

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

ACRP OVERSIGHT COMMITTEE*

CHAIR

James Wilding
Metropolitan Washington Airports Authority
(retired)

VICE CHAIR

Jeff Hamiel
Minneapolis–St. Paul
Metropolitan Airports Commission

MEMBERS

James Crites
Dallas–Fort Worth International Airport
Richard de Neufville
Massachusetts Institute of Technology
Kevin C. Doliolo
Unison Consulting
John K. Duval
Austin Commercial, LP
Kitty Freidheim
Freidheim Consulting
Steve Grossman
Jacksonville Aviation Authority
Tom Jensen
National Safe Skies Alliance
Catherine M. Lang
Federal Aviation Administration
Gina Marie Lindsey
Los Angeles World Airports
Carolyn Motz
Airport Design Consultants, Inc.
Richard Tucker
Huntsville International Airport

EX OFFICIO MEMBERS

Paula P. Hochstetler
Airport Consultants Council
Sabrina Johnson
U.S. Environmental Protection Agency
Richard Marchi
Airports Council International—North America
Laura McKee
Air Transport Association of America
Henry Ogrodzinski
National Association of State Aviation Officials
Melissa Sabatine
American Association of Airport Executives
Robert E. Skinner, Jr.
Transportation Research Board

SECRETARY

Christopher W. Jenks
Transportation Research Board

TRANSPORTATION RESEARCH BOARD 2012 EXECUTIVE COMMITTEE*

OFFICERS

CHAIR: **Sandra Rosenbloom**, *Professor of Planning, University of Arizona, Tucson*
VICE CHAIR: **Deborah H. Butler**, *Executive Vice President, Planning, and CIO, Norfolk Southern Corporation, Norfolk, VA*
EXECUTIVE DIRECTOR: **Robert E. Skinner, Jr.**, *Transportation Research Board*

MEMBERS

J. Barry Barker, *Executive Director, Transit Authority of River City, Louisville, KY*
William A.V. Clark, *Professor of Geography and Professor of Statistics, Department of Geography, University of California, Los Angeles*
Eugene A. Conti, Jr., *Secretary of Transportation, North Carolina DOT, Raleigh*
James M. Crites, *Executive Vice President of Operations, Dallas-Fort Worth International Airport, TX*
Paula J. C. Hammond, *Secretary, Washington State DOT, Olympia*
Michael W. Hancock, *Secretary, Kentucky Transportation Cabinet, Frankfort*
Chris T. Hendrickson, *Duquesne Light Professor of Engineering, Carnegie-Mellon University, Pittsburgh, PA*
Adib K. Kanafani, *Professor of the Graduate School, University of California, Berkeley*
Gary P. LaGrange, *President and CEO, Port of New Orleans, LA*
Michael P. Lewis, *Director, Rhode Island DOT, Providence*
Susan Martinovich, *Director, Nevada DOT, Carson City*
Joan McDonald, *Commissioner, New York State DOT, Albany*
Michael R. Morris, *Director of Transportation, North Central Texas Council of Governments, Arlington*
Neil J. Pedersen, *Consultant, Silver Spring, MD*
Tracy L. Rosser, *Vice President, Regional General Manager, Wal-Mart Stores, Inc., Mandeville, LA*
Henry G. (Gerry) Schwartz, Jr., *Chairman (retired), Jacobs/Sverdrup Civil, Inc., St. Louis, MO*
Beverly A. Scott, *General Manager and CEO, Metropolitan Atlanta Rapid Transit Authority, Atlanta, GA*
David Seltzer, *Principal, Mercator Advisors LLC, Philadelphia, PA*
Kumares C. Sinha, *Olson Distinguished Professor of Civil Engineering, Purdue University, West Lafayette, IN*
Thomas K. Sorel, *Commissioner, Minnesota DOT, St. Paul*
Daniel Sperling, *Professor of Civil Engineering and Environmental Science and Policy; Director, Institute of Transportation Studies; and Acting Director, Energy Efficiency Center, University of California, Davis*
Kirk T. Steudle, *Director, Michigan DOT, Lansing*
Douglas W. Stotlar, *President and CEO, Con-Way, Inc., Ann Arbor, MI*
C. Michael Walton, *Ernest H. Cockrell Centennial Chair in Engineering, University of Texas, Austin*

EX OFFICIO MEMBERS

Rebecca M. Brewster, *President and COO, American Transportation Research Institute, Smyrna, GA*
Anne S. Ferro, *Administrator, Federal Motor Carrier Safety Administration, U.S.DOT*
LeRoy Gishi, *Chief, Division of Transportation, Bureau of Indian Affairs, U.S. Department of the Interior, Washington, DC*
John T. Gray II, *Senior Vice President, Policy and Economics, Association of American Railroads, Washington, DC*
John C. Horsley, *Executive Director, American Association of State Highway and Transportation Officials, Washington, DC*
Michael P. Huerta, *Acting Administrator, Federal Aviation Administration, U.S.DOT*
David T. Matsuda, *Administrator, Maritime Administration, U.S.DOT*
Michael P. Melaniphy, *President and CEO, American Public Transportation Association, Washington, DC*
Victor M. Mendez, *Administrator, Federal Highway Administration, U.S.DOT*
Tara O'Toole, *Under Secretary for Science and Technology, U.S. Department of Homeland Security, Washington, DC*
Robert J. Papp (Adm., U.S. Coast Guard), *Commandant, U.S. Coast Guard, U.S. Department of Homeland Security, Washington, DC*
Cynthia L. Quarterman, *Administrator, Pipeline and Hazardous Materials Safety Administration, U.S.DOT*
Peter M. Rogoff, *Administrator, Federal Transit Administration, U.S.DOT*
David L. Strickland, *Administrator, National Highway Traffic Safety Administration, U.S.DOT*
Joseph C. Szabo, *Administrator, Federal Railroad Administration, U.S.DOT*
Polly Trottenberg, *Assistant Secretary for Transportation Policy, U.S.DOT*
Robert L. Van Antwerp (Lt. Gen., U.S. Army), *Chief of Engineers and Commanding General, U.S. Army Corps of Engineers, Washington, DC*
Barry R. Wallerstein, *Executive Officer, South Coast Air Quality Management District, Diamond Bar, CA*
Gregory D. Winfree, *Acting Administrator, Research and Innovative Technology Administration, U.S.DOT*

*Membership as of July 2011.

*Membership as of February 2012.

ACRP REPORT 65

Guidebook for Airport Irregular Operations (IROPS) Contingency Planning

J. Michael Nash
Rose Agnew
AVIATION INNOVATION, LLC
St. Louis, MO

Stephanie A.D. Ward
Regan A. Massey
Tim Callister
Ron McNeill
MEAD & HUNT, INC.
Madison, WI

Frank Barich
Justin Phy
BARICH, INC.
Chandler, AZ

Eric Tolton
GREATER TORONTO AIRPORTS AUTHORITY
Toronto, Canada

Subscriber Categories
Aviation • Operations and Traffic Management

Research sponsored by the Federal Aviation Administration

TRANSPORTATION RESEARCH BOARD

WASHINGTON, D.C.
2012
www.TRB.org

AIRPORT COOPERATIVE RESEARCH PROGRAM

Airports are vital national resources. They serve a key role in transportation of people and goods and in regional, national, and international commerce. They are where the nation's aviation system connects with other modes of transportation and where federal responsibility for managing and regulating air traffic operations intersects with the role of state and local governments that own and operate most airports. Research is necessary to solve common operating problems, to adapt appropriate new technologies from other industries, and to introduce innovations into the airport industry. The Airport Cooperative Research Program (ACRP) serves as one of the principal means by which the airport industry can develop innovative near-term solutions to meet demands placed on it.

The need for ACRP was identified in *TRB Special Report 272: Airport Research Needs: Cooperative Solutions* in 2003, based on a study sponsored by the Federal Aviation Administration (FAA). The ACRP carries out applied research on problems that are shared by airport operating agencies and are not being adequately addressed by existing federal research programs. It is modeled after the successful National Cooperative Highway Research Program and Transit Cooperative Research Program. The ACRP undertakes research and other technical activities in a variety of airport subject areas, including design, construction, maintenance, operations, safety, security, policy, planning, human resources, and administration. The ACRP provides a forum where airport operators can cooperatively address common operational problems.

The ACRP was authorized in December 2003 as part of the Vision 100-Century of Aviation Reauthorization Act. The primary participants in the ACRP are (1) an independent governing board, the ACRP Oversight Committee (AOC), appointed by the Secretary of the U.S. Department of Transportation with representation from airport operating agencies, other stakeholders, and relevant industry organizations such as the Airports Council International-North America (ACI-NA), the American Association of Airport Executives (AAAE), the National Association of State Aviation Officials (NASAO), and the Air Transport Association (ATA) as vital links to the airport community; (2) the TRB as program manager and secretariat for the governing board; and (3) the FAA as program sponsor. In October 2005, the FAA executed a contract with the National Academies formally initiating the program.

The ACRP benefits from the cooperation and participation of airport professionals, air carriers, shippers, state and local government officials, equipment and service suppliers, other airport users, and research organizations. Each of these participants has different interests and responsibilities, and each is an integral part of this cooperative research effort.

Research problem statements for the ACRP are solicited periodically but may be submitted to the TRB by anyone at any time. It is the responsibility of the AOC to formulate the research program by identifying the highest priority projects and defining funding levels and expected products.

Once selected, each ACRP project is assigned to an expert panel, appointed by the TRB. Panels include experienced practitioners and research specialists; heavy emphasis is placed on including airport professionals, the intended users of the research products. The panels prepare project statements (requests for proposals), select contractors, and provide technical guidance and counsel throughout the life of the project. The process for developing research problem statements and selecting research agencies has been used by TRB in managing cooperative research programs since 1962. As in other TRB activities, ACRP project panels serve voluntarily without compensation.

Primary emphasis is placed on disseminating ACRP results to the intended end-users of the research: airport operating agencies, service providers, and suppliers. The ACRP produces a series of research reports for use by airport operators, local agencies, the FAA, and other interested parties, and industry associations may arrange for workshops, training aids, field visits, and other activities to ensure that results are implemented by airport-industry practitioners.

ACRP REPORT 65

Project 10-10

ISSN 1935-9802

ISBN 978-0-309-21385-1

Library of Congress Control Number 2012930541

© 2012 National Academy of Sciences. All rights reserved.

COPYRIGHT INFORMATION

Authors herein are responsible for the authenticity of their materials and for obtaining written permissions from publishers or persons who own the copyright to any previously published or copyrighted material used herein.

Cooperative Research Programs (CRP) grants permission to reproduce material in this publication for classroom and not-for-profit purposes. Permission is given with the understanding that none of the material will be used to imply TRB or FAA endorsement of a particular product, method, or practice. It is expected that those reproducing the material in this document for educational and not-for-profit uses will give appropriate acknowledgment of the source of any reprinted or reproduced material. For other uses of the material, request permission from CRP.

NOTICE

The project that is the subject of this report was a part of the Airport Cooperative Research Program, conducted by the Transportation Research Board with the approval of the Governing Board of the National Research Council.

The members of the technical panel selected to monitor this project and to review this report were chosen for their special competencies and with regard for appropriate balance. The report was reviewed by the technical panel and accepted for publication according to procedures established and overseen by the Transportation Research Board and approved by the Governing Board of the National Research Council.

The opinions and conclusions expressed or implied in this report are those of the researchers who performed the research and are not necessarily those of the Transportation Research Board, the National Research Council, or the program sponsors.

The Transportation Research Board of the National Academies, the National Research Council, and the sponsors of the Airport Cooperative Research Program do not endorse products or manufacturers. Trade or manufacturers' names appear herein solely because they are considered essential to the object of the report.

Published reports of the

AIRPORT COOPERATIVE RESEARCH PROGRAM

are available from:

Transportation Research Board
Business Office
500 Fifth Street, NW
Washington, DC 20001

and can be ordered through the Internet at

<http://www.national-academies.org/trb/bookstore>

Printed in the United States of America

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

The **National Academy of Sciences** is a private, nonprofit, self-perpetuating society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare. On the authority of the charter granted to it by the Congress in 1863, the Academy has a mandate that requires it to advise the federal government on scientific and technical matters. Dr. Ralph J. Cicerone is president of the National Academy of Sciences.

The **National Academy of Engineering** was established in 1964, under the charter of the National Academy of Sciences, as a parallel organization of outstanding engineers. It is autonomous in its administration and in the selection of its members, sharing with the National Academy of Sciences the responsibility for advising the federal government. The National Academy of Engineering also sponsors engineering programs aimed at meeting national needs, encourages education and research, and recognizes the superior achievements of engineers. Dr. Charles M. Vest is president of the National Academy of Engineering.

The **Institute of Medicine** was established in 1970 by the National Academy of Sciences to secure the services of eminent members of appropriate professions in the examination of policy matters pertaining to the health of the public. The Institute acts under the responsibility given to the National Academy of Sciences by its congressional charter to be an adviser to the federal government and, on its own initiative, to identify issues of medical care, research, and education. Dr. Harvey V. Fineberg is president of the Institute of Medicine.

The **National Research Council** was organized by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and advising the federal government. Functioning in accordance with general policies determined by the Academy, the Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in providing services to the government, the public, and the scientific and engineering communities. The Council is administered jointly by both Academies and the Institute of Medicine. Dr. Ralph J. Cicerone and Dr. Charles M. Vest are chair and vice chair, respectively, of the National Research Council.

The **Transportation Research Board** is one of six major divisions of the National Research Council. The mission of the Transportation Research Board is to provide leadership in transportation innovation and progress through research and information exchange, conducted within a setting that is objective, interdisciplinary, and multimodal. The Board's varied activities annually engage about 7,000 engineers, scientists, and other transportation researchers and practitioners from the public and private sectors and academia, all of whom contribute their expertise in the public interest. The program is supported by state transportation departments, federal agencies including the component administrations of the U.S. Department of Transportation, and other organizations and individuals interested in the development of transportation. **www.TRB.org**

www.national-academies.org

COOPERATIVE RESEARCH PROGRAMS

CRP STAFF FOR ACRP REPORT 65

Christopher W. Jenks, *Director, Cooperative Research Programs*
Crawford F. Jencks, *Deputy Director, Cooperative Research Programs*
Michael R. Salamone, *ACRP Manager*
Theresa H. Schatz, *Senior Program Officer*
Joseph J. Brown-Snell, *Program Associate*
Tiana Barnes, *Senior Program Assistant*
Eileen P. Delaney, *Director of Publications*
Doug English, *Editor*

ACRP PROJECT 10-10 PANEL **Field of Operations**

Torrance Richardson, *Fort Wayne–Allen County (IN) Airport Authority, Fort Wayne, IN (Chair)*
Daniel D'Ambrosio, *National Air Traffic Controllers' Association, Las Vegas, NV*
Al Graser, *The Port Authority of NY & NJ (retired), Port Washington, NY*
Philip D. Hogg, *Ricondo & Associates, Inc., Chicago, IL*
F. Paul Martinez, *Dallas/Fort Worth International Airport, DFW Airport, TX*
Randy S. Satrum, *NWA – General Manager, Retired, Parker, CO*
Ashly “Jerry” Tissera, *Servisair, Philadelphia, PA*
Liv Vaughn Chapman, Jr., *FAA Liaison*
Paul James Eubanks, *Airports Council International – North America Liaison*
Richard A. Cunard, *TRB Liaison*

FOREWORD

By Theresia H. Schatz

Staff Officer

Transportation Research Board

ACRP Report 65: Guidebook for Airport Irregular Operations (IROPS) Contingency Planning is a practical guidebook for commercial passenger service airports of all sizes to develop, continually evaluate, and update their contingency plans for procedures pertaining to IROPS that may cause significant disruptions to customers. This guidebook assists aviation system partners in improving their response to customer care during a broad array of IROPS conditions and with step-by-step templates for the preparation of contingency plans that include necessary communications, collaboration, and coordination to address customer needs. A specific focus on the needs of smaller airports has been included in the development of the guidebook.

Meeting customer core needs during irregular operations (IROPS) is a critical problem for airports, airlines, and aviation service providers. IROPS are events that disrupt optimized flight schedules and negatively affect the normal flow of passengers through the air transportation system. In the wake of weather-related multi-hour disruptions in 2007 and 2008, several workshops (including the September 2007 Dallas–Fort Worth (DFW) IROPS Workshop, the July 2008 DFW Regional Diversion Airport/Airline Workshop, and the January 2008 ACI-NA IROPS Workshop) were held to proactively address these challenges and set the stage for communication, collaboration, and coordination and identify best practices within the industry. These workshops identified potential action areas for improvement, among which were:

- Airlines, airports, government agencies, and other system partners should update contingency plans and should include sufficient collaboration;
- Communication among these parties should be collaborative, coordinated, and ongoing; and
- Service providers (e.g., concessionaires, ground transportation) should continually evaluate the level of services provided in meeting customer needs during IROPS.

To address these action areas, a national task force was appointed by the Secretary of the U.S. Department of Transportation and produced model contingency plan recommendations in November 2008. This task force included government employees, representatives of airlines, airports, and consumer groups. The task force produced a recommended Model Plan for Lengthy Airline Onboard Ground Delays. The Department of Transportation also established regulations for enhancing airline passenger protections, which require air carriers to develop and adhere to individual contingency plans at all airports they serve, including diversion airports. In addition, at the more recent forum conducted by the Federal

Aviation Administration on November 30, 2011, with airlines, airports, and government officials, the FAA pledged to make immediate changes to eliminate lengthy tarmac delays due to IROPS.

Contingency planning for large, medium, and small airports, using a collaborative and coordinated approach among key airport stakeholders, is essential to address current and evolving aviation challenges that disrupt the normal flow of passengers through the air transportation system. This research has been conducted to provide additional assistance in this area.

ACRP Report 65 provides the checklists to develop, continually evaluate, and update contingency plans for response procedures pertaining to IROPS. Access to an interactive form of the practical checklists can be accessed on the TRB website at <http://www.trb.org/Main/Blurbs/166569.aspx>.

CONTENTS

PART 1. Fundamentals of IROPS Planning

xi	How to use this Guidebook
1	Introduction
1	Why do we need a guidebook?
1	How does this guidebook meet the need?
2	Who can use the guidebook?
3	Role of the IROPS Champion and partnering for success
5	Process for developing an IROPS Response Plan
7	Chapter 1 – Executive Buy-In/Get Organized
7	1.1 Description
7	1.2 Creating Executive Buy-In
7	1.3 Identifying the IROPS Champion
7	1.4 Establishing IROPS Contingency Response Committee
8	1.5 Notification and Contact Lists
9	Chapter 2 – Document Current Situation
9	2.1 Description
9	2.2 Reviewing Existing IROPS Response Plans
10	2.3 Reviewing Local IROPS Events and Assessing Local Situation
11	2.4 Passenger Needs
12	2.5 Current Response Capabilities
13	Chapter 3 – Establish Procedures to Cooperate
13	3.1 Description
13	3.2 Cooperation Procedures
14	3.3 Technology Considerations
15	Chapter 4 – Review, Update, and Training
15	4.1 Description
15	4.2 Periodic Review
15	4.3 Update
15	4.4 Training
17	Chapter 5 – Consolidated Cooperation Actions during an Event
17	5.1 Description
17	5.2 Monitoring IROPS Event Indicators
18	5.3 Executing IROPS Response Plans and Procedures
21	Chapter 6 – Capturing Lessons Learned and Updating Plans
21	6.1 Description
21	6.2 Debrief after an IROPS Event
21	6.3 Lessons Learned
23	Summary

PART 2. Resources

25	Resource A – Topics for IROPS Plan Development
95	Resource B – Model IROPS Contingency Plan

129	Resource C – Tools
	Tool 1 IROPS Planning Process
	Tool 2 DFW’s Sample for Partnering for Success
	Tool 3 Responsibilities of the Airport IROPS Contingency Response Committee
	Tool 4 Questions for Initial IROPS Committee Meeting
	Tool 5 Implementation Checklist for Evaluating IROPS Plans
	Tool 6 Self-Assessment Questionnaire
	Tool 7 Example Resource Inventory Checklist
	Tool 8 Concessions Checklist for Snow and Hurricane Events
	Tool 9 Airport-Airline 24/7 Contact and Capability Summary
	Tool 10 Technology Solutions
	Tool 11 Sample Workshop Agenda
	Tool 12 National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) Checklist
	Tool 13 Sample Communication Plan
	Tool 14 Social Media
	Tool 15 During an Event Tools
	Tool 16 Diversion Checklist
	Tool 17 After an Event Debrief
195	Resource D – Sample IROPS Plan
229	Bibliography
235	Appendix A – Contributors to the Focus Groups/Testing Sites
239	Appendix B – Glossary of Terms
243	Appendix C – Acronyms and Abbreviations

PART 1

FUNDAMENTALS OF IROPS PLANNING

PART 1

PART 2

Resource A

Resource B

Resource C

Resource D

Bibliography

Appendices

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

HOW TO USE THIS GUIDEBOOK

This guidebook has been developed to assist airports in the development of Irregular Operations (IROPs) contingency plans. It is the result of nearly 24 months of research, including surveys, focus groups and case study testing of the draft guidebook. The result is a multi-part document that can be used to develop an IROPs plan and assist an airport in its response to IROPs events when they happen.

The guidebook includes several sections (detailed in the following paragraphs) that should be used together to address IROPs planning to support the needs of passengers. The data contained herein should be tailored to meet the specific needs of each airport and their respective aviation service providers. The guidance provided in Part 1 explains the IROPs planning process, while the resources in Part 2 provide the topics, tools, and templates necessary to develop an airport IROPs contingency plan.

Part 1 – Fundamentals of IROPs Planning is designed to summarize the importance of IROPs planning and discuss the process that is used for developing a plan and executing it when an IROPs event takes place. This section should be read by all interested parties as it provides the foundation for the understanding of the IROPs planning process.

Part 2 – Resources is provided to support the development of an individual IROPs plan for an airport. These resources include several elements that provide additional detail, samples, and tools that can be used to not only develop an IROPs plan, but also implement it when an IROPs event occurs.

Resource A – Topics for IROPs Plan Development provides both text and tables to support the completion of the Model Plan (Resource B). Guidance is provided with each of these topics to assist the reader in understanding the questions to be asked and the information to be gathered to develop an IROPs plan. A matrix is included that identifies the various parties to coordinate with when completing each of the topics.

Resource B – Model IROPs Contingency Plan contains the text for an IROPs plan. The information collected through the topics in Resource A can be inserted into the Model IROPs Plan and used to generate a draft IROPs plan document. The guidebook user should make revisions to the Model Plan text in order to address specific and unique needs of their individual airport.

Resource C – Tools includes checklists, worksheets, and sample agendas that support the development of an IROPs plan and can be used during an IROPs event. These should be tailored by the guidebook user to meet specific airport needs.

Resource D – Sample IROPs Plan provides the reader with an example of a completed IROPs plan. This sample illustrates the type of information that should be collected and included when developing an IROPs plan.

Bibliography are included that list the numerous resources used to develop the guidebook.

Appendix A – Contributors to the Focus Groups/Testing Sites lists contributors who provided valuable insight into the IROPs planning process. Their participation is greatly appreciated by the project team.

PART 1

PART 2

Resource A

Resource B

Resource C

Resource D

Bibliography

Appendices

Appendix B – Glossary of Terms includes definitions of terms used throughout the guidebook.

Appendix C – Acronyms and Abbreviations provides a listing of acronyms and abbreviations used throughout the guidebook.

INTRODUCTION

Why do we need a guidebook?

Since aircraft began to fly and carry passengers for hire, there has always been the potential for delays; however, today with the vast number of passengers, airlines and economic and physical constraints placed on the aviation system, the potential for significant delays has never been greater. Over the past ten years, the issue of tarmac delays and related Irregular Operations (IROPS) events has really pushed concern to the forefront of our industry. Passengers and politicians alike are demanding that these issues be addressed. This has prompted ideas like a passenger bill of rights to emerge as well as several U.S. DOT rules in order to protect passenger needs during these delays.

The United States Department of Transportation (DOT) recently made changes to its rules concerning the requirement for air carriers to coordinate their Tarmac Delay Contingency Plans directly with airports. While these changes apply only to airlines, your airport's participation in the response efforts of airlines is crucial to helping prevent the types of Irregular Operations (IROPS) incidents that have happened in the past and that have resulted in significant passenger harm and public relations nightmares for airports.

Negative impacts to passengers have been considerably reduced at airports that have developed and implemented their own comprehensive, coordinated plan for dealing with IROPS situations. Participation by airport operators involves a variety of areas, including facilitating communication and providing facilities as well as services to support airline response efforts.

Your airport's IROPS contingency plan will ensure that your support efforts are properly aligned with response efforts of the Federal Aviation Administration (FAA), Transportation Security Administration (TSA), Customs and Border Protection (CBP), and airlines, and that the airport community's goal of mitigating the hardships on passengers during IROPS situations is realized. Please note that for the purposes of this guidebook, references to the FAA include all forms of air traffic control (ATC) services.

For the purposes of this document, the term "IROPS" is intended to describe those exceptional events that require actions and/or capabilities beyond those considered usual by aviation service providers. An example of these events is the occurrence of too many unexpected aircraft at an airport causing unique staffing and resource needs by both the airport and passengers. Additionally, any references to an IROPS contingency plan will be referred to as an "IROPS contingency plan," an "IROPS response plan," or an "IROPS plan."

How does this guidebook meet the need?

The objective of ACRP Project 10-10, "Guidebook for Airport Irregular Operations (IROPS) Contingency Planning" was to prepare a practical airport IROPS response planning document for commercial passenger service airports of all sizes to improve customer service during times of adverse weather and unplanned conditions. The findings have been published as this report, *ACRP Report 65: Guidebook for Airport Irregular Operations (IROPS) Contingency Planning*.

