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# Scenario of a Nuclear Detonation

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*Senior Scientists, Norwegian Defence Research Establishment*

*Humanitarian Impact of Nuclear Weapons, Oslo, 4–5 March 2013*

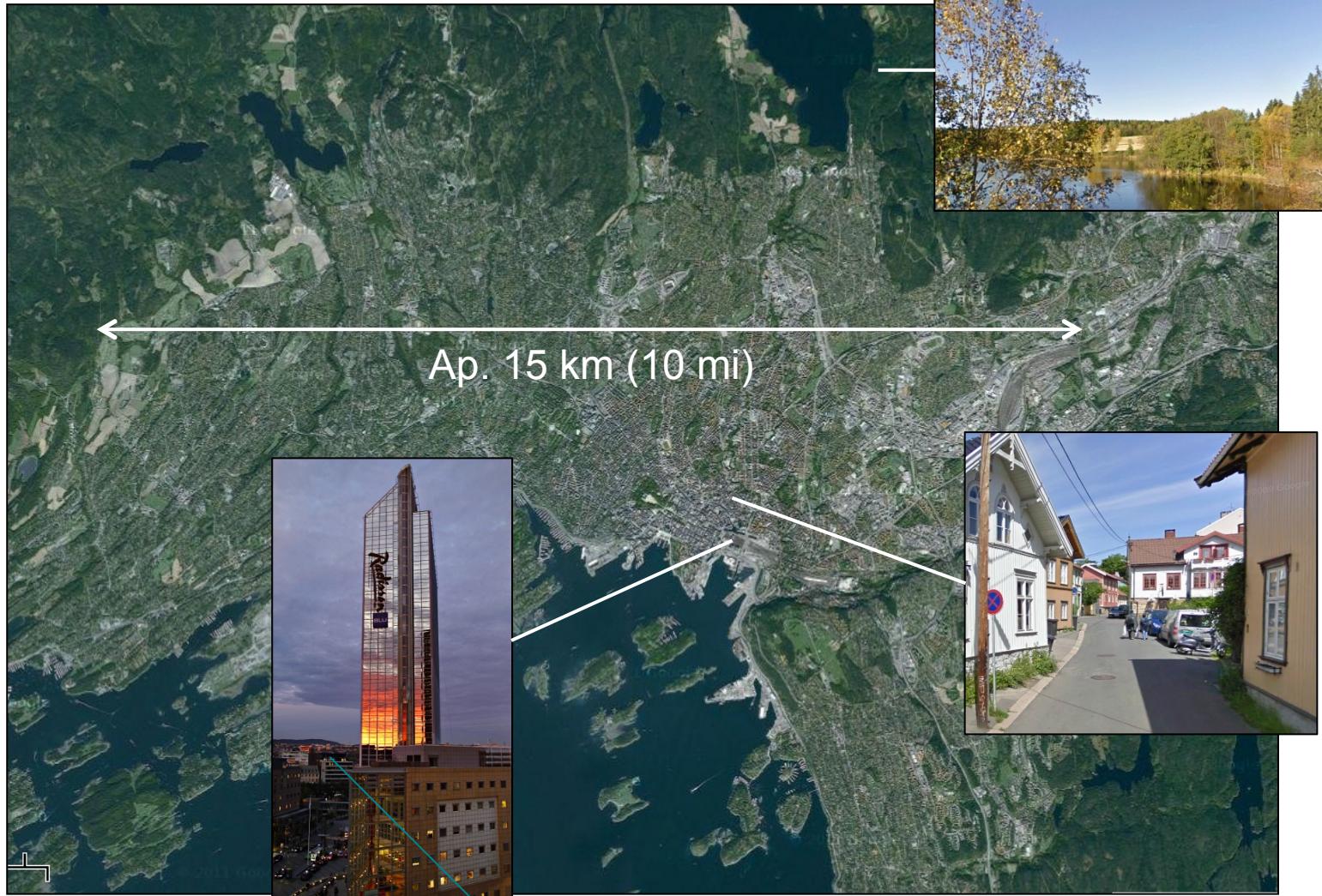
# Calculations

- Calculations on the effects a nuclear detonation would have in Oslo
  - Four cases: 1 kt, 20 kt (surface and airburst), 1 Mt
- The calculations are made at the FFI, using HPAC
  - HPAC is package of software modules and legacy codes
  - Developed by the U.S. Defense Threat Reduction Agency.



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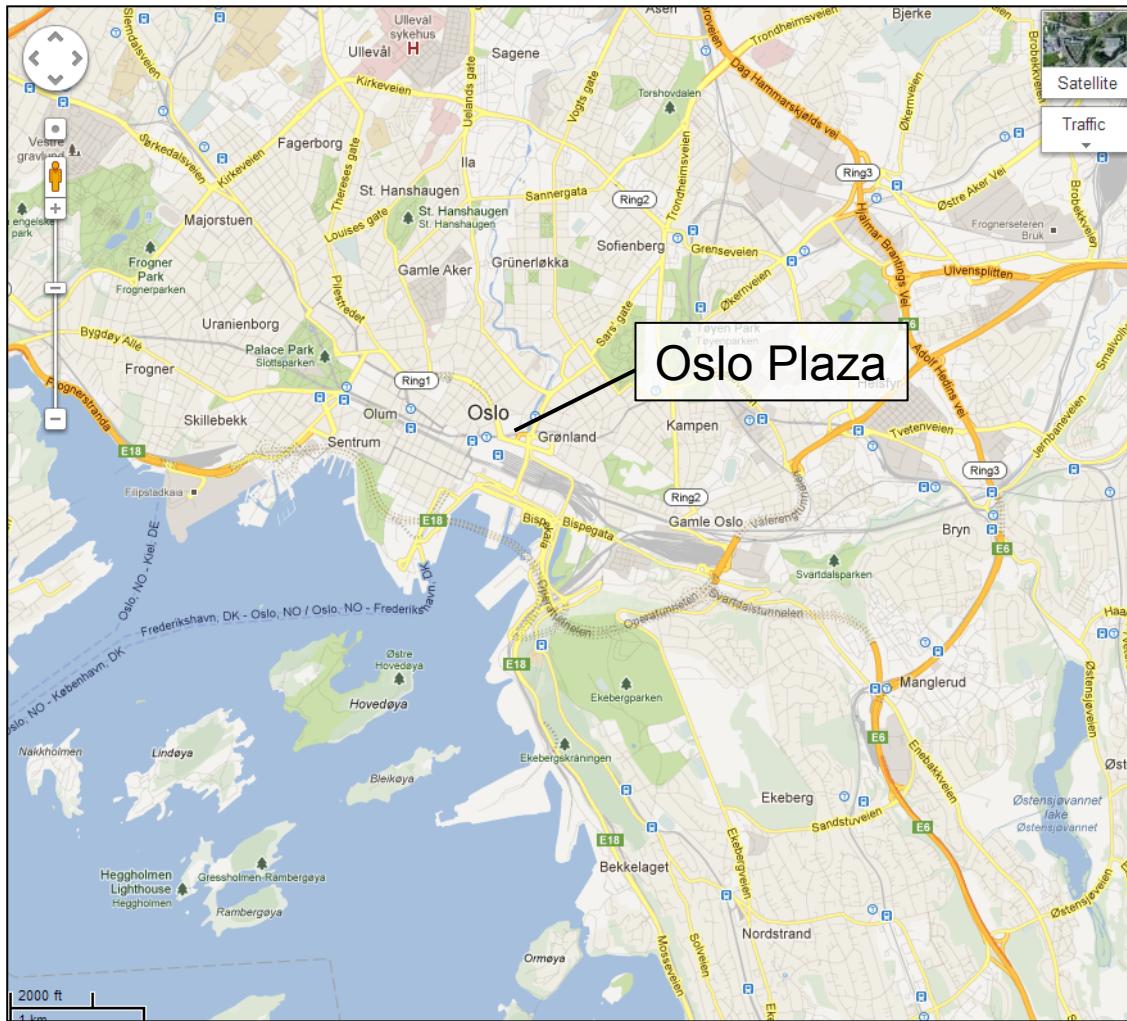
# Oslo



