NRITS 2006

The Future of EMS/ITS Communications

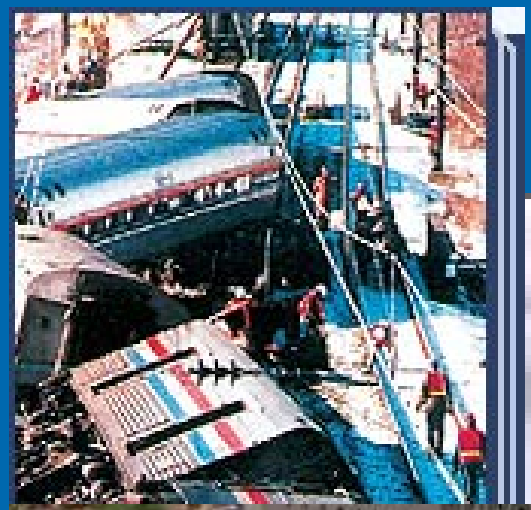
ITS America PSAG
Medical Subcommittee

Kevin K. McGinnis, MPS, EMT-P

National Association of State EMS Officials

Emergencyfans.com

World Changes



TDC

Where?

Notification

Conditions?

Other Responders or Resources Needed?

Medical History?

What Kind of Help?

Dispatch

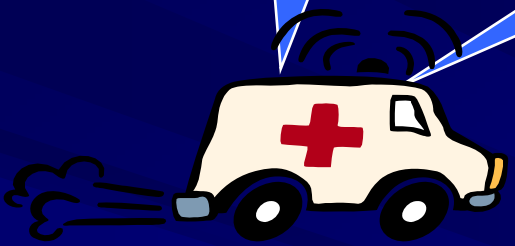
How Many Victims?

Fastest Route to Hospital?

En route

Which hospital?

Fastest route to hospital?



Transport

Quarantine?

How many operating rooms?

Condition?

How many victims?

Medical history?

Call in specialists?

Special equipment needed?

