

Wireless Systems Security

EE/NiS/TM-584-A/WS

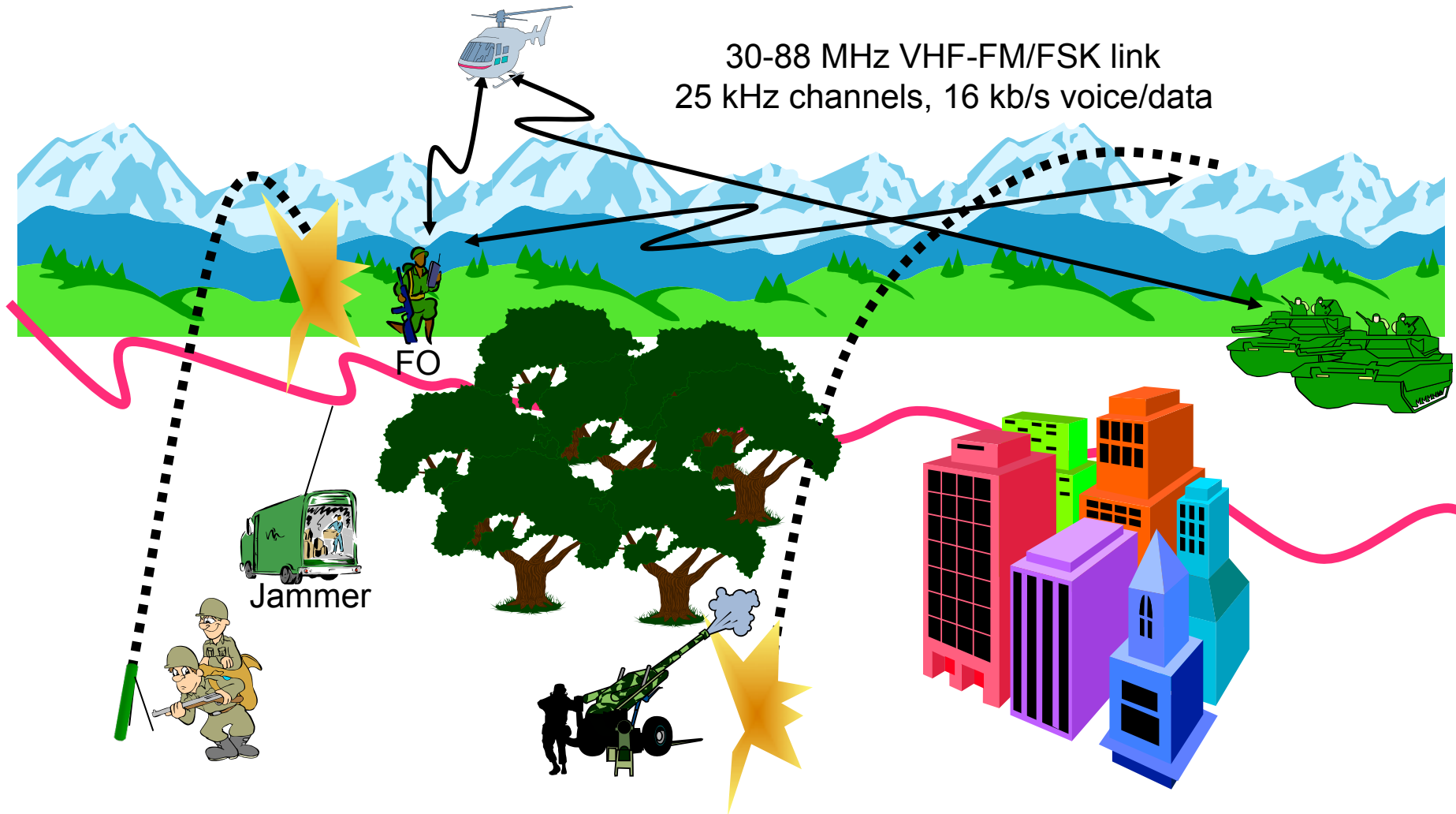
Bruce McNair

bmcnair@stevens.edu