ACRP Report 65 provides focus on responses to situations that involve:

- Tarmac delays
- Passenger surges in terminals and security areas
- Terminal passenger capacity

- Off-hour conditions related to staffing for key areas such as access through security and staffing for TSA and CBP functions, as well as for concessions
- Passenger conditions during extended stays both in terminals and off-site
- Planning for special needs passengers

Users of this guidebook are given step-by-step instructions on how to prepare and/or refine their IROPS plans. The flexibility of the guidebook material enables airports to either make improvements to existing IROPS plans or create a completely new plan, and it is scalable to relate to large, medium, and small airports. *ACRP Report 65* focuses on collaboration and coordination to ensure that customer needs are met.

ACRP Report 65 draws from the United States DOT *Model Plan for Lengthy Airline Onboard Ground Delays*, created by its national task force. However, additional research was performed by the ACRP Project 10-10 team to round out this guidebook, including:

- Administering a survey that addresses IROPS planning, events, and concerns at 400+ airports
- Assessing summary material from airport IROPS response workshops held across the nation, independent of this research project
- Hosting focus groups and site visits
- Assessing IROPS response planning requirements
- Identifying examples of IROPS response planning best practices from airports around the country

Figure 1 illustrates the sequence of events related to IROPS contingency planning five years prior to the publication of *ACRP Report 65*.

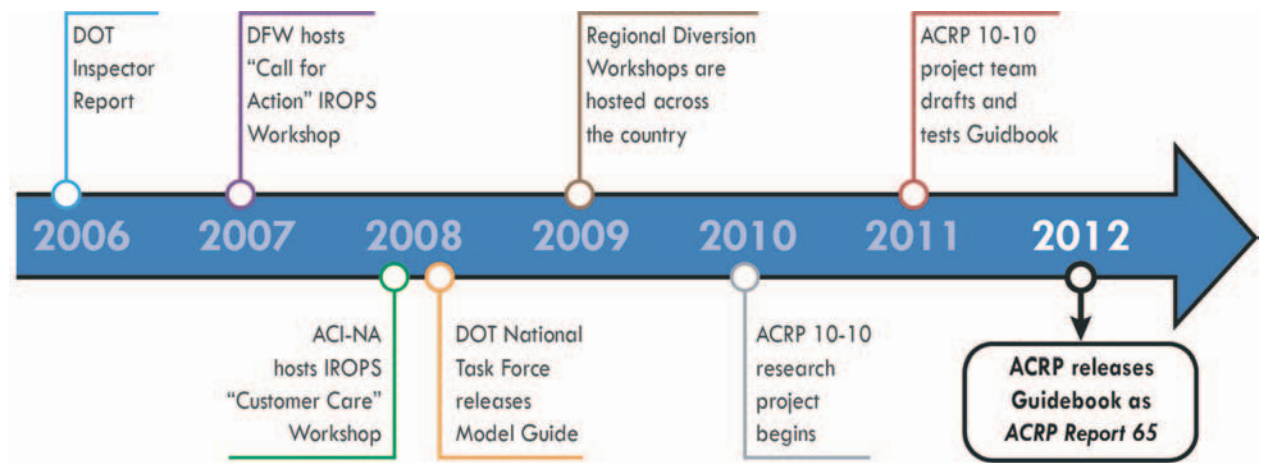


Figure 1. *Timeline of IROPS Planning Initiatives.*

Who can use the guidebook?

This guidebook can be used by commercial passenger service airports of all sizes to develop, continually evaluate, and/or update their IROPS plans for procedures pertaining to IROPS.

You will encounter icons throughout this guidebook that will direct you to additional resources available:



Topics = This icon highlights topics that can be found in **Resource A – Topics for IROPS Plan Development** of this guidebook.



Tools = This icon highlights tools that can be found in **Resource C – Tools** of this guidebook.

Airports that do not have an existing IROPS plan should consider using Resource A – Topics for IROPS Plan Development to assist in the development of an initial draft IROPS plan for their airport. Airports that do have an existing IROPS plan should use the topics in Resource A to guide an evaluation review and/or update of their plan as needed. Resource C contains tools that can be used by airports in either case to strengthen their IROPS planning efforts. In either instance, the use of a local IROPS Champion (described below) is recommended in implementation of the review and development process.

Role of the IROPS Champion and partnering for success

During the development of this guidebook, one message emerged as being common to all successful IROPS contingency response efforts. That message is simple, but critically important: communicate - communicate - communicate. In applying this guidebook, this means bringing aviation service provider organizations (listed in **Figure 2**) together so they can explore ways to support one another to address current and evolving aviation challenges that disrupt the normal flow of passengers through the air transportation system.

To best use this guidebook, it is recommended that airport management identify a point person, known as the IROPS Champion, who will be responsible for carrying out all of the necessary tasks, coordinating efforts between all service providers involved in IROPS events, and developing a partnering environment. (**Figure 3** outlines the responsibilities of the IROPS Champion.) This person may be the airport manager, or in some instances it may be another management or operations staff member. If an IROPS Champion is utilized, it is imperative that the airport manager exhibit support to the IROPS Champion so the aviation service providers involved in the development and implementation of the IROPS plan know the IROPS Champion is empowered to develop the plan. (**Figure 4** illustrates the relationship between airport management, the IROPS Champion, and aviation service providers.)

Aviation Service Providers

- Airport Operations
- Airlines
- Government Agencies (FAA, CBP, TSA)
- Concessionaires
- Ground Transportation Agencies
- Fixed Base Operators (FBOs)
- Overnight Accommodations
- Emergency Response Providers
- Military (if joint-use facility)
- Diversion Airports

Figure 2. Aviation Service Providers.

- Read **Part 1 - Fundamentals of IROPS Planning** and **Part 2 – Resources of ACRP Report 65**
- Distribute Topic Worksheets to appropriate service providers (**Resource A**)
- Collect worksheets
- Input worksheet data into Model IROPS Plan (**Resource B**)
- Distribute completed coordinated IROPS plan to appropriate service providers
- Update IROPS plan as needed

Figure 3. IROPS Champion Responsibilities.



Figure 4. Relationship between Airport Management, the IROPS Champion, and Aviation Service Providers.

One of the most important responsibilities of the IROPS Champion is to encourage communication, coordination, and collaboration between service providers at an airport. In order to provide mutual support and focus on cooperation, service providers must first find a way to bridge the gap between feeling that they need to go it alone with individual plans and reach an environment of partnering for success to develop a collaborative regional contingency plan to provide a coordinated response to IROPS events. This can be accomplished by taking attitudes such as those listed in **Figure 5** on the left and converting them to those on the right.

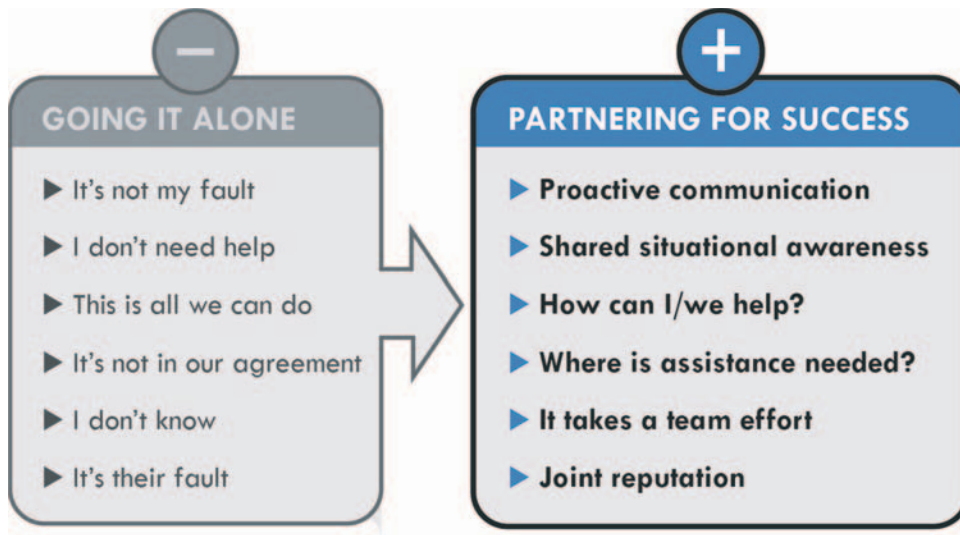


Figure 5. Partnering for Success.

Process for developing an IROPS Response Plan

The guidebook recommends starting your airport's IROPS response planning immediately. Advanced planning is necessary to establish local agreements for cooperation and collaboration between various aviation service providers before potential IROPS events occur. Suggested IROPS planning steps to achieve cooperation and collaboration are provided in **Figure 6**.

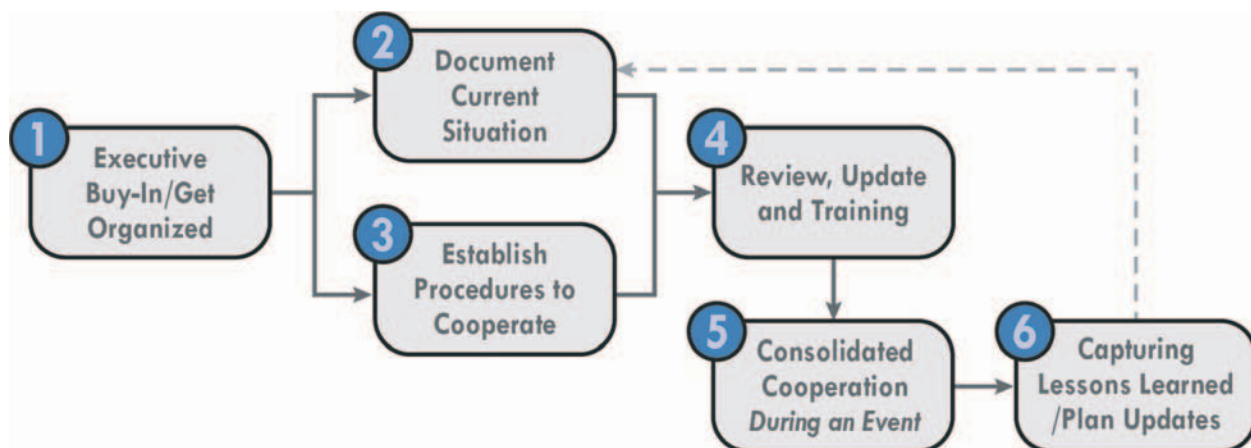


Figure 6. IROPS Planning Steps.



See Tool 1 – IROPS Planning Process and Tool 2 – DFW's Sample for Partnering for Success in Resource C for additional support.

How does an airport IROPs contingency plan relate to an Airport Emergency Plan (AEP) or National Incident Management System (NIMS)?

An AEP contains information describing how an airport plans for response to a variety of emergency situations. A significant portion of the AEP planning information and response procedures will be similar to airport IROPs procedures. Many of the same organizations will be involved in an airport's coordinated IROPs response strategy, and many of its communication procedures will be similar. Although the two plans are alike, it is important to consider the requirements of each plan separately during the planning process.

The NIMS is used across the United States and most emergency management personnel have been trained on the use and usefulness of this system when needed. Setting up the airport's Emergency Operations Center (EOC) with its inherent NIMS procedures to deal with IROPs is a decision that will need to be made on a case-by-case basis by airport personnel in charge during an IROPs event. For minor or short duration IROPs events it is not likely that an EOC would need to be set up; however, as the magnitude or the duration of the event is extended, establishing the EOC may be necessary to coordinate the activities of all of the service providers.

CHAPTER 1 – EXECUTIVE BUY-IN/GET ORGANIZED

1.1 Description

The first step, whether your airport is developing a new plan or reviewing an existing one, is to establish executive buy-in from your airport and each of your local aviation service provider organizations. These should include airport operations, airlines, concessions, ground transportation, local accommodations, government agencies (FAA, CBP, and TSA), fixed base operators (FBOs), refuelers, military (if a joint-use facility), executive management liaison, and emergency response.

Next, your airport should create an IROPS Contingency Response Committee that includes representatives from each of your local service providers. The Committee should be led by an IROPS Chairperson, who typically is a representative of your airport. The goal of your airport's Committee will be to establish and enhance contingency plans for local service providers through their collective, cooperative, and collaborative decision making.

1.2 Creating Executive Buy-In

Two elements to executive buy-in must be in place for a successful IROPS plan. The first element is the airport itself. Executive management of the airport must have a firm commitment to develop, implement, and continually improve an IROPS plan that illustrates a full buy-in from the top down within the airport staff. The second element is equivalent buy-in from the executive management of the various aviation service providers. Executive buy-in is fully accomplished when each of the airport aviation service provider organizations has committed their support of a documented, coordinated IROPS plan.

1.3 Identifying the IROPS Champion

Before organizational activities can take place, an IROPS Champion must be selected and empowered by airport management. The IROPS Champion is the point person for all activities related to developing an IROPS plan. An airport management employee is often well suited/positioned to be the IROPS Champion; he/she has holistic responsibilities for airport operations, and many times sits in a role that can effectively facilitate bringing aviation service providers together. The activities discussed throughout this guidebook will be led by the IROPS Champion and supported by the airport IROPS Contingency Response Committee.

1.4 Establishing an IROPS Contingency Response Committee

The goal of the airport IROPS Contingency Response Committee is to establish and enhance contingency plans through their collective, cooperative, and collaborative decision making. This will ensure that actions result in a coordinated and unified level of customer care across all of the airport's aviation service providers during IROPS events.

It is essential that all local service providers not only develop their own individual IROPS plans, but also participate in the airport's IROPS Contingency Response Committee activities. Members of an airport IROPS Contingency Response Committee should include representatives of all local aviation service provider organizations.



See Tool 3 – Responsibilities of the Airport’s IROPS Contingency Response Committee and Tool 4 – Questions for Initial IROPS Committee Meeting in Resource C for additional support.

1.5 Notification and Contact Lists

An important recommendation for IROPS Contingency Response Committee action includes determination and documentation of local methods for 24/7 communications. The contact list should be valid for both normal and off-hour operations. Key point-of-contact information for the airport should be shared with all local air carriers and government agencies. As with other similar information, procedures must be established to keep the information accurate and up to date. These contact lists and notification procedures should be developed and communicated with all service providers.

For instance, an airport should create a 24/7 email contact list of major airport stakeholders, including diversion airports, in a region. This list should be used to communicate status and track diverted flights in the region during IROPS events to ensure shared situational awareness. Notification methods should be discussed by the IROPS Contingency Response Committee and chosen based on the most reliable methods for reaching all service providers on an airport’s IROPS contact list. Various methods can include:

- Email distribution
- Text messaging
- Phone tree
- Conference calls
- Notification/decision tree

Based on research completed for this guidebook, it is recommended that hub airports host a conference call with predetermined key service providers at least 24 to 48 hours prior to a severe weather event that has been forecasted to facilitate communications and coordination. Representatives from the following service providers should be included on this call: National Oceanic and Atmospheric Administration’s (NOAA) National Weather Service (NWS), FAA, airlines, CBP, TSA, and airport departments.



Recommended guidance is provided in Topic 1: IROPS Contingency Response Committee.

CHAPTER 2 – DOCUMENT CURRENT SITUATION

2.1 Description

In this step, your airport's IROPS Contingency Response Committee should identify, gather, and compare important response plan information from service providers to ensure collaboration and cooperation. The collective comparison of current IROPS plans between service providers should include a review of local IROPS events history, identification of customer needs, evaluation of how to track delayed aircraft, the tracking of equipment inventory, and the determination of skills availability. Key airport implementation should include maintaining and sharing local contact and email distribution lists.

2.2 Reviewing Existing IROPS Response Plans

It is recognized that each service provider should have its own plans for response to IROPS events. It is also recognized that the United States DOT's rules on enhancing airline passenger protections (14 CFR Part 259 *Enhanced Protections for Airline Passengers*) require air carriers to adopt tarmac delay contingency plans and coordinate those plans with airports at which they operate. Therefore, the purpose of this activity by the IROPS Contingency Response Committee is to identify and gather important response plan information from service providers to ensure that proper communication, cooperation, and coordination occurs between them. Results of this review should include both formal and informal understandings of coordination between these organizations.

These response plans from individual organizations should be evaluated for adequacy during the four categories of IROPS impact situations: *surge*, *capacity*, *after-hours*, and *extended stay* (see Section 2.3 for more information on these scenarios). Each of these situations should be considered for impacts involving unplanned aircraft and unplanned passengers. For example, planning for off-hours situations involving both aircraft and passengers should consider the following:

- Unplanned aircraft arrivals
- The ability to meet passenger needs such as concessions
- Staff access to secure side
- The availability of CBP and TSA staffing



Recommended guidance is provided in Topic 2a: Reviewing Existing IROPS Response Plans.



See Tool 5 – Implementation Checklist for Evaluating IROPS Plans and Tool 6 – Self-Assessment Questionnaire in Resource C for additional support.

2.3 Reviewing Local IROPS Events and Assessing Local Situation

What causes an IROPS event?

Causes of IROPS events can include extreme weather, natural disasters, reduction of airport facility capacity, aircraft mechanical problems, labor issues, and others.

What are the potential impacts of an IROPS event?

In addition to impacts on passengers, IROPS events can also have an impact on airlines and airports, as shown in **Figure 7**. The impacts of IROPS events on airlines include flight delays, cancellations, diversions (including non-scheduled airline flights), and crew time expiration, resulting in potentially adverse impacts on passengers and other airport customers.

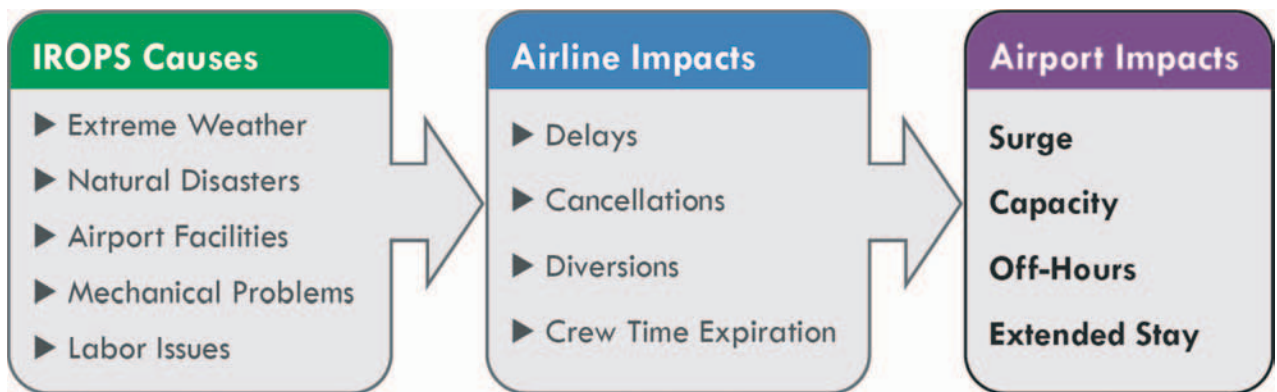


Figure 7. Impacts of IROPS Events.

Airport impacts from unscheduled passengers and aircraft can be categorized into four scenarios that must be planned for:

- Surge: Aircraft and passengers flowing into an airport
- Capacity: Airport terminal becomes filled with passengers and ramp space/gates become full with aircraft
- After-Hours: Aircraft land and passengers need to deplane at irregular hours
- Extended Stay: Passengers and aircraft may be stuck at airport for an extended period of time



Recommended guidance is provided in Topic 2b: IROPS Event History.

2.4 Passenger Needs

Needs of passengers (including animals) on board aircraft on the ground and in airport terminals during lengthy delays vary, and normally require the attention of more than one party. There are five areas of need for passengers including up-to-date information, food and water, safe and secure facilities (including clean restrooms on board an aircraft and in an airport terminal), special services (including services for special needs passengers and ground transportation), and lodging for extended stays. Significant disruptions to airline schedules or operations can adversely impact the passenger experience and their overall satisfaction with the air transportation system. **Figure 8** illustrates the needs of passengers (including live cargo) during IROPS events.

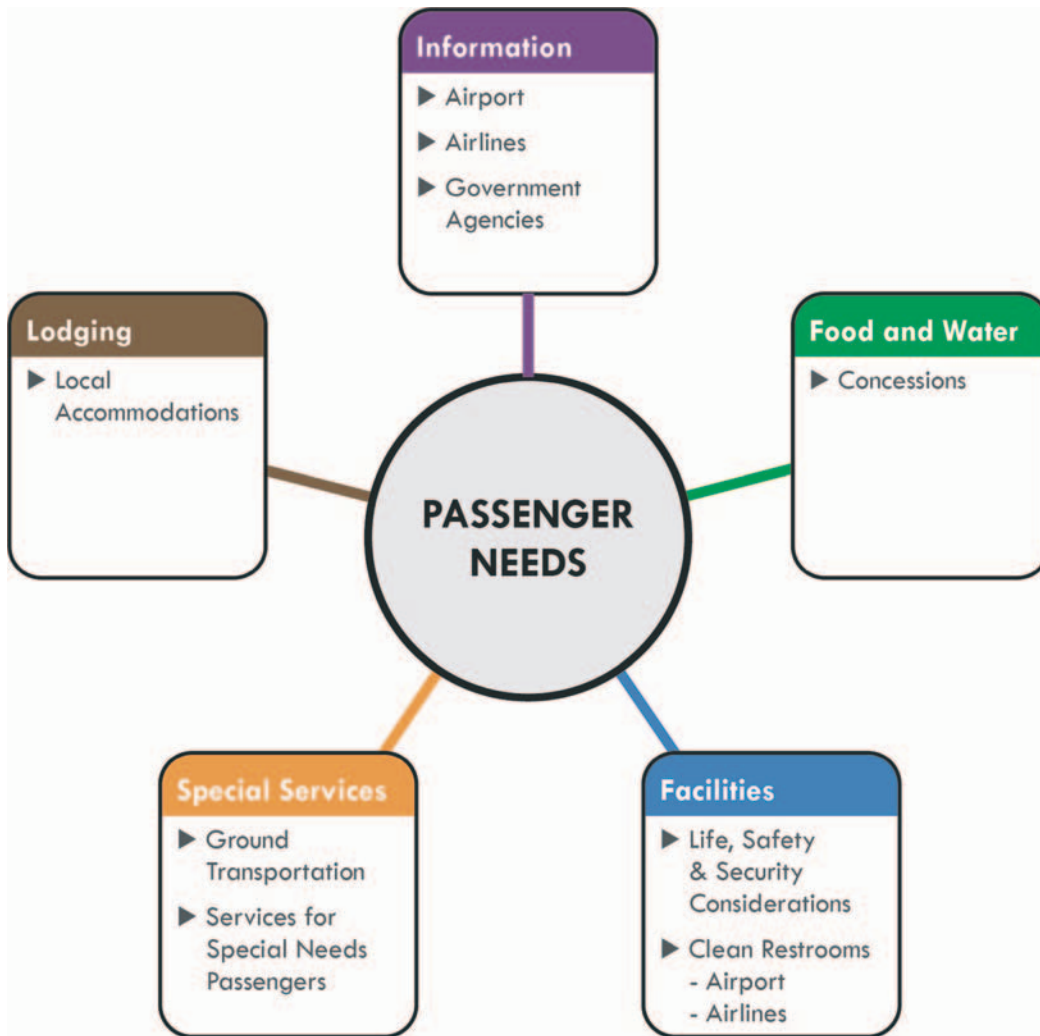


Figure 8. Passenger Needs.



Recommended guidance is provided in Topic 2c: Passenger Needs.

2.5 Current Response Capabilities

A number of questions related to several key concepts should be considered when beginning the planning process. Please note the following questions are generic and additional guidance can be found in Resource A – Topics for IROPs Plan Development and Resource C - Tools:

- Availability of services during an IROPs event
 - What does an airport have in place to know when an aircraft is experiencing an IROPs event at its location?
 - What are an airport's goals for providing service to passengers and other customers during an event?
 - What contingency response procedures does an airport have in place to achieve these goals?
 - How is an airport's IROPs response service coordinated with other local service providers?
- Coordination of services during an IROPs event
 - What challenges exist at an airport when an IROPs contingency response requires coordination between two or more service providers?
 - Are there different types of challenges at an airport during an IROPs event depending on whether it is a departure or arrival?
 - What steps could be taken to improve the availability of service provided by an airport?
- Pre-position of resources required during an IROPs event
 - What resources are required?
 - What are the arrangements/procedures for shared resources when needed?
 - What steps have been taken to ensure passenger's needs are met during extended stays in the terminal?
- Sharing situational information during an IROPs event
 - What type of information is being shared at an airport during an IROPs event?
 - What is the mechanism by which information is shared?
 - How is the shared information used by each of the receiving service providers?
 - What additional shared information would be useful?
 - What coordination procedures exist for service providers to back up each other during an extended delay, diversion, or special mobility event?
 - What is the procedure to report the effectiveness of the response to meeting passenger needs during an event by each service provider, individually and collectively, to establish lessons learned and improve response?



Recommended guidance is provided in:

Topic 2d: Tracking Delayed Aircraft

Topic 2e: Trigger Events and Communications Plans

Topic 2f: Support for Passengers

Topic 2g: Tracking Resource Inventory

Topic 2h: Skills Availability



See Tool 7 – Example Resource Inventory Checklist in Resource C for additional support.

CHAPTER 3 – ESTABLISH PROCEDURES TO COOPERATE

3.1 Description

In this step, your airport will need to determine how to establish cooperation with local service providers in order to meet passenger needs. These include airlines, concessions, ground transportation, and government agencies (FAA, TSA, and CBP) as related to their staffing and resource capabilities. Cooperation is needed for responding to after-hours operation, surge in the number of passengers in the terminal and/or needing transportation to local accommodations, and consideration for diverted flights, including international flights into airports without a CBP presence. Every airport should establish a local process to monitor and maintain its overall airport capacity status during an evolving IROPS event.

3.2 Cooperation Procedures

Cooperation procedures are needed for coordinated response to:

- After-hours operation
- Surge in number of passengers in terminal and/or needing transportation to local accommodations
- Other impacts on passenger service caused by lengthy flight delays
- Consideration for diverted flights, including international flights to airports without a permanent CBP presence

Every airport should establish a local process to monitor and maintain its overall airport capacity status during an evolving IROPS event. This can involve keeping an inventory of data pertaining to IROPS events that will assist and support the acquisition of and/or justification for additional resources and equipment.