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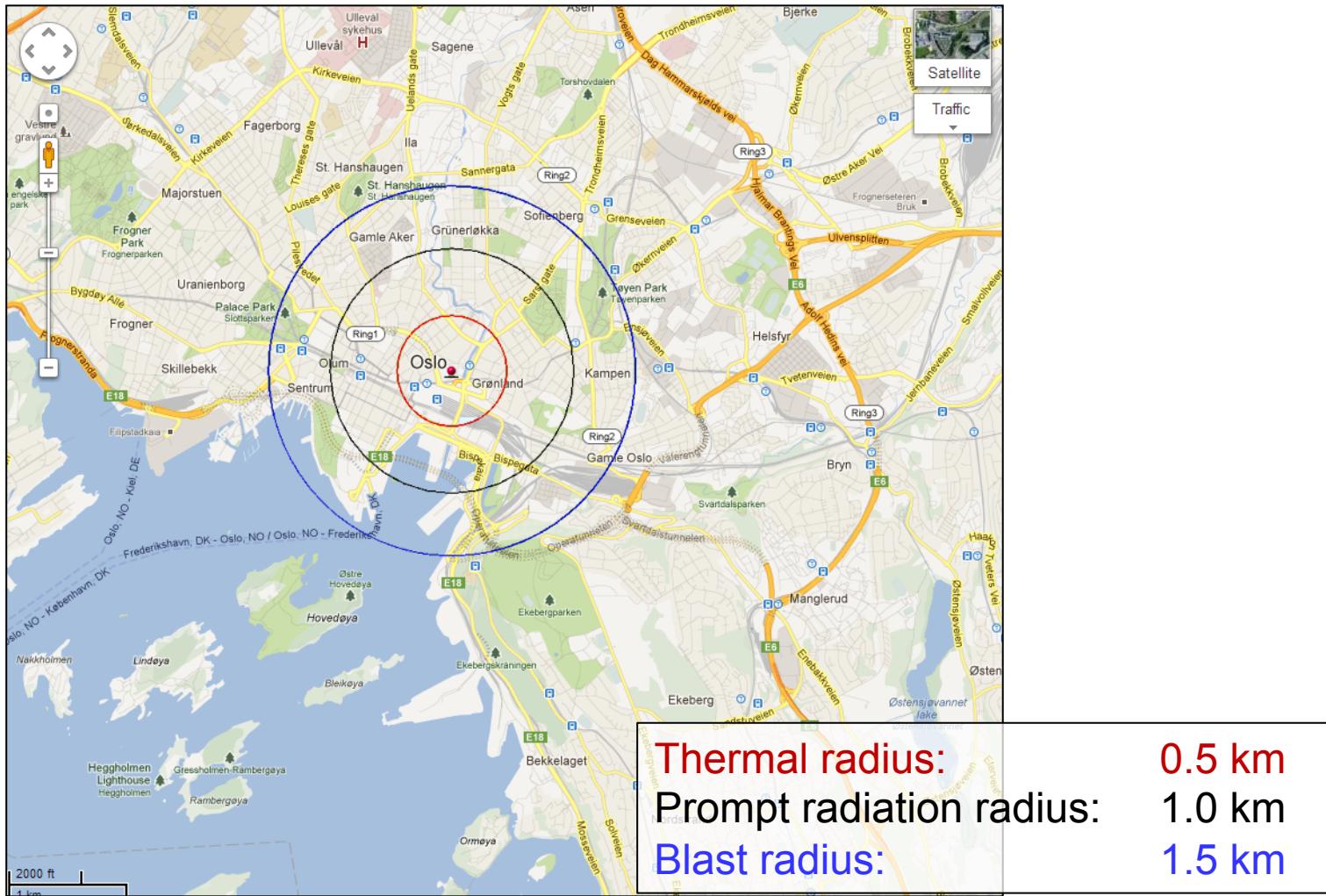
# Oslo



