



Appendix B

4.9 GHz Mask Scenarios

Prepared for NPSTC Petition for Reconsideration
3rd Report & Order, FCC WTB Docket 00-32

by

Sean O'Hara

Syracuse Research Corporation



Case I

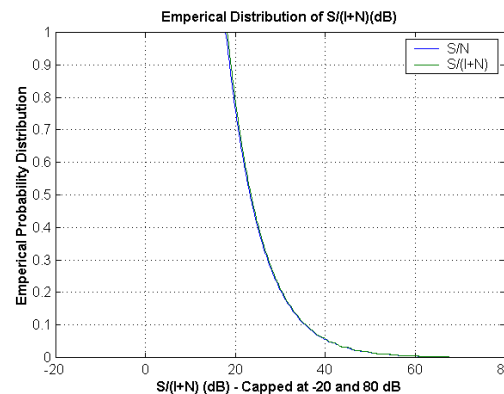
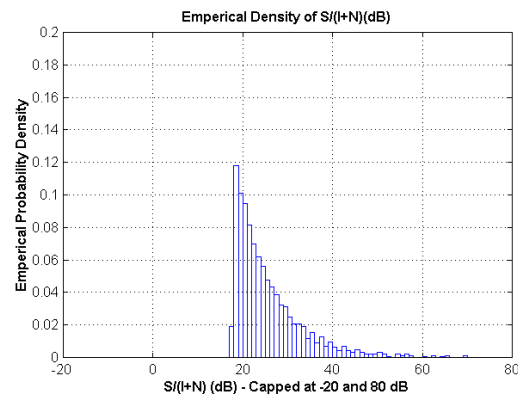
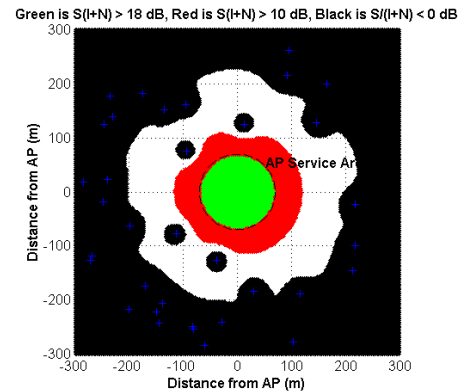
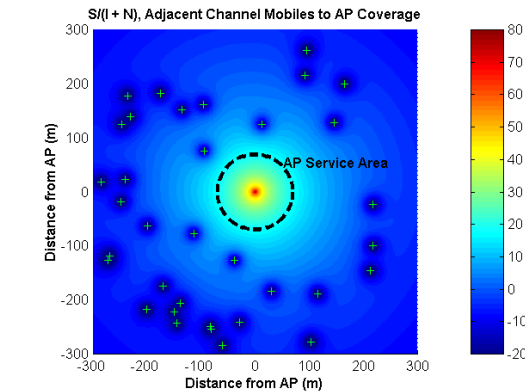
Adjacent Interferers Outside Service Area

25 dB ACCPR

Parameter values used:

AP ERP (dBm): 33
 Mobile ERP (dBm): 26
 Number of Mobile Interferers: 35
 AP Service Area (m): 70
 Domain Area (m): 300
 ACCPR: 25 dB
 Receiver Noise Floor: -96 dBm
 AP Path Loss Exponent: 3.5
 Mobile Path Loss Exponent: 3.5

Mean S(I+N) inside AP Service Area: 25.5487
 Median S(I+N) inside AP Service Area: 23.2802
 98 % of the S(I+N) values in AP Service Area > 18 dB
 100 % of the S/N values in AP Service Area > 18 dB