A group of service providers typically found at airports is vital in local IROPS planning efforts: airlines, concessions, ground transportation, FAA, TSA, and CBP. Coordination with each of these entities is critical in establishing coordinated procedures that will be followed during an IROPS event. Above and beyond these service providers, other service providers should be coordinated with as appropriate to your airport (e.g., overnight accommodations, FBOs, alternate transportation providers).

Recommended guidance is provided in:

Topic 3a: Establish Procedures with Airlines

Topic 3b: Establish Procedures with FAA

Topic 3c: Establish Procedures with CBP

Topic 3d: Establish Procedures with TSA

Topic 3e: Establish Procedures with Concessions

Topic 3f: Establish Procedures with Ground Transportation



See Tool 8 – Concessions Checklist for Snow and Hurricane Events and Tool 9 – Airport-Airline 24/7 Contact and Capability Summary in Resource C for additional support.

3.3 Technology Considerations

A wide variety of technologies can assist in implementing IROPS response plans. It is recommended that an airport try to leverage existing technology before developing new unique systems. Assessments of technology solutions related to effective management of related IROPS contingency response activities are provided in Resource C - Tools of this guidebook. Also provided is a comparison of technology categories by applications and relative cost.



See Tool 10 – Technology Solutions in Resource C for additional support.

CHAPTER 4 – REVIEW, UPDATE, AND TRAINING

4.1 Description

In this step, your airport should determine what improved procedures are necessary and beneficial to IROPS planning, and then should conduct coordinated training exercises to ensure these plans are understood by all involved service providers. Table-top exercises are recommended to utilize considerations of both local IROPS events and events involving other regional airports. A key element of these exercises should be testing for impacts from each of the four IROPS situation types (*surge, capacity, off-hours, and extended stay*).

4.2 Periodic Review

After reviewing the existing local IROPS plans (as described in Section 2.2) and establishing procedures to cooperate (as described in Chapter 3) it is important to review how well the current plans address potential IROPS impacts. Specific attention should be paid when these response plans from individual organizations are evaluated for adequacy during the four categories of IROPS impact situations (discussed previously). Each of these unplanned situations should be considered for impacts involving both aircraft and passengers.

4.3 Update

Individual organization response plans should be updated and/or supplemented based on answers to the questions from the review process. Coordinated plans with local service providers (as described in Section 3.2) should also be reviewed and updated and/or supplemented at this time if needed.

4.4 Training

Training exercises should be developed and implemented to emphasize the updated response plans. After determining what improved procedures are necessary and beneficial to IROPS planning, it is important for the airport to support communication, cooperation, and coordination between service providers through workshops and training initiatives. This will ensure that new procedures are understood by all involved service providers.

The primary purpose of holding periodic IROPS coordination workshops is to provide a common format and venue for the periodic review and the confirmation and updating of local IROPS plans. It is recommended that these workshops be held biannually, including one during the fall/winter season and one during the spring/summer season. The goals of these local workshops are to:

- Expedite and facilitate the development of the local IROPS community
- Establish a communication plan
- Develop and integrate IROPS plans
- Encourage agreement to execute the IROPS plan
- Provide general orientation to explain why planning for mitigating the effects of IROPS events on passengers is critical

Attendance should include representatives from all organizations with representation on the airport's IROPS Contingency Response Committee and also representatives of other key airport personnel based on the importance of their understanding of IROPS planning. Additionally, other regional service providers should be invited to participate as appropriate.

Periodic coordinated frontline training for airport contingency response should be conducted to provide an emphasis on actions requiring coordination of two or more organizations and to provide an opportunity to test new policies, practices, and procedures. Contingency training exercises should focus on shared situational awareness in relation to:

- Mutual support and valuing one another
- Timing of IROPs responses
- Effectiveness of responses
- Shared success
- Impacts of the United States DOT “3-Hour Rule” and “4-Hour Rule” (see Glossary for definitions of these rules)

Table-top exercises are recommended to utilize considerations of both local IROPs events and events involving other regional airports. A key element of these exercises should be testing for impacts from each of the four IROPs situation types (*surge*, *capacity*, *off-hours*, and *extended stay*).



Recommended guidance is provided in:

Topic 4a: IROPs Coordination Workshops

Topic 4b: IROPs Coordinated Frontline Training



See Tool 11 – Sample Workshop Agenda in Resource C for additional support.

CHAPTER 5 – CONSOLIDATED COOPERATION ACTIONS DURING AN EVENT

5.1 Description

When your airport is experiencing an IROPS event, three actions are critical: *communication*, *coordination*, and *collaboration*. This requires your local service providers to work together to communicate aircraft status in the air and on the ground, as well as execute IROPS procedures as shown in **Figure 9**. In this step, your airport IROPS Contingency Response Committee needs to ensure the capability for coordinating shared information for both aircraft status and airport capacity. Relevant aspects of aircraft status should be provided to appropriate aviation service provider organizations during an IROPS event by the airport's communication center or point of contact.

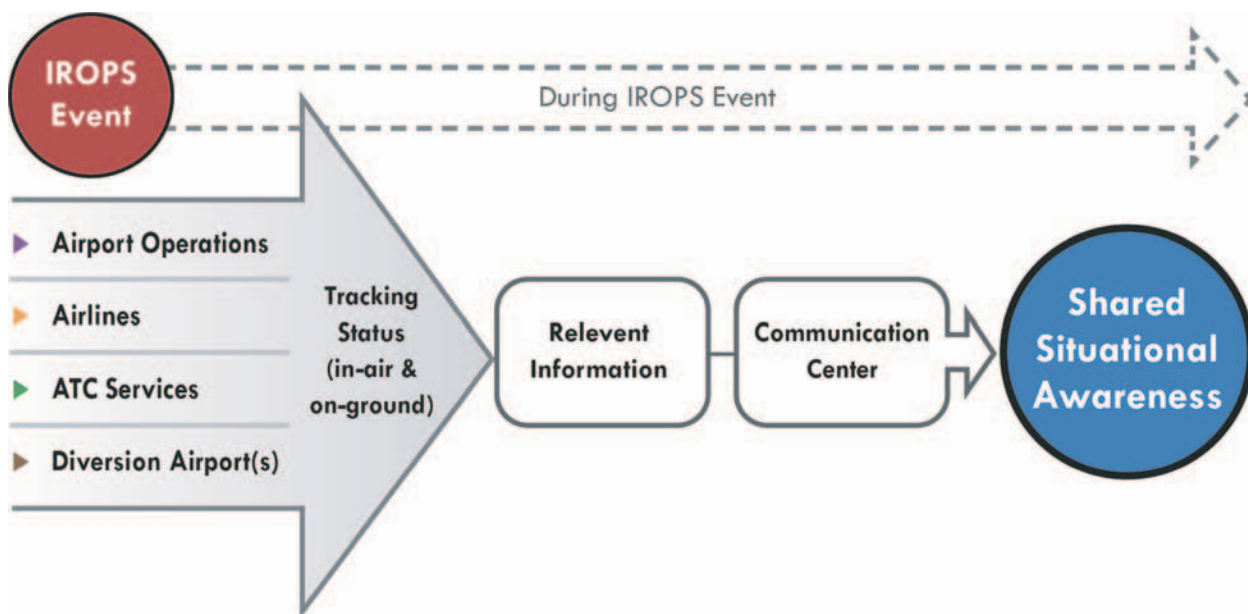


Figure 9. Joint Actions during IROPS Events.

5.2 Monitoring IROPS Event Indicators

While some IROPS events are unpredictable, many can be handled successfully if service providers are actively anticipating an event. Certain actions taken by service providers on a constant basis can position them well to handle an IROPS event, should one occur. Some examples of these actions include tracking aircraft status and tracking weather patterns.

Aircraft status in the air and on the ground is tracked by airlines and the FAA to provide accurate, complete, and timely information regarding expected flight delays and developing local situations.



Recommended guidance is provided in Topic 5a: Aircraft Status.

Weather patterns are tracked by the airport, airlines, and the FAA to predict potential impacts to aircraft operations, as well as to carry out alternate operating procedures, such as diverting flights to alternate airports. This is done to maintain the safety of the crew and passengers, as well as operations staff out on the airfield.



Recommended guidance is provided in Topic 5b: Tracking Weather.



See Tool 12 –National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) Checklist in Resource C for additional support.

A main objective during any type of IROPs event is for all service providers to focus on ensuring an international flight gets to its scheduled arrival airport. If this objective cannot be met, then the focus should be to divert it to a CBP staffed airport with appropriate international aircraft equipment.

5.3 Executing IROPs Response Plans and Procedures

Effective response to an evolving IROPs event depends on timely shared situational awareness among all aviation service providers. This awareness includes the early identification of a potential IROPs situation and the evolving IROPs condition as the event advances. Specifically, this involves the sharing of the following:

- Tracking and sharing aircraft status both in-air and on the ground
- Passenger needs
- Capacity constraints
- After-hour capabilities, if warranted

IROPs communication plans

A key benefit of IROPs communication plans include coordinated IROPs response actions by airport operations, the airlines, ATC services, and by affected diversion airports. Based on the situational need, additional communications among other organizations including TSA, CBP, concessions, and ground transportation may also be required. In addition to internal communication, efforts should be made to communicate externally with customers and passengers through airport websites and social media outlets where appropriate.



Recommended guidance is provided in Topic 5c: Execute IROPs Communication Plans.



See Tool 13 – Sample Communication Plan and Tool 14 – Social Media in Resource C for additional support.

Passenger support plans

The key goal of an IROPS plan is to ensure focus on coordinated support of passengers and other customers during an IROPS event. Guidance for planning and developing support capabilities and actions is based on aircraft and passenger location and on duration of passenger stay both on board aircraft and in the terminal.



Recommended guidance is provided in Topic 5d: Execute Passenger Support Plans.

Airlines

Per the United States DOT rules on enhancing airline passenger protections (14 CFR Part 259 *Enhanced Protections for Airline Passengers*), airlines are required to develop and coordinate their extended delay contingency plans with both the scheduled airports they serve and their diversion airports. It is recommended that the airline contingency plans be fully discussed and understood by your airport so that they can be implemented when needed during IROPS events.



Recommended guidance is provided in Topic 5e: Execute IROPS Procedures with Airlines.

FAA, TSA, CBP

Each of the listed government agencies has established guidelines covering their responsibilities during an IROPS event. These include provisions for coordination with airports during their local IROPS contingency planning efforts. These guidelines include the following:

- The FAA has agreed to implement aircraft ground control procedures for aircraft making tarmac delay requests per DOT rules on enhancing airline passenger protections. Additionally the FAA currently provides procedures for airport access in regard to expected flight delays and developing local situations. These flight-status-related sources are provided as long as they do not interfere with normal FAA operations.
- The Department of Homeland Security has issued procedures to TSA Federal Security Directors establishing and utilizing secure areas using procedures in the Airport Security Program or Aircraft Operator Standard Security Program. The TSA organization at local airports should be contacted as needed to implement appropriate security measures for passengers during IROPS events.
- The Department of Homeland Security through the CBP Office of Field Operation has developed a contingency plan to address unscheduled arrivals, including flight diversions and technical fuel stops. The Director of Field Operations has provided guidance for IROPS events, including recommended response procedures for international flights diverted to airports without a Federal Inspection Station. Additional CBP procedures have been established with consideration of United States DOT regulations covering extended ground delays (3- and 4-hour guidelines for domestic and international flights, respectively).



Recommended guidance is provided in:

Topic 5f: Execute IROPs Procedures with FAA

Topic 5g: Execute IROPs Procedures with CBP

Topic 5h: Execute IROPs Procedures with TSA

Concessions

The role of concessions during an IROPs event is to ensure that passenger food and beverage needs (and potentially medicinal and family needs) are met during IROPs events. It is recommended that concessions develop and implement their own IROPs plans for operations to be used during IROPs events. The IROPs operation plans for concessions should be activated as required following situational notification by either an airline or by an airport designated point-of-contact.



Recommended guidance is provided in **Topic 5i: Execute IROPs Concessions Procedures**.

Ground Transportation

The role of ground transportation during an IROPs event is to ensure that needs (including those resulting in extended passenger and customer stays in the terminal area) can be supported. It is recommended that ground transportation organizations develop and implement their own IROPs plans for use during IROPs events. Ground transportation organizations should activate their IROPs plans when notified of related requirements caused by an IROPs event.



Recommended guidance is provided in **Topic 5j: Execute IROPs Ground Transportation Procedures**.



See **Tool 15 – During an Event Tools** and **Tool 16 – Diversion Checklist** in **Resource C** for additional support.

CHAPTER 6 – CAPTURING LESSONS LEARNED AND UPDATING PLANS

6.1 Description

In this step, your airport should host an after-action meeting to review performance effectiveness as soon as is practical following return of operations to a normal state after an IROPS event. Part of the recommended debriefing procedures should be the identification of lessons learned. The airport IROPS response planning documentation should be reviewed by the IROPS Contingency Response Committee and updated as appropriate.

6.2 Debrief after an IROPS Event

The purpose of the debriefing session is to review each airport organization's response performance following a major IROPS event. This allows service provider organizations to assess and analyze all aspects of response, to document lessons learned, and to improve performance by sustaining strengths and correcting weaknesses.

When necessary, performance improvements should be incorporated into the IROPS plan with staff provided training on any new procedures. Additionally, technology and resources should be evaluated as part of the review to determine if either should be enhanced to assist in improving IROPS event response. Debriefings should cover the following:

- Communication issues
- Procedures refinement
- Service failures and lapses
- After-hour staffing resources and gaps
- Operations and maintenance restocking (deicing fluid, concessions, and other)
- Capability needs
- New capital items requisitions



Recommended guidance is provided in Topic 6a: Debriefing IROPS Event.



See Tool 17 – After an Event Debrief in Resource C for additional support.

6.3 Lessons Learned

The primary purpose of gathering lessons learned following an IROPS event is to document what worked and what did not. Lessons learned, both good and bad, should be expected to surface from debriefing meetings held after every major IROPS event.

Following internal management debriefings, each service provider organization should report a summary of its findings (including any lessons learned) and recommendations to the IROPS Champion. The IROPS Contingency Response Committee should consider the several debriefing reports typically expected from each major IROPS event to identify any additional lessons learned that recognize tasks to be performed and the responsible party to perform them. The Committee should track implementation and hold subsequent meetings to confirm completion of the tasks. The IROPS Committee should compile and distribute any resulting new lessons learned to local airport organizations that may be affected. Periodically, a summary of local lessons learned should be shared with other airports in the aviation community.



Recommended guidance is provided in Topic 6b: Capturing Lessons Learned.

SUMMARY

Developing and implementing an effective airport IROPS plan requires continuous communication, cooperation, and coordination between the airport and each of the local service providers.

Activities associated with the six steps of IROPS plan development process are: know, act, confirm, and improve. Each activity is critical to provide a unified response by all service providers during IROPS events.

- **KNOW:** *What do we need to accomplish?*
 - Step 1 - Executive Buy-In/Get Organized
 - Step 2 - Document Current Situation
- **ACT:** *How do we partner for success?*
 - Step 3 - Establish Procedures to Cooperate
 - Step 4 - Review, Update, and Training for Plan Implementation
- **CONFIRM:** *Did we do what we said?*
 - Step 5 - Consolidated Cooperation During an Event
- **IMPROVE:** *Are we communicating our lessons learned to continually advance our response to IROPS events?*
 - Step 6 - Capture Lessons Learned and Updating Plans

Continually updating and refining an airport's IROPS plan helps to provide the best customer experience for passengers affected by IROPS events.

The most important things to remember for successful IROPS contingency responses are:

- (1) Success is measured by passenger experience.
- (2) Success requires top-down commitment of executive management.
- (3) Success hinges on the ability to communicate-communicate-communicate.

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

PART 2

RESOURCES

PART 1
PART 2
Resource A
Resource B
Resource C
Resource D
Bibliography
Appendices

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

RESOURCE A – TOPICS FOR IROPS PLAN DEVELOPMENT

INTRODUCTION

The topic worksheets presented in the following pages (when completed) combine to create a generic IROPS contingency plan. Once these topic worksheets have been completed, the IROPS Champion will insert them into the appropriate places in Resource B – Model IROPS Contingency Plan. These topics are organized by the chapters in Resource B – Model IROPS Contingency Plan, so they align with each other and the information presented in Part 1 – Fundamentals of IROPS Planning. Please note that the topics presented in this document are only a starting point for the IROPS Champion to begin development of an IROPS plan; each of the topics should be tailored to fit the needs of the airport (in some cases this may require the addition or deletion of tables).

For the purposes of this guidebook, references to the FAA include all forms of air traffic control (ATC) services.

CONTENTS

29	Topic 1 – IROPS Contingency Response Committee
31	Topic 2 – Document Current Situation
32	Topic 2a – Reviewing Existing IROPS Response Plans
37	Topic 2b – IROPS Event History
39	Topic 2c – Passenger Needs
41	Topic 2d – Tracking Delayed Aircraft
43	Topic 2e – Trigger Events and Communications Plans
47	Topic 2f – Support for Passengers
49	Topic 2g – Tracking Resource Inventory
51	Topic 2h – Skills Availability
53	Topic 3a – Establish Procedures with Airlines
55	Topic 3b – Establish Procedures with FAA
57	Topic 3c – Establish Procedures with CBP
61	Topic 3d – Establish Procedures with TSA
63	Topic 3e – Establish Procedures with Concessions
65	Topic 3f – Establish Procedures with Ground Transportation
67	Topic 4a – IROPS Coordination Workshop
69	Topic 4b – IROPS Coordinated Frontline Training
71	Topic 5a – Aircraft Status
73	Topic 5b – Tracking Weather
75	Topic 5c – Execute IROPS Communication Plans
77	Topic 5d – Execute Passenger Support Plans
79	Topic 5e – Execute IROPS Procedures with Airlines
81	Topic 5f – Execute IROPS Procedures with FAA
83	Topic 5g – Execute IROPS Procedures with CBP
85	Topic 5h – Execute IROPS Procedures with TSA
87	Topic 5i – Execute IROPS Concessions Procedures
89	Topic 5j – Execute IROPS Ground Transportation Procedures
91	Topic 6a – Debriefing IROPS Event
93	Topic 6b – Capturing Lessons Learned

PART 1

PART 2

Resource A

Resource B

Resource C

Resource D

Bibliography

Appendices

TOPIC MATRIX FOR IROPS PLAN DEVELOPMENT

In order to complete these topics, the IROPS Champion will need to coordinate with various agencies, including airlines, concessions, ground transportation, the FAA, CBP, and TSA. The following matrix outlines which topics should be sent to specific agencies in order to complete Resource B – Model IROPS Contingency Plan.

Chapter	Topic	Airport	Airlines	Concessions	Ground Transportation	FAA	TSA	CBP
Chapter 1 Executive Buy-In/ Get Organized	1	x	x	x	x	x	x	x
Chapter 2 Document Current Situation	2a	x	x	x	x	x	x	x
	2b	x	x					
	2c	x	x	x		x	x	x
	2d	x	x			x		
	2e	x	x			x		
	2f	x	x	x				
	2g	x	x	x	x	x	x	x
	2h	x	x	x	x	x	x	x
Chapter 3 Establish Procedures to Cooperate	3a		x					
	3b					x		
	3c							x
	3d						x	
	3e			x				
	3f				x			
Chapter 4 Review, Update, and Training	4a	x						
	4b	x						
Chapter 5 Consolidated Cooperation Actions during an Event	5a	x	x			x		
	5b	x	x			x		
	5c	x	x	x	x	x	x	x
	5d	x	x	x	x	x	x	x
	5e	x	x					
	5f	x				x		
	5g	x						x
	5h	x					x	
	5i	x		x				
	5j	x			x			
Chapter 6 Capture Lessons Learned and Updating Plans	6a	x	x	x	x	x	x	x
	6b	x	x	x	x	x	x	x

Note: If your airport is joint use, you should add “Military” as an additional column in this table.

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

TOPIC 1: IROPS CONTINGENCY RESPONSE COMMITTEE

This topic describes guidance for establishing an IROPS Contingency Response Committee. The overall goal of the Committee is to establish and enhance contingency plans through collaborative decision making. It is essential that all local service providers not only develop their own individual contingency plans, but also participate in the IROPS Contingency Response Committee activities.

The output from this topic is the population of Section 1.1 – Establishing an IROPS Contingency Response Committee of Resource B – Model IROPS Contingency Plan.

Purpose: The goal of the Committee is to establish and enhance contingency plans through collaborative decision making. This will ensure that actions result in a unified level of customer care across all aviation service providers during IROPS events. The primary focus of the Committee is the integration of business processes to ensure the consistent delivery of holistic customer service during an IROPS event. The Committee is also responsible for post-event review, as well as the identification and implementation of IROPS process improvements. In addition, the Committee is responsible for identifying the additional training required to ensure the effective delivery of customer service.

Process: The process of forming an IROPS Committee is threefold:

1. **Chairperson designation:** Airport Director/Manager provides the sponsorship and designates the chairperson of the Committee.
2. **Local/regional determination:** The airport should initiate an initial kick-off meeting, during which it is important that the group takes a step back and establishes realistic parameters for the Committee. The group will need to first delineate a region normally comprised of their airport as well as all reliever airports that could receive diverted aircraft from this airport (or the sending airport if the subject airport is the diversion site) in an IROPS situation.
3. **Committee member nomination:** Within this region, the group will then need to identify which airport departments, airlines, government agencies, reliever airports, and other aviation service providers are involved in IROPS events and customer-service-related activities. The group will need to engage these organizations so they are willing to appoint a representative to join the Committee.

Format: The following suggestions for membership should be considered when establishing the IROPS Committee. It is important to have representatives from all service providers at the airport (e.g., airport operations, airport public safety agency, airlines, FAA, TSA, CBP, concessions, ground transportation, FBO).

- Appropriate airport representatives who look at the whole picture
- Appropriate airline representatives: local station managers and corporate management (this is a two-step, ongoing communication process)
- Appropriate government agency representatives
- Outsource aviation service providers (where appropriate)
- A chairperson, ideally a senior-level airport operations manager who can command resources as needed.

Use the table (IROPs Contingency Response Committee) to populate Section 1.1 of the Model IROPs Contingency Plan.

Contact information during an IROPs event: Contact details for the IROPs Contingency Response Committee and for points-of-contact for agencies during an IROPs event are recognized as being sensitive information. Since it is desired that the IROPs plan be made available to the public, it is recommended that the potentially sensitive 24-hour contact information be maintained separately in an appendix of the IROPs plan, which will allow the information to be updated without affecting the remainder of this plan (see Appendix D of Resource B – Model IROPs Contingency Plan).

IROPs Contingency Response Committee		
Please modify this table as appropriate for your needs, and add additional rows as necessary.		
Organization	Contact Name & Phone Number	Alternate Contact
Committee Chairperson		
Airport Operations		
Airlines		
Concessions		
Ground Transportation		
Hotel		
Government Agencies		
Public Safety Operations		
Diversion Airport(s)		
Fixed Base Operations		
Military (if joint-use)		
Emergency Response		
Executive Management Liaison		
Note: Contact details shown are for the representative's organization office. Contact details for the IROPs Contingency Response Committee and points-of-contact for agencies during an IROPs event should be listed in Appendix D of Resource B – Model IROPs Contingency Plan.		

TOPIC 2: DOCUMENT CURRENT SITUATION

This topic describes guidance for gathering pertinent IROPS data that, when completed, will provide the base of your IROPS plan. This topic focuses on gathering data for the following:

- Reviewing existing IROPS Plans
- Local IROPS events history
- Local customer needs
- Local tracking of delayed aircraft
- Local trigger events and communication plans
- Local support for passengers on-board, being deplaned, and in-terminal
- Local tracking of inventory
- Local skills availability

The IROPS Champion is responsible for coordinating with service providers to gather the information needed to complete the tables in this topic. Once the information is collected, it must be inserted into the appropriate tables and inserted into Resource B – Model IROPS Contingency Plan. Coordination with the IROPS Contingency Response Committee will also be necessary throughout this topic.

The output from this topic is the population of Chapter 2 (sections 2.1-2.8) of Resource B - Model IROPS Contingency Plan. Each of the data collection activities is addressed separately in the following pages.

TOPIC 2a: REVIEWING EXISTING IROPS RESPONSE PLANS

This section describes guidance for reviewing areas of support across all organizations, including cooperative response procedures related to IROPS events.

It is recognized that each of the organizations has its own plan for response to IROPS events. It is also recognized that the United States DOT's rules on enhancing airline passenger protections (14 CFR Part 259 *Enhanced Protections for Airline Passengers*) require air carriers to adopt tarmac delay contingency plans and coordinate them with airports.

Purpose: To review the IROPS plans of local airlines, airport operations, and FBO organizations as they relate to areas of coordination between organizations.

The purpose of the IROPS Response Management Process (shown in **Figure 1**) is to identify and document actions requiring coordination between two or more aviation service providers. Joint actions are identified that reflect both current individual IROPS plans and areas of recommended communication, collaboration, and coordination between service providers.

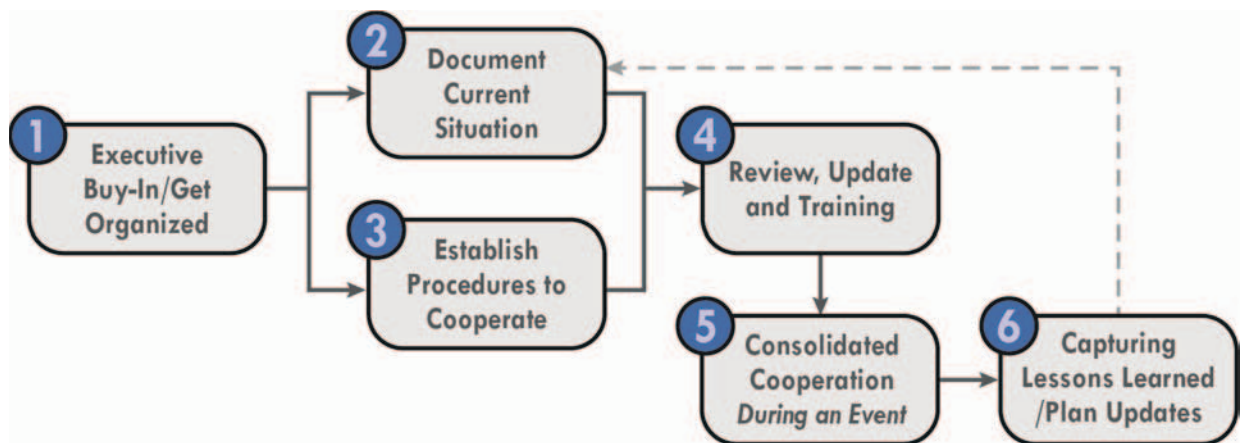


Figure 1. IROPS Response Management Process.