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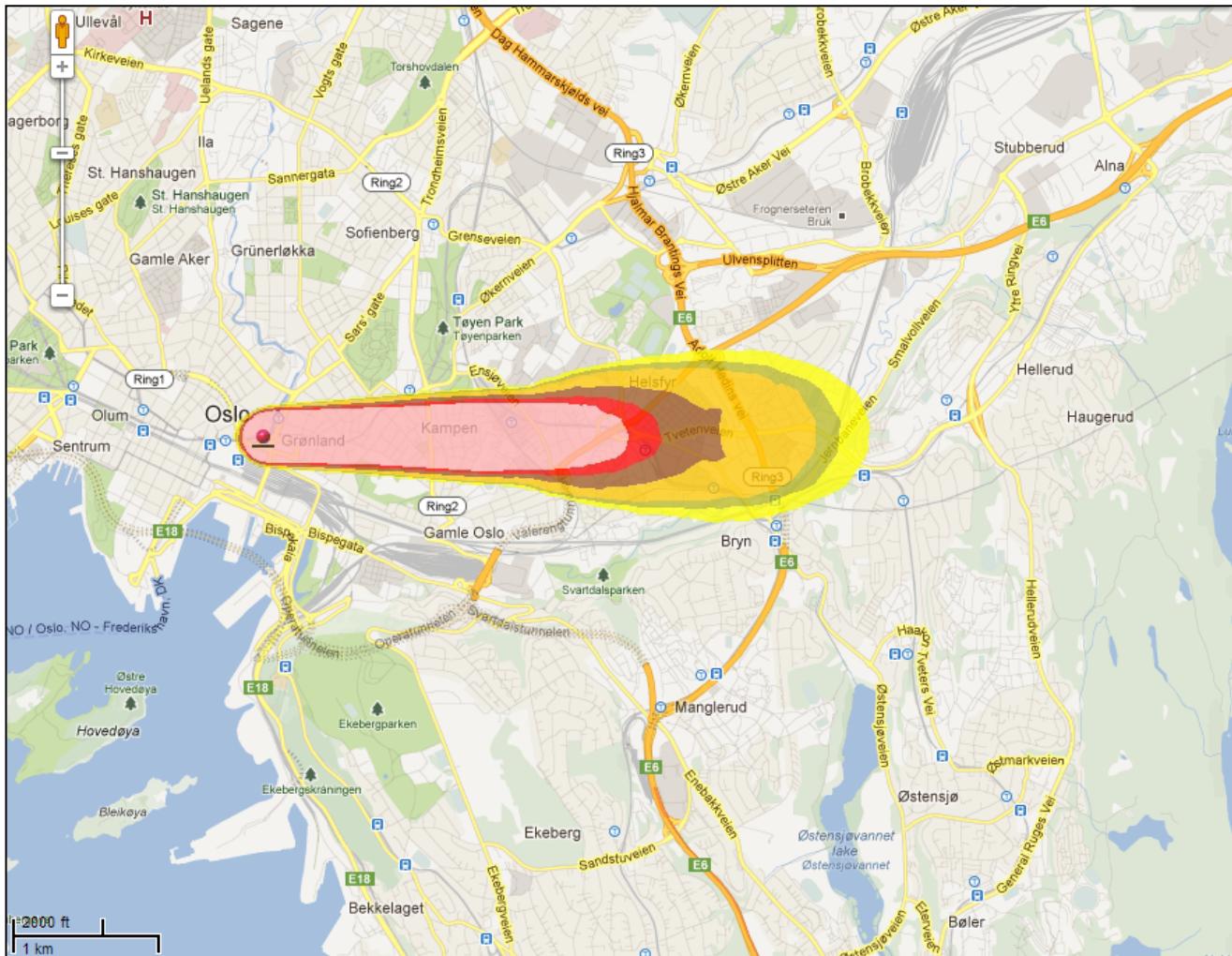
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# 1 kt, surface burst



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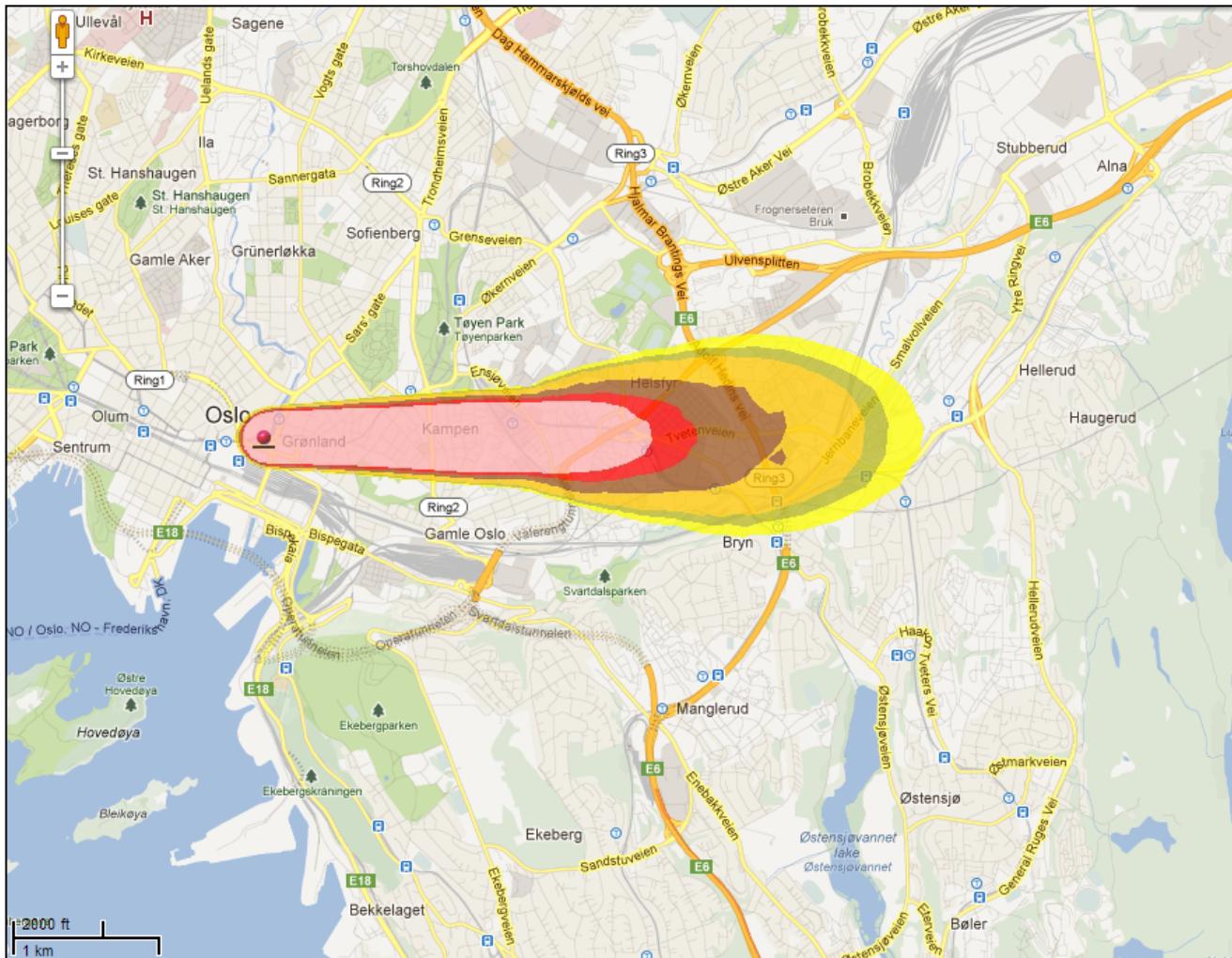
# 1 kt, 1 hour after