Case I

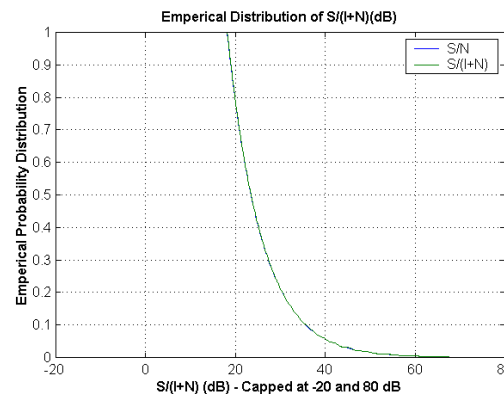
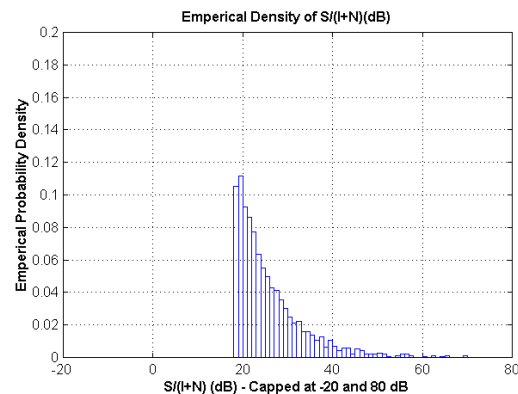
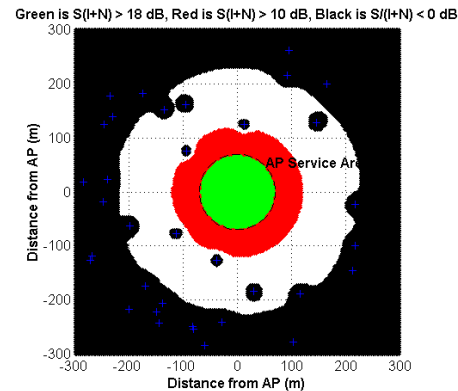
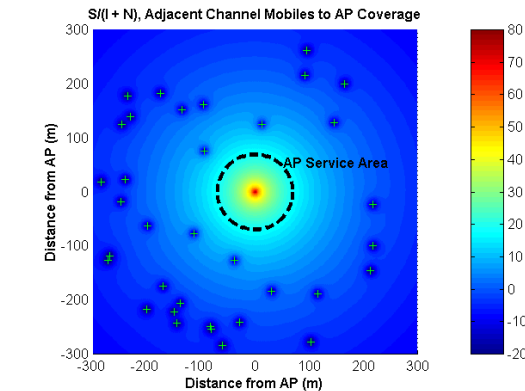
Adjacent Interferers Outside Service Area

35 dB ACCPR

Parameter values used:

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 Mobile ERP (dBm): 26
 Number of Mobile Interferers: 35
 AP Service Area (m): 70
 Domain Area (m): 300
 ACCPR: 35 dB
 Receiver Noise Floor: -96 dBm
 AP Path Loss Exponent: 3.5
 Mobile Path Loss Exponent: 3.5

Mean $S(I+N)$ inside AP Service Area: 25.7528
 Median $S(I+N)$ inside AP Service Area: 23.4333
 100 % of the $S(I+N)$ values in AP Service Area > 18 dB
 100 % of the S/N values in AP Service Area > 18 dB



Case I

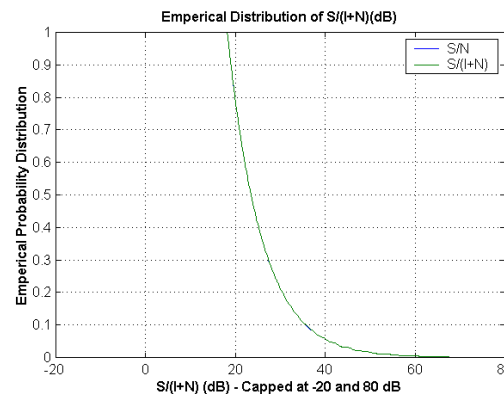
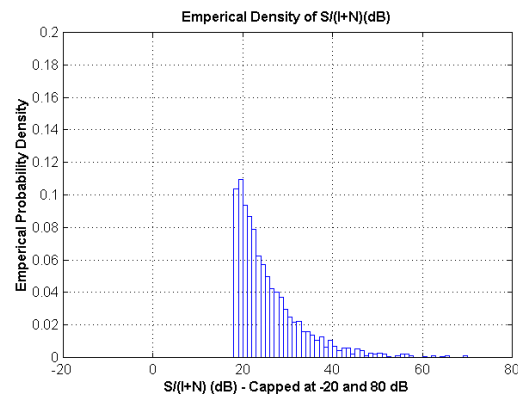
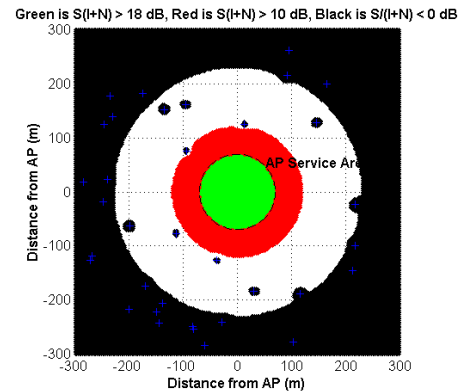
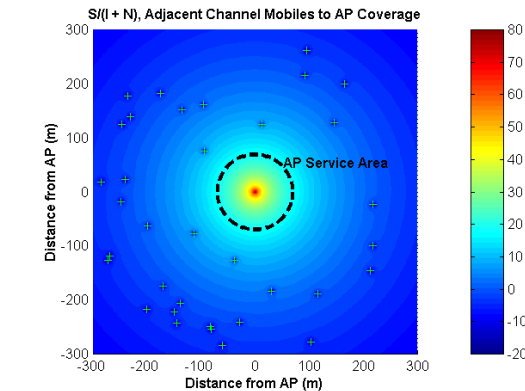
Adjacent Interferers Outside Service Area