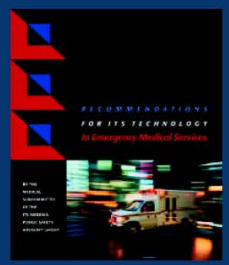
RECOMMENDATIONS FOR ITS TECHNOLOGY

In Emergency Medical Services

BY THE
MEDICAL
SUBCOMMITTEE
OF THE
ITS AMERICA
PUBLIC SAFETY
ADVISORY GROUP

SPONSORED BY THE ITS AMERICA PUBLIC SAFETY ADVISORY GROUP

LET'S CONNECT THE LINKS IN THE CHAIN OF SURVIVAL



AN INVITATION TO PARTICIPATE IN

The National Task Force for Advanced Emergency Information Exchange Networks

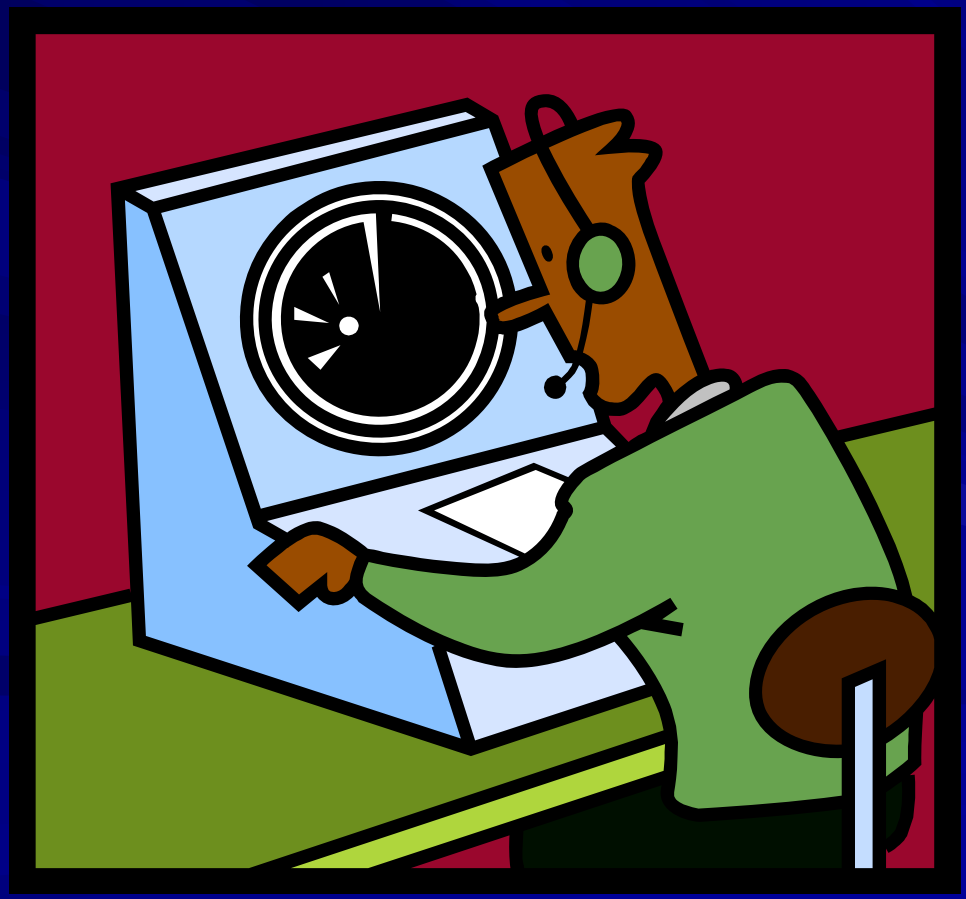
EMS Communications – the Future

- Network of Networks
  - Voice, Data, Video
- Description of Requirements
- Suggested Development/Advocacy Methods

ITS TECHNOLOGY → EMS

“Push-me-pull-you”

EMS Resource and Event Monitoring System (EMSREMS) “Polling Device”



Ridgeway EMS 1

EMSREMS

MERCY HOSP.

UNITED AMB.

LIFE FLIGHT

MVC

CITY FIRE/RESCUE

DIABETIC

JONES MEM. HOSP. (DIVERT)

CARDIAC

CITY TRAUMA CTR.

EMS 1 1800-0600

- K. McGinnis P11024
- G. Smith E86054

EMS 2 Out of Svc.

