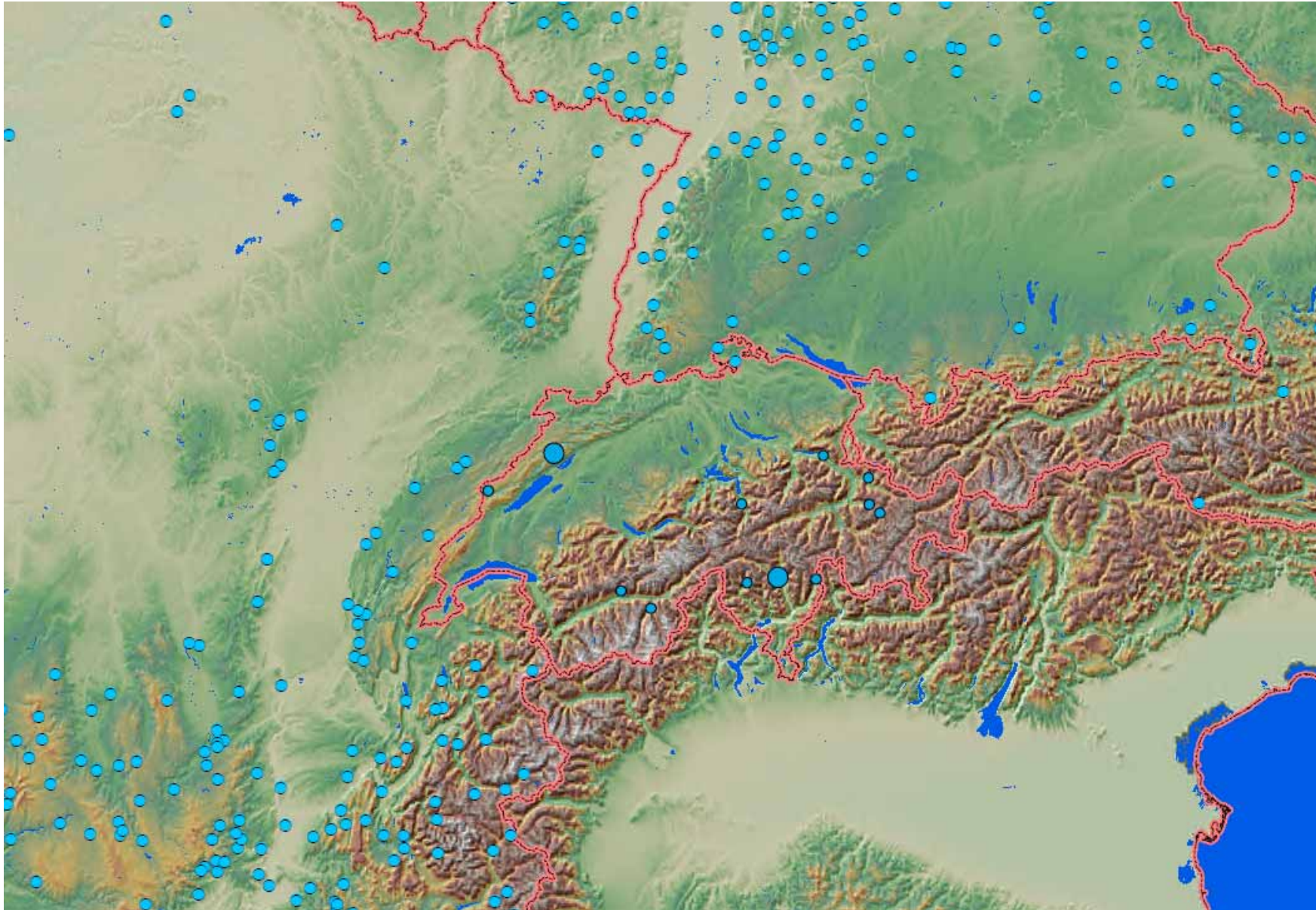
The UHF Raster



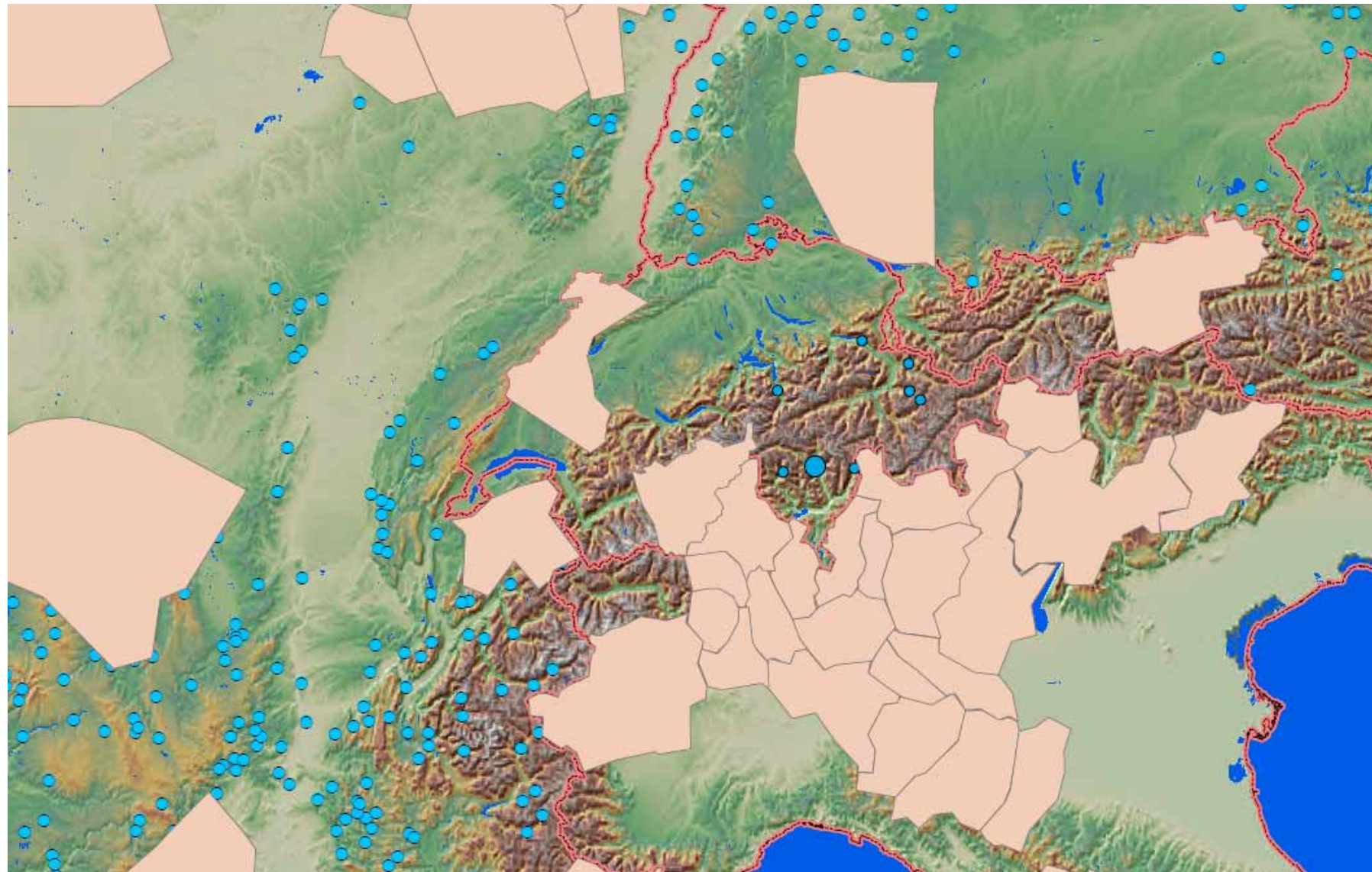
DVB-T Network Planning

- 8 MHz Bandwidth
- Up to 9dB more power within the channel
- MFN or SFN Planning possible
- When SFN same frequency in large area (Allotment)
- Adjacent channel in same area possible
- Fixed Outdoor, Portable Outdoor, Portable Indoor
- Up to 10 coverages in same area