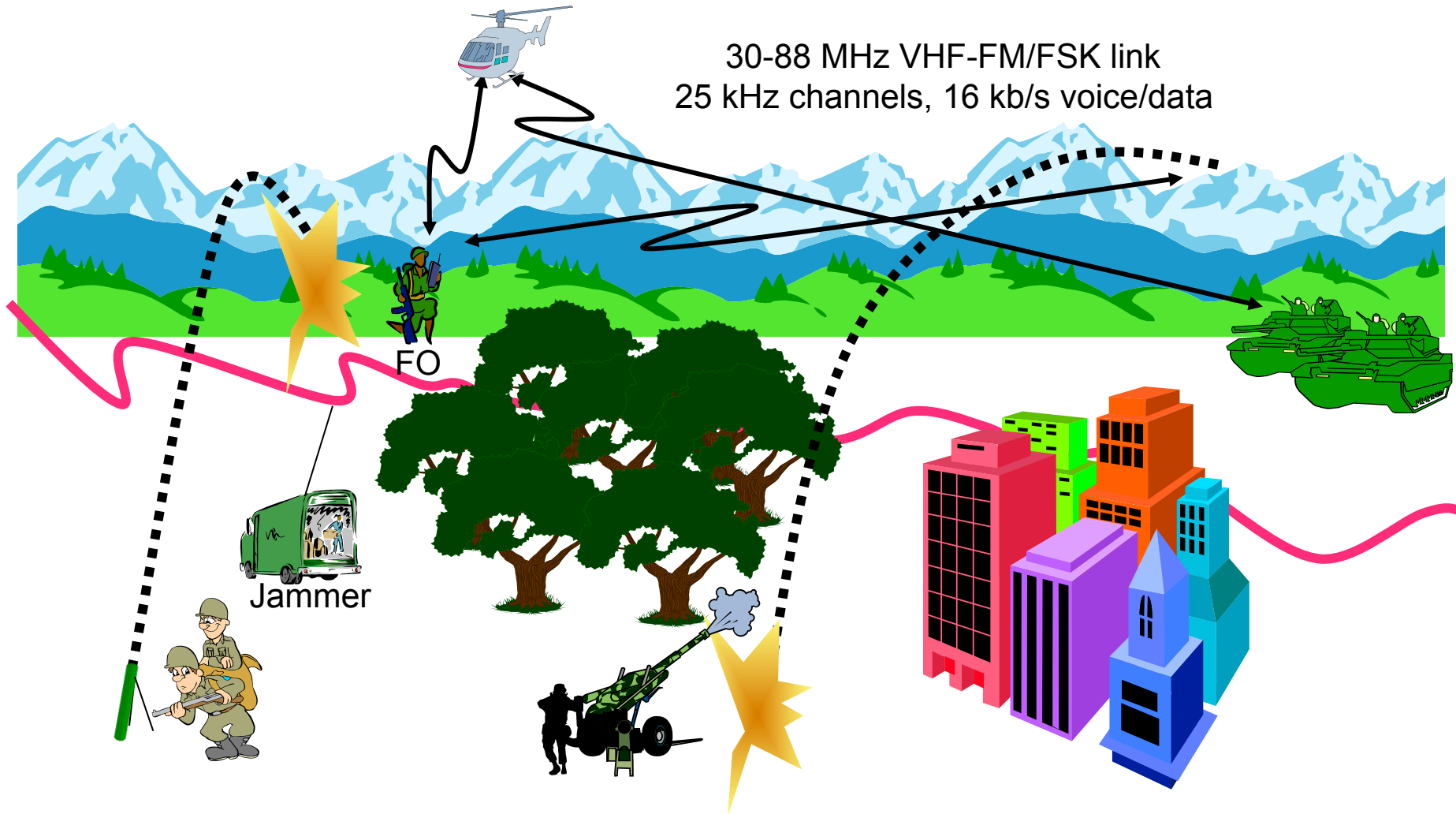
Week 7

Case Study 3

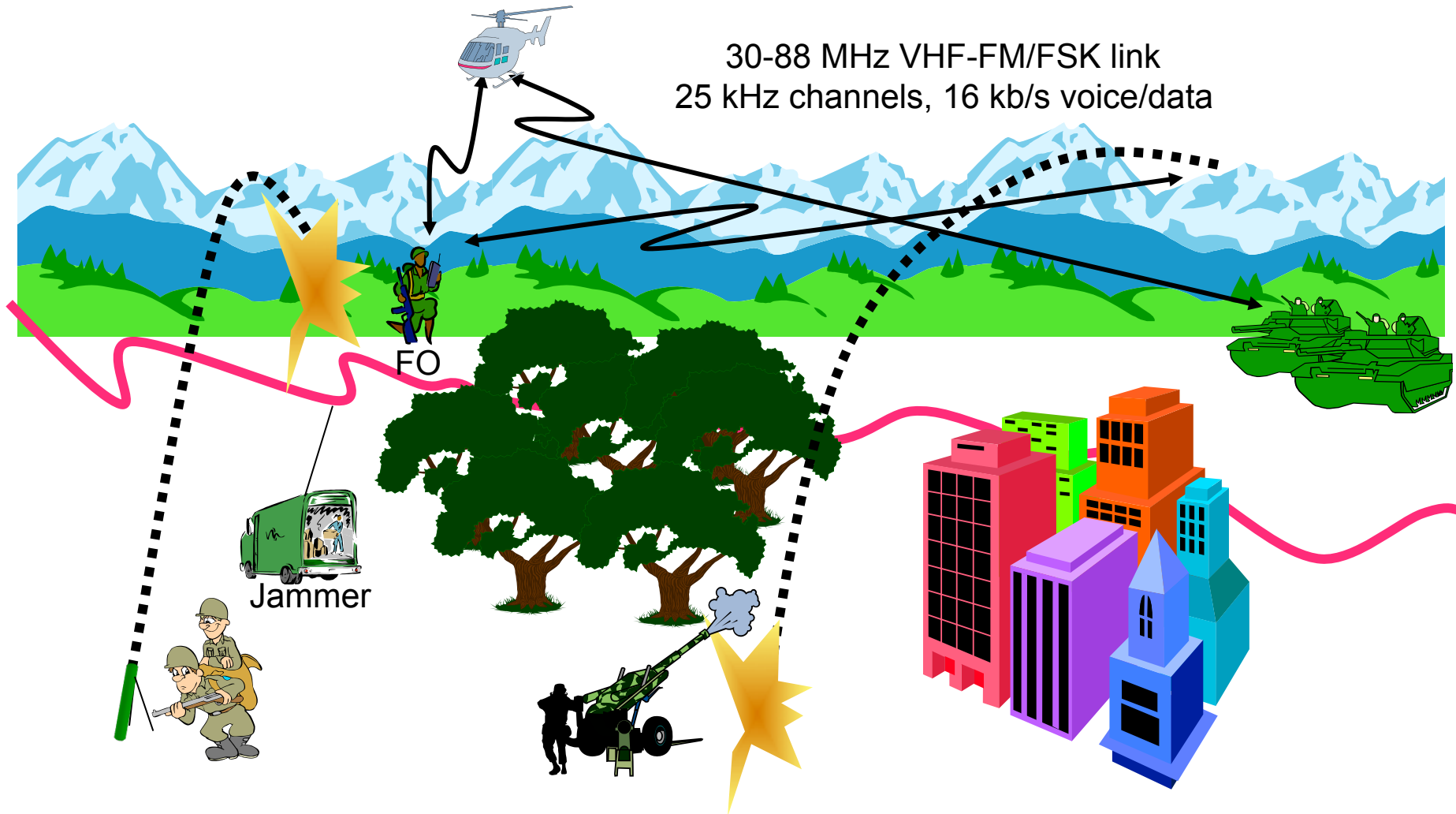
Case 3 – Military Tactical Radio Systems