MVC

VERNON FD VOLUNTEER AMBULANCE

RIDGEWAY EMS

NEW SHARON FD 1ST RESPONDERS

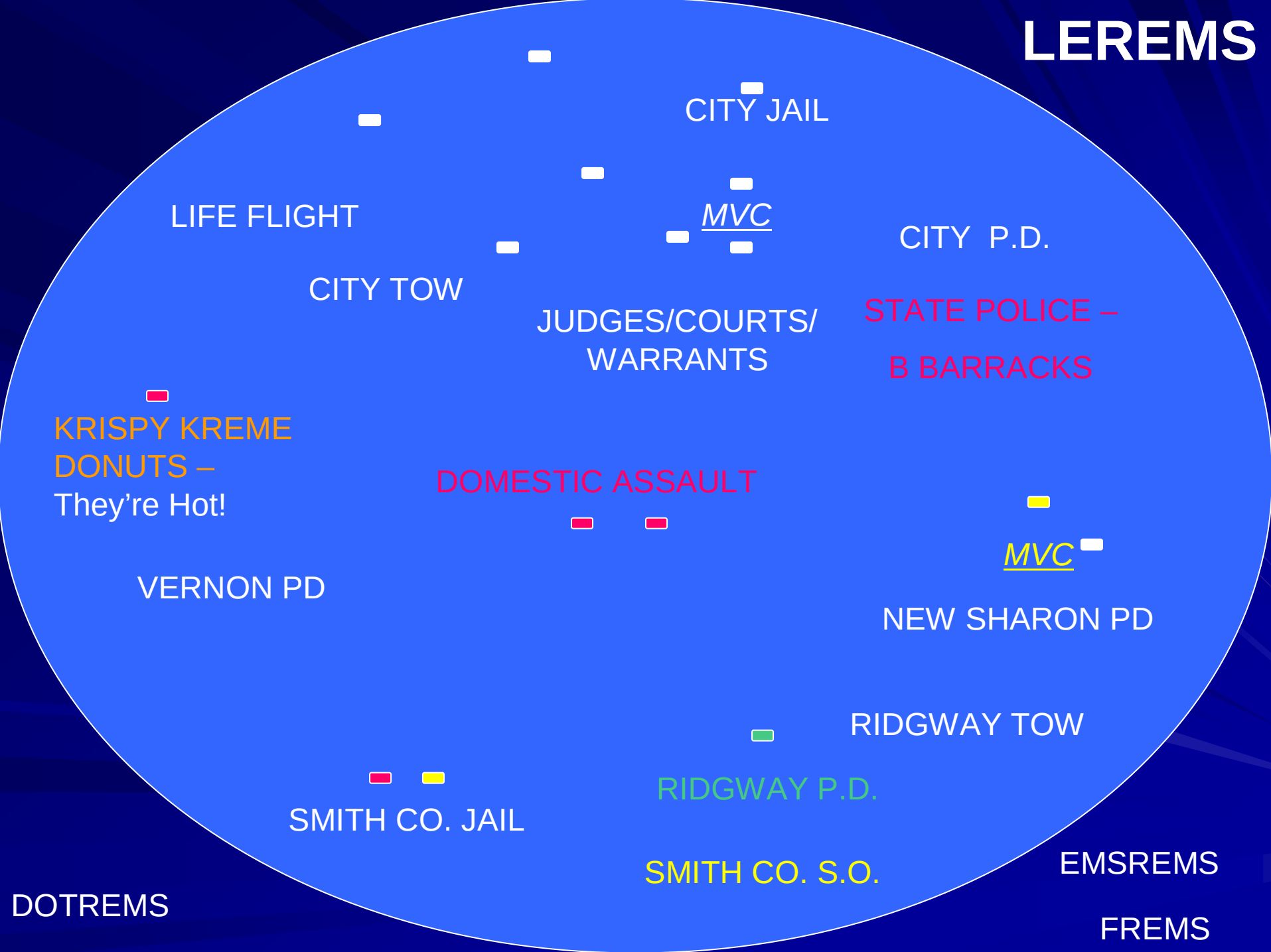
RIDGEWAY FD EXTRICATION/HAZ MAT

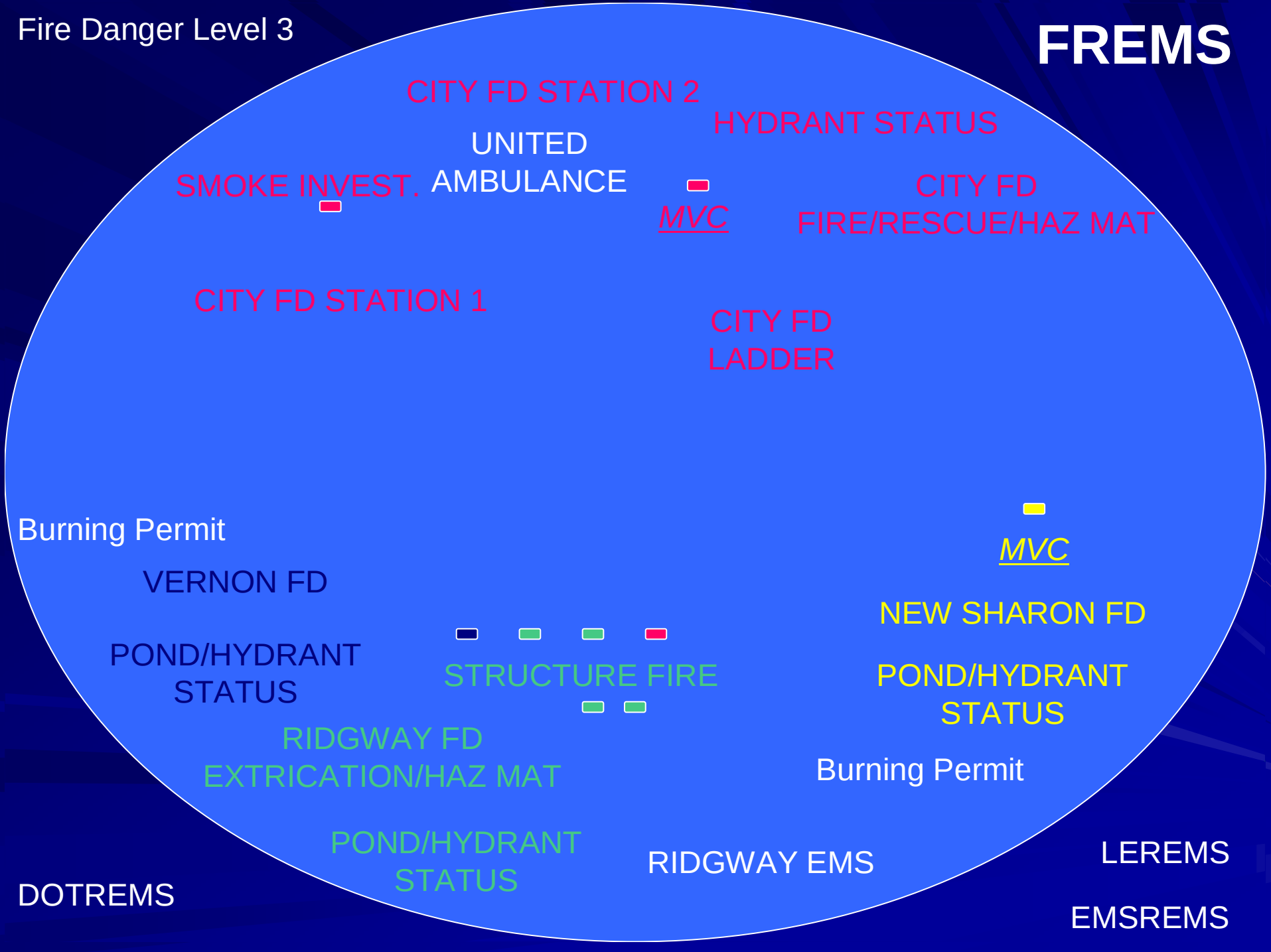
RIDGEWAY HOSP.