Step 2 in the IROPS Response Management Process requires the IROPS Contingency Response Committee to provide an assessment of the airport's aviation service providers' existing IROPS plans to include important airport factors such as terminal capacity, equipment, and government services.

- Airlines – Airport coordinated planning to identify available means of deplaning
- Airline – Airport coordination procedures for use of empty gates consistent with:
 - Needs of other airline operations
 - Customer service needs
 - Technical requirements
 - Lease terms
 - Hardstand positions for remote parking of aircraft
- Process for the airport to coordinate with airline management and operation control, FBOs, FAA, and flight crews to provide access to remotely parked aircraft for servicing and supply

- Procedures to address passenger needs after deplaning following lengthy ground delay that should involve the airline, the airport, government agencies, and other service providers
- Process for the airport to coordinate with airline management, FBOs, FAA, flight crews, and local area emergency medical service providers to assist in providing emergency medical support and other special needs to passengers on remotely parked aircraft

Resource B – Model IROPS Contingency Plan, once completed, serves to document the Committee’s assessment and its continuing coordination and integration of related plans held by all of the aviation service provider organizations at the airport.

Process: As demonstrated by **Figure 2**, it takes a different mindset for service provider organizations to bridge the gap between feeling they need to go it alone with individual plans and reach an environment of partnering for success for success to develop a coordinated regional contingency plan to mitigate lengthy tarmac delays.

The first step is to engage airlines, airports, government agencies, and other aviation service providers to participate in an IROPS Contingency Response Committee for a specific region. These entities should work together to develop a coordinated IROPS plan that is tailored to certain operational parameters, is flexible, and provides for optimal customer service during a lengthy tarmac delay. It is imperative that aviation service providers include other responsible parties in developing their plans.

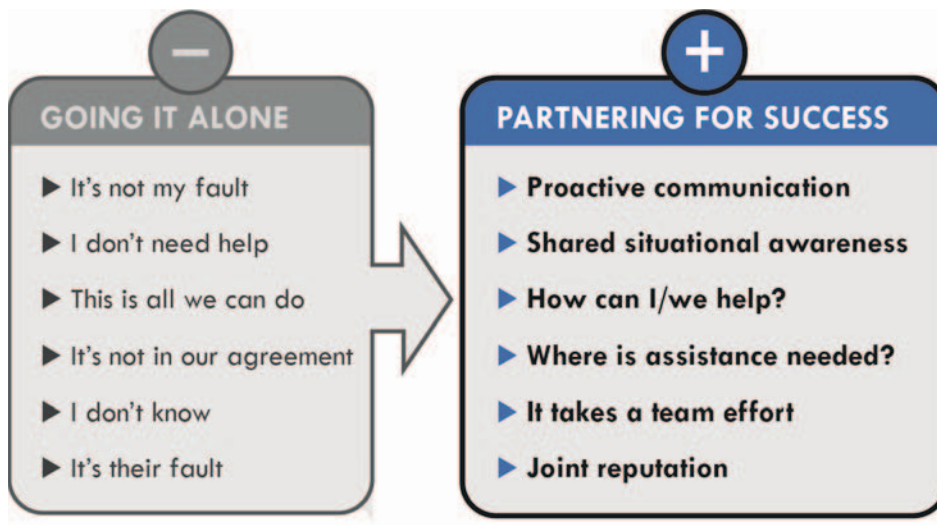


Figure 2. Partnering for Success.

Format: The IROPS data collection activities should focus on developing plans for things such as deplaning, gate usage, remote aircraft processes, diversion procedures, materials and service availability, and emergency needs. The results of this type of coordination can be procedures, memorandums of understanding, or other documented plans. Some other considerations include planning for:

- Local tracking of delayed aircraft
- Local trigger events and communications plans
- Local support for passengers on-board, being deplaned, and in-terminal
- Local tracking of inventory
- Local skills availability

Coordination: The overall goal of coordination is for all service provider organizations to work together effectively to provide holistic and seamless customer service during lengthy on-board ground delays. A coordinated IROPS plan helps aviation service providers work together to solve these complex IROPS issues. However, it is important to note that effective planning is required to ensure that executive buy-in occurs in all provider organizations in order to move forward with the overall IROPS plan. Specifically, coordination accomplishes the following:

- **Removes service gaps:** When all service providers align their individual plans on behalf of the customers during IROPS events, they move from a position of “going it alone” to “partnering for success.”
- **Improves customer service:** Having a proactive and well planned / coordinated process for addressing unique customer needs is the key to effective IROPS plans. Meeting customer needs during difficult and challenging experience builds reputations of aviation providers.

Understandings of coordination: The key focus of this topic and the IROPS Contingency Response Committee is recognition of joint actions that reflect both current individual IROPS plans and areas of recommended communication, collaboration, and coordination between service providers. This topic should identify and document all formal and informal understandings of coordination between these organizations, as well as individual organization standard operating procedures (SOP) related to IROPS response.

Also included is any documented and agreed mutual support related to response during an IROPS event. This will typically take many forms, such as terms held in lease agreements. These documents may be bilateral between two aviation service providers.

The IROPS Contingency Response Committee should provide guidance, as needed, on developing procedures between airlines, government agencies, and other service providers that address:

- Standard operating procedures
- Materials and services availability
- Mutually supportive actions to be taken during any type of lengthy delay event or other IROPS event

Considerations for diversions (for hub airports)

In addition to the coordination procedures established between the airlines serving the airport and the diversion airports in the region served by them and their code-sharing partners, coordination procedures should be established with each of the other potential diversion airports in the region.

These procedures should provide in-flight notification for the diversion airport authority and local FBO during a diversion event before an aircraft lands to confirm readiness and identification of the local coordination focal point.

IROPS trigger event criteria should be communicated to the diversion airports to assist them in preparation for providing support needed by the diverted aircraft and its passengers. Coordination procedures for flights refueling and continuing should be established with local ATC services, airport authorities, vendors, and government agencies as necessary.

The following list includes agencies and vendors that should be considered when collecting and reviewing existing plans and procedures (as appropriate to your situation):

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Overnight accommodations:** Hotels, churches, Red Cross
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, law enforcement officer (LEO), emergency medical technician (EMT)

The table (IROPS Response Plan Review) should be inserted in Section 2.1 of Resource B – Model IROPS Contingency Plan and should be used to describe both formal and informal understandings of coordination between organizations, as well as individual organization SOPs related to IROPS response.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 2b: IROPS EVENT HISTORY

This section describes guidance for documenting the history of local IROPS events, including lengthy on-board ground delay events. It also describes the role of various service providers in providing passenger and other customer support during IROPS events.

Purpose: To provide a basis for identification and review of IROPS response activities with focus on areas needing process improvement.

Process: The IROPS Champion should review local IROPS events, including lengthy on-board ground delay events. Each of these events should be considered as a potential source for information concerning:

- Type of IROPS event (related to local weather, other emergency, diversions, etc.)
 - Surge: Aircraft and passengers flowing into an airport
 - Capacity: Airport terminal becomes filled with passengers and gates become full with aircraft
 - After-Hours: Aircraft land and passengers need to deplane at irregular hours
 - Extended Stay: Passengers and aircraft may be stuck at airport for extended period of time.
- Nature of response (related to which organizations were involved or needed support from outside organization(s), unusual response actions, etc.).
- Response activities considered best practices (generic descriptions documented for consideration for future events, descriptions should be made available for sharing with others in the national aviation service community).
- Response activities needing process improvement (generic descriptions identifying recommended improvements in the IROPS plan; improvements should address actions by all appropriate organizations with specific identification of all recommended improvements to coordination between organizations and should also address any recommended revision of IROPS coordinated response training).
- Because IROPS events will continue to occur, this sub-section should be reviewed periodically to keep it updated and relative to the current operational environment at the airport.

Format: The table (IROPS Event History) should be filled out with recent IROPS events and event descriptions and be inserted into Section 2.2 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 2c: PASSENGER NEEDS

This section describes guidance for documenting needs of passengers and other customers during IROPS events, with special focus provided for special-needs passengers. The needs analysis is provided by consideration of general information of customer needs during IROPS events supplemented by local information derived from the IROPS event and response descriptions described in previous subsections.

Purpose: To focus on the needs of passengers and other customers during IROPS events, with special attention provided for special-needs passengers.

Process: The IROPS Champion should review the general information related to customer needs during IROPS events described in Part 1 – Fundamentals, with consideration for local applicability. This review should then be supplemented by review of local information derived from previous IROPS events.

Following this review and documentation of general customer needs, a subsequent review should be conducted to identify any additional needed support for special-needs passengers, including availability of all elements of 14 CFR Part 382 requirements of the Americans with Disabilities Act:

- Availability of means for deplaning
- Requirements for inter-terminal transportation
- Accessible facilities and services
- Boarding assistance using mechanical lifts, ramps, or other suitable devices
- Special-needs passenger considerations (wheelchairs, oxygen, etc.)

The categories of support for both general customer needs and special-needs passengers should also be documented for subsequent explicit identification of IROPS response actions to be taken to meet those needs.

Obtaining passenger feedback: At the heart of continuous improvement is the effect that the IROPS plan has on passengers. The recommended core mechanism for determining success in meeting IROPS response goals is the implementation of a passenger feedback survey. Evaluation of survey results and trends will enable the IROPS Champion (with help from the IROPS Contingency Response Committee) to evaluate the results of current procedures and efforts and to communicate their recommendations for any identified improvements to the IROPS contingency plan.

Format: The table (Passenger Needs) should be filled out with various customer needs as described above, and then inserted into Section 2.3 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 2d: TRACKING DELAYED AIRCRAFT

This section describes guidance for planning and documenting the airport's processes to describe local situations as they develop, including both flight delays and delayed aircraft on the ground.

Purpose: The goal of effective tracking of delayed aircraft in the air and on the ground between airlines, ATC services, and the airport is that it provides accurate, complete, and timely information in regard to expected flight delays and developing local situations. Also, this is beneficial for providers to mitigate potential situations and for passengers to revise travel plans.

It is recommended that various service provider organizations work in tandem to accurately track delayed aircraft to advance overall situational awareness, improve communication, and ultimately result in superior response to customers. When aircraft status in the air and on the ground is tracked by both airlines and the FAA and status of significantly delayed and/or diverted flights is shared with the airport, the result is shared situational awareness among the key aviation service providers. The following list includes agencies that should be included and coordinated with when tracking aircraft (as appropriate to your situation):

- **Government agencies:** ATC services
- **Airport:** Operations
- **Airlines:** All airlines operating at an airport

Process: It is recommended that preferred communication methods be discussed between airlines, the airport, and the FAA, with the goal of reconciling aircraft status in the air and on the ground. Once this is coordinated, tools, technology, and new procedures can be implemented to ensure effective flight tracking occurs.

Some recommendations that can be implemented across regions to enhance overall communication and situational awareness include:

- Working with the airport, airlines, and the FAA to develop a process for tracking delayed aircraft both in the air and on the ground
- Developing coordination procedures between the airport and airlines for sharing aircraft status information during IROPS events
- Developing a plan for diverted flights
 - Using tracking tools as an early notification of potential diversions so user organizations can plan and communicate more effectively

Format: The table (Tracking Delayed Aircraft) should be filled out with the processes for tracking aircraft by various service providers as described above. Once complete, it should be inserted into Section 2.4 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 2e: TRIGGER EVENTS AND COMMUNICATIONS PLANS

This topic describes guidance for establishing and documenting response procedures linked to airline trigger events and resulting communications plans in order to promote effective response to an evolving IROPS event. Recognizing that most IROPS events occur with respect to passengers while they are either on board aircraft or as they are being moved from a parked aircraft to the terminal area, definitions of trigger events are based on related IROPS practices established by local airlines.

Effective response to an evolving IROPS event depends on timely shared situational awareness among all aviation service providers. Relevant IROPS information includes the early identification of a potential IROPS situation and the evolving IROPS condition as the event evolves.

Key elements of communication during an IROPS event require coordinated IROPS response actions by airport operations, the airlines, ATC services, and by affected diversion airports to track and share aircraft status both in the air and on the ground. Based on the situational need, additional communications among other organizations such as TSA, CBP, concessions, and ground transportation may also be required.

Each airline has its own guidelines for establishing triggers. These triggers are usually included as part of the individual airline's IROPS plans published in compliance with the United States DOT's "3-Hour Rule" and "4-Hour Rule." Associated timelines may vary by airport, even within a single airline, and each will generally be tailored to accommodate operational variations.

An airline's internal guidance on trigger timelines should be consistent with its external commitments, both to passengers and to government agencies. Specifically, the airline should coordinate its triggers with the appropriate airport, TSA, and other government agencies, including CBP personnel if international flights arriving in the United States are involved. Information on these guidelines should be provided to the IROPS Champion.

At trigger points, airlines generally consider the following factors when making a determination:

- National weather
- Crewmember resource planning
- Airfield situation
- Gate availability
- Hardstand availability
- Passenger disposition

Purpose: Triggers are specific events or points in time during an evolving IROPS event including lengthy on-board ground delays when communication with involved stakeholders (including passengers when appropriate) is initiated in order to begin efforts to mitigate the effects of an IROPS event. Such communication is designed to evaluate the situation and reach a decision about the appropriate course of action.

Process: When coordinating its IROPS plan with the IROPS Contingency Response Committee, each airline should include its trigger policies, the timelines for each trigger, and what needs to be considered at the trigger time.

Format: The table (Trigger Events and Communications Plans) should be filled out with different aviation provider communication plans and trigger events. Once the table has been filled out, it should be inserted into Section 2.5 of Resource B – Model IROPS Contingency Plan. The following steps should be taken by the airport for pre-planning communications once this section has been completed:

- Consider history of on-board ground delay events at the airport. Determine what they are triggered by (e.g., extreme weather, airport and ATC facility related outages and causes, government system outages or slowdowns, and/or airline unplanned events).
- Document understanding between airlines and other members of the IROPS Contingency Response Committee for trigger events and communication.
- Determine how information will be communicated concerning the IROPS event (e.g., conference calls, the airport's website, individual airlines' websites, local news media via airport, and airline public relations departments).
- Develop communication plans. See Tool 13 – Sample Communication Plan in Resource C for additional support.
- Determine role of the airport's public relations organization and how it will engage with various media outlets (radio, television, print) before, during, and after an event to provide up-to-date information.

The following list includes agencies and vendors that should be considered when documenting and reviewing trigger events and communication plans (as appropriate to your situation):

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Overnight accommodations:** Hotels, churches, Red Cross
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, LEO, EMT

Sample process for communicating aircraft status: Establish and use an airport's communication center to utilize input from local airlines and FAA in regard to expected flight delays and developing local situations to keep stakeholders informed of an IROPS event as it unfolds. The communication center should be responsible for distribution of accurate, complete, and timely information in regard to expected flight delays and developing local situations to other local service providers (beyond the airlines and FAA).

[illegible]

Appendices	PART 1
Bibliography	PART 2
Resource D	Resource A
Resource C	Resource B
Resource B	

TOPIC 2f: SUPPORT FOR PASSENGERS

This topic describes guidance for planning and developing support capabilities and actions based on aircraft and passenger location and on duration of passenger stay both on board aircraft and in the terminal.

Purpose: To ensure focus on coordinated support of passengers and other customers during an IROPS event. This focus includes, but is not limited to, the three areas of coordination identified as being United States Congressional concerns for the provision of:

- Support for deplaning of passengers from aircraft
- Sharing of facilities, including making gates available
- Having a sterile area available for passengers who have not yet cleared CBP

Process: The IROPS Champion (with assistance from the IROPS Contingency Response Committee) reviews and documents each stage of passenger support needs based on aircraft and passenger location. This review should include local consideration of customer needs:

- Passengers on board aircraft (includes supplemental provision of concessions if required by airline)
- Passengers deplaning aircraft (includes passenger assistance and transportation to terminal from remotely parked aircraft as needed)
- Passengers in terminal (includes access to restrooms and concessions as needed)
- Passengers requiring extended delay accommodations (overnight stay in terminal and/or transportation to local hotel as needed)
- Additional considerations:
 - Sharing of facilities
 - Making gates available during IROPS event
 - Support to special-needs passengers
 - Having sterile area available for passengers who have not yet cleared CBP
 - Coordination with TSA for accommodating passengers needing to leave screened area

Format: The following list includes agencies and vendors that should be considered when documenting and reviewing passenger support efforts (as appropriate to your situation):

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Overnight accommodations:** Hotels, churches, Red Cross
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, LEO, EMT

[illegible]

TOPIC 2g: TRACKING RESOURCE INVENTORY

This section describes guidance for planning and developing procedures across local organizations identifying resources (equipment and supplies) held by an airport service organization beyond those that have been planned for shared use, but that could be made available for use if requested by another airport organization during an IROPS event.

This planning should include identification of the resources (equipment and supplies) that the organization believes are required to meet their response goals. It is further expected that where an organization's plan identifies resources beyond those held by the organization, they will enter into procedures with other organizations to provide them access to such resources as needed during an IROPS event.

Purpose: The purpose of this section is not to document planned inventory resources described above. Rather, its purpose is to describe the identification of inventory flexibility within the airport's service organizations (including military installations at joint use facilities) that could be made available to another (requesting) organization during an IROPS event when the event requires resources beyond those previously identified.

Process: The IROPS Champion is tasked with developing and maintaining an assessment checklist of items (equipment and supplies) held by an airport service organization that could be made available for use by another organization during an IROPS event. A few examples of equipment and supplies to inventory include tugs, towbars, airstairs, buses, food, and water. See Tool 7 – Example Resource Inventory Checklist in Resource C for additional support.

Although mutual support is a recommended philosophy of an IROPS plan, it is not intended that this willingness to share unplanned access to resources among airport organizations during an IROPS event should replace comprehensive planning for response by all airport service organizations.

Request for unplanned access by a local organization to another organization's resources during an IROPS event should be evaluated during the debriefing meeting following the event (see Topic 6a: Debriefing IROPS Event)

Format: The following list includes agencies and vendors that should be considered for tracking resource inventory (as appropriate to your situation):

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Overnight accommodations:** Hotels, churches, Red Cross
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, LEO, EMT

[illegible]

TOPIC 2h: SKILLS AVAILABILITY

This topic describes guidance for planning and developing procedures across local organizations identifying categories of skilled personnel employed by an airport service organization beyond those which have been planned for shared use, but that could be made available for use if requested by another airport organization during an IROPS event.

This planning should include identification of skilled personnel that the organization believes is sufficient to meet its response goals. It is further expected that where an organization's plan identifies skilled personnel beyond those employed by the organization, they will develop procedures with other organizations to provide them access to such personnel as needed during an IROPS event.

Purpose: The purpose of this topic is not to document the planned skilled personnel described previously. Rather, its purpose is to describe the identification of flexibility of staffing within the airport service organizations that could be made available to another (requesting) organization during an IROPS event when the event requires skilled personnel beyond those previously identified. Examples include staff who may speak more than one language who could provide translation services if needed, or management staff who have the skills needed to operate equipment on the airfield (e.g., tugs), or airline staff who have the training necessary for food preparation if concessions need additional assistance for mass influxes of passengers.

Process: The IROPS Champion is tasked with developing and maintaining an assessment checklist of categories of skilled personnel employed by an airport service organization who could be made available for use by another organization during an IROPS event. Although mutual support is a recommended philosophy of an IROPS plan, it is not intended that this willingness to share unplanned access to skilled personnel among airport organizations during an IROPS event as described in this section should replace comprehensive planning for response by all airport service organizations.

Request for unplanned access by a local organization to another organization's skilled personnel during an IROPS event should be evaluated during the debriefing meeting following the event (see Topic 6a: Debriefing IROPS Event).

Format: The following list includes agencies and vendors that should be considered when documenting skills availability (as appropriate to your situation):

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, LEO, EMT

[illegible]

TOPIC 3a: ESTABLISH PROCEDURES WITH AIRLINES

This topic describes the collection and development of joint procedures with your local airlines as well as all other airlines which consider your airport for diversions.

As noted in Part 1 - Fundamentals, airlines are required to coordinate their extended delay contingency plans with both scheduled airports they serve and their diversion airports. The airline contingency plans should commit sufficient resources for plan implementation, but these resources may include those usually provided by the receiving airport to implement the plan.

It is recommended that the airline contingency plans be fully discussed and understood by your airport's IROPS Contingency Response Committee. Subsequent considerations for potential impact of IROPS events resulting in surge, capacity, off-hours operation, and extended stay of aircraft should be addressed in your airport IROPS plan.

The output from this topic is the population of Section 3.1.1 – Airlines of the Resource B – Model IROPS Contingency Plan.

Considerations: Safety remains the top priority for your airport. Other considerations may include the following:

- Establish a communications procedure with each airline to ensure timely notification of the airline's decision to divert flights scheduled to arrive at your airport, or for the decision to divert flights to your airport that were scheduled for another airport.
- The communication procedure for all diverted flights should include periodic status, continuing until such time the flight either arrives at its scheduled destination or until it has been cancelled.
- During extraordinary situations, keeping the runways clear for diversions that may be low on fuel and maintaining the ability to safely park aircraft.
- The next priority is to help passengers.
- Many airports provide blankets and/or cots, and all ensure the availability of food, water, and toiletries.
- Some airports also work with passengers experiencing disruptions to arrange for hotel accommodations and ground transportation.
- Under extraordinary circumstances, airports should be able to take control of gates, unload passengers, and direct equipment to serve planes with the greatest need, regardless of company affiliation.

Process: Request that each airline that serves your airport be represented on your airport IROPS Contingency Response Committee. Ensure that you have received a contingency plan from each airline that serves your airport (including those that consider your airport for diversions), review these plans, and contact individual airlines to resolve any concerns you may have. Comments are particularly important if the airline has not provided sufficient details regarding how they will deal with extended tarmac delays at your airport (e.g., hasn't addressed who will provide ground handling services upon arrival, isn't clear regarding who it would contact at the airport for assistance, doesn't list who airport staff can contact at the airline to determine flight status).

PART 2

Resource A

Resource B

Resource C

Resource D

Bibliography

Appendices

TOPIC 3b: ESTABLISH PROCEDURES WITH FAA

This topic describes the collection and/or development of local procedures with the FAA for aircraft ground control procedures during extended tarmac delays. It also describes guidance for sharing of aircraft status between FAA and airport operations. The output from this topic is the population of Section 3.1.2 – FAA of Resource B – Model IROPS Contingency Plan.

Purpose: Establish local procedures and basic guidelines for airport operator coordination with local FAA organization(s) in conjunction with local aircraft operators.

Process: The FAA has issued directives to air traffic personnel pertaining to aircraft making tarmac delay requests related to the United States DOT's rules on enhancing airline passenger protections (14 CFR Part 259 *Enhanced Protections for Airline Passengers*). These procedures are in addition to providing access to aircraft flight status.

These directives provide guidance to aircraft operators for consideration of ground control procedures during situations related to the United States DOT's "3-Hour Rule" and "4-Hour Rule."

Additionally, the FAA currently provides aviation service providers access to accurate, complete, and timely information in regard to expected flight delays and developing local situations. These information sources are provided on a noninterference to normal FAA operations basis.

The IROPS Contingency Response Committee should confirm and document its local ATC service actions specific to IROPS events.

Format: Use the table (Procedures with FAA) to catalog the procedures once they are collected/developed to include in the Model IROPS Contingency Plan. Also, the actual procedures should be included as an appendix (see Appendix B of Resource B – Model IROPS Contingency Plan).

Note: Consider developing a ramp and tarmac parking plan that illustrates areas on the airfield that may become an issue in the event of an IROPS event, and other movement areas that ATC services may identify as being problematic should you receive multiple diversions.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 3c: ESTABLISH PROCEDURES WITH CBP

This topic describes guidance for planning and developing local procedures with the CBP for unscheduled international flights associated with IROPS events. These should include CBP coordination procedures for international aircraft arriving from abroad that land in the United States for reasons other than as a scheduled arrival and for international aircraft diverted to an airport other than the intended airport of destination.

These technical stops or diversions include flights that are technical fuel stops, emergency fuel stops, weather-related stops, mechanical incidents, stops due to illness on board the aircraft, or other emergency stops, including stops for terrorist-related incidents or precautions. These procedures should include provisions for supporting unscheduled and diverted arrivals of international flights into airports not normally staffed by the CBP.

Purpose: Establish local procedures and basic guidelines for the airport operator coordination with the CBP in conjunction with the FAA, TSA, and LEO personnel for the appropriate handling and reporting of international aircraft diverted for emergency or exigent circumstances. These procedures are subject to change as events may require.

The output from this topic is the population of Section 3.1.3 – CBP of Resource B – Model IROPS Contingency Plan.

Process: At the national level, the CBP Headquarters – Office of Field Operations developed a contingency plan to address unscheduled arrivals, including flight diversions and technical fuel stops. The Director, Field Operations has authorized the port director to allow diverted flights in accordance with CBP established procedures.