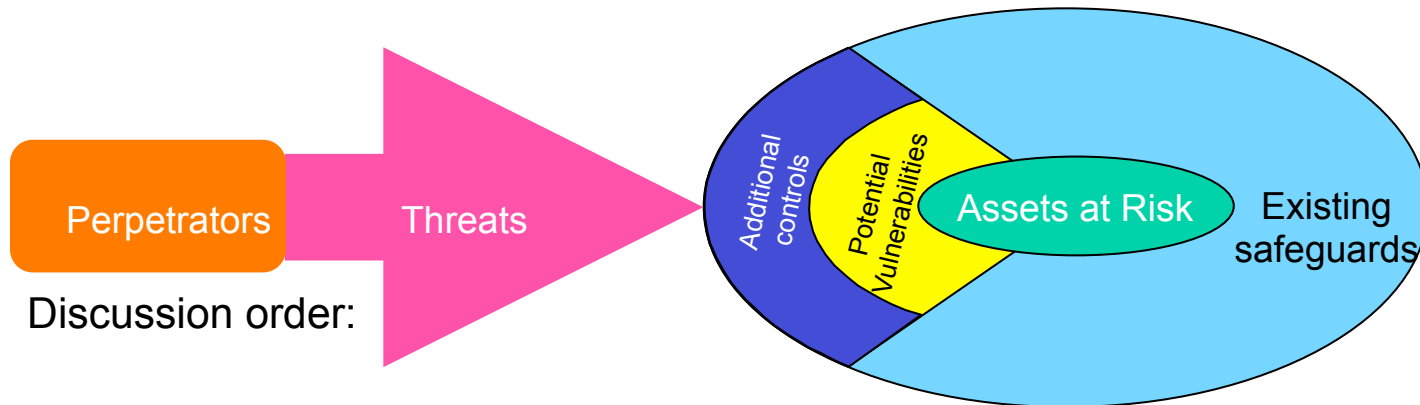


Case 3 – Military Tactical Radio Systems



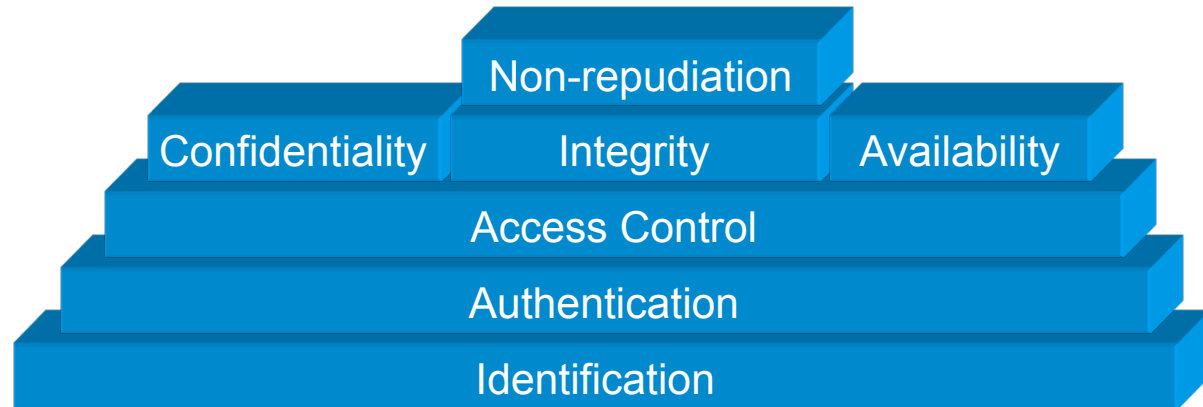
Case 3 – Military Tactical Radio Systems

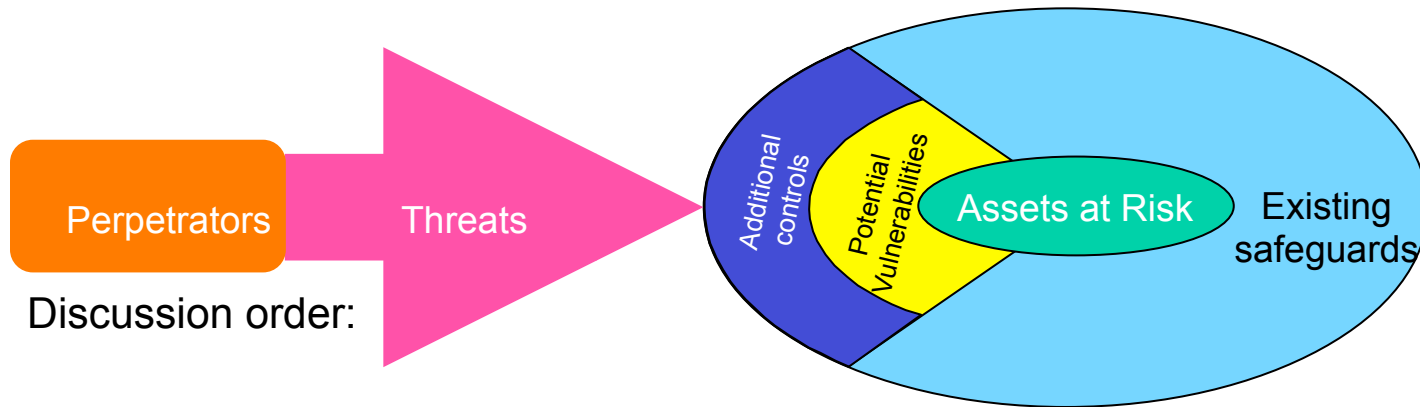




Discussion order:

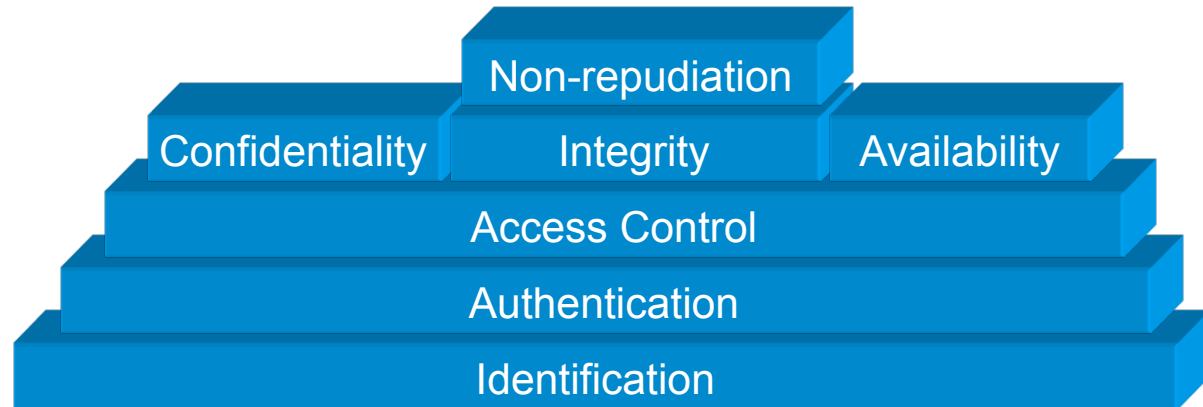
- Assets
- Perpetrators
- Threats
- Existing Safeguards
- Potential Vulnerabilities
- Additional Security Controls