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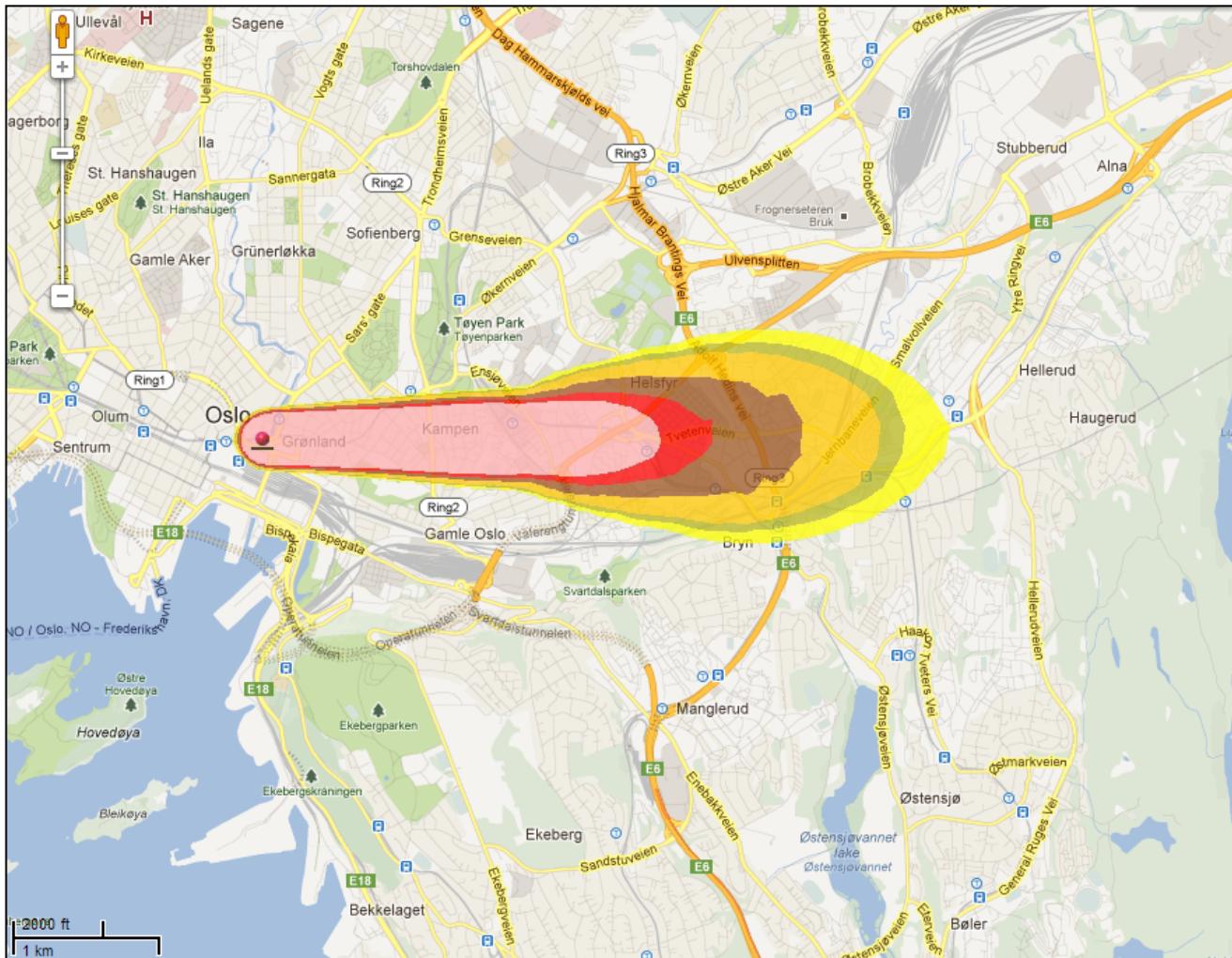
# 4 hours



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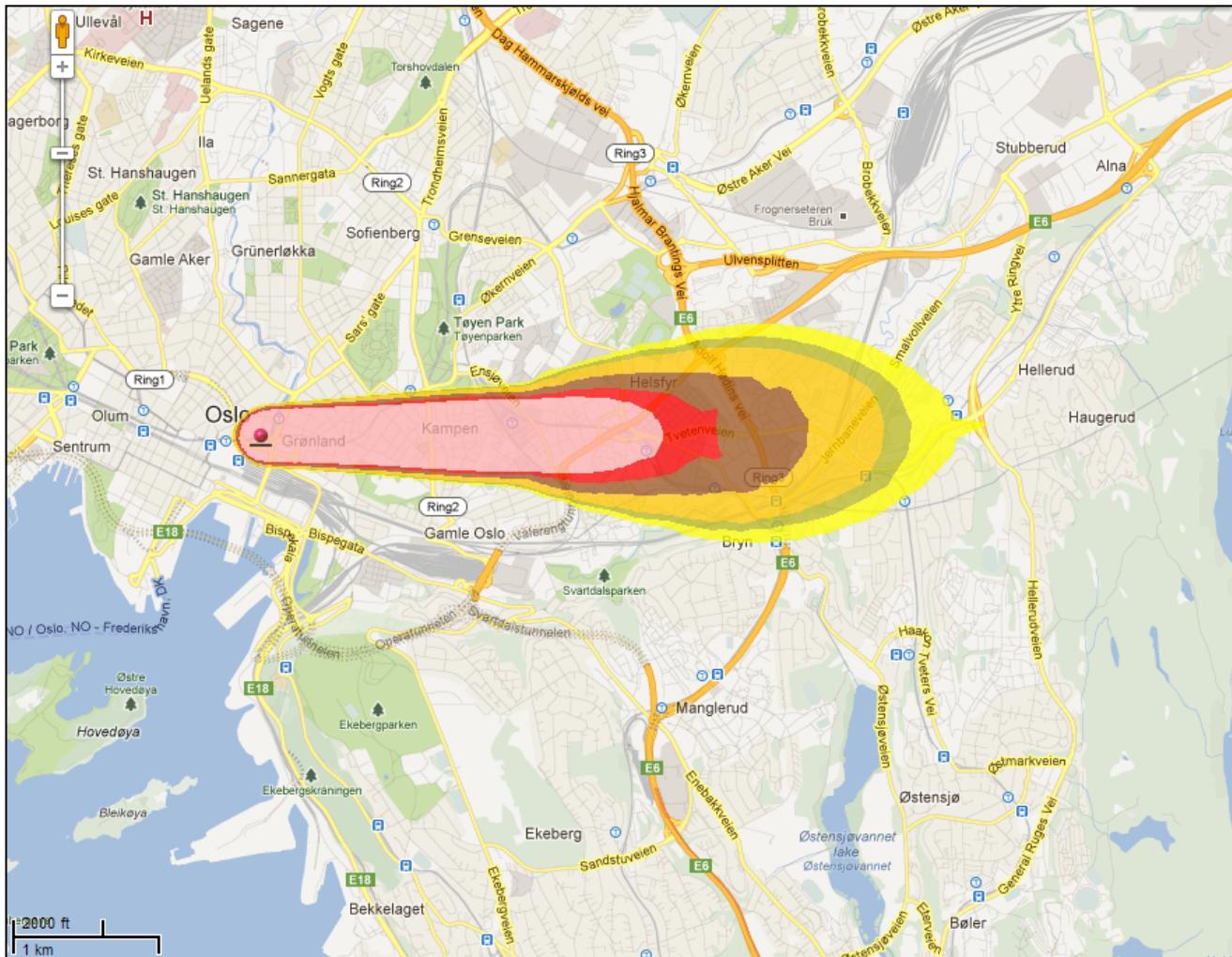
# 10 hours



