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Association of Transportation Safety Information Professionals

2002 Traffic Records Best Practice
Application Form

Part 1 - Project Summary

PROJECT TITLE: Emergency Response Information System
(ERIS)

APPLICATION ORGANIZATION:

Lead Agency: Iowa Dept. of Transportation

Nominating Person: Joyce Emery

Title: Program Manager

**Project Manager: Joyce Emery, George Oster, and
Dr. Reg Souleyrette**

**Agency: George is associated with the Fire Service
Training Bureau, Iowa Department of Public
Safety**

**Reg is with the Center for Transportation
Research and Education, Iowa State
University**

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Identify to which national agenda goal(s) this applies:

**Goal II: with a focus on the information needs of first
responders and those who need to coordinate planning
efforts with that group**

Was this item to be addressed according to your traffic records committee's strategic plan? If yes, which item.

This project began under the auspices of the Iowa Safety Management System Coordination Committee, addressing problems in the Emergency Response area. ERIS was conceived as a solution to the problems dealing with planning and communications.

The Iowa SMS has created a "Toolbox of Highway Safety Strategies" in lieu of a strategic plan. ERIS is listed as a "successful implemented strategy" under Section 24 of the Toolbox: Enhancing Emergency Response Capabilities to Increase Survivability.

The ongoing oversight for ERIS now resides with the Iowa Statewide Traffic Records Advisory Committee (STRAC). All three project managers of ERIS are members of both committees, SMS and STRAC (George Oster being a recent addition to STRAC).

ERIS funding came from various state and federal sources: however, Section 402 and Section 411 funds were not involved.

PROJECT COST:

The scope of the project was to create a statewide framework and operational model and to completely populate the desired data fields in a pilot set of 20 of Iowa's 99 counties. These counties include those anticipating major highway reconstruction during the next five years, necessitating coordination among highway authorities and local first responders. Reported costs relate to this completed project.

Planned: \$ we proceeded as funds became available

Actual: \$ approximately \$50,000 has been spent on field data collection, training and equipment. (Estimate to complete this for the entire state is about \$80,000.)

The design of ERIS and the entry of response services' boundaries into a GIS were carried out as part of Iowa's larger safety data GIS development. This umbrella GIS is now called SAFER, for SAFETY Exploration Resource. ERIS is a subset of SAFER that is structured for the needs of a particular user group. ERIS's current form for distribution is a CD, with hopes of an Internet application in the future.

The costs of ERIS within the larger SAFER development are almost negligible. SAFER development began in January 1997 and has been ongoing since then, totaling somewhere between \$300,000 and \$400,000 (exclusive of the Location Tool for capturing location and attaching location to records).

Project benefits: (Both Tangible And Intangible)

The ERIS CD will be distributed in May 2002 to various safety professionals in the 20 counties that provided detailed information, and to others across the state who wish to see what it is. The benefits and uses include:

- Strategic planning resource
- Emergency route evaluation
- Response time optimization
- Incident command organization
- Funding option consideration
- Service sharing
- Equipment/vehicle purchase coordination
- Coordination with highway construction projects and road closings
- Assessment of emergency response needs

Also related: Coordination with rural water, pipeline safety planning, and hazardous materials incidents.

The intangible benefits relate to the empowerment of Iowa's rural volunteer fire, rescue, and emergency medical services first responders. They will have a source of information to communicate, plan, and evaluate that is user-friendly and fully accessible. The fire services, particularly, have no state-level bureaucracy to assist them in these functions. The Fire Service Training Bureau was recently transferred from Iowa State University Extension Services to the Iowa Department of Public Safety, Office of the State Fire Marshal. However, it retains non-regulatory status.

PART 2 - PROJECT DETAIL

NARRATIVE

Please describe the scope of the project and how it relates to the 6 Goals of the 'National Agenda for the improvement of highway safety information systems'.

As previously mentioned, the scope of this project was to build a model system in which readily obtainable statewide datasets would be available for every county, and in which the additional data requiring labor intensive field data collection be completed for a subset of 20 of Iowa's 99 counties.

The information already available for each county includes hospital locations, hazardous material response affiliations, emergency management coordinator contact information, selected census data, and contact information for the various first responder service providers in every county. It also contains all public roads, crashes, waterways, and municipal and township boundaries.

The information available for the 20-county subset adds the map boundaries for the services and details about the staffing, training levels, and equipment of each service provider.

The ERIS CD includes two ways to look up information. One part of the system is in Microsoft Access format, while the GIS portion is in ESRI's ArcExplorer, a display and look-up tool which may be distributed free of charge to users. All databases may be accessed from either of the two formats, whichever is preferred by each customer. Researchers may utilize ERIS's data in a fully functional GIS platform such as ArcView or ArcInfo.