45 dB ACCPR

Parameter values used:

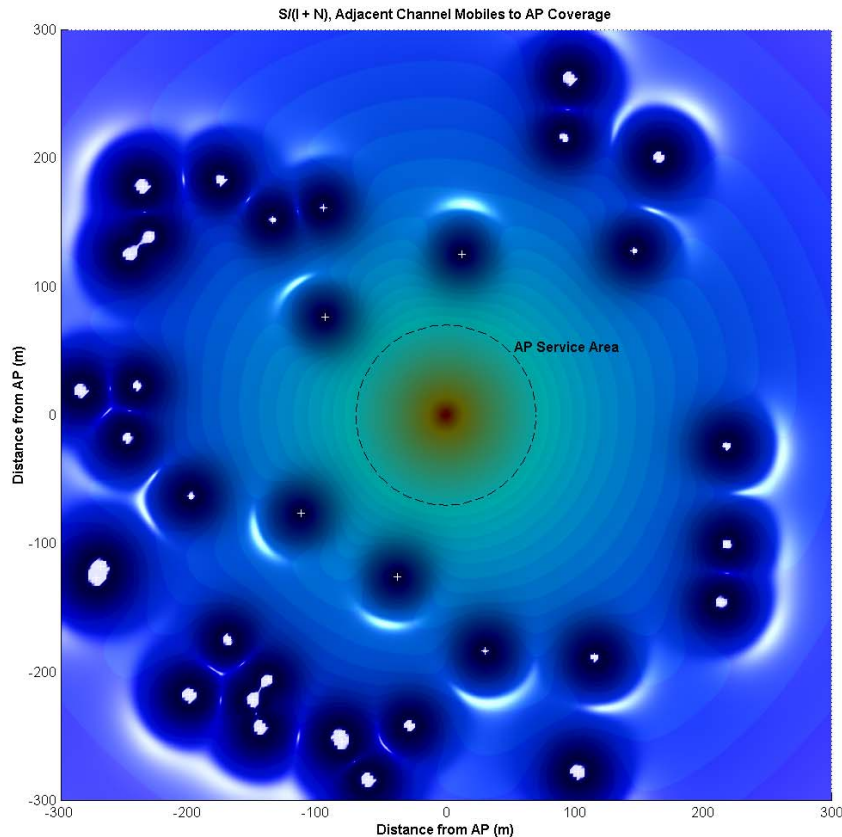
AP ERP (dBm): 33
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 Number of Mobile Interferers: 35
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 Domain Area (m): 300
 ACCPR: 45 dB
 Receiver Noise Floor: -96 dBm
 AP Path Loss Exponent: 3.5
 Mobile Path Loss Exponent: 3.5

Mean S(I+N) inside AP Service Area: 25.7738
 Median S(I+N) inside AP Service Area: 23.4504
 100 % of the S(I+N) values in AP Service Area > 18 dB
 100 % of the S/N values in AP Service Area > 18 dB