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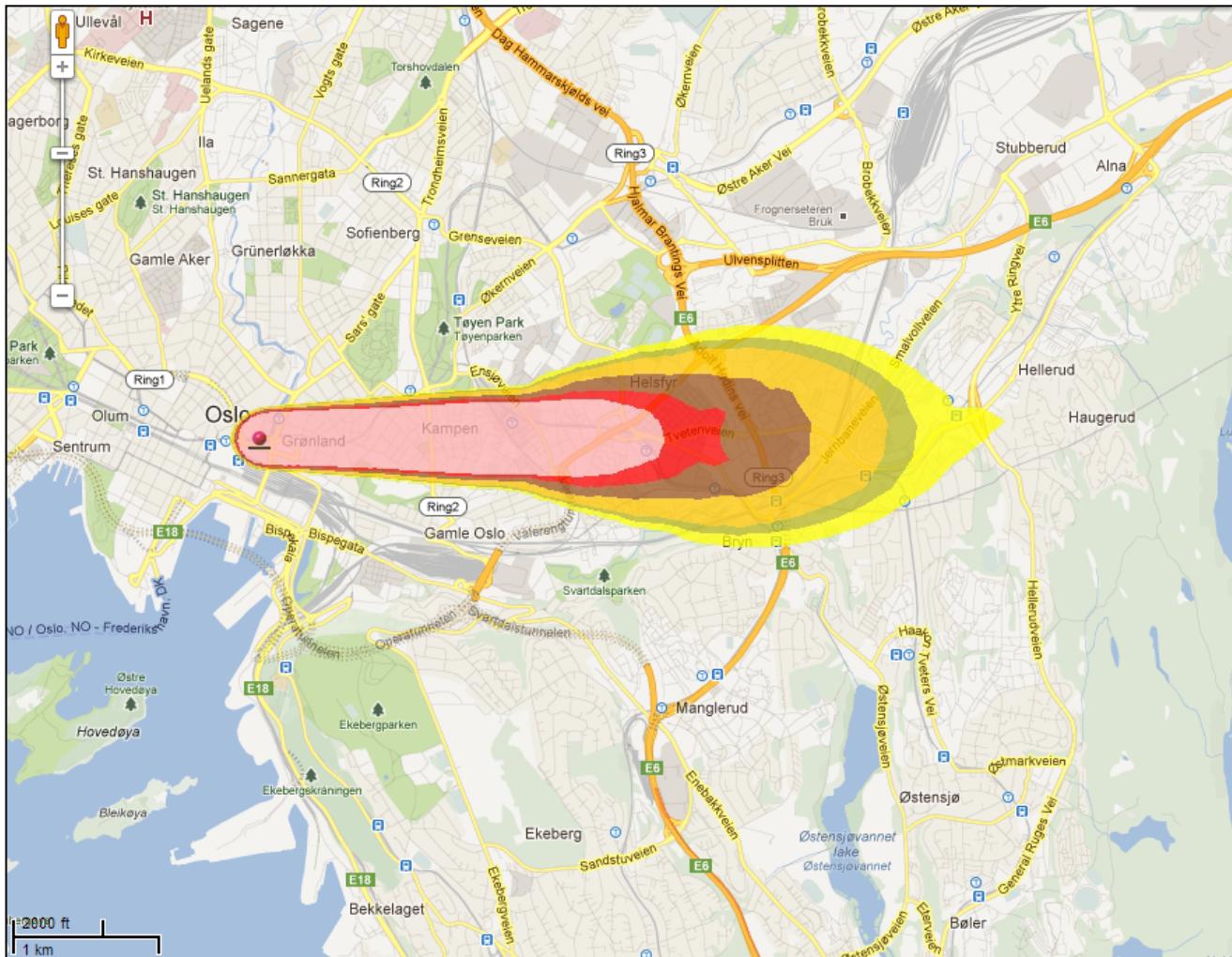
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# 16 hours