In the event of a diverted international or precleared flight to an airport, the CBP will coordinate with the diverted airline and airport partners to permit deplaning passengers in the event of extended delays in accordance with the procedures below:

- The diverted airline will provide initial notification to the CBP duty supervisor or watch commander.
- Deplaning of passengers will take place at the Federal Inspection Station (FIS) facility at an airport.
- Diverted flights that will not be processed will be secured in the transit lounge.
- Airline personnel are permitted in the transit lounge to provide food service to delayed passengers.
- The CBP, in coordination with airport partners, will ensure passengers remain secure in the transit lounge in the FIS area, preventing association with other passengers, domestic or foreign.
- Crew changes and servicing aboard an aircraft undergoing a technical stop/diversion will be permitted, without full inspection of the passengers and baggage, if the carrier provides 100% advance passenger information (API) prior to the aircraft's arrival.
- All passengers remain on board, except for protracted stays. A “protracted stay” is generally defined as the aircraft remaining on the tarmac in excess of 2 hours where CBP personnel are stationed.
- No new passengers or cargo are added at the technical stop.
- CBP retains the option to require all passengers, crew, and baggage to disembark and clear through CBP passport and baggage control.

Format: All international diverted aircraft under the jurisdiction of the airport area of responsibility will be closely monitored. All actions related to the aircraft, persons, and cargo on board will be coordinated with the CBP, airport, air carrier, local law enforcement, and other government agency representatives. All actions taken by the CBP, airport, air carrier, local law enforcement, or other government agencies must be immediately reported to the watch commander. Specific procedures and requirements for various situations are detailed below:

CBP reporting requirements for all flight diversions: The following notifications must be made to the airport field office, border security staff, field office watch commander, and airport field watch commander:

The following information is needed:

- Flight number and name of the airport to which the flight has been diverted.
- ETA (estimated time of arrival) at original airport, ETA at diverted airport, actual block time.
- Types of security at the gate/airport to ensure passengers remain on board, or if deplaned, remain in a secure area while awaiting CBP processing and clearance.
- Any types of special requests/needs by the pilot, passengers, or assistance offered by CBP personnel.
- Additional updates for the aircraft (e.g., aircraft fueling, departure time).
- Closeout information pertaining to flight departure time.

CBP procedure for processing diverted flights to the airport: any international airline diverted to the airport due to weather may request permission from the CBP to disembark their passengers and crew into a sterile and secure area. Permission may be granted, and passengers and crew may be held in the transit lounge provided the airline:

- Communicates with the watch commander as to the nature of the diversion and the anticipated length of delay.
- Updates the status of the diversion upon any changes as they occur.
- Controls the movement and secures the passengers from contact with any other domestic or foreign flight.
- Requests and receives access to the FIS and the transit lounge in advance in order to care for its passengers.

CBP procedures for extended stays/diversions – 3-/4-hour guideline: An extended stay is described as an aircraft remaining on the tarmac in excess of 3 hours, where CBP personnel are stationed. If the air carrier's representative or aircraft pilot states that the aircraft will depart the airport within 3 hours or within 30 minutes after the third hour on the ground, or determines that deplaning would jeopardize passengers' safety or security, the passengers can be allowed to remain on board the aircraft.

Office of Field Operation personnel have the option to allow passengers to deplane at any time and remain in a secure area until the flight is cleared to depart for the original or alternate final destination to ensure the safety of the passengers. CBP field managers shall use all resources in their power to meet the 3-hour guideline.

CBP procedures for technical stop: Crew changes and servicing aboard an aircraft undergoing a technical stop will be permitted without full inspection of the passengers and baggage, provided the following conditions are met:

- The carrier must provide 100% API electronic data in advance of the aircraft's arrival if the aircraft was scheduled to arrive or stop in the United States
- All passengers should remain on board, except in the event of a stay/diversion lasting more than 3 hours or if CBP field personnel determine the passengers should be deplaned for any reason, prior to 3 hours.
- No new passengers or cargo are added at the technical stop.
- These procedures DO NOT apply to passengers and crew on flights departing the United States for foreign countries that make an unscheduled stop in the United States due to an emergency. Note: There may still be times when these flights require CBP presence (e.g., when deportees are on board).

CBP process for diverted flights to airports without a FIS: The following procedures should be developed:

- Determine location of the secure area.
- Develop plans to maintain security of the area.
- Give passengers access to restrooms if the secure area does not have restrooms.
- Ensure airport/airlines have responsibility for providing food and water to passengers while maintaining the sterility of the secure area.
- Validate passenger information through law enforcement databases as applicable.
- Assist with any complex immigration issues that responding officers are not able to address.
- Ensure security at the gate/airport to ensure passengers remain on board, or if deplaned, remain in a secure area while awaiting CBP processing and clearance.

CPB process for entry without inspection: If a passenger refuses to comply with the instructions to remain in the secured area pending CBP inspection or reboarding in lieu of CBP processing and unlawfully enters the United States without inspection, they may be subject to civil penalty and/or adverse action depending on their citizenship status.

CBP procedures for handling garbage and de-catering partially cleared diverted flights: Responding CBP officers shall determine if there is regulated garbage on board the aircraft for a partially cleared diverted aircraft. CBP officers will, in coordination with the destination airport, initiate a CBP Form AI 250 to control the movement of regulated garbage to the destination airport for a partially cleared diverted flight.

Use the table (Procedures with CBP) to catalog procedures once they are collected/developed to include in Resource B – Model IROPS Contingency Plan. Also, the actual procedures should be included as an appendix (see Appendix B of Resource B – Model IROPS Contingency Plan).

Note: Airport staff should work with CBP to identify secure areas at the airport to be used for holding international passengers should they need to deplane. A graphic of the area(s) should be developed and included in the plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 3d: ESTABLISH PROCEDURES WITH TSA

This topic describes the collection and/or development of local procedures with the TSA to develop appropriate security measures for passengers during IROPS events. These involve the ability for passengers to avoid re-screening if they deplane due to an extended tarmac delay and for the TSA to develop contingency plans for after-hour security arrangements.

Purpose: To provide a process for the airport to coordinate with the TSA for alternative security measures during IROPS events. The output from this topic is the population of Section 3.1.4 –TSA of Resource B – Model IROPS Contingency Plan.

Process: The TSA is responsible for ensuring that plans are in place to have designated checkpoints opened late/early and adequately staffed to support various IROPS events.

It is recognized that the Department of Homeland Security has issued procedures to TSA Federal Security Directors concerning establishing and utilizing secure areas using procedures in the Airport Security Program or Aircraft Operator Standard Security Program.

It is recommended that the airport and local airlines coordinate with the TSA to establish sterile areas where delayed aircraft may deplane passengers without having to rescreen them.

Example procedures – To be coordinated with the TSA for incorporation into the IROPS plan:

- If passengers are deplaned into a sterile area and remain in the sterile area, they may be reboarded without additional screening.
- The airport or airline may establish a sterile area without TSA presence using procedures in the Airport Security Program or Aircraft Operator Standard Security Program.
- Procedures may be established to allow for the escorting of passengers outside of the sterile areas, such as to vending machines, and then returning to the sterile area without TSA screening outside of normal TSA operating hours.

Format: The table (Establish Procedures with TSA) should be inserted into Section 3.1.4 of Resource B – Model IROPS Contingency Plan.

Note: Airport staff should work with the TSA to identify a method of providing access to secured areas after hours, when needed. For example, if the concessions are post security and concession staff is called back after hours to serve passengers from diversion aircraft, they will need a way to pass through screening. If TSA officers are not on duty at that time, that poses a challenge. Procedures should be established with the TSA for screening after hours.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 3e: ESTABLISH PROCEDURES WITH CONCESSIONS

This topic describes the collection and development of local procedures with concessions to provide service during IROPS events, including those resulting in extended passenger (and other customers) stay in the terminal area. Key considerations include agreement to remain open during extended hours and support for special-needs passengers, including infant supplies, as well as maintaining appropriate supply levels of basic needs during periods of passenger surge due to an IROPS event.

The output from this topic is the population of Section 3.1.5 – Concessions of the Resource B – Model IROPS Contingency Plan.

Purpose: To ensure that passenger needs of food and beverage (and potentially medicinal and family needs) are met during IROPS events.

Process: Concessions should develop an IROPS plan for use during IROPS events, including:

- Backup to airlines for on-board passenger support by sharing supplies
- Support for special-needs passengers
- Support for infants
- Support for after-hours service
- Implement backup staffing to respond to passenger surge

Format: The Concessions IROPS Plan should be activated as required following situational notification by either an airline or by an airport-designated point-of-contact. Use the table (Establish Procedures with Concessions) to catalog the procedures with concessionaires (snack stands, restaurants, and other vendors) and then insert into Section 3.1.5 of Resource B – Model IROPS Contingency Plan. A copy of the various procedures should be included as an appendix (see Appendix B of Resource B – Model IROPS Contingency Plan).

Note: The airport should consider including language in lease agreements with concessionaires that require them to provide staff to help serve passengers stuck in the terminal in the event of an IROPS occurrence.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 3f: ESTABLISH PROCEDURES WITH GROUND TRANSPORTATION

This topic describes the collection and/or development of local procedures with ground transportation organizations at an airport to provide service during IROPS events, including those resulting in extended passenger (and other customers) stay in the terminal area. Key considerations include agreement to provide service during extended hours and procedures for obtaining additional resources when required.

Purpose: To ensure that ground transportation needs during IROPS events, including those resulting in extended passenger (and other customers) stay in the terminal area, are met during IROPS events.

Process: Ground transportation organizations operating at the airport should develop procedures that address:

- Support for special-needs passengers
- IROPS Ground Transportation Plan for use during IROPS events
- These plans should include procedures for obtaining additional resources (staffing/resources) when required
- The output from this topic is the population of Section 3.1.6 – Ground Transportation of Resource B – Model IROPS Contingency Plan.

Format: The ground transportation organizations should activate their IROPS Ground Transportation Plan when notified of related requirements caused by an IROPS event. Use the table (Establish Procedures with Ground Transportation) to catalog the procedures collected/developed with the local ground transportation providers (including on- and off-site rental car agencies, taxis, local mass transit, bus companies, and military vehicles if the airport is joint-use) in Resource B – Model IROPS Contingency Plan. A copy of the actual procedures should be included as an appendix (see Appendix B of Resource B – Model IROPS Contingency Plan).

Note: The airport should consider including language in lease agreements with ground transportation providers that would require them to provide assistance in the event of an IROPS occurrence.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 4a: IROPS COORDINATION WORKSHOPS

This topic describes recommendations for planning and sponsoring an IROPS coordination workshop. The material includes considerations for local organizations that are represented on the IROPS Contingency Response Committee. Holding periodic IROPS coordination workshops provides a common format and venue for periodic review and confirmation/update of the local IROPS plan. It is recommended that these workshops be held at least two times per year. Other regional service providers should be invited to participate as appropriate.

Purpose: The goals of the IROPS coordination workshop are threefold:

- To explain why planning for mitigating the effects of IROPS events on passengers is critical.
- To allow participants to identify areas during lengthy delays that could benefit from increased coordination. This group discussion is helpful for expressing the underlying concepts and objectives in terms familiar to airport departments and key stakeholders.
- To allow your airport participants to have an opportunity to buy into the planning process for mitigating effects of IROPS events on passenger service by having their individual concerns made a part of the coordination process.

Attendance: This should not be limited to only those representatives from your airport identified earlier as being members of the IROPS Contingency Response Committee but should include other key airport personnel based on the importance of their understanding of IROPS planning. Attendees for this workshop may include individuals from the following agencies and vendors:

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, LEO, EMT

Process: The airport should host workshops periodically throughout the year to coordinate with the various stakeholders outlined in previous topics. The workshop should be tailored to meet the specific needs of the individual airport IROPS activities since the previous workshop was held. See Tool 11 – Sample Workshop Agenda in Resource C for additional support.

Format: The table (IROPS Coordination Workshop) should be completed and included in Section 4.1 – IROPS Coordination Workshops of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 4b: IROPS COORDINATED FRONTLINE TRAINING

This topic provides guidance for conducting periodic coordinated frontline training for IROPS response at an airport. In addition to emphasis on actions requiring coordination of two or more organizations, this training provides an opportunity to test new policies, practices, and procedures.

Purpose: Proper training for IROPS events ensures that all staff within a region are ready for and prepared to carry out policies, practices, and procedures in alignment with the IROPS plan. The output from this topic is the population of Section 4.2 – IROPS Coordinated Frontline Training of Resource B – Model IROPS Contingency Plan with the table (IROPS Coordinated Frontline Training) and the resulting training exercise(s) that should take place periodically to support the IROPS plan.

Attendance: All frontline employees and management from all service provider organizations should be provided training on new procedures. Attendees for the IROPS contingency coordinated training may include individuals from the following agencies and vendors:

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, LEO, EMT

Process: A frontline training program can be accomplished through various methods, including guidebooks, video training, and workshops. One of the most effective training exercises is using table-top scenarios to simulate real-life experiences.

Format: Frontline training exercises are normally carried out in a workshop format. A sample agenda is listed below which should be tailored to meet the specific needs of each airport and each training exercise.

Sample Agenda

Session 1: Questions to discuss:

What is the coordination process from early notification through debrief?

What are the trigger points?

What can be done better for you and your department?

How do you and your department stay actively engaged?

What can your department do to streamline/help the process?

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 5a: AIRCRAFT STATUS

Aircraft status in the air and on the ground is tracked by both airlines and ATC services to provide accurate, complete, and timely information in regard to expected flight delays and developing local situations.

Purpose: To outline a checklist of activities to determine aircraft status during an IROPS event. Procedures for sharing status information are documented in Section 2.4 – Tracking of Delayed Aircraft, while the output from this topic is the population of Section 5.1.1 – Aircraft Status of Resource B – Model IROPS Contingency Plan.

Process: Using the table (Aircraft Status) as a template, the IROPS Champion, in cooperation with the IROPS Response Committee, can develop an aircraft status checklist that can be used to provide information on local situations.

Format: The following list contains agencies that should be included and coordinated with when tracking aircraft status (as appropriate to your situation):

- **Government agencies:** ATC services
- **Airport:** Operations
- **Airlines:** All airlines operating at an airport

The table (Aircraft Status) can be incorporated into Resource B – Model IROPS Contingency Plan within Section 5.1.1 – Aircraft Status and used by airports, airlines, and ATC services where appropriate.

Note: See Tool 10 – Technology Solutions in Resource C for additional support.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 5b: TRACKING WEATHER

Weather patterns are tracked by the airport, airlines, and ATC services to predict potential impacts to aircraft operations and to carry out alternate operating procedures (such as diverting flights to alternate airports) to maintain the safety of the crew and passengers as well as operations staff out on the airfield. It is important for the airport to coordinate with NOAA's National Weather Service to keep up to date on the most current weather affecting air travel or having a potential to affect air travel. Contact information for your local NOAA National Weather Service station and representative can be found in Tool 12 – National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) Checklist in Resource C.

Purpose: To outline the roles and responsibilities of airport, airline, and ATC service staff for tracking weather and communicating status prior to and during an IROPS event. The output from this topic is the population of Section 5.1.2 – Tracking Weather of Resource B – Model IROPS Contingency Plan.

Process: Using the table (Tracking Weather Patterns) as a template, the IROPS Champion, in cooperation with the IROPS Response Committee, can develop a weather tracking checklist that can be used to provide information on local situations.

Format: The following list contains agencies that should be included and coordinated with when tracking weather (as appropriate to your situation):

- **Government agencies:** ATC services, NOAA
- **Airport:** Operations
- **Airlines:** All airlines operating at an airport

The table (Tracking Weather Patterns) can be incorporated into Resource B – Model IROPS Contingency Plan within Section 5.1.2 – Tracking Weather and used by airports, airlines, and the FAA where appropriate.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 5c: EXECUTE IROPS COMMUNICATION PLANS

This topic helps the airport develop an appropriate checklist for implementing an IROPS communication plan as part of the overall IROPS plan. Since relevant IROPS information, including status and related situational information, needs to be communicated among appropriate airport organizations during an IROPS event, defining a specific plan is critical to the actual implementation.

Purpose: To describe the checklist of communications actions during an IROPS event.

Process: Once completed, the airport should use the table (Execute IROPS Communication Plans) as a guide for the types of communication actions necessary, related to the various service providers at the airport, to identify methods of communication and specific activities to be carried out by each. Key elements of communication plans of airport service organizations are documented in Section 2.5 – Trigger Events and Communication Plans of Resource B – Model IROPS Contingency Plan. The output from this topic is the population of Section 5.2.1 – IROPS Communications Plans of Resource B – Model IROPS Contingency Plan.

Format: The following list includes agencies and vendors that should be considered when executing communication plans (as appropriate to your situation):

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Overnight accommodations:** Hotels, churches, Red Cross
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, LEO, EMT

Completion of the table (IROPS Communication Plans) provides the necessary guidance to populate Section 5.2.1 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 5d: EXECUTE PASSENGER SUPPORT PLANS

This topic addresses the development of a checklist to support the procedures necessary to accommodate passengers and other customers at the airport during IROPS events, including those times when they are:

- On-board aircraft
- Deplaning aircraft
- In the terminal
- In need of ground transportation
- In need of hotel accommodations

Purpose: To define a checklist of activities to provide support procedures for passengers and other customers at the airport during IROPS events, including the four primary situations where passengers may require support.

Process: Once completed, the table (Passenger Support) should highlight tasks and associated responsible parties that should be considered and included in the support of passenger needs. Procedures for passenger support are documented in Section 2.6 – Support for Passengers of Resource B – Model IROPS Contingency Plan. The output from this topic is the population of Section 5.2.2 – Passenger Support Plans in Resource B – Model IROPS Contingency Plan.

Format: The following list includes agencies and vendors that should be considered when executing passenger support plans (as appropriate to your situation):

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Overnight accommodations:** Hotels, churches, Red Cross
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, LEO, EMT

Completion of the table (Passenger Support) provides the necessary guidance to populate Section 5.2.2 of Resource B – Model IROPS Contingency Plan. This checklist should be evaluated at least annually to address any changes that may be necessary to accommodate changes in IROPS passengers' support needs.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 5e: EXECUTE IROPS PROCEDURES WITH AIRLINES

This topic describes the interactive coordination between your airport and your local airlines, as well as all other airlines that consider your airport for diversions as it is carried out during an IROPS event.

As noted in Part 1 – Fundamentals of IROPS Planning, airlines are required to plan for allowing passengers on board aircraft experiencing extended delays to deplane no longer than specified by DOT rules. At the time of this writing, this time period is 3 hours for domestic and 4 hours for international flights. You should confirm the latest specifics on this requirement.

Considerations: Following the procedures previously documented in Topic 3a – Establish Procedures with Airlines, your airport IROPS plan should address how you will maintain shared situational awareness among all local service providers. Since the response triggering event for most of your providers is the decision of an airline to deplane passengers due to an extended tarmac delay, a key consideration is the timely notice that such an event is likely to occur.

Other considerations may have been identified during your coordinated IROPS planning. These should be documented to ensure their consideration during development of specific procedures for each of your airport's associated airlines.

Purpose: To create a checklist of activities to implement airline support during an IROPS event. The output from this topic is the population of Section 5.2.3 – Procedures with Airlines of Resource B – Model IROPS Contingency Plan.

Format: Completion of the table (Execute IROPS Procedures with Airlines) provides the necessary guidance to populate Section 5.2.3 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 5f: EXECUTE IROPS PROCEDURES WITH FAA

This topic addresses the coordination of specific activities with the FAA that are to be carried out during an IROPS event.

Purpose: To describe the checklist of activities to implement FAA support during an IROPS event. The output from this topic is the population of Section 5.2.4 – Procedures with FAA.

Process: ATC services have agreed to implement aircraft ground control procedures pertaining to aircraft making tarmac delay requests related to the United States DOT's rules on enhancing airline passenger protections (14 CFR Part 259 *Enhanced Protections for Airline Passengers*).

Additionally, the FAA currently provides aviation service providers access to accurate, complete, and timely information in regard to expected flight delays and developing local situations. This information is provided as long as it does not interfere with normal FAA operations.

Procedures for local ATC service to implement specific measures during IROPS events have been previously documented in Topic 3b – Establish Procedures with FAA.

Format: Use the table (Execute IROPS Procedures with FAA) to catalog a checklist of support activities that are to be carried out with the FAA; the completed table populates Section 5.2.4 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 5g: EXECUTE IROPS PROCEDURES WITH CBP

This topic addresses the coordination of specific activities with the CBP that are to be carried out during an IROPS event.

Purpose: To describe checklists of activities to implement CBP support during an IROPS event. The output from this topic is the population of Section 5.2.5 – Procedures with CBP of Resource B – Model IROPS Contingency Plan.

Process: The CBP organization at the airport has agreed to implement appropriate procedures for unscheduled international flights associated with IROPS events. These include CBP coordination procedures for international aircraft arriving from abroad that land in the United States for reasons other than as a scheduled arrival and for international aircraft diverted to an airport other than the intended airport of destination.

These technical stops or diversions include flights that are technical fuel stops, emergency fuel stops, weather-related stops, mechanical incidents, stops due to illness on board the aircraft, or other emergency stops, including stops for terrorist-related incidents or precautions. The procedures include provisions for supporting unscheduled and diverted arrivals of international flights into airports not normally staffed by the CBP.

Procedures for CBP implementing specific local measures during IROPS events have been previously documented in Topic 3c – Establish Procedures with CBP.

Format: Use the table (Execute IROPS Procedures with CBP) to catalog a checklist of support activities that are to be carried out with the CBP; the completed table populates Section 5.2.5 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 5h: EXECUTE IROPS PROCEDURES WITH TSA

This topic addresses the coordination of specific activities/procedures with the TSA that are to be carried out during an IROPS event.

Purpose: To describe the checklist of activities to implement TSA support during an IROPS event. The output from this topic is the population of Section 5.2.6 – Procedures with TSA of Resource B – Model IROPS Contingency Plan.

Process: The TSA organization at the airport has agreed to implement appropriate security measures for passengers during IROPS events. These involve the ability for passengers to avoid rescreening if they deplane due to an extended tarmac delay and for the TSA to develop contingency plans for after-hour security arrangements. It is recognized that the Department of Homeland Security has issued procedures to TSA Federal Security Directors concerning establishing and utilizing secure areas using procedures in the Airport Security Program or Aircraft Operator Standard Security Program.

Procedures for the TSA implementing specific local measures during IROPS events have been previously documented in Topic 3d – Establish Procedures with TSA.

Format: Use the table (Execute IROPS Procedures with TSA) to catalog a checklist of support activities/procedures that are to be carried out with TSA; the completed table populates Section 5.2.6 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 5i: EXECUTE IROPS CONCESSIONS PROCEDURES

This topic addresses the coordination of specific activities with concessionaires (including snack stands, restaurants, and other vendors) that are to be carried out during an IROPS event.

Purpose: To create a checklist of activities to implement concessions support during an IROPS event. The output from this topic is the population of Section 5.2.7 – Concessions Procedures of Resource B – Model IROPS Contingency Plan.

Process: Concessions at the airport have agreed to provide service during IROPS events, including those resulting in extended passenger (and other customers) stay in the terminal area. Key considerations include agreement to remain open during extended hours and support for special-needs passengers, including infant supplies, as well as maintaining appropriate supply levels of basic needs during periods of passenger surge due to an IROPS event.

Procedures for concessionaires providing specific support during IROPS events have been previously documented in Topic 3e – Establish Procedures with Concessions.

Format: Completion of the table (Execute IROPS Procedures for Concessions) provides the necessary guidance to populate Section 5.2.7 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 5j: EXECUTE IROPS GROUND TRANSPORTATION PROCEDURES

This topic addresses the coordination of specific activities with ground transportation agencies that are to be carried out during an IROPS event.

Purpose: To describe the checklist of activities to implement ground transportation support during an IROPS event. The output from this topic is the population of Section 5.2.8 – Ground Transportation Procedures of Resource B – Model IROPS Contingency Plan.

Process: Ground transportation organizations (including on- and off-site rental car agencies, taxis, local mass transit, bus companies, and military vehicles if the airport is joint-use) at the airport have agreed to provide service during IROPS events, including those resulting in extended passenger (and other customers) stay in the terminal area. Key considerations include agreement to provide service during extended hours and procedures for obtaining additional resources when required.

Procedures for ground transportation organizations providing specific support during IROPS events have been previously documented in Topic 3f – Establish Procedures with Ground Transportation.

Format: Use the table (Execute IROPS Procedures for Ground Transportation) to catalog a checklist of support activities that are to be carried out with ground transportation; the completed table populates Section 5.2.8 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 6a: DEBRIEFING IROPS EVENT

This topic addresses the debriefing activities that should be carried out with all aviation service providers following an IROPS event.

Purpose: The purpose of the debriefing session is to review response performance following a major IROPS event. This allows service provider organizations to assess and analyze all aspects of response, to document lessons learned, and to improve performance by sustaining strengths and correcting weaknesses. When necessary, performance improvements should be incorporated into the IROPS plan, and staff training should be provided on any new procedures. Additionally, technology and resources should be evaluated as part of the review to determine if either should be enhanced to assist in improving IROPS event response.

It is recommended these sessions be held after every major IROPS event. The emphasis on debrief should be on what airport organizations can do better for the next event. The list below includes agencies and vendors that should be invited to participate, as appropriate, depending on their involvement in the IROPS event:

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP, NOAA
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, LEO, EMT

Process: Each organization should first hold a debriefing meeting with its management to review its response to the IROPS event. (Generally this should occur within 48 hours following the conclusion of the IROPS event.) A sample list of debriefing questions can be found in Tool 17 – After an Event Debrief in Resource C.

Following its internal management briefing, each organization should report its findings (including any lessons learned) and recommendations to the IROPS Champion and the IROPS Contingency Response Committee for review. The Committee should consider if further study is required to fully understand the effectiveness of the airport's response. Results of the review (and study if required) should be considered by the Committee to determine if any revisions are required in the IROPS plan. The Committee should re-distribute the IROPS plan following any required revisions.

Format: Debriefings should cover analysis of the effectiveness of staffing, resources, equipment, and technology used during response to the IROPS event.

Use the table (Debriefing IROPS Event) to document debriefing actions with airport service providers; the completed table populates Section 6.1 of Resource B – Model IROPS Contingency Plan.