LEREMS

DOTREMS

FREMS


LEREMS
CITY JAIL
LIFE FLIGHT
MVC
CITY P.D.
CITY TOW
JUDGES/COURTS/
WARRANTS
STATE POLICE –
B BARRACKS
KRISPY KREME
DONUTS –
They're Hot!
DOMESTIC ASSAULT
MVC
VERNON PD
NEW SHARON PD
RIDGWAY TOW
RIDGWAY P.D.
SMITH CO. JAIL
SMITH CO. S.O.
EMSREMS
DOTREMS
FREMS


Fire Danger Level 3
FREMS
CITY FD STATION 2
HYDRANT STATUS
UNITED
AMBULANCE
SMOKE INVEST.
MVC
CITY FD
FIRE/RESCUE/HAZ MAT
CITY FD STATION 1
CITY FD
LADDER
Burning Permit
MVC
VERNON FD
NEW SHARON FD
POND/HYDRANT
STATUS
STRUCTURE FIRE
POND/HYDRANT
STATUS
RIDGWAY FD
EXTRICATION/HAZ MAT
Burning Permit
POND/HYDRANT
STATUS
RIDGWAY EMS
LEREMS
DOTREMS
EMSREMS

Weather Alert:

Snow 4 – 6”

DOTREMS

CITY DPW

CITY TOW

MVC

CITY TRAFFIC MANAGENT CTR. +++

MVC

VERNON PLOW SVC.

NEW SHARON
PLOW SVC.