Case I

Adjacent Interferers Outside Service Area



25 dB ACCPR

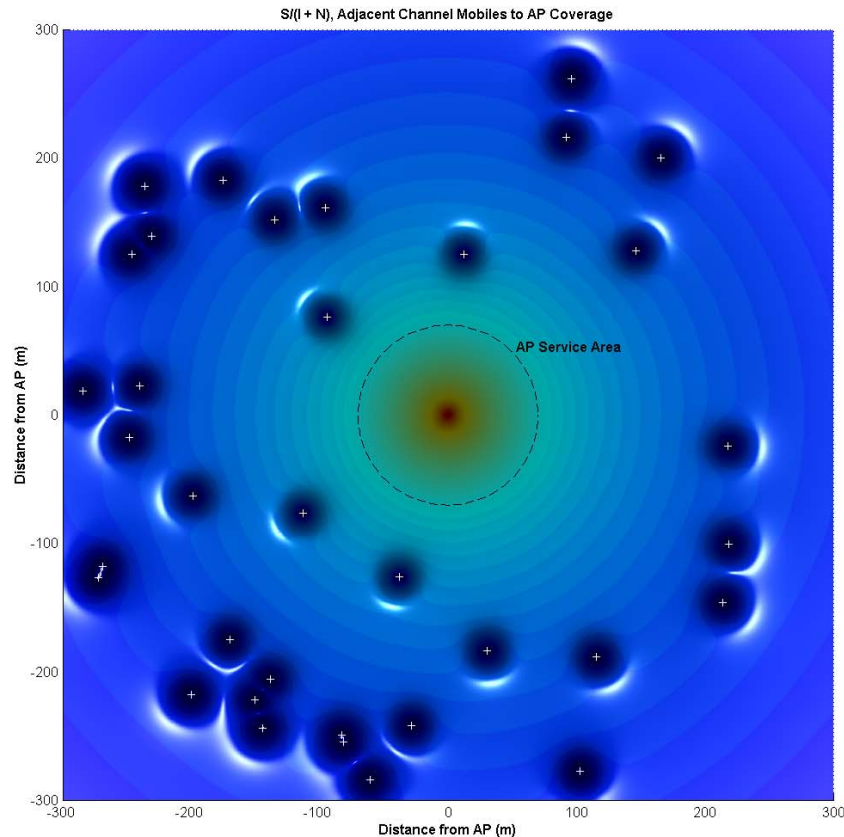
Parameter values used:

AP ERP (dBm): 33
Mobile ERP (dBm): 26
Number of Mobile Interferers: 35
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Case I

Adjacent Interferers Outside Service Area



35 dB ACCPR

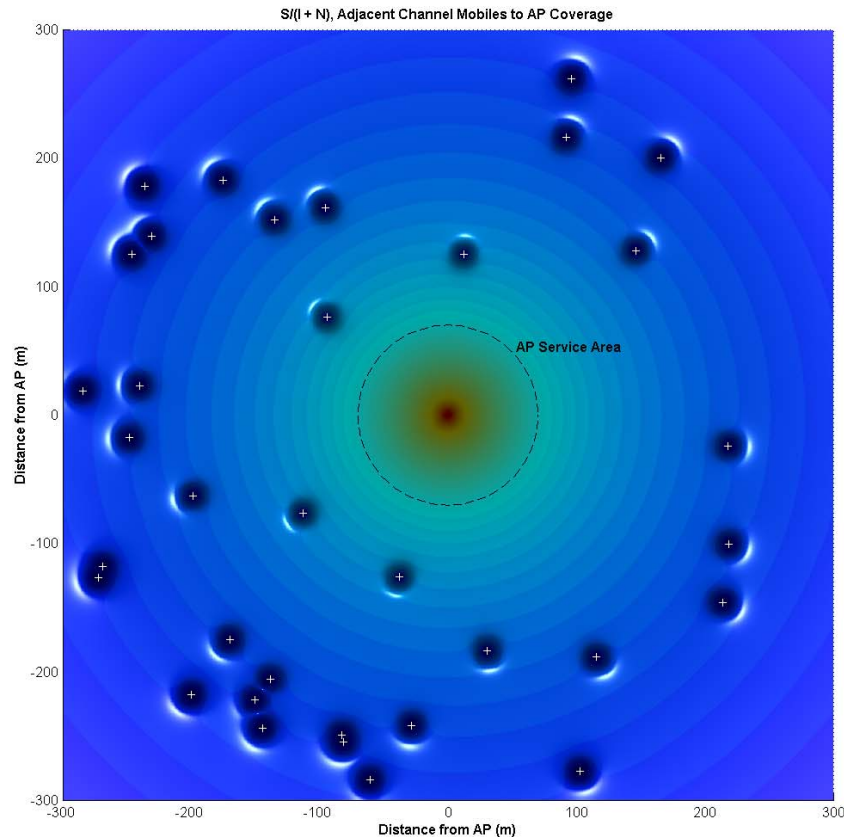
Parameter values used:

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Adjacent Interferers Outside Service Area



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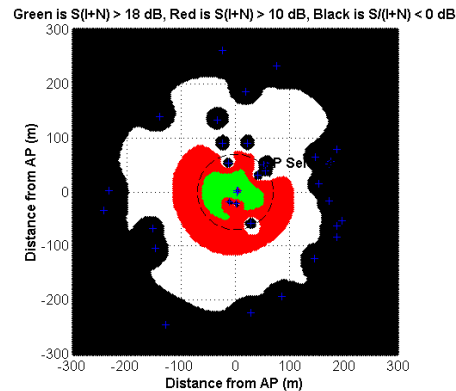
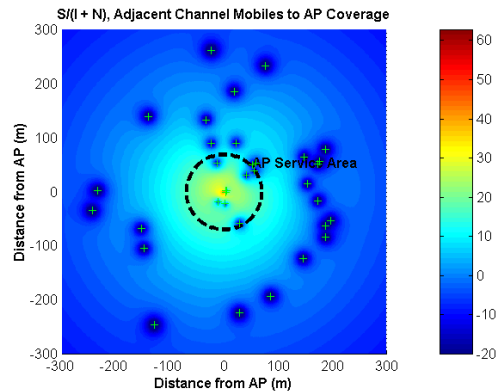
Parameter values used:

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100 % of the S(I+N) values in AP Service Area > 18 dB
100 % of the S/N values in AP Service Area > 18 dB

Case II

Adjacent Interferers Everywhere

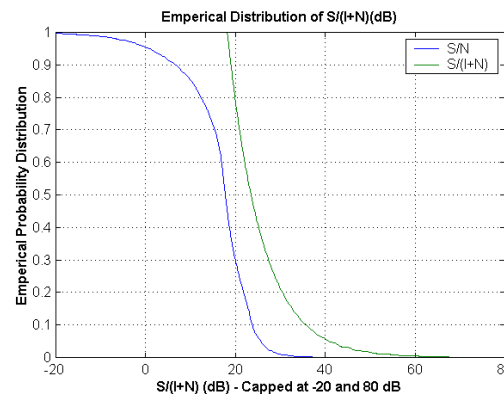
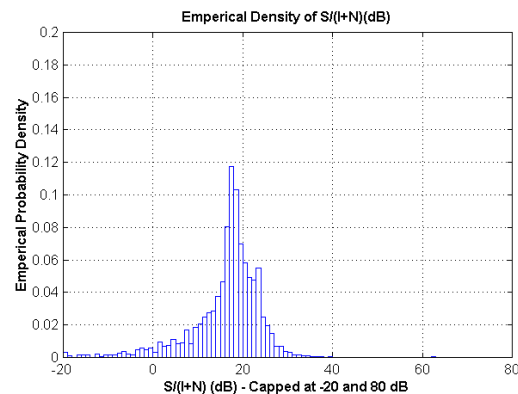


25 dB ACCPR

Parameter values used:

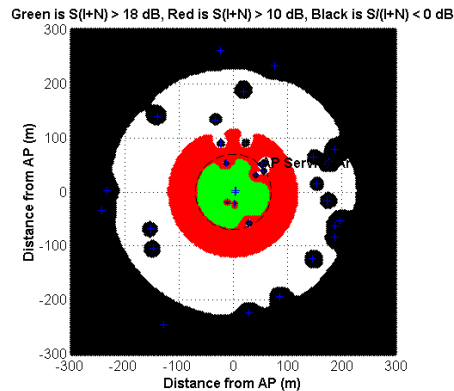
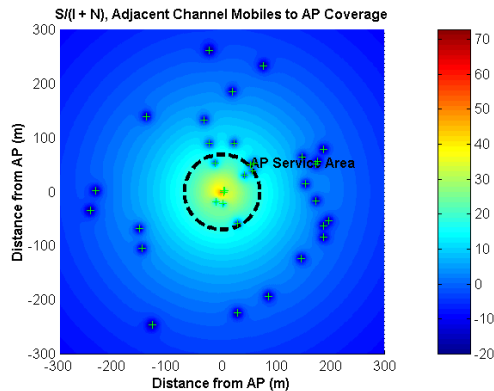
AP ERP (dBm): 33
 Mobile ERP (dBm): 26
 Number of Mobile Interferers: 35
 AP Service Area (m): 70
 Domain Area (m): 300
 ACCPR: 25 dB
 Receiver Noise Floor: -96 dBm
 AP Path Loss Exponent: 3.5
 Mobile Path Loss Exponent: 3.5

