Themes for CVT and ORNL Collaboration

Background for initial discussions

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Treaty Verification

- FMCT Challenges
  - IAEA verifications and training
  - Safeguards Lab User Facility
- Future Disarmament
  - 3 NA-22 Dismantlement/Monitoring projects

Dismantlement Verification

- Radiation Detection Systems
- Simulation Environment
  - 4 NA-22 imaging & systems projects

Data and Techniques

- Physics of Fission
  - 4 NA-22 projects
  - ORNL mission (RSICC, SCALE, Nuclear Data Group)
- Data Acq. for Throughput
  - 3 NA-22 Monitoring projects

Safeguards Tools

- Multiplicity
  - 4 NA-22 projects
  - ORNL mission (RSICC, SCALE, Nuclear Data Group)
- $\gamma$ imaging
  - $^{233}$U and RSTD NA-22 projects
  - special isotope mission

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Although not cited in proposal response – ORNL has resources in radionuclide sensing/signatures and Big Data

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**ORNL Thrust Area POC’s**

### Treaty Verification¹
- **FMCT Challenges**
  - Michael Whitaker
    - 865-576-1682, whitakerjm@ornl.gov
- **Future Disarmament**
  - Michael Wright
- **Safeguards Lab**
  - Chris Pickett
    - 865-574-0891, pickettca@ornl.gov

### Data and Techniques²
- **Physics of Fission**
  - Nuclear Data: Michael Dunn
    - 865-574-5260, dunnme@ornl.gov
  - Techniques:
    - Stephen Croft (Safeguards)
    - Michael Wright (Imaging)
- **Big Data**
  - Tom Potok
    - 865-574-0834, potokte@ornl.gov

### Dismantlement Verification³
- Michael Wright
  - 865-574-5604, wrightmc@ornl.gov

### Safeguards Tools⁴
- Stephen Croft
  - 865-241-2834, crofts@ornl.gov

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BACKUP / BACKGROUND / DETAILS