RIDGWAY TOW

RIDGWAY DPW

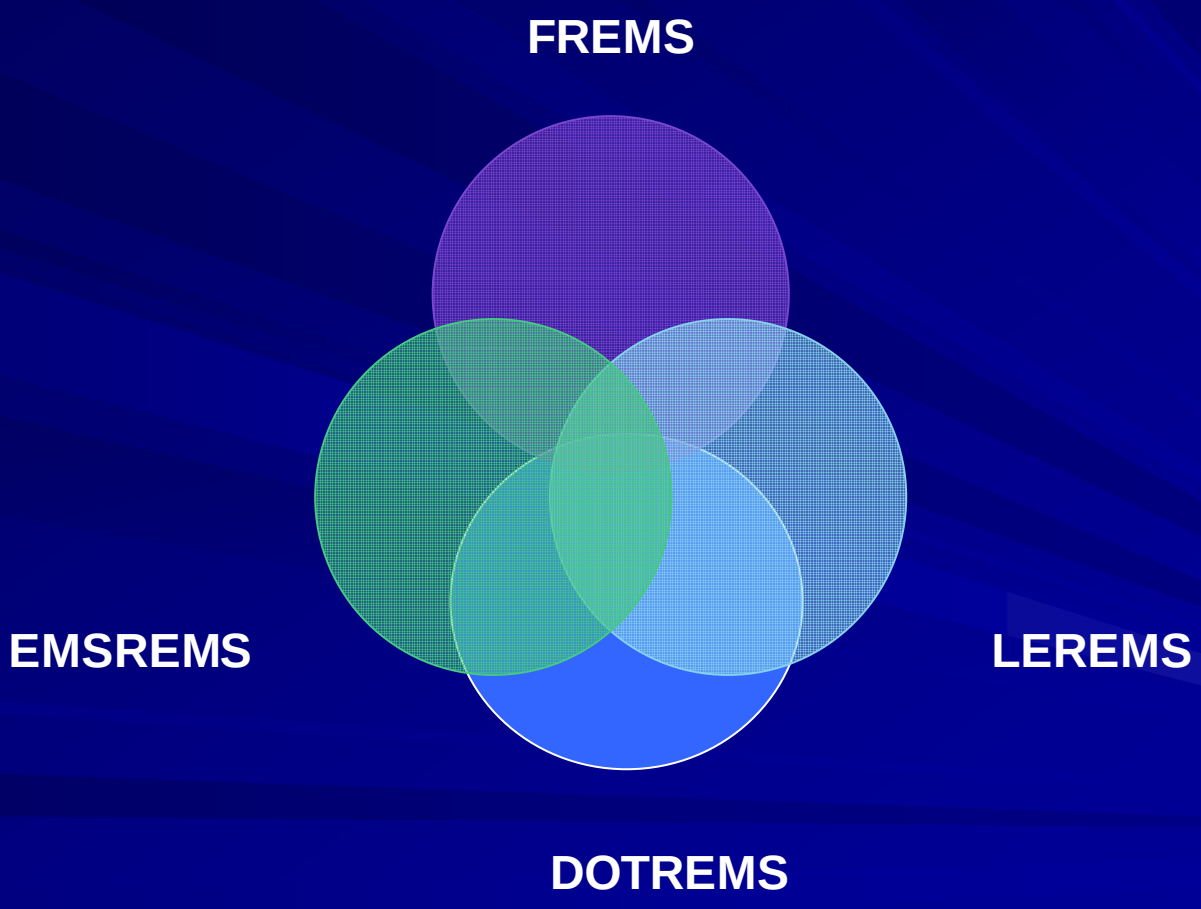
LEREMS

EMSREMS

FREMS

Database

“Network of Networks”



EMS Communications: Current and Future

- “I wonder…” vs. “I know…”
  - System Status Pre-Dispatch
  - Event
  - Dispatch
  - To Scene
  - At Scene
  - To Hospital
  - Emergency Department/Specialty Unit
  - Transfer To Specialty Center

Event: “I have no clue…”

Ridgeway EMS 1

EMSREMS

MERCY HOSP.

UNITED AMB.

LIFE FLIGHT →

ETA: 12 Min's.

MVC

CITY FIRE/RESCUE

JONES MEM. HOSP. (DIVERT)

CARDIAC

CITY TRAUMA CTR.

DIABETIC

Team On Alert for Pt:+

NEW SHARON FD
1ST RESPONDERS

VERNON FD VOLUNTEER AMBULANCE

RIDGEWAY EMS

MVC

ED On Alert for Pt: +

RIDGEWAY FD EXTRICATION/HAZ MAT

RIDGEWAY HOSP.

2 Patients/45MPH

Car/Object/Head On

++Severity

Ames St. to Clark St. to Old Highway (E); 15.2 Mi.s; #3945 Old Highway

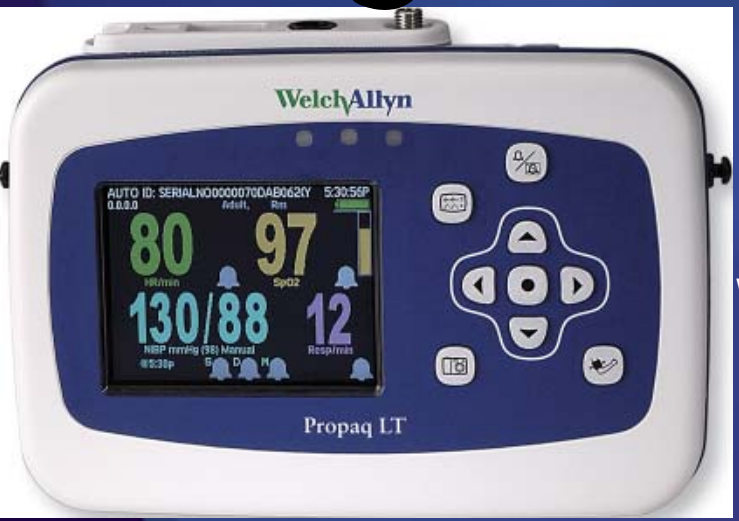
ETA: 10 Min's.

