Reanalysis of buffer zones
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From Rob Millenaar:

1) Farms, farmsteads and buildings
Wall attenuation: The SPDO aims to apply a wall attenuation halfway between the 0 (position Australia) and 10 dB (South Africa), a linear factor of 5 (or 7 dB), for those devices that would benefit from any wall attenuation, i.e. used inside a dwelling. In the mix of tools and appliances that would concern only the 7 ordinary household appliances, the 2 tools less than 700W and 1 tool 700-1000W. Obviously not to the vehicle and the tool >1000W. This is a practical way to avoid having to do measurements.
Antenna height: The SPDO also follows the recommendation to use 1.5 meter as radiator antenna height instead of the current 2 meter.

Using the following inputs (new values are underlined):

7 household appliances
2 tools < 700 W
1 tool 700 – 1000 W
<u>7 dB attenuation applied to above</u>
1 tool > 1000 W
1 vehicle with 20 dB reduction from standards
<u>1.5 m height of interfering sources</u> rather than 2 m

Results:

Class	Number of people	Households	Clutter due to town (dB)	Old buffer zone (km)	New buffer zone (km)
Farm/homestead		1	0	13.5	10.5
Town grade 1	< 100	7	0	21	16.5
Town grade 2	100 – 1000	67	5	27	21
Town grade 3	1000 – 5000	350	10	31	23.5
Town grade 4	> 5000	700	10	37.5	28

2) Rail
A final recommendation concerns the use of realistic (lower than 0 dBi at the horizon) antenna gains for aperture arrays. However we have argued that the mask buffer zones were those for dishes at 300 MHz because levels were less at lower frequencies. This is true for all types of EMI, except for rail. We should redo the analysis for rail, using the more appropriate antenna gains for aperture arrays.
In the receiver saturation considerations document Dave DeBoer et al have used -29dBi (@70MHz) to -10 dBi (@300MHz), and we should use the same specification.

Results:
Major rail: buffer reduces from 30.5 km to 12.5 km.
Minor rail: buffer reduces from 10.5 km to 3.3 km. As before, this assumes that 5% of the time, interference from rail engines passing near the telescope site will be allowed to cause interference. If a "no interference" criteria is applied, the buffer zone (using the new antenna assumptions) is 7.5 km (where it would have been 12.5 km with the old antenna assumptions).