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

TOPIC 6b: CAPTURING LESSONS LEARNED

This topic describes considerations recommended for discovering lessons learned after an IROPS event. The material includes considerations for airport service organizations that are represented on the IROPS Contingency Response Committee.

Purpose: The primary purpose of gathering lessons learned during an IROPS event is to document what worked and what did not. Lessons learned (both good and bad) should be expected to surface from debriefing meetings held after every major IROPS event.

Process: Each service provider organization should review all aspects of their organization's response to an IROPS event. Generally, this review precedes a debriefing to the organization's management shortly after the conclusion of the event. During this process, each organization should document lessons learned, including what worked and what did not. Following their internal management debriefing, each airport organization should report a summary of their findings and recommendations to the IROPS Champion and the IROPS Contingency Response Committee. The Committee should consider the debriefing reports from each major IROPS event to identify any additional lessons learned from examples of coordinated response by airport organizations. The IROPS Champion should compile and distribute any resulting new lessons learned following an IROPS event. Periodically, a summary of lessons learned should be shared with other airports in the general aviation community.

Format: Use the table (Capturing Lessons Learned) to catalog lessons learned and actions that need to be taken by agencies and vendors following an IROPS event; the completed table populates Section 6.2 of Resource B – Model IROPS Contingency Plan.

Agencies and vendors that should be considered (as appropriate to your situation) when documenting lessons learned are listed below:

- **Airlines:** All airlines operating at an airport
- **Government agencies:** FAA, TSA, CBP, NOAA
- **Concessionaires:** Snack stands, restaurants, stores
- **Fixed based operator:** Local FBO
- **Ground transportation:** Rental cars (on- and off-site), taxis, local mass transit, bus companies
- **Military installations** (if a joint-use facility)
- **Emergency response:** Fire, LEO, EMT

[illegible]

Please modify this table as appropriate for your needs, and add additional rows as necessary.

RESOURCE B – MODEL IROPS CONTINGENCY PLAN

(AIRPORT NAME)
IROPS Contingency Plan

Date adopted

Date of final revision

PART 1

PART 2

Resource A

Resource B

Resource C

Resource D

Bibliography

Appendices

[illegible]

CONTENTS

99 INTRODUCTION

101 CHAPTER 1 – EXECUTIVE BUY-IN/GET ORGANIZED

101 1.1 Establishing an IROPS Contingency Response Committee

103 CHAPTER 2 – DOCUMENT CURRENT SITUATION

- 103 2.1 Reviewing Existing IROPS Response Plans
- 103 2.2 Reviewing Local IROPS Events and Assessing Local Situation
- 104 2.3 Passenger Needs during an IROPS Event
- 104 2.4 Tracking of Delayed Aircraft
- 104 2.5 Trigger Events and Communications Plans
- 105 2.6 Support for Passengers
- 105 2.7 Tracking Inventory
- 105 2.8 Skills Availability

107 CHAPTER 3 – ESTABLISH PROCEDURES TO COOPERATE

- 107 3.1 Cooperation Procedures
 - 107 3.1.1 Airlines
 - 107 3.1.2 FAA
 - 107 3.1.3 CBP
 - 108 3.1.4 TSA
 - 108 3.1.5 Concessions
 - 108 3.1.6 Ground Transportation
- 109 3.2 Other Providers to Consider

111 CHAPTER 4 – REVIEW, UPDATE, AND TRAINING

- 111 4.1 IROPS Coordination Workshop
- 111 4.2 IROPS Coordinated Frontline Training

113 CHAPTER 5 – CONSOLIDATED COOPERATION ACTIONS DURING AN EVENT

- 113 5.1 Monitoring IROPS Event Indicators
 - 114 5.1.1 Aircraft Status
 - 114 5.1.2 Tracking Weather
- 114 5.2 Executing IROPS Plans and Procedures
 - 115 5.2.1 IROPS Communications Plans
 - 115 5.2.2 Passenger Support Plans
 - 115 5.2.3 Procedures with Airlines
 - 115 5.2.4 Procedures with FAA
 - 116 5.2.5 Procedures with CBP
 - 116 5.2.6 Procedures with TSA
 - 116 5.2.7 Concessions Procedures
 - 116 5.2.8 Ground Transportation Procedures
 - 116 5.2.9 Procedures with Other Providers

117 CHAPTER 6 – CAPTURE LESSONS LEARNED AND UPDATING PLANS

- 117 6.1 After an IROPS Event
- 117 6.2 Lessons Learned

119 APPENDICES

- 121 **Appendix A** – Compliance Matrix of (AIRPORT NAME) IROPS Contingency Plan with DOT Model Contingency Plan
- 123 **Appendix B** – Reference Documents
- 125 **Appendix C** – Status of Plan Details
- 127 **Appendix D** – Contact Details for (AIRPORT NAME) IROPS Contingency Response Committee and Points of Contact for Agencies during an IROPS Event

INTRODUCTION

Purpose

This document provides the coordinated IROPS Contingency Plan for (AIRPORT NAME). It was developed by the airport's IROPS Contingency Response Committee under the sponsorship of Airport Operations. Membership in (AIRPORT NAME)'s IROPS Contingency Response Committee comprises representatives from each of (AIRPORT NAME)'s aviation service providers. The committee recognizes that individual plans and a coordinated effort by the airlines, airports, government agencies, and other aviation service providers is essential to successfully minimizing the impact of IROPS events on passengers. This coordinated contingency management plan provides a common point of focus for (AIRPORT NAME)'s coordinated response to IROPS events.

The emphasis for this plan is the identification and documentation of areas of contingency activities of (AIRPORT NAME)'s aviation service providers that require support from one or more service provider organizations. The plan format follows the recommendations provided in *ACRP Report 65: Guidebook for Airport Irregular Operations (IROPS) Contingency Planning*.

(AIRPORT NAME) has recognized the importance of the guidance provided by the U.S. Department of Transportation (DOT) and its *Model Contingency Plans to Deal with Lengthy Onboard Ground Delays*. To this end, a compliance matrix is provided in Appendix A to relate specific sections of the Model Contingency Plan to those of this document.

Use of Terms

The following is a list of terms and definitions used throughout this Model Plan and associated topic worksheets. See the glossary contained in *ACRP Report 65: Guidebook for Airport Irregular Operations (IROPS) Contingency Planning* for additional terms and definitions.

Irregular Operations (IROPS) – Exceptional events that require actions and/or capabilities beyond those considered usual by aviation service providers. Generally speaking, an impact of these events is the occurrence of passengers experiencing delays, often in unexpected locations for an undetermined amount of time. Examples include extreme weather events (such as snowstorms, hurricanes, tornados), geological events (such as earthquakes, volcanoes), and other events (such as power outages or security breaches).

Passengers – Includes people traveling, service animals in the cabin, and live cargo onboard aircraft and in the terminal area.

Customers – Includes both passengers and other non-aviation service personnel such as meeters and greeters who are in the terminal area.

FAA – Federal Aviation Administration - Please note that for the purposes of this guidebook, references to the FAA include all forms of air traffic control (ATC) services.

CBP – Customs and Border Protection

TSA – Transportation Security Administration

Service Providers – All entities at an airport that provide services for customers and passengers including but not limited to: airports, airlines, concessionaires, ground transportation agencies, government agencies, fixed base operators (FBO), overnight accommodations, emergency response, military (if joint-use facility), and diversion airports.

Passenger Needs

Needs of passengers, both on board aircraft on the ground or in the airport terminal during lengthy delay or other IROPs events, vary and normally require the attention of more than one party to be met. By understanding the needs of passengers during such delays, (AIRPORT NAME), diversion airports, airlines, government agencies, and other aviation service providers can take appropriate steps to anticipate and address such needs

Causes of IROPs Events

Causes of IROPs events can include a number of conditions such as extreme weather, geological events, reduction of airport facility capacity, aircraft mechanical problems, and labor issues. The impacts of IROPs events include flight delays, cancellations, and diversions resulting in potentially adverse impacts on passengers and other airport customers. In addition to impacts on passengers, IROPs events also have an impact on airport operations. As noted in the guidebook, there are four phases of impact during an IROPs event that must be planned for:

- Surge
- Capacity
- Off-hours
- Extended stay

Each IROPs event is unique, and airlines, diversion airports, government agencies, and other aviation service providers will benefit from the (AIRPORT NAME) IROPs Contingency Plan accounting for diverse IROPs characteristics by adapting to changing conditions.

Planning for Contingency Response

The purpose of the (AIRPORT NAME) IROPs response management process is to identify and document actions requiring coordination between two or more aviation service providers. Joint actions are identified that reflect both current individual contingency plans and areas of recommended communication, collaboration, and coordination between service providers.

CHAPTER 1 – EXECUTIVE BUY-IN/GET ORGANIZED

Activities described in this chapter provide for:

- The establishment of the (AIRPORT NAME) IROPS Contingency Response Committee
- Establishment of 24/7 contact/notification list
- Documentation of procedures with airlines, government agencies, and support organizations
- Conducting workshops and training (including table-top exercises)

1.1 Establishing an IROPS Contingency Response Committee

The (AIRPORT NAME) IROPS Contingency Response Committee has been established following the guidelines of the DOT's Model Contingency Plan. (AIRPORT NAME)'s (ORGANIZATION and TITLE) provides the sponsorship and designates the chairperson of the Committee.

The goal of the committee is to establish and enhance contingency plans through collaborative decision making. This will ensure that actions result in a unified level of customer care across all (AIRPORT NAME) aviation service providers during IROPS events.

Members of the (AIRPORT NAME) IROPS Contingency Response Committee include representatives of all local aviation and customer service provider organizations. Organizations and representatives are shown in the IROPS Contingency Response Committee table along with their 24/7 contact and notification information.

Note to User:

Tables needed to complete each of the sections in this Model Plan are provided in Resource A – Topics for IROPS Plan Development, and they are identified in this Model Plan with the following icon:



Insert completed table from Topic 1: IROPS Contingency Response Committee

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

CHAPTER 2 – DOCUMENT CURRENT SITUATION

The IROPS data collection activities focus on:

- Reviewing existing IROPS response plans from service providers, including airlines, government agencies, and support organizations
- Local IROPS event history
- Local customer needs
- Local tracking of delayed aircraft
- Local trigger events and communications plans
- Local support for passengers on board, being deplaned, and in-terminal
- Local tracking of inventory
- Local skills availability

2.1 Reviewing Existing IROPS Response Plans

It is recognized that (AIRPORT NAME)’s organizations may have their own plans for response to IROPS events. It is also recognized that United States DOT’s rules on enhancing airline passenger protections (14 CFR Part 259 – *Enhanced Protection for Airline Passengers*) require air carriers to adopt tarmac delay contingency plans and coordinate those plans with airports. The purpose of this section is to identify the several IROPS plans of local airlines, airport operations, and FBO organizations as they relate to areas of coordination between organizations.

The Review Existing IROPS Response Plans table describes both formal and informal understandings of coordination between these organizations, as well as individual organization Standard Operations Procedures (SOPs) related to IROPS response. Descriptions of procedures with concessions, ground transportation, and government agencies (FAA, TSA, and CBP) are found in Sections 3.1.1 through 3.1.5 of this plan.



Insert completed table from Topic 2a: Reviewing Existing IROPS Response Plans

2.2 Reviewing Local IROPS Events and Assessing Local Situation

The IROPS Event History table describes the history of local IROPS events, including lengthy onboard ground delay events. It also describes the role of various service providers in providing passenger and other customer support during IROPS events. The purpose of this history is to provide a basis for identification and review of IROPS response activities with focus on areas needing process improvement.



Insert completed table from Topic 2b: IROPS Event History

2.3 Passenger Needs during an IROPS Event

The Passenger Needs table focuses on needs of passengers and other customers during IROPS events, with special focus provided for special needs passengers. The needs analysis is provided by consideration of general information of customer needs during IROPS events.



Insert completed table from Topic 2c: Passenger Needs

2.4 Tracking of Delayed Aircraft

The Tracking Delayed Aircraft table describes (AIRPORT NAME) processes providing accurate, complete, and timely information in regard to expected flight delays including diversions. These processes describe local situations as they develop, including both flight delays and delayed aircraft on the ground.



Insert completed table from Topic 2d: Tracking Delayed Aircraft

2.5 Trigger Events and Communications Plans

Effective response to an evolving IROPS event depends on timely shared situational awareness among all aviation service providers. Relevant IROPS information includes the early identification of a potential IROPS situation and the evolving IROPS condition as the event evolves.

Key elements of communication during an IROPS event require coordinated IROPS response actions by airport operations, the airlines, ATC services, and by affected diversion airports to track and share aircraft status both in-air and on-ground. Based on the situational need, additional communications among other organizations such as the TSA, CBP, concessions, and ground transportation may also be required.

The Trigger Events and Communication Plans table describes shared information, including aircraft delay tracking performed by airlines, the FAA, (AIRPORT NAME) airport operations, and diversion airports.



Insert completed table from Topic 2e: Trigger Events and Communications Plans

2.6 Support for Passengers

The key goal of the (AIRPORT NAME) IROPS plan is to ensure focus on coordinated support of passengers and other customers during an IROPS event. Three areas of coordination recognize U.S. Congressional concerns for the provision of:

- Support for deplaning of passengers from aircraft
- Sharing of facilities, including making gates available
- Having a sterile area available for passengers who have not yet cleared CBP

The Support for Passengers table describes passenger coordinated support for passengers at airports while they are on board aircraft, during their deplaning (especially from remote parking areas), in the terminal, and when they need ground transportation.



Insert completed table from Topic 2f: Support for Passengers

2.7 Tracking Inventory

This section describes guidance for planning and developing procedures across local organizations identifying resources (equipment and supplies) held by an airport service organization beyond those which have been planned for shared use, but that could be made available for use if requested by another (AIRPORT NAME) organization during an IROPS event.

Descriptions of understandings of planned coordination related to sharing of resources are listed in Section 2.1 – Reviewing Existing IROPS Response Plans. The Tracking Resource Inventory table describes specific categories of resources that have been identified as being available for shared use.



Insert completed table from Topic 2g: Tracking Resource Inventory

2.8 Skills Availability

This section describes guidance for planning and developing procedures across local organizations identifying categories of skilled personnel employed by an airport service organization beyond those which have been planned for shared use, but that could be made available for use if requested by another (AIRPORT NAME) organization during an IROPS event.

Descriptions of understandings of planned coordination related to sharing of skilled staff are listed in Section 2.1 – Reviewing Existing IROPS Response Plans. The Skills Availability table describes specific categories of skilled personnel which have been identified as being available for shared use.



Insert completed table from Topic 2h: Skills Availability

Appendices	PART 1
Bibliography	PART 2
Resource D	Resource A
Resource C	Resource B
Resource B	
Resource A	

CHAPTER 3 – ESTABLISH PROCEDURES TO COOPERATE

The following sections document the establishment of operating procedures with service providers (e.g., airlines, FAA, CBP, TSA, concessions, ground transportation) for use during IROPS events.

3.1 Cooperation Procedures

There are a group of service providers that are considered to be typically found at airports that are vital in local IROPS planning efforts. Coordination with these entities (identified in the following sections) is critical in order to establish procedures that will be followed during an IROPS event.

3.1.1 Airlines

It is recognized that the DOT has issued a rulemaking that requires airlines to adopt tarmac delay contingency plans and coordinate them with both scheduled airports they serve and their diversion airports. The Establish Procedures with Airlines table describes airline procedures specific to IROPS events for each airline operating out of the airport. Appendix B contains copies of specific airline procedures and tarmac delay contingency plans on file.



Insert completed table from Topic 3a: Establish Procedures with Airlines

3.1.2 FAA

It is recognized that FAA has issued directives to air traffic personnel pertaining to aircraft making tarmac delay requests related to United States DOT's 14 CFR Part 359 *Enhanced Protection for Airline Passengers*. The FAA has also established procedures allowing airports access to aircraft flight status. The Establish Procedures with FAA table describes (AIRPORT NAME) FAA actions specific to IROPS events. Appendix B contains copies of specific procedures with the FAA.



Insert completed table from Topic 3b: Establish Procedures with FAA

3.1.3 CBP

It is recognized that CBP has issued guidance to directors of field operations concerning passengers on diversion flights, including those into airports not normally staffed by CBP.

The Establish Procedures with CBP table describes (AIRPORT NAME) CBP procedures specific to IROPS events. Appendix B contains copies of specific procedures with the CBP.



Insert completed table from Topic 3c: Establish Procedures with CBP

3.1.4 TSA

It is recognized that the Department of Homeland Security has issued procedures to TSA Federal Security Directors concerning establishing and utilizing secure areas using procedures in the Airport Security Program or Aircraft Operator Standard Security Program.

The Establish Procedures with TSA table describes (AIRPORT NAME) TSA procedures specific to IROPs events. Appendix B contains copies of specific procedures with the FAA.



Insert completed table from Topic 3d: Establish Procedures with TSA

3.1.5 Concessions

Concessions at (AIRPORT NAME) have been requested to agree to provide service during IROPs events, including those resulting in extended passenger (and other customers) stay in the terminal area. Key considerations include agreement to remain open during extended hours and support for special-needs passengers, including new infant supplies.

The Establish Procedures with Concessions table describes specific concessions support procedures identified as being available during IROPs events. Appendix B contains copies of specific concession procedures.



Insert completed table from Topic 3e: Establish Procedures with Concessions

3.1.6 Ground Transportation

Ground transportation organizations at (AIRPORT NAME) have been requested to agree to provide service during IROPs events, including those resulting in extended passenger (and other customers) stay in the terminal area. Key considerations include agreement to provide service during extended hours and procedures for obtaining additional resources when required.

The Establish Procedures with Ground Transportation table describes specific ground transportation support procedures identified as being available during IROPs events. Appendix B contains copies of specific ground transportation procedures.



Insert completed table from Topic 3f: Establish Procedures with Ground Transportation

3.2 Other Providers to Consider

Above and beyond the service providers identified in the previous section, several other entities should be coordinated with, as appropriate to (AIRPORT NAME). The list below highlights some of these service providers that should be considered when establishing procedures to follow during IROPS events.

- Alternate transportation providers (mass transit, bussing companies, off-site rental car agencies)
- Overnight accommodations (nearby hotels*)
- Military installations (if joint-use)
- FBOs
- Refuelers
- Off-site restaurants
- Emergency response (LEO, fire, EMT)
- Red Cross
- FEMA
- Special needs service providers (wheelchairs, oxygen, etc.)

* Nearly every major city and hub airport has a hotel service which monitors the availability of hotel rooms in the local area. Obtain a local and/or national contact to provide hotel availability when required.



Note to User:

Although no specific topics are available in Resource A – Topics for IROPS Plan Development for these additional providers, you can copy and modify any of the tables in Chapter 3 to address any additional service providers, as appropriate to your airport.

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

CHAPTER 4 – REVIEW, UPDATE, AND TRAINING

The (AIRPORT NAME) IROPS Plan should be updated periodically throughout the year with improved practices, procedures, and coordinated response. In order for this to happen, the IROPS Contingency Response Committee should host coordination workshops and training at least a couple times annually.

4.1 IROPS Coordination Workshops

Periodic IROPS coordination workshops are held at (AIRPORT NAME) providing a common format and venue for periodic review and confirmation/update of local IROPS plans. The (AIRPORT NAME) will determine the frequency and specific agenda for these meetings, as appropriate.

The IROPS Coordination Workshop table describes (AIRPORT NAME) plans for holding these workshops. Appendix B contains copies of previous workshop summaries that can be referenced.



Insert completed table from Topic 4a: IROPS Coordination Workshops

4.2 IROPS Coordinated Frontline Training

Periodic coordinated frontline training for IROPS response is held at (AIRPORT NAME). In addition to emphasis on actions requiring coordination of two or more organizations, this training provides an opportunity to test new policies, practices, and procedures. During the annual or biannual security badging process at (AIRPORT NAME), IROPS training and/or procedure updates have been reviewed with appropriate airport departments.

The IROPS Coordinated Frontline Training table describes (AIRPORT NAME) plans for holding this training. Appendix B contains copies of previous training exercises that can be referenced.



Insert completed table from Topic 4b: IROPS Coordinated Frontline Training

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

CHAPTER 5 – CONSOLIDATED COOPERATION ACTIONS DURING AN EVENT

The joint actions occurring during an IROPS event are described in the following diagram. The (AIRPORT NAME) IROPS Contingency Response Committee ensures the capability for coordinating shared aircraft status information. Notification of relevant aspects of aircraft status are provided to appropriate aviation service provider organizations during an IROPS event by the (AIRPORT NAME) communication center or point of contact, as appropriate.



Note to User:

Depending upon the specific airport structure and staffing, an airport communication center may not be in place at your airport; therefore, a single point of contact may be sufficient to reference in the plan.

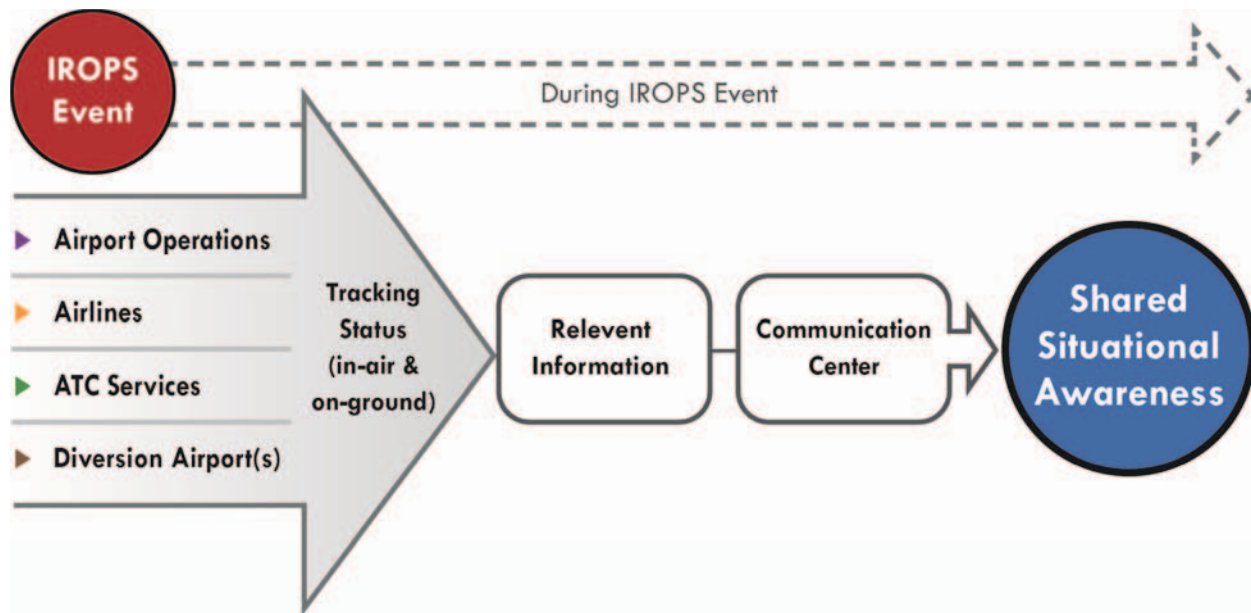


Figure1. Joint actions during an IROPS Event.

5.1 Monitoring IROPS Event Indicators

While some IROPS events are unpredictable (such as power outages, security breaches), many can be handled successfully if service providers are actively anticipating an event. Certain actions taken by service providers on a constant basis can position them well to handle an IROPS event should one occur. Some examples of these actions include tracking aircraft status and tracking weather patterns. Each of these is discussed in more detail in the following sections.

5.1.1 Aircraft Status

Aircraft status in the air and on the ground is tracked by both airlines and the FAA to provide accurate, complete, and timely information in regard to expected flight delays and developing local situations. The Aircraft Status table describes (AIRPORT NAME) procedure checklists for tracking aircraft during IROPs events.



Insert completed table from Topic 5a: Aircraft Status

5.1.2 Tracking Weather

Weather patterns are tracked by the airport, airlines, and the FAA to predict potential impacts to aircraft operations and to carry out alternate operating procedures (such as diverting flights to alternate airports) to maintain the safety of the crew and passengers as well as operations staff out on the airfield. The Tracking Weather table outlines the roles and responsibilities of airport, airline, and FAA staff in tracking weather.



Insert completed table from Topic 5b: Tracking Weather

5.2 Executing IROPs Plans and Procedures

In Section 3.1 of this plan, procedures were established with service providers, including concessions, ground transportation, the FAA, CBP, and TSA. This section provides specific procedures that are to be executed at the time of an IROPs event. The following paragraphs outline procedures for each of the service providers.



Note to User:

It is recognized that IROPs response procedures for service providers have been previously documented in Chapter 3. The following sections outline the execution of these plans and procedures.

5.2.1 IROPS Communications Plans

Relevant IROPS information, including status and related situational information, is communicated among appropriate (AIRPORT NAME) organizations during an IROPS event. The Execute IROPS Communication Plans table describes key elements of (AIRPORT NAME) IROPS communications plans.



Insert completed table from Topic 5c: Execute IROPS Communication Plans

5.2.2 Passenger Support Plans

Support procedures for passengers and other customers at (AIRPORT NAME) during IROPS events include focus while they are on board aircraft, during their deplaning, in the terminal, and when they need ground transportation. The Execute Passenger Support Plans table describes procedures at (AIRPORT NAME) for support during an IROPS event.



Insert completed table from Topic 5d: Execute Passenger Support Plans

5.2.3 Procedures with Airlines

Airlines operating out of (AIRPORT NAME) have implemented procedures pertaining to the DOT “3-Hour Rule” and “4-Hour Rule” relating to IROPS event response. The Execute IROPS Procedures with Airlines table describes the actions to be taken during IROPS events.



Insert completed table from Topic 5e: Execute IROPS Procedures with Airlines

5.2.4 Procedures with FAA

The FAA organization at (AIRPORT NAME) has implemented procedures pertaining to tarmac delay requests related to United States DOT’s 14 CFR Part 359 *Enhanced Protection for Airline Passengers*. The Execute IROPS Procedures with FAA table describes (AIRPORT NAME) FAA actions specific to IROPS events.