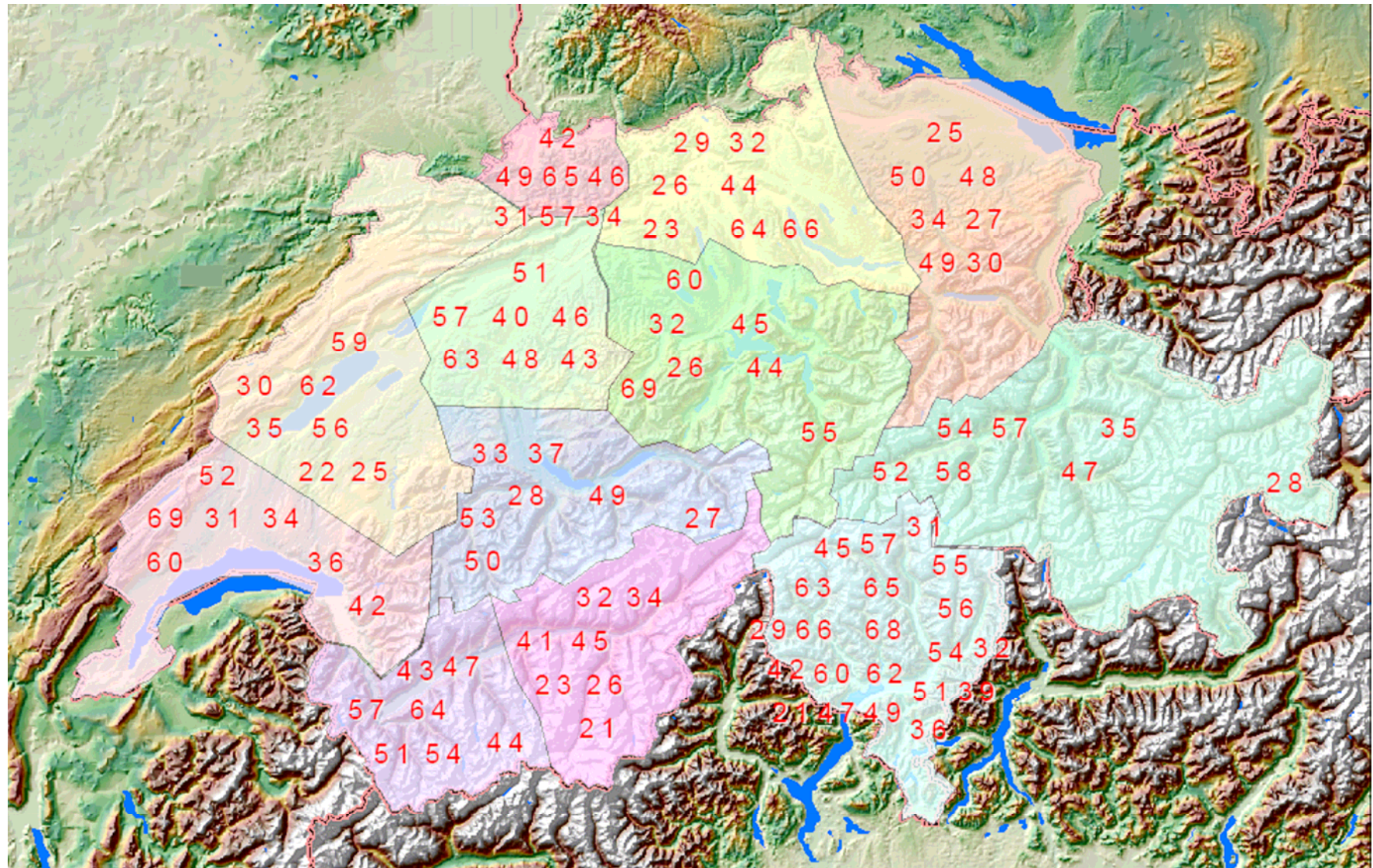
Analog Distribution Ch. 22



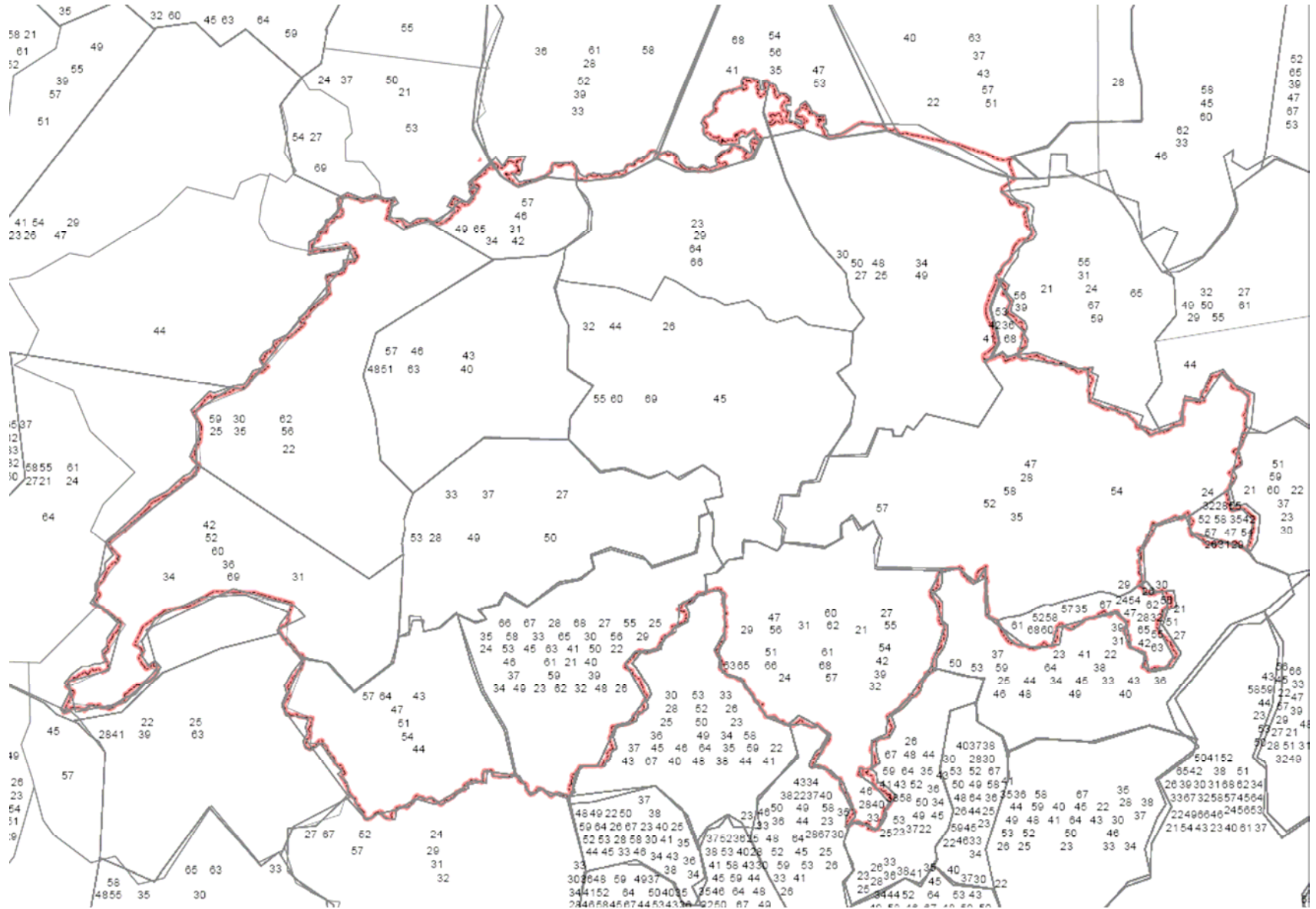
DVB-T Distribution Ch. 22



Swiss DVB-T Allotments



DVB-T Frequency Distribution



DVB-T vs. DVB-H

- Min Fieldstrength

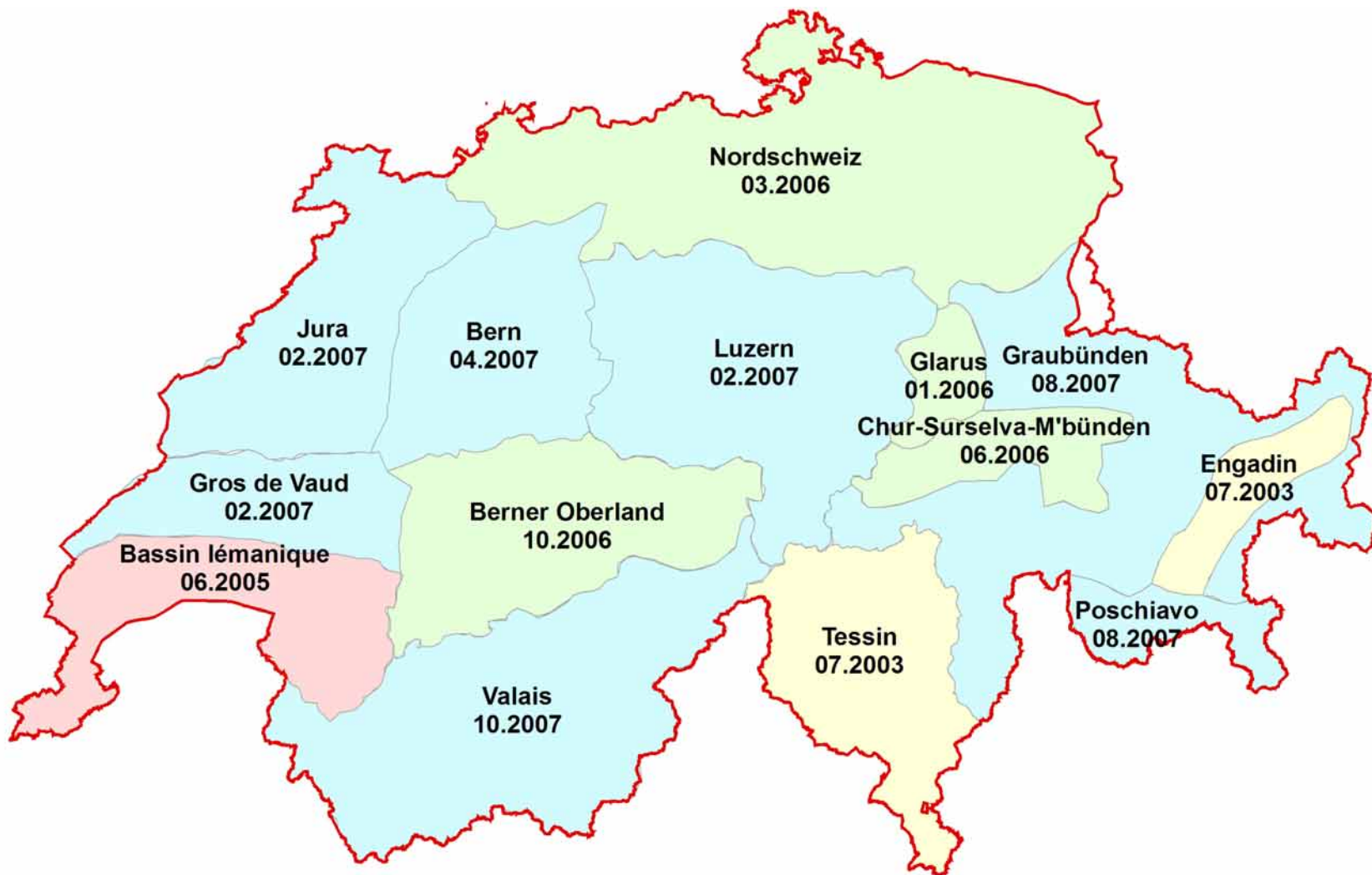
TVA	70 dBuV/m
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DVB-T	80 dBuV/m
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DVB-H	105 dBuV/m
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- DVB-H network more power on transmitters or dense network

DVB-T/DVB-H Timetables



Stand 18.12.2006

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DVB-T eliminates the 1 MHz gap.

DVB-T brings denser Frequency occupation than analog TV.

DVB-T has higher field strength than analog TV.