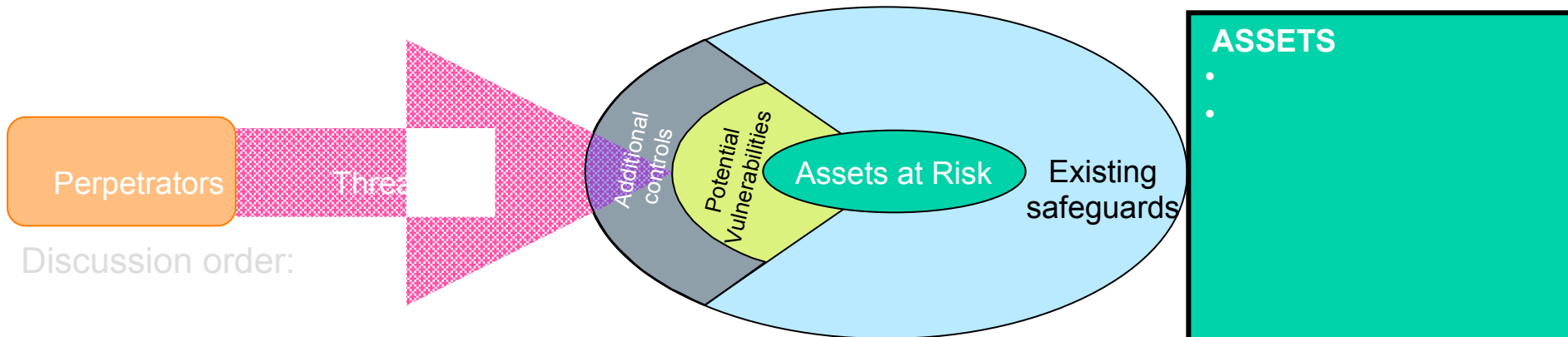




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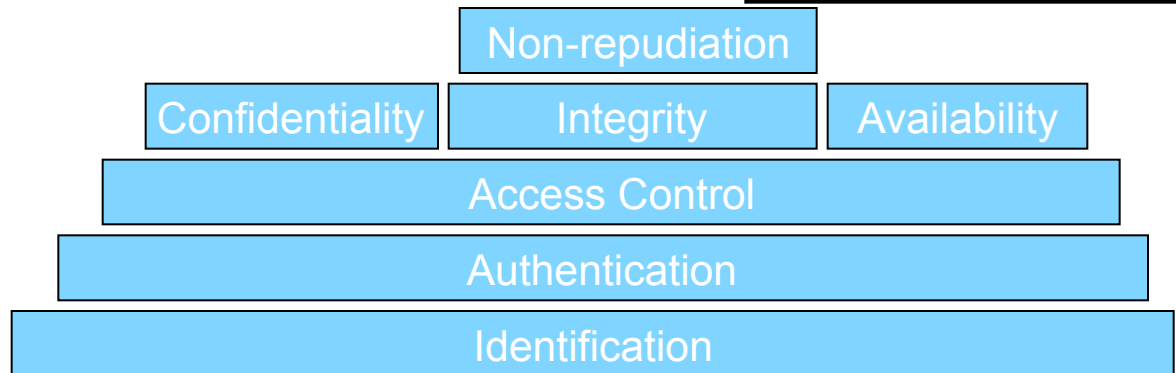
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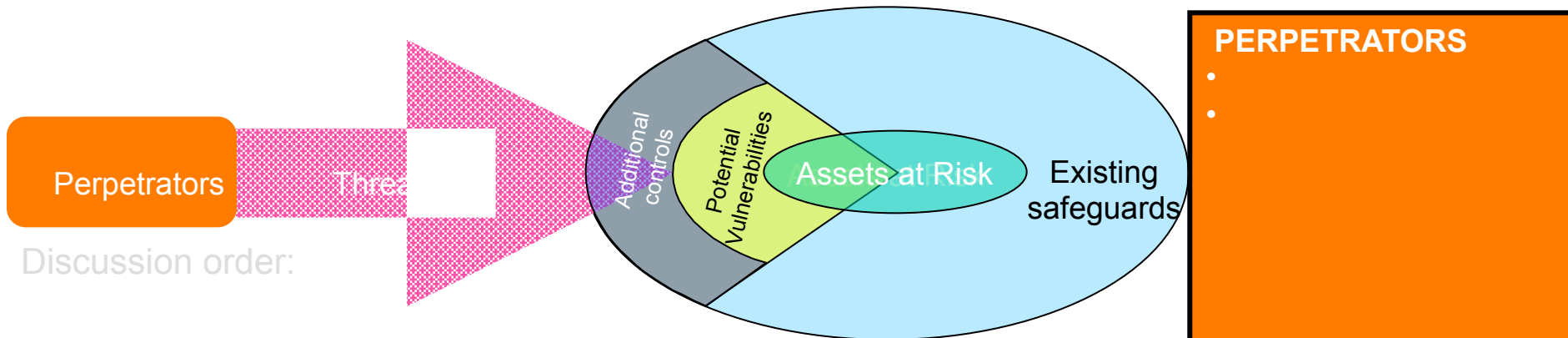




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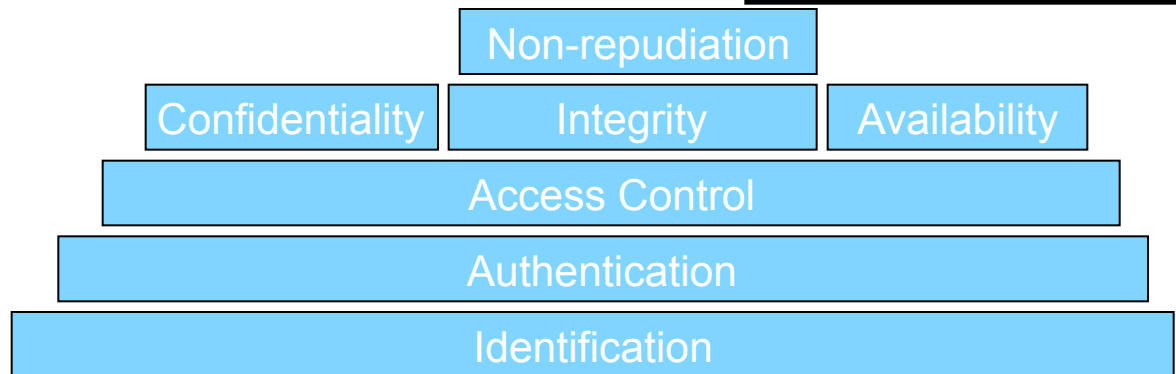
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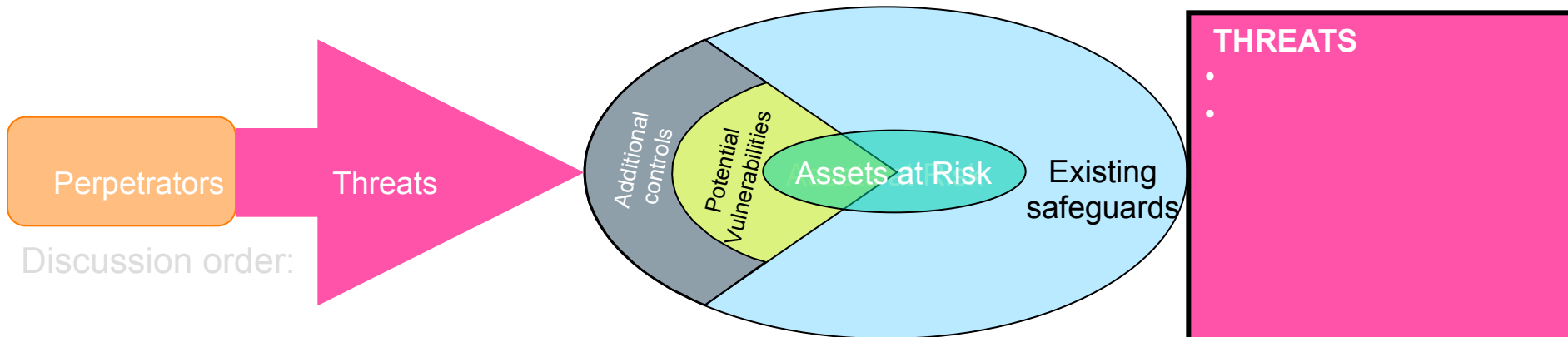