Insert completed table from Topic 5f: Execute IROPS Procedures with FAA

5.2.5 Procedures with CBP

(AIRPORT NAME) has implemented procedures with CBP relating to response to IROPs events. The Execute IROPs Procedures with CBP table describes (AIRPORT NAME) CBP actions specific to IROPs events.



Insert completed table from Topic 5g: Execute IROPs Procedures with CBP

5.2.6 Procedures with TSA

The TSA organization at (AIRPORT NAME) has implemented procedures concerning establishing and utilizing secure areas using procedures in the Airport Security Program or Aircraft Operator Standard Security Program.

The Execute IROPs Procedures with TSA table describes (AIRPORT NAME) TSA actions specific to IROPs events.



Insert completed table from Topic 5h: Execute IROPs Procedures with TSA

5.2.7 Concessions Procedures

Concessions at (AIRPORT NAME) have agreed to provide specific support during IROPs events. The Execute IROPs Concessions Procedures table describes these procedures.



Insert completed table from Topic 5i: Execute IROPs Concessions Procedures

5.2.8 Ground Transportation Procedures

Ground transportation organizations at (AIRPORT NAME) have agreed to provide specific support during IROPs events. The Execute IROPs Ground Transportation Procedures table describes these procedures.



Insert completed table from Topic 5j: Execute IROPs Ground Transportation Procedures

5.2.9 Procedures with Other Providers

The (AIRPORT NAME) has coordinated with additional service providers to provide specific support during IROPs events. Specific procedures for each of these service providers are listed here.

CHAPTER 6 – CAPTURE LESSONS LEARNED AND UPDATING PLANS

Since recovery from an IROPS event is critical to the continual improvement of the (AIRPORT NAME) IROPS plan, this chapter is divided into two sections: debrief after an IROPS event and lessons learned. The following tables describe (AIRPORT NAME) procedures for these actions, including incorporation of lessons learned into the update of (AIRPORT NAME) IROPS Contingency Plan, as appropriate.

6.1 After an IROPS Event

After an IROPS event, it is important to have a timely and comprehensive assessment of the event. The (AIRPORT NAME) will coordinate this debriefing meeting and include all aviation service providers as well as the IROPS Contingency Response Committee.

The Debriefing IROPS Event table describes (AIRPORT NAME) plans for holding this training. Appendix B contains copies of previous debriefing activities that can be referenced.



Insert completed table from Topic 6a: Debriefing IROPS Event

6.2 Lessons Learned

As part of the debriefing, it is important to catalog the lessons learned from the individual IROPS events. The (AIRPORT NAME) will coordinate these lessons learned and provide them to the aviation service providers as well as the IROPS Contingency Response Committee members.

The Capturing Lessons Learned table describes (AIRPORT NAME) plans for collecting lessons learned. Appendix B contains copies of previous lessons learned that can be referenced.



Insert completed table from Topic 6b: Capturing Lessons Learned

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

APPENDICES

Appendix A – Compliance Matrix of (AIRPORT NAME) IROPS Contingency Plan with DOT Model Contingency Plan

Appendix B – Reference Documents

Appendix C – Status of Plan Details

Appendix D – Contact Details for (AIRPORT NAME) IROPS Contingency Response Committee and Points of Contact for Agencies during an IROPS Event

PART 1

PART 2

Resource A

Resource B

Resource C

Resource D

Bibliography

Appendices

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

Appendix A – Compliance Matrix of (AIRPORT NAME) IROPS Contingency Plan with DOT Model Contingency Plan

Note: The (AIRPORT NAME) IROPS Contingency Plan (this document) describes the overall coordination process used by the (AIRPORT NAME) IROPS Contingency Response Committee. It also serves to identify and document contingency-related actions requiring coordination between two or more aviation service providers.

This section provides a compliance summary of the (AIRPORT NAME) IROPS Contingency Plan with [to be named requirement document]. [Note: This matrix will be populated following establishment of a required guideline by DOT, if and when such guideline is published.]

Individual service provider contingency plans for airlines, airports, and federal government agencies and indications of their compliance with the DOT Model Contingency Plan are not included. Questions concerning content and compliance of these individual plans should be directed to the individual service provider organizations.

The following compliance matrix addresses the overall coordination process used by the (AIRPORT NAME) IROPS Contingency Response Committee and those elements of individual compliance plans identified as requiring action by two or more service providers.

DOT Reference Guideline (TBD)		(AIRPORT NAME) IROPS Response Plan	
Section	Title	Section	Title
1.0	Introduction	1.0	Introduction
1.1	(etc.)	1.1	(etc.)

Appendices	PART 1
Bibliography	PART 2
Resource D	Resource A
Resource C	Resource B
Resource B	
Resource A	

Appendix B – Reference Documents

Reference documents that should be included in this appendix include:

- Copies of procedures put in place with aviation service providers, such as:
 - Airlines
 - FAA
 - CBP
 - TSA
 - Concessions
 - Ground transportation
- Copies of previous workshop summaries
- Copies of previous training exercises
- Copies of previous debriefing activities
- Copies of previous lessons learned

Other reference documents an airport may want to place in this appendix include guidance from the United States DOT, such as:

- “Development of Contingency Plans for Lengthy Airline On-Board Ground Delays,” Developed by the United States DOT National Task Force to Develop Model Contingency Plans to Deal with Lengthy Airline On-Board Ground Delays, November 12, 2008.
- United States DOT final rulemaking 14 CFR Part 259 *Enhanced Protection for Airline Passengers* 2010 and 2011.

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

Appendix C – Status of Plan Details

The following table serves as a working summary of the actions within the current version of the (AIRPORT NAME) IROPS Contingency Plan. It is intended that each item in the table be reviewed periodically for status and outlook by the IROPS Contingency Response Committee.

Topic	Last Update	Expected Update
IROPS Contingency Response Committee		
IROPS Response Plan Review		
IROPS Event History		
Customer Needs		
Tracking Delayed Aircraft		
Trigger Events And Communication Plans		
Support For Passengers		
Tracking Resource Inventory		
Skills Availability		
Procedures With Airlines		
Procedures With FAA		
Procedures With CBP		
Procedures With TSA		
Procedures With Concessions		
Procedures With Ground Transportation		
IROPS Coordination Workshops		
IROPS Coordinated Frontline Training		
Aircraft Status		
Tracking Weather		
Execute IROPS Communication Plan		
Execute Passenger Support Plans		
Executing IROPS Procedures With Airlines		
Executing IROPS Procedures With FAA		
Executing IROPS Procedures With CBP		
Executing IROPS Procedures With TSA		
Executing IROPS Procedures For Concessions		
Executing IROPS Procedures For Ground Transportation		
Debriefing IROPS Event		
Capturing Lessons Learned		

Appendices	PART 1
Bibliography	PART 2
Resource D	Resource A
Resource C	Resource B
Resource B	
Resource A	

Appendix D – Contact Details for (AIRPORT NAME) IROPS Contingency Response Committee and Points of Contact for Agencies during an IROPS Event

IROPS Contingency Response Committee		
Please modify this table as appropriate for your needs, and add additional rows as necessary.		
Organization	Contact Name & Phone Number	Alternate Contact
Committee Chairperson		
Airport Operations		
Airlines		
Concessions		
Ground Transportation		
Hotel		
Government Agencies		
Public Safety Operations		
Diversion Airport		
Fixed Base Operations		
Military (if joint-use)		
Emergency Response		
Executive Management Liaison		

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

RESOURCE C – TOOLS

INTRODUCTION

This resource of the guidebook is intended to provide valuable tools that can be used in the implementation of an IROPS plan. These tools are meant to be used in conjunction with the information contained in Part 1 – Fundamentals of IROPS Planning, as well as with the implementation of Resource B – Model IROPS Contingency Plan. These tools range from planning tools that can be used to educate interested parties in the IROPS process to checklists that can be used by frontline staff during an IROPS event.

Each tool has been developed to contain general elements that should be considered regarding the individual subject matter. Each airport that uses these tools should edit the tools as necessary to meet its specific needs. For example, larger airports may need to add more details to the various checklists, while smaller airports may find that deleting some of the elements may be appropriate. The items listed were collected to reflect best practices and are based on lessons learned from the development of the guidebook. They are not meant to be an exhaustive list of options, but rather a general guide that can be modified to fit the needs of each airport that may use the guidebook.

For the purposes of this guidebook, references to the FAA include all forms of air traffic control (ATC) services.

Appendices	PART 1
Bibliography	PART 2
Resource D	Resource A
Resource C	Resource B

TABLE OF CONTENTS

133	Tool 1 – IROPS Planning Process
135	Tool 2 – DFW’s Sample for Partnering for Success
139	Tool 3 – Responsibilities of the Airport IROPS Contingency Response Committee
141	Tool 4 – Questions for Initial IROPS Committee Meeting
143	Tool 5 – Implementation Checklist for Evaluating IROPS Plans
145	Tool 6 – Self-Assessment Questionnaire
151	Tool 7 – Example Resource Inventory Checklist
153	Tool 8 – Concessions Checklist for Snow and Hurricane Events
157	Tool 9 – Airport-Airline 24/7 Contact and Capability Summary
159	Tool 10 – Technology Solutions
167	Tool 11 – Sample Workshop Agenda
169	Tool 12 – National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) Checklist
177	Tool 13 – Sample Communication Plan
179	Tool 14 – Social Media
181	Tool 15 – During an Event Tools
187	Tool 16 – Diversion Checklist
193	Tool 17 – After an Event Debrief

Appendices	PART 1
Bibliography	PART 2
Resource D	Resource A
Resource C	Resource B
Resource D	Resource C

TOOL 1 – IROPS PLANNING PROCESS

Purpose: This tool illustrates the process for IROPS planning, which has been outlined in greater detail in *Part 1 – Fundamentals of IROPS Planning of ACRP Report 65*. This tool is intended for use by the IROPS Champion and IROPS Contingency Response Committee to demonstrate the sequence of steps necessary to carry out successful IROPS planning to all affected entities.

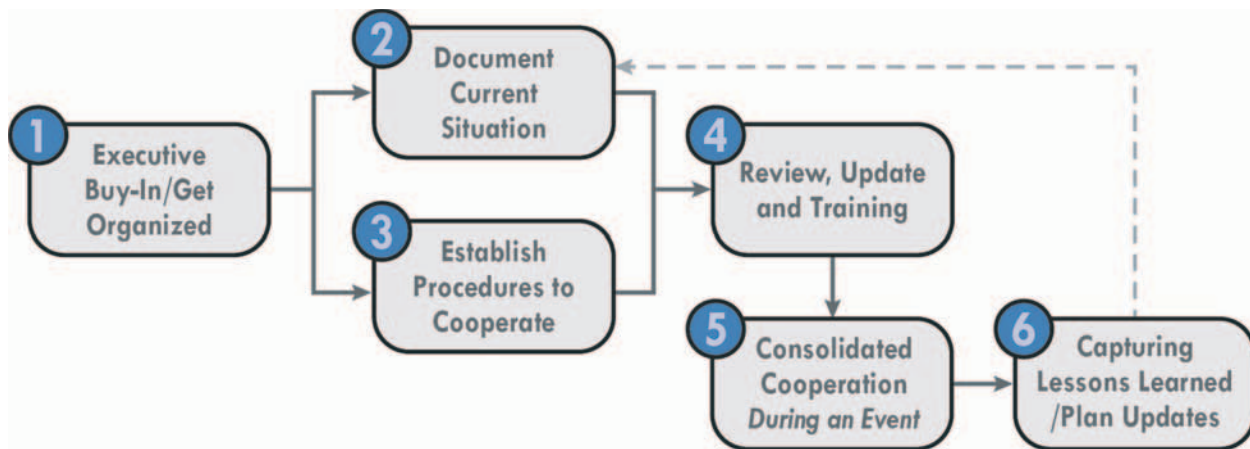


Figure 1. IROPS Response Management Process.

1. **Executive buy-in/get organized:** The first step is to establish executive buy-in from your airport and each of your local aviation service provider organizations. These should include airport operations, airlines, concessions, ground transportation, local accommodations, government agencies (Transportation Security Agency–TSA, Federal Aviation Administration–FAA, Customs and Border Protection–CBP), Fixed-Base Operators (FBOs), refuelers, military (if a joint-use facility), executive management liaison, and emergency response. Next, your airport should create an IROPS Contingency Response Committee that includes representatives from your local providers. The committee should be led by an IROPS chairperson, who typically is a representative of your airport. The goal of your airport’s committee will be to establish and enhance contingency plans for local service providers through their collective, cooperative, and collaborative decision making.
2. **Document current situation:** Your airport’s IROPS committee should identify and gather important response plan information from service providers to ensure collaboration and cooperation. These response plans from individual organizations should be evaluated for adequacy during four categories of IROPS impact situations, which are surge, capacity, off-hours, and extended stay. Each of these unplanned situations should be considered for impacts involving aircraft and passengers. For example, planning for an off-hours situation involving both aircraft and passengers should take into consideration unplanned aircraft arrivals, the ability to meet passenger needs such as concessions, staff access to secure side, and the availability of CBP and TSA staffing. The collective comparison of current IROPS plans between service providers should include a review of local IROPS event history, identification of customer needs, evaluation of how to track delayed aircraft, the tracking of equipment inventory, and the determination of skills availability. Key airport implementation should include maintaining and sharing local contact and email distribution lists.

3. **Establishing Procedures to Cooperate:** Your airport will need to determine how to establish cooperation with local service providers in order to meet passenger needs. These include concessions, ground transportation, and government agencies (FAA, TSA, and CBP) as related to their staffing and resource capabilities. Cooperation is needed for responding to after-hours operation; surge in the number of passengers in the terminal and/or needing transportation to local accommodations; and consideration for diverted flights, including international flights in to airports without a CBP presence. Every airport should establish a local process to monitor and maintain its overall airport capacity status during an evolving IROPS event.
4. **Review, Update, and Training for Plan Implementation:** After determining what improved procedures are necessary and beneficial to IROPS planning, your airport should conduct coordinated training exercises to ensure these plans are understood by all involved service providers. Tabletop exercises are recommended to utilize considerations of both local IROPS events and events involving other regional airports. A key element of these exercises should be testing for impacts from each of the four IROPS situation types.
5. **Summary of Consolidated Cooperation Actions to be Taken During IROPS Events:** When your airport is experiencing an IROPS event, three actions are critical: communication, coordination, and collaboration. This requires your local service providers to work together to communicate aircraft status in the air and on the ground, as well as execute IROPS procedures. Your airport IROPS Committee needs to ensure the capability for coordinating shared information for both aircraft status and airport capacity.
6. **Capturing Lessons Learned and Plan Updates as Required:** Your airport should host an after-action meeting to review performance effectiveness as soon as is practical following return of operations to a normal state following an IROPS event. Part of the recommended debriefing procedures should be the identification of lessons learned. The airport IROPS response planning documentation should be reviewed by the IROPS Contingency Response Committee and updated as appropriate.

TOOL 2 – DFW'S SAMPLE FOR PARTNERING FOR SUCCESS

Purpose: In order to successfully apply this guidebook, it is essential that all aviation service provider organizations in a region work together so they can explore ways to mutually support one another to address current and evolving aviation challenges that disrupt the normal flow of passengers through the air transportation system.

This tool, courtesy of Dallas/Fort Worth International Airport (DFW), describes the role their IROPS Contingency Response Committee has in bringing all of their service providers together to communicate, cooperate, and coordinate so their plans are aligned. This involves changing the mindset for these organizations from feeling they need to go it alone with individual plans to reaching an environment of partnering for success to develop a coordinated regional contingency plan to mitigate lengthy tarmac delays at DFW.

This tool can be used by an airport's IROPS Contingency Response Committee to help create a partnering environment for all service providers to bridge the gap at their airport, no matter what size it may be (small hub, medium hub, or large hub).



Figure 2. Partnering for Success: Eight Steps for Mitigating Effects of IROPS Events on Passenger Service.

“Airline Industry Delivers Record On-time Performance Despite Season of Bad Weather.” That is a headline any airport operations director or airline president would love to read. However, the reality remains that passengers continue to wait for hours on tarmacs during extreme weather or other irregular operations events. This happens primarily because there is limited communication, collaboration, and coordination across service providers in the aviation industry.

To remedy this situation, DFW established an IROPS Contingency Plan based on guidelines developed last year by the 2008 U.S. DOT Tarmac Delay Task Force. A major component of the DOT plan is that it calls for *partnering* between the airlines and airports for the ground handling and deplaning of passengers to avoid the types of unacceptable situations that have been experienced by passengers stranded on aircraft.

DFW discovered that its own individual contingency plan would only work if it partnered with key organizations and agencies that the airport depends on during IROPS events. They found that in addition to each of the airlines serving DFW, they needed cooperation from groups like diversion airports, the TSA, FAA, and CBP in order to compare and align plans to meet all passenger needs during atypical situations and to ensure there were no gaps or overlap in service.

In creating a partnering environment, DFW found it helpful to take a regional approach and bring together a diverse group of people from its own airport staff, diversion airports, and government agencies. However, it became immediately apparent that not everyone in DFW’s region felt that formal plan alignment was necessary. Therefore, the airport took some time to examine how to get the entire group on board. They found that an eight-step process helped describe the gap between providers feeling they should go it alone with their own individual plans to partnering for success where providers all share in the overall planning and response to IROPS situations to mitigate passenger inconvenience.

First, providers have to get past the mindset of “it’s not my job” or “what does that have to do with me?” This initial step is critical in setting the stage for developing a regional approach to meet IROPS challenges. It can be achieved by bringing groups together in a nonthreatening format, like a workshop, to begin a dialogue. In this setting, the group discusses how each organization plays an integral role in meeting passengers’ needs during these times. This dialogue exposes where efforts are duplicated by organizations or where organizations are missing critical actions for addressing passenger service. In DFW’s case, it created a group consisting of all of its diversion airports, major airlines, and key TSA, FAA, and CPB personnel. The airport brought individuals from its region together in a workshop format to begin reviewing past handling of IROPS situations and discuss suggestions for future improvement.

During early meetings, it is important that a regional group confront the attitude of “it’s their fault” or “if they only did their job.” By introducing a region of aviation service providers to one another, this puts a face with a job and makes it harder for people to shift blame to them. DFW found that when individuals in its region were held accountable to one another, they were less likely to point fingers.

Once providers have met with and become comfortable with one another, they begin seeing the value in being a part of a bigger group where shared ideas and resources can be beneficial to the region as a whole. They are then ready for the next step, which is discovering they actually have a need to forge formal partnerships with others in their region to achieve success during irregular operations events. During this step, they also start feeling invested in the group and want to do their part to make their entire region excel at meeting passenger needs during these challenging operational times. They then begin recognizing areas where they can use help from others, as well as where they can provide assistance.

Next, providers can begin more serious dialogue with one another and start sharing resources and identifying mutual support areas where they can fill gaps and prevent overlaps in customer care. Individuals find they possess ideas, processes, or even equipment that can be shared to help one another during these delay events. However, organizations reach a point where they discover this is all we can do without requiring formal written agreements or management authorization. This is the precipice where many actions seem to fall into the abyss of red tape. It is the point where groups fail unless the organizations pull together to mutually support one another.

Jumping over the gap requires each provider to eliminate individual silos by reaching out to gain management support from their respective organizations in order to share and integrate business practices between providers in a region. Getting management agreement to implement mutually beneficial business practices is a critical step in moving toward full communication, collaboration, and coordination between providers. Some integrated business practices include not only developing a system for all providers to share data with one another to ensure situational awareness during delay events, but also a means for identifying and leveraging joint resources with other providers to ensure gaps in customer service are filled. In practice, this can be accomplished by formulating procedures between airlines and airports to share ground equipment in times of bad weather or formalizing written agreements to staff beyond normal working hours to make sure passengers receive the food or hygiene products they need to get them through an unexpected event.

Once procedures are in place, organizations in a region need to practice working together. This requires taking the next step of aligning communications, processes, and training so individuals understand how to effectively and efficiently share information in order to deliver passenger needs during delay events. It means early notification, testing how effective these methods are at communicating and meeting passenger needs during events, and analyzing the results.

Beyond this, the final step requires the region to learn and grow as a team through continuous improvement. This can be done through follow-up meetings, quarterly teleconferences, or annual workshops. No matter what the format, the important thing for a region to remember is to remain dedicated to communication, collaboration, and coordination. This focus will keep the dialog open within a region to continually find ways to improve performance during IROPS events and keep passengers satisfied during these challenging periods.

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

TOOL 3 – RESPONSIBILITIES OF THE AIRPORT IROPS CONTINGENCY RESPONSE COMMITTEE

Purpose: This tool is intended for use by the IROPS Champion and the IROPS Response Committee to identify the responsibilities of the committee for IROPS planning. The committee has four main responsibilities: know, act, confirm, and improve their airport's IROPS plan. The following list and graphic provide additional detail on these four responsibilities:

1. **KNOW:** *What do we need to accomplish?*

This phase is demonstrated in Chapters 1 and 2 of the IROPS planning process (described in Part 1 – Fundamentals of IROPS Planning). It includes determining processes for improved shared situational awareness for all aviation service providers. This also includes processes for the rapid flow of information between airfield status, airline flight schedules, and airport information systems.

2. **ACT:** *How do we partner for success?*

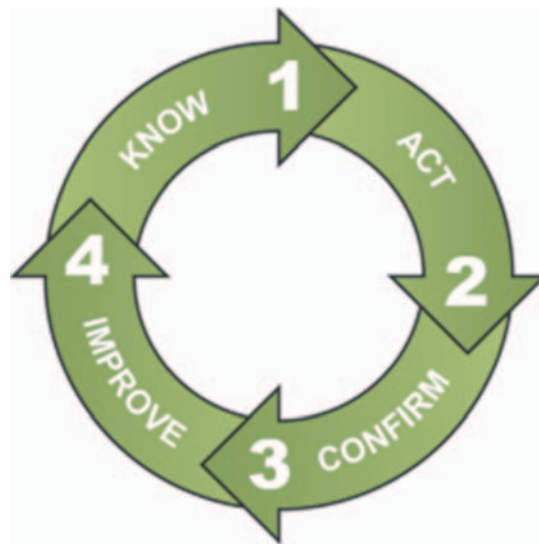
This phase is demonstrated in Chapters 3 and 4 of the IROPS planning process. It involves communicating and leveraging resources, combining capabilities to meet passenger needs, and becoming a team. It means considering that an airport has a joint reputation with all aviation service providers in a region.

3. **CONFIRM:** *Did we do what we said?*

This phase is demonstrated in Chapter 5 of the IROPS planning process. It involves confirming everyone's response and recovery to the event, and holding debriefing sessions to review performance.

4. **IMPROVE:** *Are we communicating our lessons learned to continually advance our response to IROPS events?*

This phase is demonstrated in Chapter 6 of the IROPS planning process. It involves sharing best practices with peers in the industry so mistakes are not repeated and best practices are implemented.



Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

TOOL 4 – QUESTIONS FOR INITIAL IROPS COMMITTEE MEETING

(Edit as necessary to meet your airport's needs)

Purpose: This tool is intended to facilitate initial discussions at the first meeting of the IROPS Response Committee. This tool provides some kick-off questions to begin the meeting and then strategic questions that can be asked of each service provider regarding performance and quality of customer service provided.

Kick-Off Questions

1. What causes an IROPS event (e.g., thunderstorm, fog, snow, blizzard, power outage), or parts of it, to become challenging, inconvenient or frustrating?
2. What infrastructure innovations/social media tools have you leveraged during an event?
3. What causes an IROPS event to go off track?
4. What causes the IROPS event to waste resources (e.g., time, resources, equipment)?

Performance and Quality of Customer Service

1. Availability of service provided by various service operators.

The passenger experience is significantly influenced by the interface between service providers all with their own business drivers, business models, customer approaches, incentives and operational constraints.

Strategic questions:

- What are your goals for the quality of service you provide passengers?
- What are the procedures you have in place to achieve these goals?
- How do you coordinate your service-related activities with other service providers?

2. Coordination between various service providers.

The quality of passenger experience can suffer where there is a lack of understanding between the service providers. Often, airport and airline service providers can more successfully meet their quality goals when they coordinate their response plans and procedures.

Strategic questions:

- What challenges exist where the response requires the involvement of two or more different service providers?
- Are there different types of challenges depending on whether the passenger is on the outbound or the returning leg of a flight?
- Are there different types of challenges depending on whether the passenger is domestic or international?
- What are examples of ways these challenges could be addressed to improve overall service quality?

3. Sharing of information on real-time situational awareness/performance

A key element of success during an IROPS event, whether due to a ground delay, diverted flight, or special mobility event, is maintaining real-time shared situational awareness among all service providers. This shared awareness is best achieved through continuous communication and coordination of response efforts. In addition to supporting timely response to events, this sharing of situational information can help detect service quality areas needing additional attention.

Strategic questions:

- What type of information is shared at your airport between service providers?
- What is the forum and format of the shared information?
- How is the shared information used by each of the receiving organizations?
- What additional shared information would be useful?
- What coordination procedures exist for organizations to back up each other during an extended delay, diversion, or special mobility event?

4. Planning for when difficulties occur to the passenger experience

Extended ground delays are a general theme throughout the aviation passenger industry. The challenge is identifying methods and procedures that can improve the passenger experience.

Strategic questions:

- How do early warning signals work between the different service providers at the airport on the potential difficulties to the passenger experience?
- What planning currently occurs at the airport for key scenarios when major delays or critical system failures occur?
- How do different organizations plan for unexpected increases in passenger capacity levels?
- How do aviation service providers inform each other when difficulties occur that affect passenger service?
- How is notification made when aircraft flights are delayed or diverted?
- How do individual service provider organizations respond when concerns are identified relating to their service?
- What additional actions are taken by individual service provider organizations to mitigate the impact of irregular operations on passengers?
- What are the special needs concerns for passengers (availability of wheelchairs, oxygen, etc.)?