At Scene: “I wonder…”

Electronic Health Record

Portable PSCD Type Platform

Speech Recognition Input



Wireless Patient Monitoring

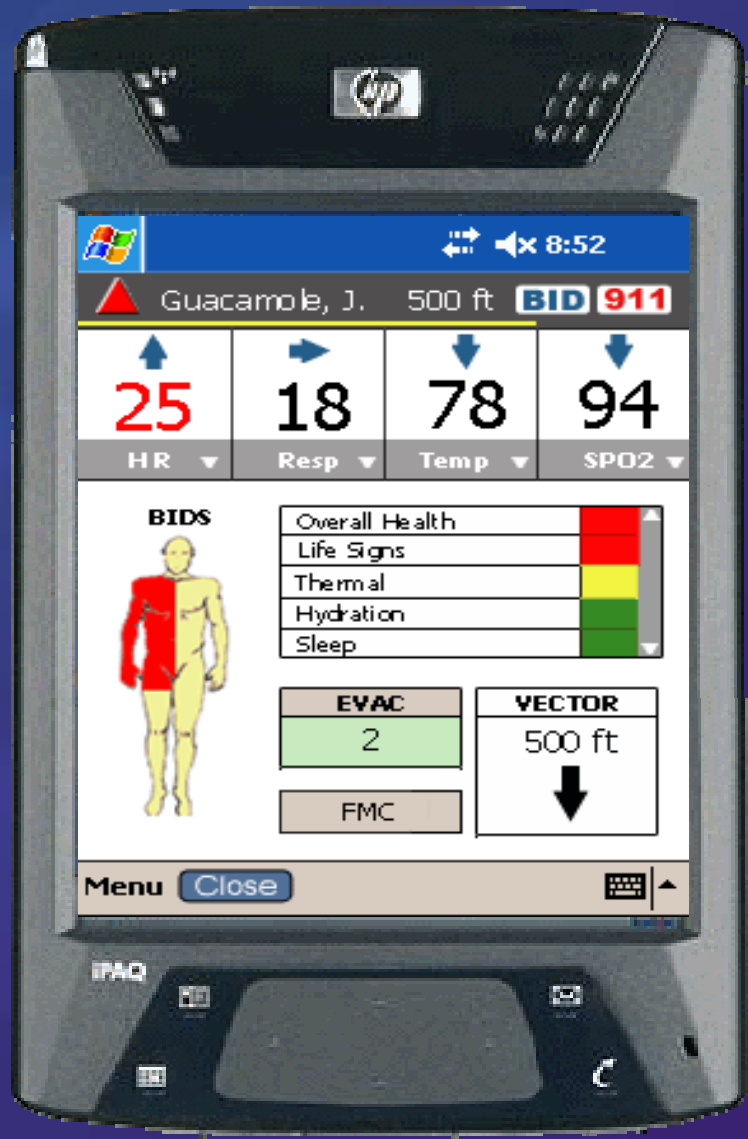


Diagram content courtesy of the Department of Defense, Telemedicine & Advanced Technology Research Center

Ridgeway Hospital

UNITED AMB.

UNITED CCT

United Wheelchair

EMSREMS

DOTREMS

MERCY HOSP.

LIFE FLIGHT

To **MVC**

MVC

JONES MEM. HOSP. (DIVERT)

CARDIAC

CITY TRAUMA CTR.

- SOAP Notes
- 3/4 Lead EKG
- 12 Lead EKG
- VS Monitor

MVA

MVC

Pt.1

Pt.2

VERNON FD VOLUNTEER AMBULANCE

RIDGEWAY EMS

RIDGEWAY HOSP.

Specialist Call List

Service Call List

Tib/Fib Fx x1/x1

AO x 4

140/90;88;18;CR+

2ary -; GCS-,TS-

Needs Summary

- Polling Devices (No → BMIS-T)
- Accessible Databases
- Database Interfaces (USDHS: CAP, DE, NIEM)
- Interoperable Voice/Data Communications (USDHS: NIEM, SafeCom/DM)
- Wall-to-Wall Connectivity/Accessibility (Rural Areas)
- Further Technology Development
  - Radio Frequency ID Applications
  - Advanced Automatic Collision Notification (AACN)
  - Software Defined Radio
  - Alerting (Vehicle and System)
  - Speech Recognition (No → DOD/TATRC)
  - Video/Medical Device Output (Beginning)

RANGELEY
REGION
AMBULANCE