Mean $S(I+N)$ inside AP Service Area: 16.377
 Median $S(I+N)$ inside AP Service Area: 17.7435
 47 % of the $S(I+N)$ values in AP Service Area > 18 dB
 100 % of the S/N values in AP Service Area > 18 dB



Case II

Adjacent Interferers Everywhere

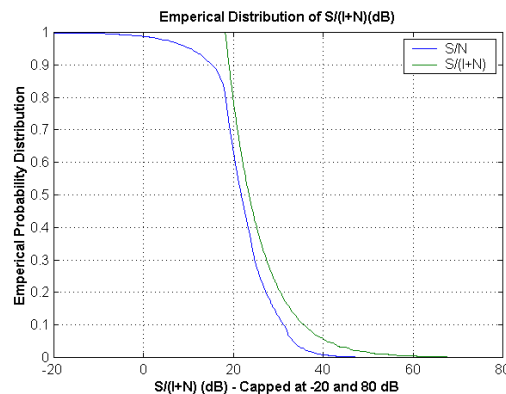
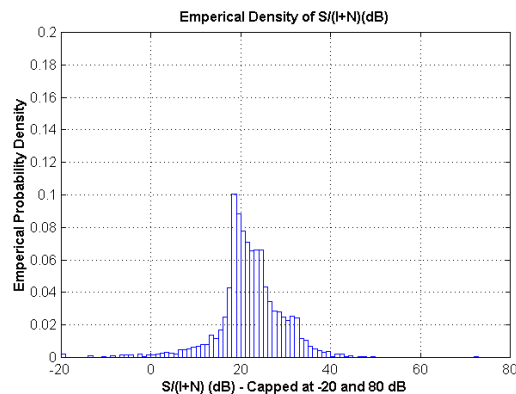


35 dB ACCPR

Parameter values used:

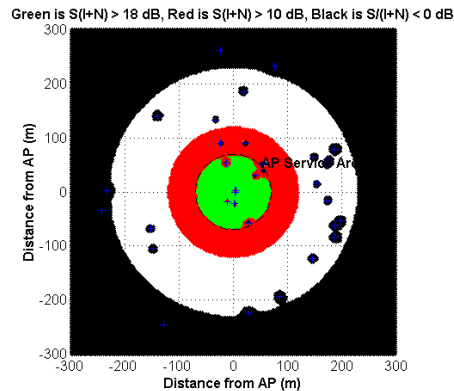
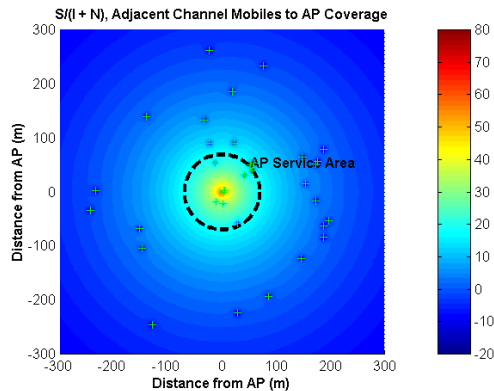
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 Number of Mobile Interferers: 35
 AP Service Area (m): 70
 Domain Area (m): 300
 ACCPR: 35 dB
 Receiver Noise Floor: -96 dBm
 AP Path Loss Exponent: 3.5
 Mobile Path Loss Exponent: 3.5

Mean $S(I+N)$ inside AP Service Area: 22.0757
 Median $S(I+N)$ inside AP Service Area: 21.7189
 82 % of the $S(I+N)$ values in AP Service Area > 18 dB
 100 % of the S/N values in AP Service Area > 18 dB



