

The Quest for Interoperability: Virginia's Experience



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IFE-USA/JOHN JAY CONFERENCE ON COMMAND AND CONTROL IN THE FIRE SERVICES

Virginia Department of Fire Programs

The state fire agency with overall responsibility for:

- **Fire suppression, fire marshal, technical rescue, aircraft rescue and firefighting, and hazmat first responder training**
- **Administering \$10 million per year in aid to localities for fire training and equipment**
- **Conducting fire protection and homeland security policy analyses**
- **Public fire and life safety education**
- **Providing emergency technical assistance, mobile incident management support and coordinating statewide mutual-aid**
- **Maintaining national accreditation and instructional quality**
- **Fire incident reporting (NFIRS)**

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“Interoperability”

- **The ability for emergency responders to communicate with each other...**
 - **Anytime**
 - **Anywhere**
 - **Any incident**



Why Interoperability?

- **Command**
- **Control**
- **Coordination**
- **Operational effectiveness**
- **Accountability**
- **Responder safety**



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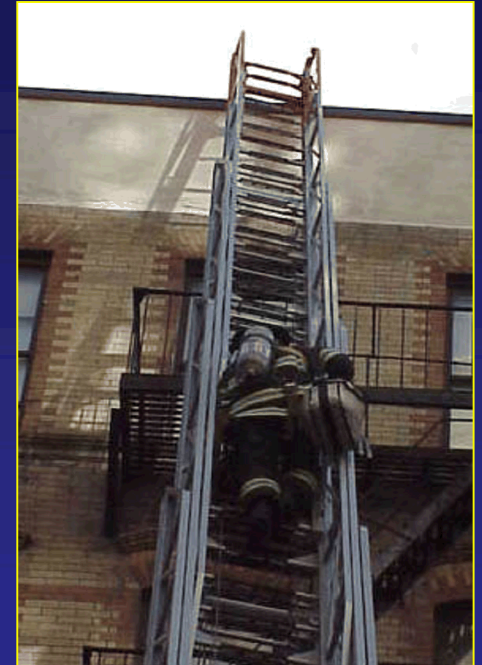
Background

- **Not a “new” challenge**
- **Many efforts pre- 9/11**
 - Northern Virginia regional
 - Statewide Agency Radio System
- **September 11, 2001**
 - A classic “policy window”
 - Increased emphasis and attention
 - Funding
- **After-action reports**



The Process

- **Leadership**
- **Stakeholder input & participation**
- **Interaction/coordination**
- **Brainstorming the issues**
- **Evaluating potential solutions**
- **Surveying the ground**
- **Next steps..?**



The Players

- **Secure Virginia Panel**
 - **First Responder Sub-Panel**
- **Commonwealth Preparedness Working Group**
- **Office of Public Safety**
 - **Department of Fire Programs**
 - **Department of Emergency Management**
 - **State Police**
 - **Department of Criminal Justice Services**
- **Department of Health**
 - **Office of Emergency Medical Services**

The Players

- **Stakeholders**
 - **State associations & organizations**
 - **Local fire-rescue, police and sheriffs**
 - **Private firms**
 - **Consultants**

=

Radio Interoperability Working Group

Interaction / Coordination

- **“Why can’t we talk?”**
 - **National Task Force on Interoperability**
- **AGILE**
- **PSWIN, CAPWIN**
- **Metro Washington Council of Governments**
- **Federal agencies**
- **Wireless communications firms**
- **Conferences**

Facets of Interoperability

- Operability
- Technology
- Companion systems
- Human factors



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Operability

- **The CORE component of Inter- Operability**
- **Not a given in many jurisdictions**
 - Coverage issues
 - Equipment availability
 - Pre-existing conditions
 - Organizational challenges
- **Policy priority**
 - Virginia General Assembly action
 - HJR 588, HB 2529

Technology

- **Framework for comparison?**
- **Not a “one-size fits all” solution**
- **Current vs. future technology**
- **Compatibility (backwards & forwards)**
- **Complexity**
- **Voice vs. data**
- **Implementation time**
- **Cost**

Companion Systems

- **Incident management**
 - Unified command
- **Personnel accountability**
- **Mutual-aid**



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Human Factors

- **Information overload**
- **Training**
- **Operation (KISS principle)**
- **Radio Discipline**
- **Terminology**
- **Completing the “loop”**
- **Crew Resource Management**

