ACRP Problem Statement: 14-04-13

Comprehensive Emergency Response Exercises

Recommended Funding Amount: $350,000

ACRP Staff Comments

In addition to Report 65: Guidebook for IROPS Contingency Planning, ACRP Project 10-23, IROPS Stakeholder Communication and Coordination, will be developing table-top scenarios related to IROPS contingency planning. There are also similarities with Problem Statement 15-04-04 Modernizing Airport Emergency Response.

TRB Aviation Group Committee Comments

AVIATION SECURITY AND EMERGENCY MANAGEMENT: A properly developed exercise design and facilitation would be a benefit to aviation emergency response effectiveness and identification of planning gaps appropriate mitigation procedures. However, an important issue not mentioned in the problem statement is how expected significant differences of opinion will be addressed between managers and staff when they are surveyed. Also note that aviation accidents may often occur outside the airport perimeter.

Review Panel Comments

Recommended. The proposed research could build on ACRP Report 95: Integrating CERT Response Teams at Airports by discussing more airport exercises. It could be a benefit to airports.
1. **Problem Statement Title**
   Comprehensive Emergency Response Exercises

2. **Background**
   Comprehensive plans and routine training to respond to natural or human induced disasters and other aviation emergencies are imperative for an effective response and recovery. Planning for airport wide or regional events is recognized as an essential element of airport manager’s role and responsibility as airports play a lead role in managing emergencies that directly impact their operations as well as providing critical support to regional disaster response efforts. All 49 CFR Part 139 Certificated airports conduct required emergency response exercises using a variety of aviation based scenarios as part of regular planning and training activities. Valuable information regarding the effectiveness of particular strategies, equipment, personnel deployment and other response and recovery efforts generated at these events remains with the local or regional exercise participants. A collection of best practices, recommended procedures, response plans, and other guidance garnered from these exercises can be compiled and distributed to maximize the effectiveness of plans and training efforts across airports and regional emergency response agencies.

   Information and guidance on the primary elements of emergency response planning and training can be shared to enhance these required programs and to allow airport operators to expand their capacity to support the efforts of emergency managers in other response agencies.

   While each airport is a unique environment with a variety of existing practices and procedures for emergency response, the principles underlying their efforts and best practices for comprehensive emergency response exercises can be compiled and shared to benefit other facilities with similar needs. A review of available training materials, emergency exercise summation reports, and records of actual response and recovery events will produce invaluable information for distribution to other airports and emergency response agencies. Research elements to support this project will include strategies and methods for efficient and effective training; recommendations for exercise implementation, to include topics and scenario elements beyond the “typical” emergencies involving aircraft operations directly, and or regional air service disruptions. The research will also include an evaluation of the costs involved in preparing for unforeseen events and the steps needed for adequate collaboration with nearby agencies, mutual aid first responders, cities, and municipalities. An evaluation of the integration of command systems and impacts of equipment or facility damage will also be addressed by the research.

3. **Objective**
   The objective of this research is to provide information on best management practices adopted by airport and other emergency response agencies to support airport managers as they develop and refine their own comprehensive emergency response exercises.
4. **Proposed Tasks**
The research plan should include the following tasks:

- Review of current practices related to the emergency response exercises conducted at airports and supporting agencies across a variety of airports by size, number, and type of operations and geographic regions
- An assessment of past and current practices to identify best practices that are transferable to other airports and response agencies
- Recommendations for training programs and specific curriculum for emergency response personnel from all levels, including answers to the following questions:
  - Who should be trained on what elements of emergency response planning, training development programs, and exercise management?
  - How airport management, public safety, and emergency response leadership can best identify the individuals who should be trained to each element of the comprehensive program?
  - What are the most effective training methods and materials (cost/benefits or advantages/disadvantages of each)?
  - How is communication facilitated over time and key personnel included in any updates and changes to procedures?
  - How can technology, equipment, and supporting systems operated by disparate entities be integrated to facilitate quick and efficient response?

5. **Estimated Funding**
This project is expected to require $200,000 to complete the state research objective.

6. **Estimated Research Duration**
This research project is expected to require 12 months to complete the stated research objective.

7. **Related Research**
Existing work in this topic area exists in various levels at many airports across the US in plans for responding to airport emergencies. The Center for Transportation Studies at the University of Minnesota has prepared an *Emergency Guidebook for General Aviation Airports*. An FAA Advisory Circular (120-92A) specifies that periodic exercises should be conducted by an airport and another advisory circular (150/5200-31C) provides information about airport emergency planning. ACRP has also published a relevant document - *Report 65: Guidebook for Airport Irregular Operations (IROS) Contingency Planning.*

8. **Process Used to Develop the Problem Statement**
This problem statement was developed from a focus group webinar session held on February 12, 2013. Participants in the focus group session included members of the American Association of Airport Executives (AAAE). The session was hosted by the Institute for Transportation Research and Education (ITRE). Further refinement was provided by consultation with members of the airport operations and emergency response community.
9. **Person Submitting Problem Statement and Date**

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