Case II

Adjacent Interferers Everywhere

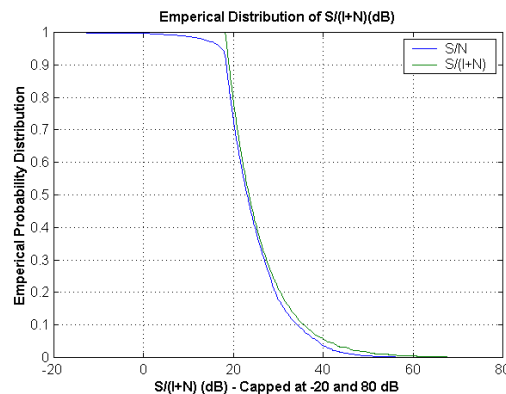
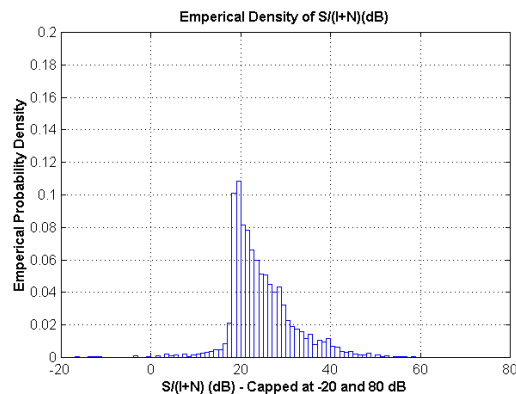


45 dB ACCPR

Parameter values used:

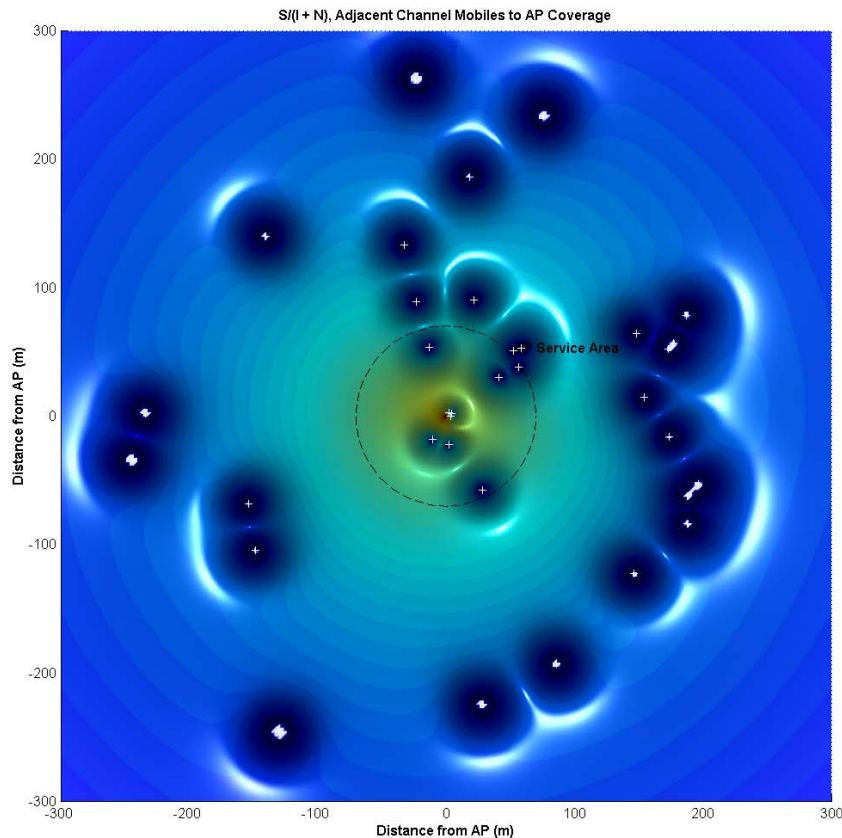
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 Number of Mobile Interferers: 35
 AP Service Area (m): 70
 Domain Area (m): 300
 ACCPR: 45 dB
 Receiver Noise Floor: -96 dBm
 AP Path Loss Exponent: 3.5
 Mobile Path Loss Exponent: 3.5

Mean $S(I+N)$ inside AP Service Area: 24.5726
 Median $S(I+N)$ inside AP Service Area: 23.0011
 94 % of the $S(I+N)$ values in AP Service Area > 18 dB
 100 % of the S/N values in AP Service Area > 18 dB