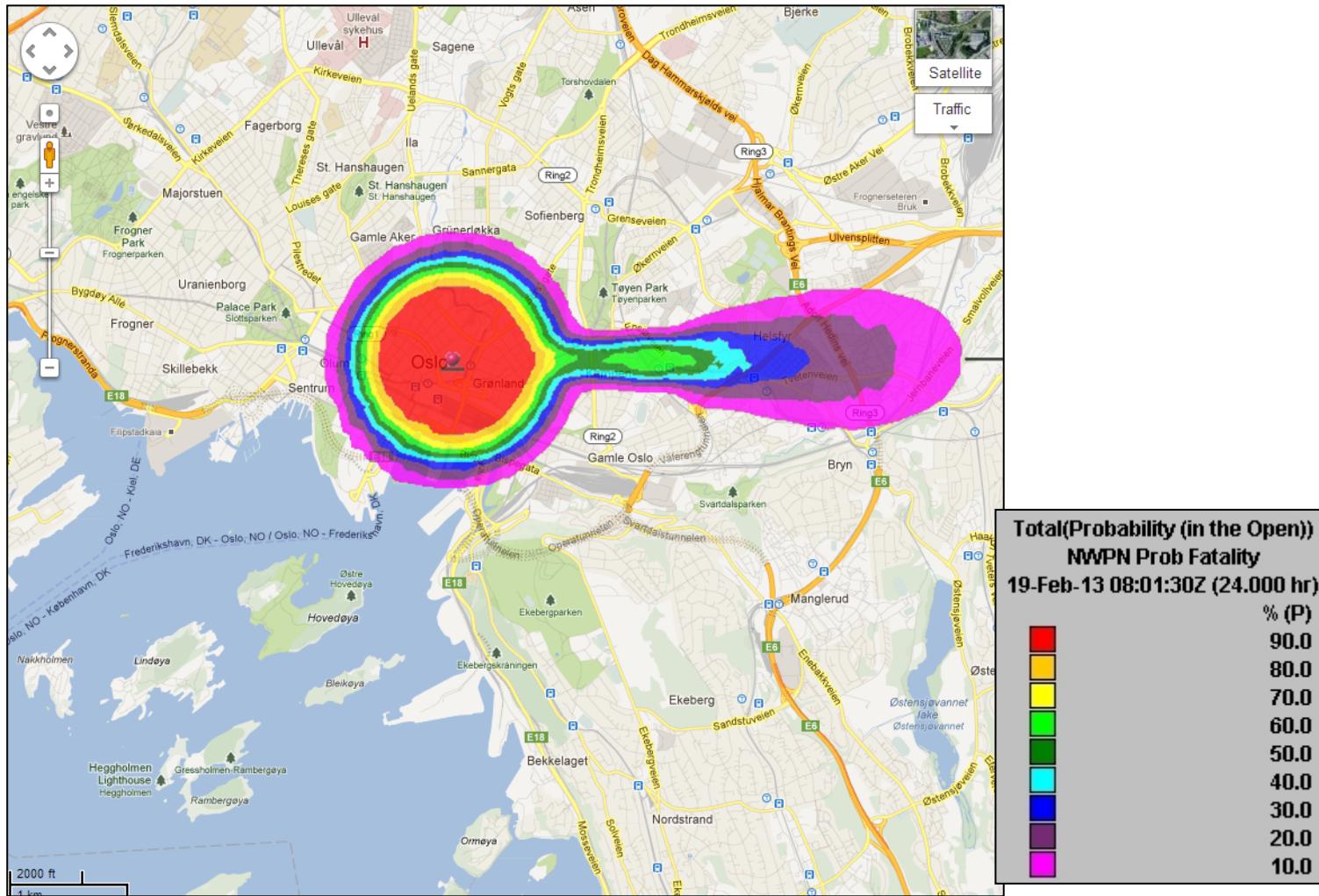
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# 24 hours



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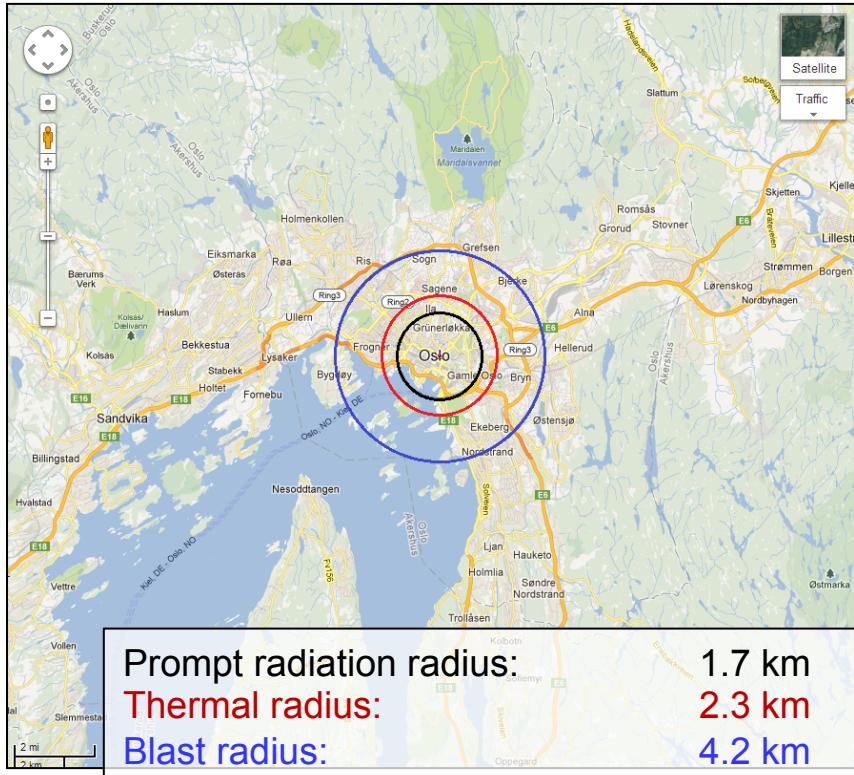
# Expected fatalities after 24 hours



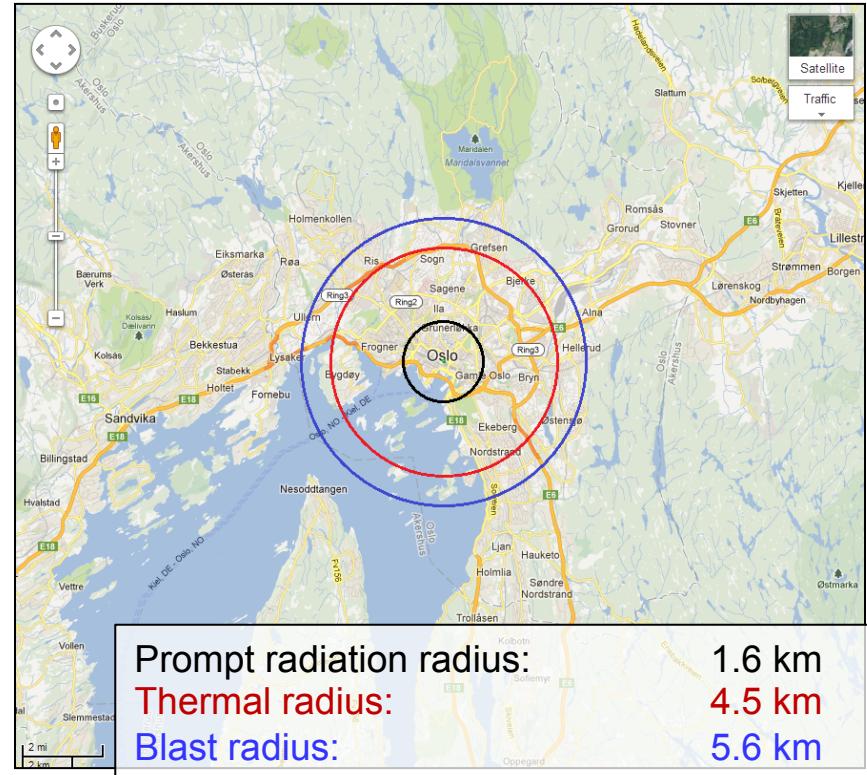
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# 20 kt