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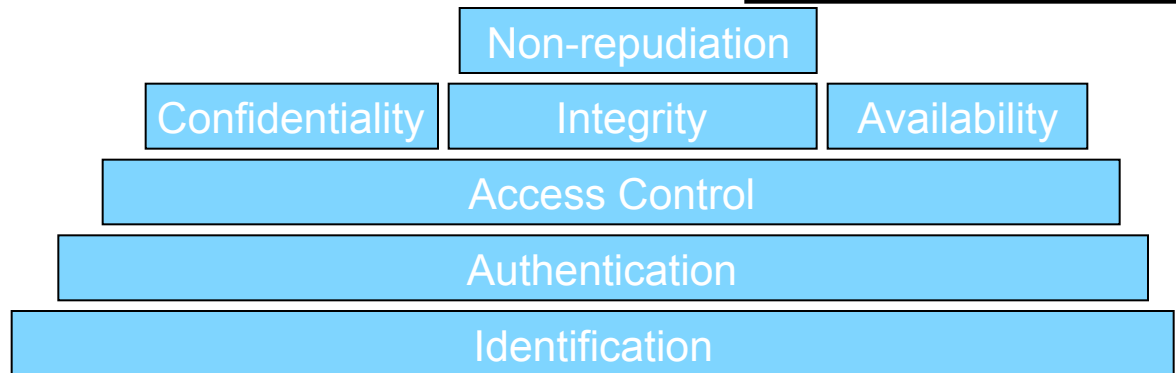
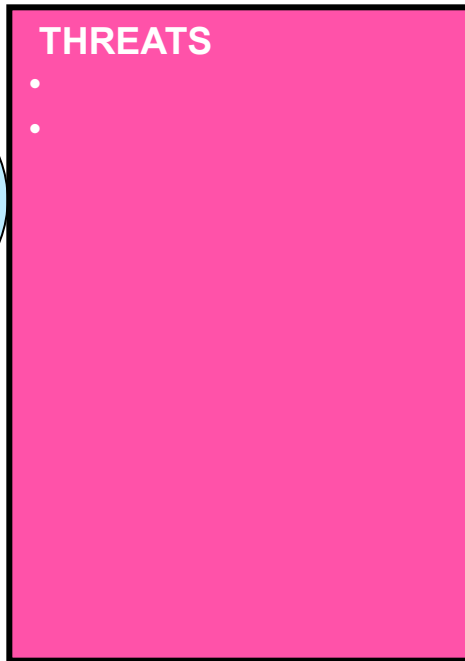
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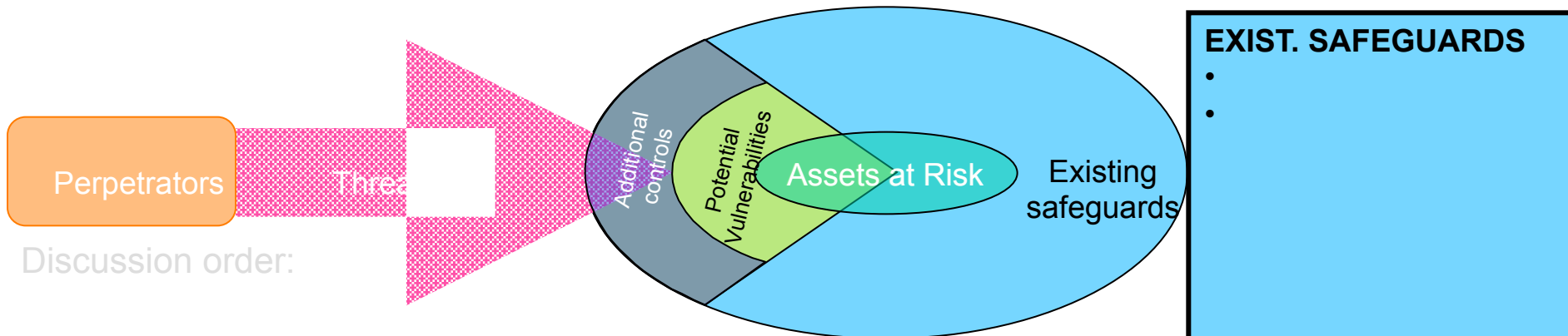




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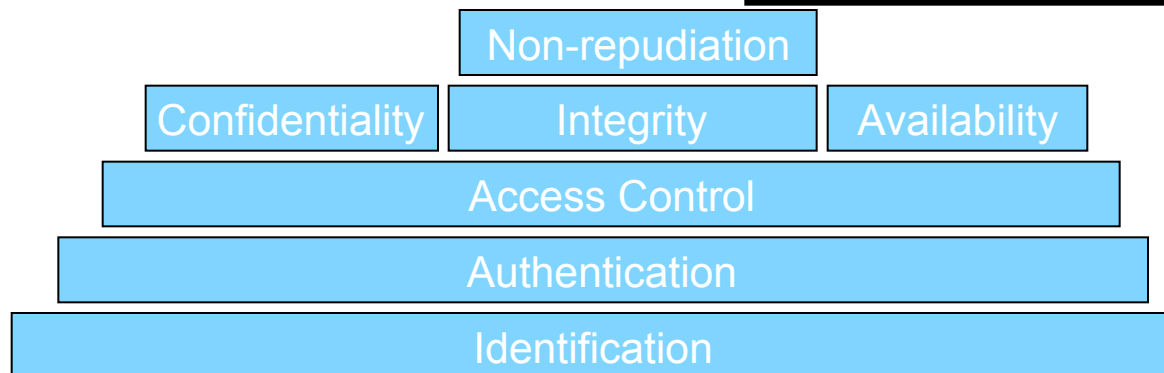
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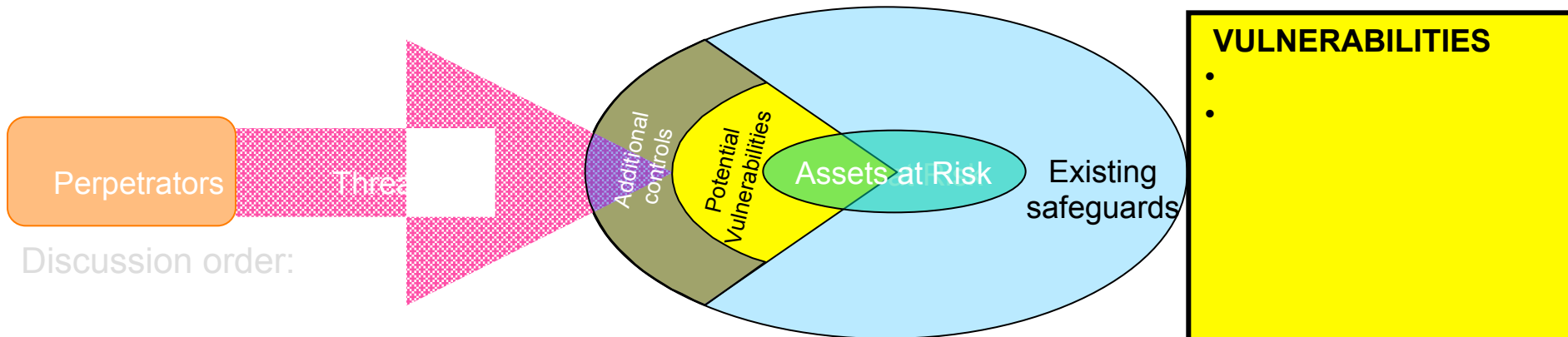