Case II

Adjacent Interferers Everywhere



25 dB ACCPR

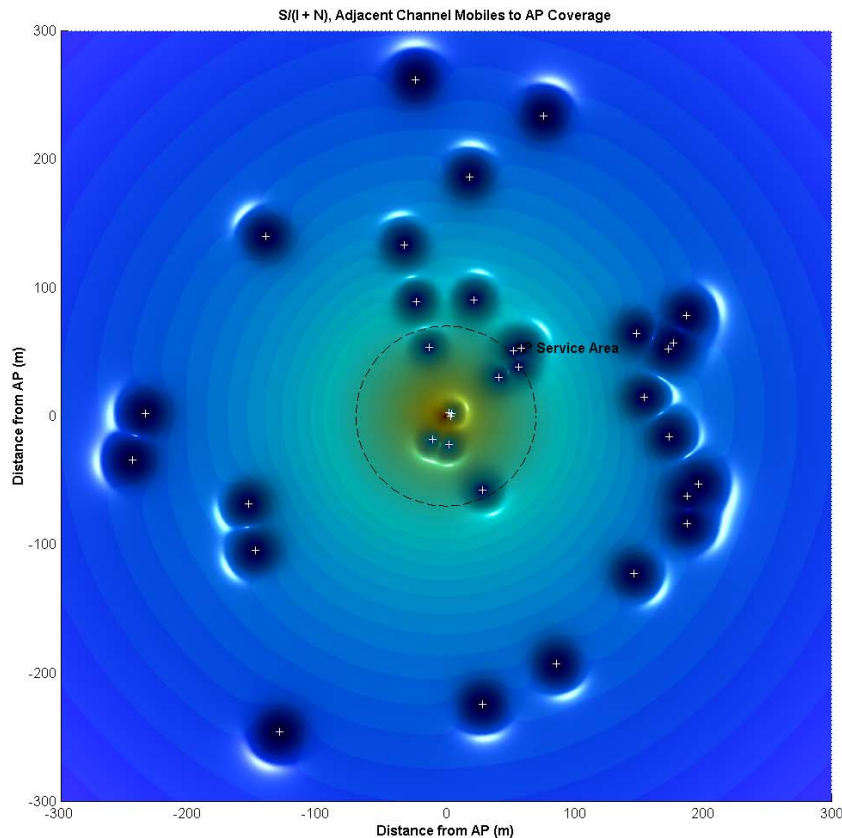
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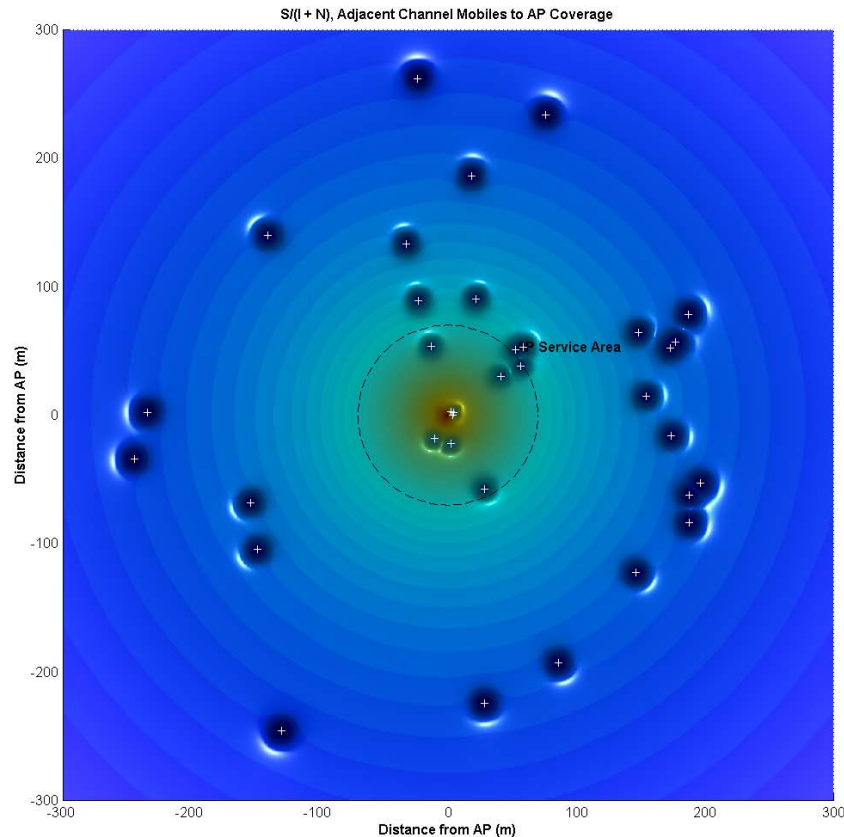
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Adjacent Interferers Everywhere



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