## Surface burst



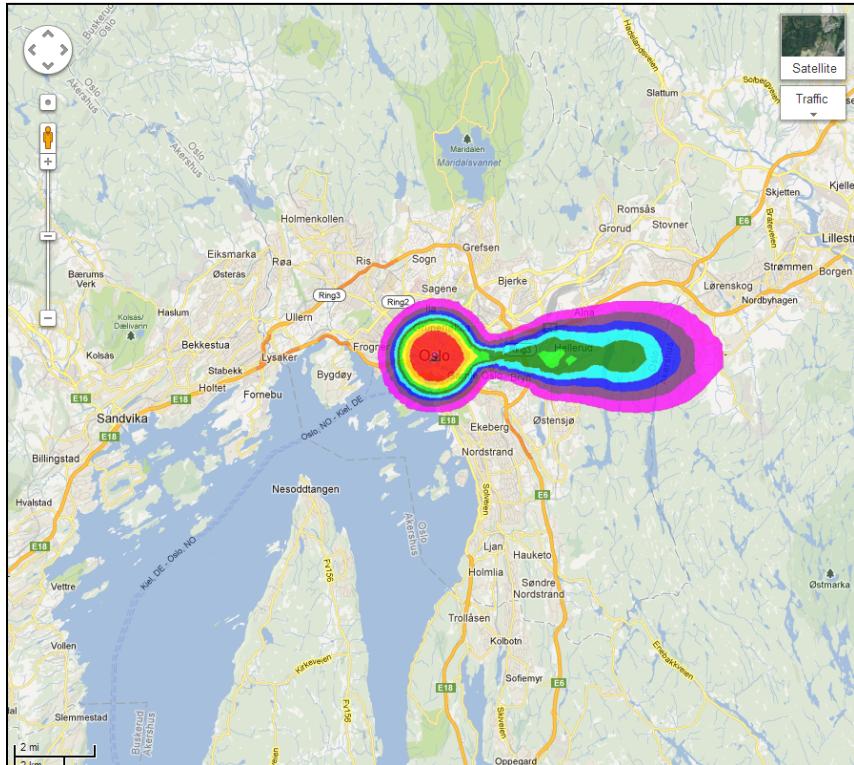
## Air burst 600 m



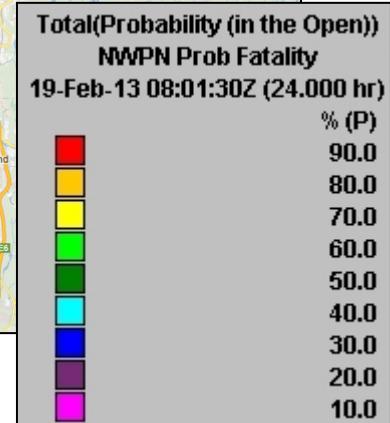
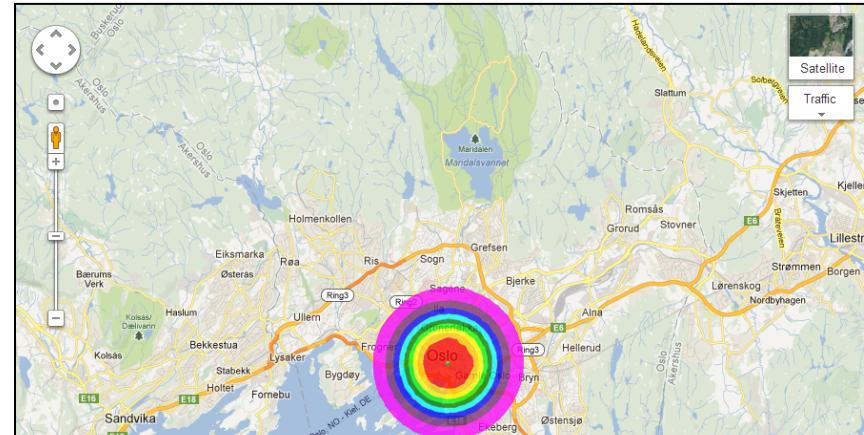
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20 kt

