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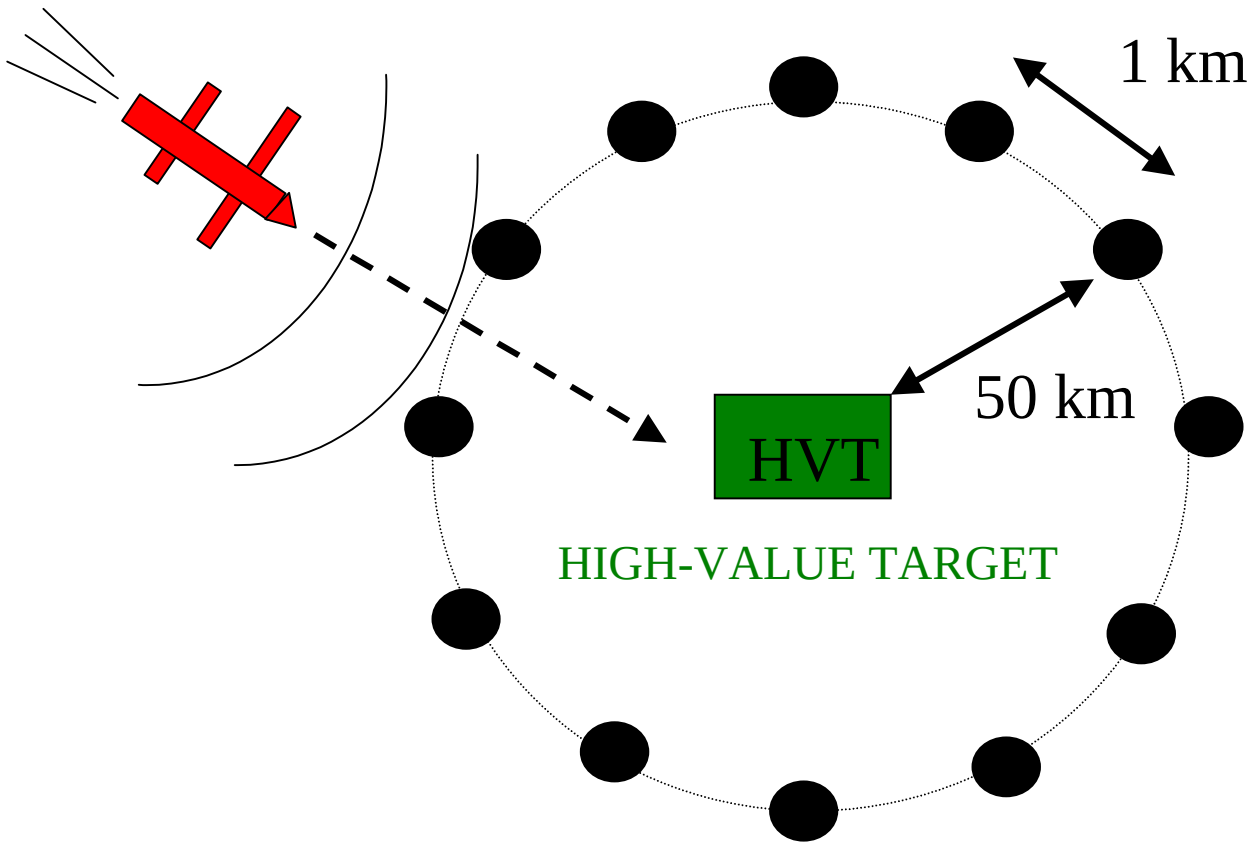
ACOUSTIC CRUISE MISSILE DETECTION: SYSTEM CONCEPT



“ACOUSTIC FENCE”
“ACOUSTIC SENTRY”
“ACOUSTIC PICKET”

Report Documentation Page

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TECHNICAL ISSUES

FY99:

- **SIGNAL TO NOISE RATIO MUST BE SOLID**

FY00:

- **AUTOMATED UNALERTED DETECTION MUST BE RELIABLE**

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ON-GOING ACOUSTIC ANALYSIS

- RAW RECEIVED SIGNAL LEVEL (RL)

- TRANSMISSION LOSS (TL)
- SOURCE LEVEL (SL)

  RL = SL - TL SL = RL + TL
- RAW NOISE LEVEL

- SIGNAL TO NOISE RATIO (SNR)

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DAY/NIGHT PROPAGATION