Discussion order:

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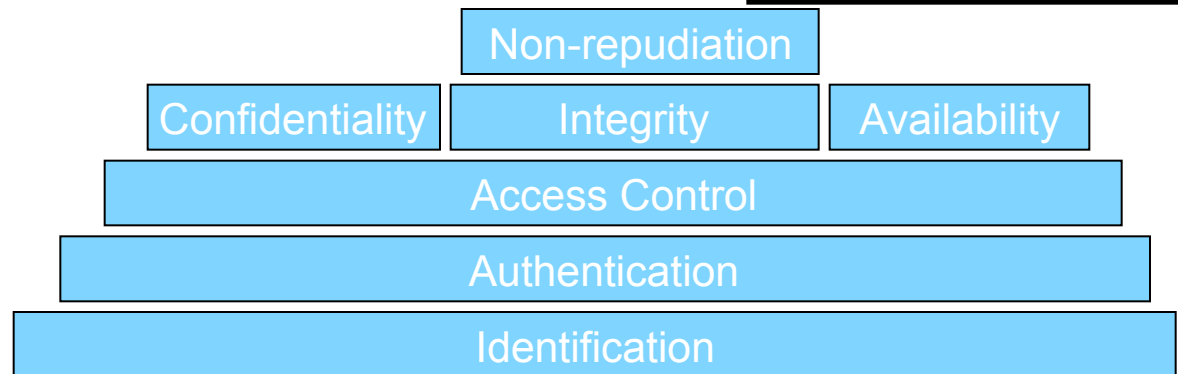


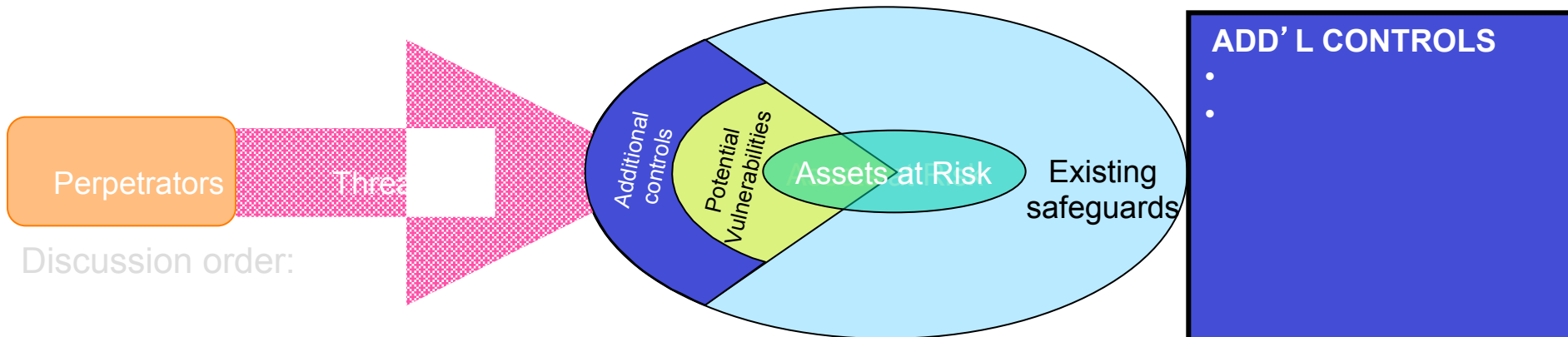
VULNERABILITIES

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Discussion order:

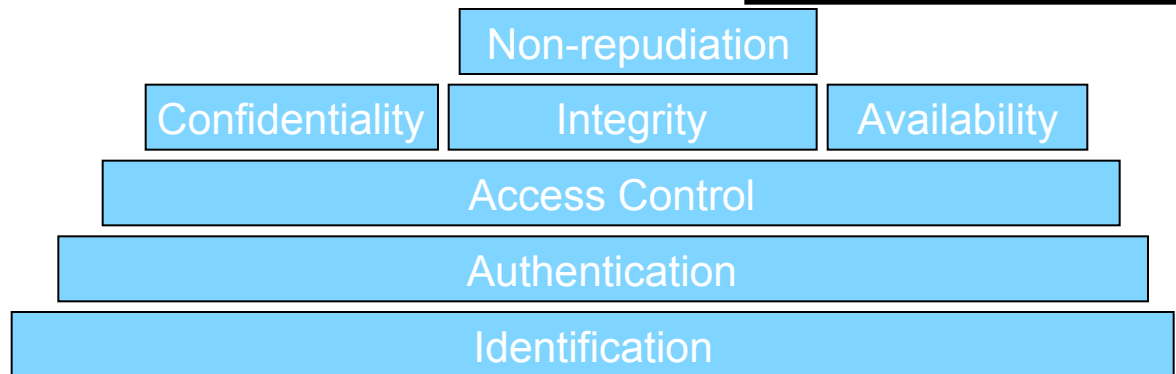
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Discussion order:

- Assets
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ASSETS

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-

PERPETRATORS

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THREATS

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-

EXIST. SAFEGUARDS

-
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VULNERABILITIES

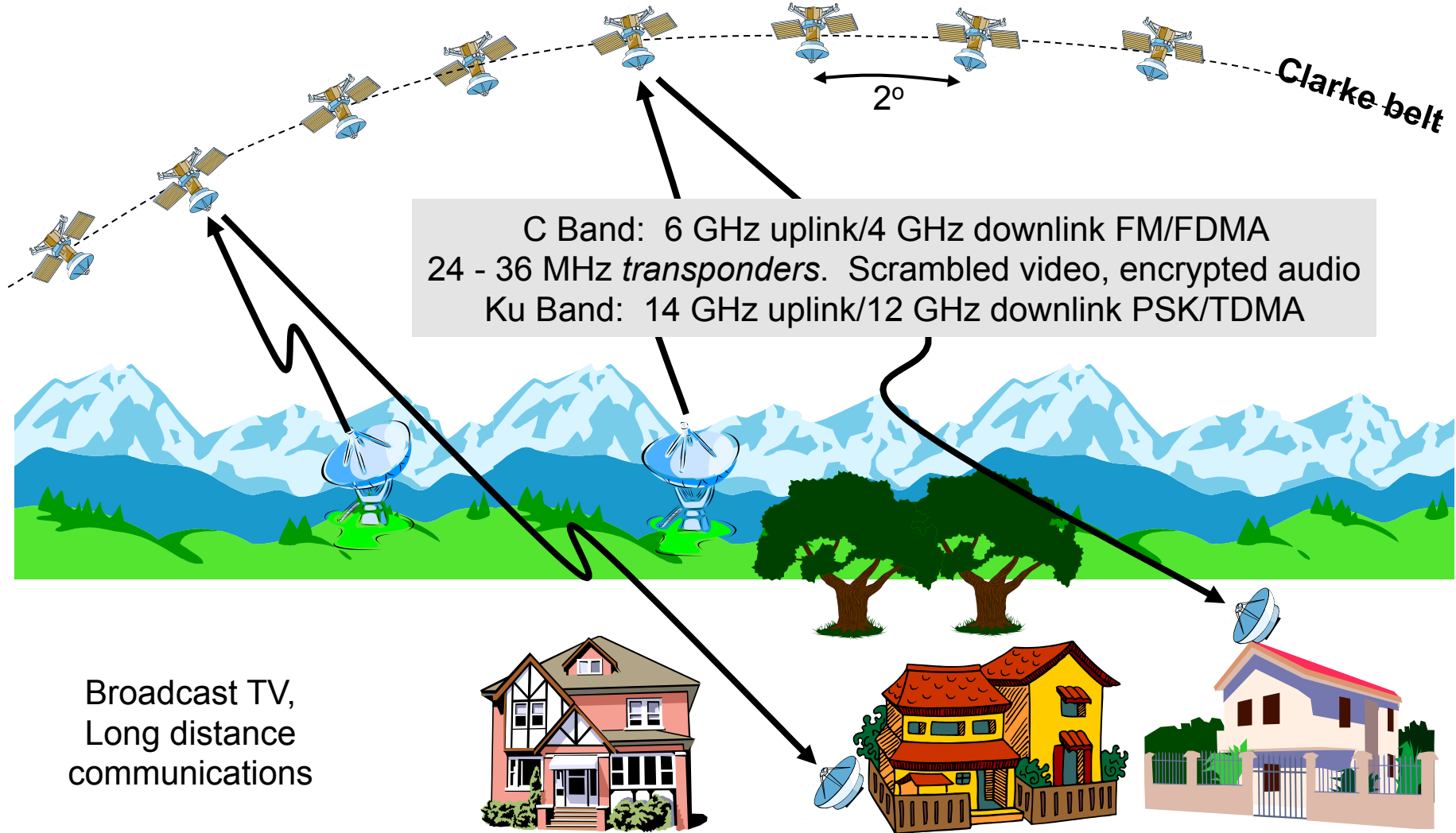
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ADD' L CONTROLS

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Case 4 – Satellite Communications Systems



Course Project

- Pick a topic you are interested in or project you may be working on. Topic should involve either
 - A wireless system that has notable security issues
 - Security issues that are exacerbated in wireless systems
- Research the topic – current technical journal and conference paper references are desirable, but all sources are welcome.
- Prepare a 5-8 paper on the topic – due during the next to last week of class
- Prepare a short presentation on the topic – due during the next to last week of class ✖
- Material covered in paper should address:
 - Background on topic: What is the general issue being addressed?
 - A brief assessment of the security aspects (use the structure of security assessments we have done in class)
 - In the context of the security services presented, what are the major security issues?
 - How dramatic are the security concerns (e.g., likelihood of attack)
 - Does it appear that there are efficient ways to improve security (e.g., cost-benefit tradeoffs)
 - What conclusions can you draw about the future directions for this topic (e.g., will it take major loss of assets to cause action to be taken? Is future technology likely to make the issue better or worse? How widespread is understanding of the underlying concern? What might change this? Is this a chronic or an acute issue?)
 - References
- The presentation should briefly cover the key points in the paper and provide detail on one or two