Surface burst

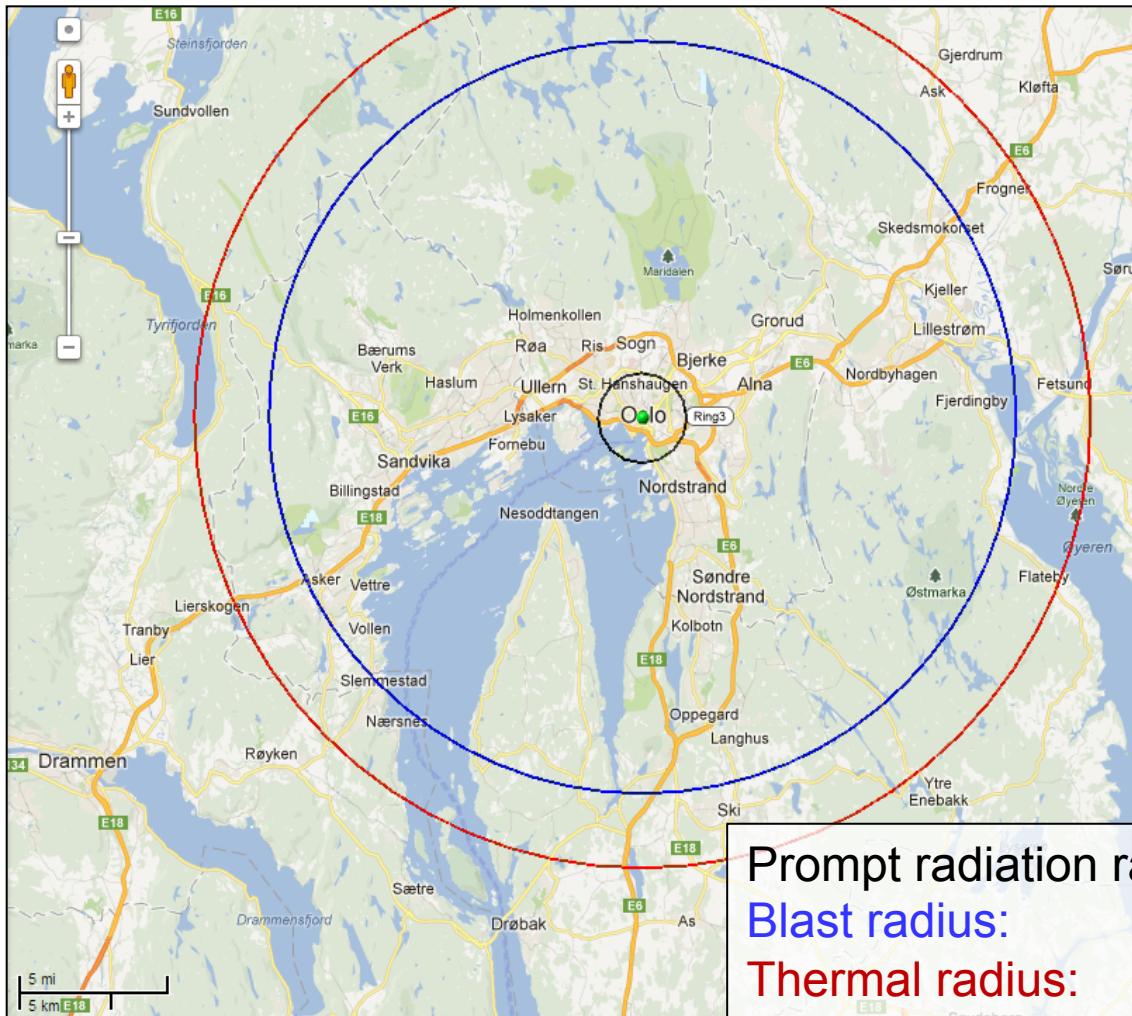


Air burst 600 m



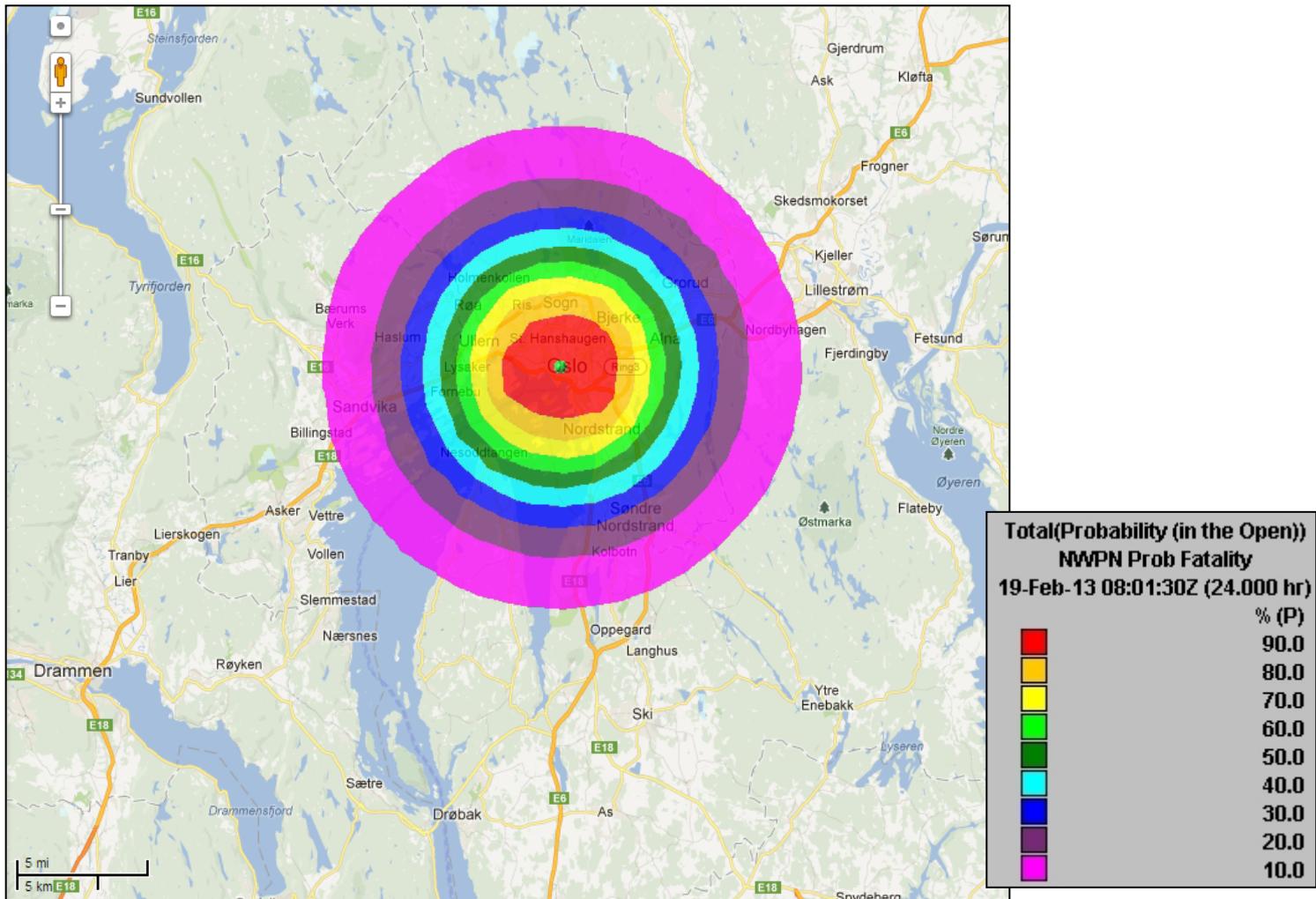
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# 1 Mt, airburst 2000 m



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# 1 Mt, airburst 2000 m



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