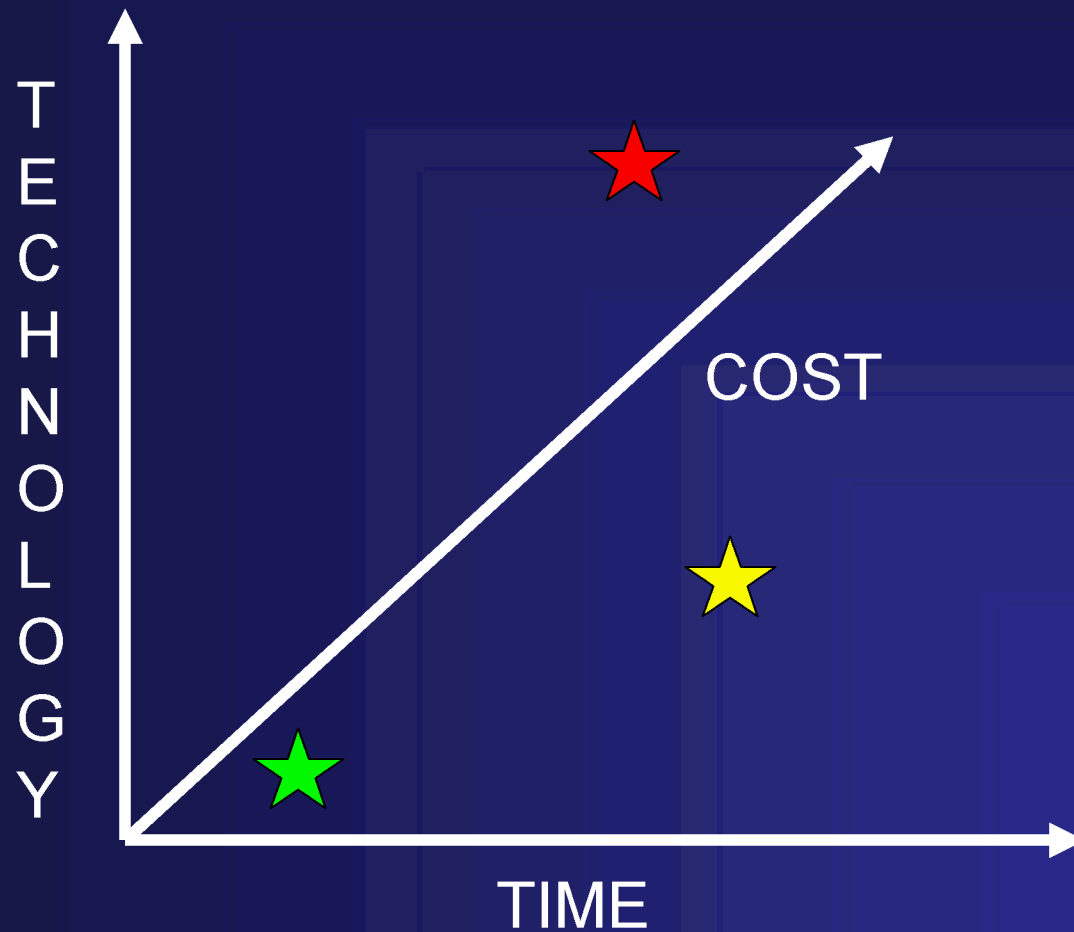


Evaluating Potential Solutions

- **Vendor dialogue**
- **Demonstrations**
- **Field testing**



The "Solution Space"



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Surveying the ground

- **Statewide radio survey**
 - **PC-based questionnaire**
 - **Developed by RIWG**
 - **Attempting to sample entire “population”**
 - **Current results are preliminary!**
 - **Reliable/generalizable?**

Selected (Preliminary) Survey Results

- **n=95 (as of 4/1/03)**
- **All bands represented (Low, VHF, UHF, 800mhz)**
- **Diverse geography/topography**
- **In-building radio coverage problem?**
 - **61% said YES**
- **Daily communication with other agencies?**
 - **76% said YES**
- **Ability to communicate with other agencies?**
 - **45% said EXCELLENT at local level (5% said POOR)**
 - **6% said EXCELLENT at state level (22% said POOR)**
 - **2% said EXCELLENT at federal level (78% said POOR)**

Next steps?

- **Analyze survey results**
- **Evaluation framework**
- **State role**
 - **Coordination**
 - **Consultation**
- **Where the “rubber meets the road...”**
 - **IMPLEMENTATION!**
 - **Attempt to provide resources and assistance**

Key Lessons Learned

- **Process matters!**
- **Need for a systems approach**
 - Context
 - Human factors
 - Technology
- **(Inter-) Operability**
- **Diverse scenarios**



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