A method of updating records has been designed but not implemented. As local agencies begin to use ERIS, it is anticipated that many of them will choose to update their own records according to the method provided. This will really work better if the intended Internet version becomes reality, so that authorized members of the local services can do instant updates.

Alternatively, the county emergency management coordinators might take on the task of keeping their own county updated, or a state agency may wish to coordinate that effort. These groups need a period of time to gain knowledge of ERIS in order to assist in determining just how ERIS should expand and be maintained within the state. The Center for Transportation Research and Education at Iowa State University is willing to provide a technical support home for ERIS and work with a state coalition far expanded from the initial partners who developed it.

At the time of the Forum, we may know more about the general support and acceptance of ERIS, and how rapidly the fulfillment of the vision and design may occur. Right now, only groups at meetings and conferences have seen the product. It won't be in the hands of the customers for at least another month.

Relationship to National Agenda Goals

Goal 1: ERIS will be the only highway safety information tool that many first responders ever work with. As such, they'll discover how much power information confers to those trying to make improvements in safety. Thousands of ordinary Iowans could potentially make direct use of ERIS, considering all the people within the areas of EMS, HazMat, Fire and Rescue, and Police. Since the Fire and Rescue first responders in Iowa are predominantly volunteers with no strong ties to a central authority, they have lacked access to modern analysis tools and information systems.

It will be informative for local people to see the crashes mapped for their area, one of the GIS data layers within ERIS.

Goal 2: This is the most significant goal for ERIS. ERIS is a way of bringing a particular subset of Iowa's overall transportation safety GIS, called SAFER, to a major user group who would otherwise have great difficulty obtaining and using this information. In addition, special related data was collected in the field and added to the central files of SAFER to make ERIS even more valuable to its target audience.

We all know that it is difficult to maintain old data systems, let alone establish a new one. It is even more challenging to do so as a coalition (SMS) lacking legislation or an agency mandate to collect the new information. However, there was a clear need for aggregating the information into a central, coherent system. The sponsors of ERIS felt "if we build it they will come." And coming they are.

ERIS has been invited to present to the state office in charge of homeland security as well as the state office in charge of bio-terrorism. Very serious interest has been

shown by both the Iowa Rural Water Association and by a regional pipeline company. Everyone, it seems, wants a central source of the very data within ERIS, and ERIS is the only game in town. It is critical to the future highway safety applications of ERIS that these other potential partners step forward in the near future and fund the remaining development.

Although ERIS was well developed by September 11, 2001, the additional financial resources now available, and the recognized need, may help complete the investment started by the highway safety community. Marketing of ERIS to groups *outside* the traditional highway safety community is now of great importance. For the first time, the Iowa SMS has spawned a valuable project that has grown beyond its own purview. SMS alone is not a broad enough coalition to guide ERIS to full deployment. Such an entity must—and will-- be invented.

Goal III. There are also aspects of some relevance to this goal, with a new twist. ERIS can help integrate the planning of highway safety programs and highway safety information systems not just internal to highway safety, but as these systems relate to broader social, economic, and public safety programs and broader information systems. We in the highway safety information arena are proud to be at the forefront with ERIS, of having prepared the foundation, assuring that highway safety goals are promoted and the technology we developed is broadly institutionalized.

(No remarks for the remaining three goals.)

Describe the major process steps that you went through to do this project:

1. The SMS Coordination Committee identified a set of needs related to Emergency Response, and created the Emergency Response Task Force.
2. The task force designed and executed a pilot project in three counties to learn more about the needs and challenges of emergency responders.
3. ERIS was conceived as a useful strategy to the issues found. An ERIS Task Force was formed.
4. The ERIS task force, led by the Fire Service member of the SMS, did the conceptual design for the system, and CTRE did the creative and technical work to make it a reality. Contracts were set up with the ISU Extension Service for field data collection.
5. The Iowa DOT contributed \$20,000 in funding for pilot counties of its own choice, greatly increasing the number of counties with complete data collection.
6. Presentation tools and equipment were purchased for use while ERIS was under development and also for implementation. This included special CDs about ERIS as well as a dedicated laptop computer given to the Fire Service Training Bureau for use in training about ERIS.

Did the project successfully achieve the benefits identified earlier?

Too early to tell.

Yes _____

No _____

Describe how the project actually met or did not meet the benefits:

The ERIS team is pleased with the response to our project thus far. Several groups eagerly await the placement of the CD into their hands. One of these groups is the I-235 reconstruction team for rebuilding the interstate through the center of Des Moines. (Polk County was included in the 20 finished counties.)

Submit via mail to:

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