TOOL 5 – IMPLEMENTATION CHECKLIST FOR EVALUATING IROPS PLANS

(Edit as necessary to meet your airport's needs)

Purpose: This checklist should be used by the IROPS Response Committee to identify and gather important response plan information from service providers to ensure collaboration and cooperation. These response plans from individual organizations should be evaluated for adequacy during the four categories of IROPS impact situations, which are *surge*, *capacity*, *off-hours*, and *extended stay*.

Each of these unplanned situations should be considered for impacts involving aircraft and passengers. For example, planning for an off-hours situation involving both aircraft and passengers should take into consideration unplanned aircraft arrivals, the ability to meet passenger needs such as concessions, staff access to secure side, and the availability of CBP and TSA staffing.

It is recommended that a key element of your airport's training exercises should be testing for impacts from each of the four IROPS situation types.

Surge: Potential impact caused by the rate of arrival of aircraft, timing of deplaning passengers, and subsequent movement of passengers through airport

- Aircraft
 - Frequency of unplanned flights
 - Gate availability
 - Local airline station management availability
- Passengers (including animals)
 - Rate at which movement can be made through terminal
 - Rate of handling re-entry for screening access
 - Accommodations for special-needs passengers
 - Local airline station management availability

Capacity: Potential impact caused by the total number of aircraft that have arrived at the airport and of the number of passengers located in any particular areas of the airport

- Aircraft
 - Gate availability
 - Refueling availability
 - Deicing availability
 - Off-gate parking availability
 - Local airline station management availability
- Passengers (including animals)
 - Number of passengers that can be accommodated at gate area
 - Number of passengers that can be accommodated in terminal area
 - Capacity of concessions

- Accommodations for special-needs passengers
- Local airline station management availability

Off-Hours: Potential impact caused by the time of day at which aircraft arrive at airport and the subsequent need to process passengers

- Aircraft
 - Ground crew availability
 - Aircraft servicing availability
 - Local airline station management availability
- Passengers (including animals)
 - Availability of concessions
 - Accommodations for special-needs passengers
 - Local airline station management availability

Extended Stay: Potential impact caused by duration of stay (often measured in days) that aircraft remain at airport and passengers are delayed before resuming their travel

- Aircraft
 - Extended parking availability
 - Ground crew availability
 - Aircraft servicing availability
 - Local airline station management availability
- Passengers (including animals)
 - Availability of concessions
 - Availability of overnight accommodations at airport
 - Availability of off-airport accommodations
 - Availability of local transportation
 - Accommodations for special-needs passengers
 - Local airline station management availability

TOOL 6 – SELF-ASSESSMENT QUESTIONNAIRE

(Edit as necessary to meet your airport's needs)

Purpose: This tool is intended for use by the IROPS Champion and IROPS Response Committee, and includes a series of questions related to each of the six steps of IROPS planning. These questions serve as a self-assessment to identify where the airport and its service providers are in the IROPS planning process and to align any existing processes and/or procedures.

1. Executive Buy-in/Get Organized

First, your airport should establish executive buy-in from your airport and each of your local aviation service provider organizations. These should include airport operations, airlines, concessions, ground transportation, local accommodations, government agencies (TSA, FAA, and CBP), fixed-base operators (FBO), refuelers, military (if a joint-use facility), executive management liaison, and emergency response. Next, your airport should create an IROPS Contingency Response Committee that includes representatives from your local providers. The committee should be led by an IROPS Chairperson, who typically is a representative of your airport. The goal of your airport's Committee will be to establish and enhance contingency plans for local service providers through their collective, cooperative, and collaborative decision making.

Some questions to ask include:

- Have you hosted and/or participated in regional IROPS response workshops?
- Have you established a local IROPS response coordination planning committee that meets periodically and includes representatives from all key aviation service providers in your region?
- Have they coordinated/aligned the IROPS plans of all local aviation service providers?

2. Document Current Situation

Your airport's IROPS Committee should identify and gather important IROPS response plan information from service providers to ensure collaboration and cooperation. These IROPS response plans from individual organizations should be evaluated for adequacy in the four categories of IROPS impact situations: surge, capacity, off-hours, and extended stay. Each of these situations should be considered for impacts involving unplanned aircraft and unplanned passengers. For example, planning for an off-hours situation involving both aircraft and passengers should take into consideration unplanned aircraft arrivals, the ability to meet passenger needs such as concessions, staff access to secure side, and the availability of CBP and TSA staffing. The collective comparison of current IROPS plans between service providers should include reviewing local IROPS event history, identifying customer needs, evaluating how to track delayed aircraft, tracking equipment inventory, and determining skills availability. Key airport implementation should include maintaining and sharing local contact and email distribution lists.

Some questions to ask include:

Reviewing past history

- Do you have a record of past IROPS events and a description of responses provided?
- What have been your top five IROPS events over the last 2 - 3 years?
- Do you have a documented IROPS response procedure? An SOP? A memorandum of understanding?

- Do your plans include FBOs?
- Do you have a deicing plan and does each airline know what it is?
- Have you conducted risk assessments to identify the nature, scope, and scale of airport response efforts in support of IROPs events?
- Do you know your overall capacity constraints (which aircraft types, what limiting factors, which extenuating circumstances)?

Identifying customer needs

- Do you have procedures to provide customer service needs (food, medical, supplies) beyond normal service hours when needed?
- Have you developed a process for allowing passengers who deplane and remain in a secure area to reboard aircraft without additional TSA screening?
- Do you have provisions in your plan for the care and feeding of service animals and animals in transit?
- Do you have a process to relate current resources to passenger needs and to identify additional resources as needed?
- Do you coordinate with airlines to support passengers being deplaned during IROPs events?
- Do you have a plan or procedure for providing special-needs passengers support as required by 14 CFR Part 382?
- Do you have procedures for responding to passenger medical needs?
- Do you have a communications plan to keep passengers informed during IROPs events and to help them communicate their status with others outside the terminal?
- Do you have procedures in place to allow both passengers and those meeting them access to food, hydration, and lavatory facilities during an IROPs event?
- Do you have procedures to provide information on lodging and rest accommodations in the airport during an IROPs event?
- Do you have a coordination plan with local ground transportation for continued availability during extended IROPs events?
- Have you identified methods to address IROPs events and large numbers of passengers and personnel in terminals?
- Do you offer accommodations (discounted hotels)?
- What IROPs plans do you have with local medical support?
- Do you have a plan for making announcements to customers detailing which concessions will be open?

Evaluating how to track delayed aircraft

- Have you coordinated procedures for addressing the needs of diverted aircraft with various diversion airports?
- Do you have a process to provide for unscheduled and diverted arrivals of international flights into airports not normally staffed by CBP?
- Have you coordinated with CBP to develop security plans for diversions at your airport?
- Have you explored, with the FAA, procedures enabling aircraft in departure queue to return to a gate without losing their position in the queue?

- Do you have a process for coordinated capability planning for gates and equipment during an IROPS event?
- Do you have a tool to allow ATC services to know who is occupying gates?
- Have you explored processes for providing accurate, complete, and timely information in regard to expected flight delays and developing local situations between the FAA and airport?
- Have you worked with the airport, airlines, and FAA to develop a process for tracking delayed aircraft both in the air and on the ground?

Tracking equipment inventory

- Have you identified resource requirements to meet needs of all entities dependent on airport services (passengers, personnel meeting delayed passengers, airlines, CBP, FAA, TSA, airport operator employees, contractors, and tenants)?
- Do you take inventory and resupply resources on a regular basis?
- What aircraft ground support equipment do you have available for the types of aircraft that can land at your airport (e.g., tow bars, tugs, pushback units, baggage carts, ground power units)?
- What capability do you have to service aircraft beyond those that can be accommodated at a gate? Air stairs?
- What is your aircraft parking capability?
- What is your gate availability?

Determining skills inventory

- What airport staff is available to handle extra flights (e.g., duty manager, supervisor, service specialists, and crew members for above and below the wing)?

3. Establishing Procedures to Cooperate

Your airport will need to determine how to establish cooperation with local service providers in order to meet passenger needs. These include concessions, ground transportation, and government agencies (FAA, TSA, and CBP) as they relate to their staffing and resource capabilities. Cooperation is needed for responding to after-hours operation, surge in the number of passengers in the terminal and/or needing transportation to local accommodations, and consideration for diverted flights, including international flights into airports without a CBP presence. Every airport should establish a local process to monitor and maintain their overall airport capacity status during an evolving IROPS event.

Some questions to ask include:

- Do you have documented support procedures (e.g., gate sharing)?
- Do you have resource and equipment procedures?
- Do you have documented response plans with the TSA, CBP, and FAA?
- What IROPS coordination plans do you have with local government organizations?
- Do you provide outreach to government organizations (FAA, TSA, and CBP) and regional diversion airports?
- Have you identified collaboration procedures to determine and document the scope and scale of aviation service providers' roles and responsibilities for specific IROPS situations?

- What IROPs plans do you have with the airlines serving your airport?
- What IROPs plans do you have with nongovernmental support agencies such as the Red Cross and social services?
- Do you have a plan for your airport to send community events calendars (e.g., conventions) to all stakeholders?
- Have you coordinated procedures that provide continuous and consistent relevant communications among all aviation stakeholders, including diversion airports?

4. Review, Update, and Training for Plan Implementation

After determining what improved procedures are necessary and beneficial to IROPs planning, your airport should conduct coordinated training exercises to ensure these plans are understood by all involved service providers. Table-top exercises are recommended to utilize considerations of both local IROPs events and events involving other regional airports. A key element of these exercises should be testing for impacts from each of the four IROPs situation types: *surge*, *capacity*, *off-hours*, and *extended stay*.

Some questions to ask include:

- Do you have a process for airport-wide coordinated IROPs response contingency training?
- Do you have a mechanism for individual service providers to identify key areas requiring coordination training with other service provider organizations?
- Do you have a process to update and provide revised training?

5. Summary of Consolidated Cooperation Actions to be Taken during IROPs Events

When your airport is experiencing an IROPs event, three actions are critical: *communication*, *coordination* and *collaboration*. This requires that your local service providers work together to communicate aircraft status in the air and on the ground, as well as execute IROPs procedures. Your airport IROPs committee needs to ensure the capability for coordinating shared information for both aircraft status and airport capacity.

Some questions to ask include:

Contacts

- Do you have a plan for each organization to provide a point of contact (POC) for keeping its organization's information up to date?
- Have you established a notification/decision tree (helps airlines know who to call for a gate, how to get an available hardstand, etc.)?

Notification procedures

- How are you notified of a pending IROPs event?
- Do you have a plan for the airport to provide a daily briefing (similar to a broadcast announcement) or at least make information available on your website (feature all events such as which gates are inoperative, parking full, as well as combine all vendors'/partners' operating conditions)?
- What process is used to plan, notify, and use local government organizations?
- Do you have a coordinated communications procedure for providing information to both aviation service organizations and passengers?
- Do you have procedures for working with local media?

Processes

- Do you have a process to identify and define a communications office to receive and distribute all relevant information to keep all aviation service providers and customers informed of the IROPS event as it unfolds?
- Do you have procedures to share empty gates as needed during IROPS events (considering needs of other airline operations, customer service needs, technical requirements, lease terms, and hardstand positions for remote aircraft parking)?
- Do you have a process for airport (with airline management and operation control, FBOs, FAA, and flight crews) to provide access to remotely parked aircraft for servicing, emergency medical support, and supply?
- Do you have procedures to provide support as needed for aircraft delayed on the ground with passengers on board?
- Do you have procedures to provide support as needed for deplaning of passengers from remote locations and/or during extended hours of operation?
- Do you have procedures in place for service providers to share status for coordinating mutual support?
- Do you have trigger criteria and process aligned between airlines and appropriate airport, TSA, and CBP personnel?
- Have you established and clearly communicated trigger criteria to all aviation service providers and developed a communication plan to inform customers about what to expect during extended delays, cancellations, and/or diversions?
- Do you have coordination procedures in place between the airport and airlines for sharing aircraft status information during IROPS events?
- Do you have a process for a deplaning trigger event (i.e., action alert for coordination with airport operations and others as needed)?
- Do you have a procedure in place for airlines to provide early notification of pending IROPS events?
- Have you developed a process for the airport or airline to establish a secure area using procedures in its Airport Security Program or Aircraft Operator Security Program without TSA presence?
- When extra staff is required, what process is used to plan, notify, and utilize the affected staff?

6. Capturing Lessons Learned and Plan Updates as Required

Your airport should host an after action meeting to review performance effectiveness as soon as practical following return of operations to a normal state after an IROPS event. Part of the recommended debriefing procedures should be the identification of lessons learned. The airport IROPS response planning documentation should be reviewed by the IROPS Contingency Response Committee and updated as appropriate.

Some questions to ask include:

- Do you have a coordination procedure (debriefing process) for your committee to review response effectiveness following an IROPS event?
- Do you have a procedure for incorporating lessons learned into the airport's IROPS Contingency Plan?
- Do you have a process for each aviation service provider to identify necessary improvements to individual IROPS plans?
- Do you have a process to update and provide revised training?
- Do you have a process to identify maintenance actions or resupply efforts necessary to be prepared for the next IROPS event?
- Do you have a process for coordinating information and recommended actions among the aviation service providers before being coordinated with the airport-wide community?

TOOL 7 – EXAMPLE RESOURCE INVENTORY CHECKLIST

(Edit as necessary to meet your airport's needs)

Purpose: This example inventory checklist is intended to provide a comprehensive list of the resources that are available at an airport between all service providers, as well as the skills of staff available to use these resources. (Having the equipment available for use is important, but having someone to operate the equipment is also necessary.) Once completed, this list should be distributed to service providers so that they can consult the list during IROPS events if they need certain equipment or resources they might not have.

Often the status of certain resources at an airport can influence diversion decisions. A checklist outlining some of these factors is provided below.

Resource Inventory Checklist		
Inventory Item	Owner	Staff Skills
• Hard stands • Aircraft parking locations • Aircraft fleet mix • Shuttle buses • Air stairs • Medical transport/facility • Concession facility - food and beverage service • Lavatory equipment/facility • Potable water cart • Cabin service lift truck • Fuel trucks and/or service/facility • Tow tugs and baggage carts • Pushback tug/tractor • Towbars • Communication equipment/facility access • Recovery equipment/service • Customer service care facility/entertainment • Aircraft hangers • Refrigerated/delivery trucks or mobile carts • Portable power supply • Portable A/C systems • Customer assistance personnel		

Factors That Influence Diversion Decisions	
Factor at Receiving Airport	Organization Monitoring and Reporting
• Navigation equipment status • Aircraft parking status • Gate availability status • Customs capacity status • Refueling status • Deicing assets status • Jetway and air stair access status • General ramp operations status • Security status	

TOOL 8 – CONCESSIONS CHECKLIST FOR SNOW AND HURRICANE EVENTS

(Edit as necessary to meet your airport's needs)

Purpose: This checklist is intended for use between airport staff and concessions staff to handle IROPS events resulting from snow and hurricane weather. A separate checklist is provided for use during each event. Each checklist provides a set of actions to be taken before, during, and after the event.

Snow Events

Pre-Planning

- Establish manager's responsibilities during snow events.
- Establish "Snow Team" associates who will "ride out the storm" at the airport
- Establish lodging for associates
- Establish transportation for associates
- Establish which key units to keep open to meet the needs of the public and airport personnel
- Establish catering needs for the airport ops center
- Establish levels for products and merchandise to meet the needs of stranded passengers
- Go over and above normal day-to-day business practices

During the Snow Event

- Attend all snow event meetings to stay up to date on the progress of the storm
- Be aware of the approximate time the storm will hit
- Be aware of inclement weather in other cities (It will affect your airport/inventory as well.)
- Place additional orders for food and merchandise
- Reserve rooms at local hotels for staff if needed
- Prepare the schedule for the snow event
- Call management and Snow Team associates into the airport before the inclement weather strikes
- Set up catering in "Snow Event" Emergency Room
- Begin stocking the units
- Be prepared to help passengers with special needs (e.g., warming up baby formula, having diapers on hand, toiletries, personal care needs)
- Stock personal care needs available in every store
- Keep the units well-stocked
- Keep units well-staffed
- Keep in touch with airport authority and airlines
 - Keep airport and airlines informed if anything changes with which locations you have open
 - Keep the airport and airlines informed as to which locations will be open for the duration of the storm
 - Keep the airport and airlines informed as to what you can do to help their stranded passengers
- Keep passengers' and associates' spirits up during the difficult travel time

Debrief after the Storm

- Attend the airport meetings
- Determine if all needs were met or if there are other needs that could be met moving forward
- Hold management meeting with Snow Team
- Get feedback from staff to see if the needs of the traveling public as well as the airport personnel were met
- Get feedback on what ran smoothly and what areas have room for improvement
- Get feedback on food and merchandise needs

Hurricane Events*Pre-Planning – Hurricane Watch*

- Update employee phone list: current for all employees, including managers' cell phones
- Update vendor phone list: current and correct
- Ensure equipment is in good working order
- Purchase enough battery-operated radios and batteries
- Purchase enough working two-way radios, batteries, and chargers
- Create manager rotation list
- Assign area where associates can relax to keep them occupied and break up monotony
- Have HR associate update weather hotline extension
- Attend airport authority meetings and determine expectations
- Determine what stores will be open
- Determine how many managers and associates will be needed
- Book hotel rooms if needed
- Determine vendors' ordering and delivery schedule, as well as trash pickup
- Determine/order food and beverage, including bottled water, ice, etc.
- Order refrigerated trucks, if necessary
- Fill CO₂
- Order extra coin and currency for cash room
- Update weather bulletin board

Pre-Planning Hurricane Warning

- Continued daily meetings by GM with direct reports
- Have HR associate update weather hotline extension
- Have HR check bus schedule
- Attend airport authority meetings and respond to needs
- Check flight schedules, airport closing times, etc.
- Determine managers' and associates' schedules
- Have managers make up shift set-up sheets
- Determine when airsides will be closed
- Evacuate associates
- Turn off breakers, gas, equipment

- Cover microwaves in plastic
- Remove banks
- Empty coolers and bring perishable food to landside
- Bring in blankets, pillows, mattresses, battery-operated radios, DVDs, etc.
- Monitor TV weather broadcasts

During the Hurricane Event

- Continued daily meetings by GM with direct reports
- Keep communication lines open with airport authority
- Monitor store openings, managers'/associates' schedules
- Take pictures
- Encourage associates
- Check in hotel rooms
- Monitor TV/radio broadcasts
- Monitor opening/closing times
- Have HR associate update weather hotline extension

Debrief after the Hurricane

- Meet with airport authority and airlines
 - Assess damages
 - Come up with re-opening game plan
 - Meet the needs of airport personnel, returning traveling public
 - Communicate opening schedule
 - Communicate any variations in services
 - Debrief with airport/airlines on best practices moving forward
- Plan staffing and opening hours
 - Have HR associate update weather hotline extension
 - Get airsides ready before associates arrive

Appendices	PART 1
Bibliography	PART 2
Resource D	Resource A
Resource C	Resource B
Resource D	Resource C

TOOL 9 – AIRPORT-AIRLINE 24/7 CONTACT AND CAPABILITY SUMMARY

(Edit as necessary to meet your airport's needs)

Airport Operations		
Name:	Phone:	Email:
Aircraft Capabilities/Special Use Equipment		
• Aircraft tow bars - A320/319/321 family based on airline ownership - Interchangeable tow bars • Aircraft stairs - Passenger stairs: determine what stairs are needed for aircraft type - Stair-truck: narrow and/or wide body		
Ground Handlers		
Name:	Phone:	Email:
Fuelers		
Name:	Phone:	Email:
Bowsers	Hydrant	
Deicers		
Name:	Phone:	Email:

Sample Equipment Checklist*(Edit as necessary to meet your airport's needs)*

Sample Equipment List	Airline	Airline	Airline	Airline	Airline	Airport	Other
737 Tow Bar (TB)							
757 TB							
767 TB							
A319/320 TB							
AIRBUS TB							
A320 TB							
MD80/90 TB							
CRJ200 TB							
CRJ700/900 TB							
E190 TB							
Q-400 TB							
Universal TB							
737 Pushup stairs							
737 Air stairs							
757 Cabin access stairs							
757 Passenger stairs non-motorized							
767 Stairs							
767 Pushup stairs							
747/777 Stairs							
A320 Diesel powered air stairs							
A320 Pushup stairs							
MD80 Galley access stairs							
Air start							
Air Start Wide body Capable							
Ground Power Unit (GPU)							
Bottle air start							
Lavatory service truck							
Lavatory service truck, wide body capable							
Potable water cart							
Cabin service lift truck wide body							
Pushback tractor, wide body capable							
Pushback tug							

TOOL 10 – TECHNOLOGY SOLUTIONS

Purpose: Various technology solutions exist to enable more effective planning and management of the IROPS contingency response activities. While most of these solutions deal with communication and information sharing, some are specific solutions that address unique processes. This overview section provides information in two separate formats. The first is a breakdown of key functional requirements and the type of technology solution that is available at varying cost levels. The second is a breakdown of the various solution types with summary level information on the function, phase of use, operational implementation location, and key operational stakeholders.

Technology Support for Functional Requirements

The following table identifies a set of generalized functional requirements of the IROPS contingency planning and management process. For each requirement noted, technology solutions at a progressive level of magnitude in both cost and complexity are identified. The intent of this table is to provide guidance as to the various options available to meet the functional needs. While it can be seen that standard computer and communication devices can provide the required functionality, specialized solutions can greatly improve the monitoring, communication, and response capabilities. It should be noted that a single solution may be configured to meet multiple functional requirements.

Functional Requirement	\$ 5K	\$ \$ 50K	\$ \$ \$ 500K
Communication – standard	Email, telephone, internet, monitors	Web dashboard – simple	Web dashboard – complex
Communication – mass	Email, internet, text	Automated calling system, customized mobile device application, programmable video display – simple	Radio broadcasting system, programmable video display – complex
Collaboration / teambuilding	Productivity software, Email, internet, web portal, web conference, decision tree	Web dashboard – simple	Web dashboard – complex
Contact management	Productivity software, Email, internet	Customized database	Operational database
Information gathering	Productivity software, Email, telephone, internet	Consultant – assessment	Consultant – plan development
Documentation	Productivity software	Customized database	Operational database
Data tracking	Productivity software	Customized database	Operational database
Report generation	Productivity software	Customized database	Operational database
Airspace monitoring	Radio	GPS-based flight tracking	Airspace monitoring system
Flight tracking	Internet	Flight status data feeds	Flight tracking management system
Air traffic flow management	Internet	Flight status data feeds	Air traffic flow management system
Surface detection	Camera surveillance	Camera surveillance	Surface detection system

Functional Requirement	\$ 5K	\$\$ 50K	\$\$\$ 500K
Surface management	Radio	Surface management system	Surface management system
Weather detection	Internet (weather display system, lightning detection), lightning detection system, camera surveillance	Weather detection system – short range, lightning detection system	Weather detection system – long range
Flight status information sharing	Internet	Customized mobile device application	Flight information display system
Passenger handling	Portable aircraft stairs	Aircraft stair truck, bus – standard capacity	Auto dock system, bus – large capacity
Resource management	Productivity software	Customized database	Gate management system, resource management system
Baggage management	Productivity software	Customized database	Baggage sortation system, baggage tracking system, baggage recovery system, baggage reconciliation system
Passenger processing	Productivity software	Local departure control system	Common use passenger processing system

Solution Summaries

Specific technology solutions have been defined in the following table in general terms. Many products exist that provide the capabilities listed. These solutions have been grouped into categories of common solution types and identified by the phases of IROPS response being before, during, and after the IROPS event, the operational implementation being airside or landside, and the key operational stakeholders. The technology solutions identified are Integration/Strategy Services, IT Support, Data Management, Shared Aircraft Status, Communication of Status, Resource Management, Passenger Handling, Baggage Management, Passenger Processing, and Weather Detection. The intent of this table is to provide an overview of the specialized solutions available to meet specific functional requirements and define when, where, and by whom they are used. Many of these solutions serve a single purpose during a single phase, while others can support a broad range of tasks that span the entire IROPS spectrum.

Category	Solution Type	Function	Phase			Ops		Stakeholder		
			Before	During	After	Airside	Landside	Airport	Air Carrier/ Ground Handler	FAA
Integration/ Strategy	Consulting services	Provides professional consulting support for defining technology integration strategy before an event, and revises strategy based on lessons learned after an event.	X		X	X	X	X		
	Data integration services	Provides professional data integration services before an event to enable the sharing of information among various technology solutions, and modifies data integration strategy based on lessons learned after an event.	X		X	X	X	X		
	System integration services	Provides professional systems integration services before an event to enable the sharing of information among various technology solutions, and modifies system integration strategy based on lessons learned after an event.	X		X	X	X	X		
IT Support	IT system management	Provides for the ongoing and emergency response management and maintenance of technology assets and systems.	X	X	X	X	X	X	X	
Data Management	Airport operational database	Serves as a central data repository for airport operational systems to enable the sharing of information among various technology solutions before, during, and after an event.	X	X	X	X	X	X		

Category	Solution Type	Function	Phase			Ops		Stakeholder		
			Before	During	After	Airside	Landside	Airport	Air Carrier/ Ground Handler	FAA
Communication of Status	Real-time aircraft data feed	Provides data stream to support flight information displays and custom flight tracking solutions.		X			X	X	X	
	Flight information display system - airport	Provides flight information on a monitor mounted in the airport using a real-time aircraft data feed or manual input.		X			X	X	X	
	Flight information display - internet	Provides flight information via the Internet using a real-time aircraft data feed or manual input.		X			X	X	X	
	Flight information display - mobile	Provides flight information to a mobile device using a real-time aircraft data feed or manual input.		X			X	X	X	
	Air traffic display - airport	Provides real-time air traffic information, including delays and cancellations, in graphical format using a monitor mounted in the airport.		X			X	X	X	
	Air traffic display - internet	Provides real-time air traffic information, including delays and cancellations, in graphical format via the Internet.		X			X	X	X	
	Message broadcasting system	Provides automated text-based message broadcasting to a predefined distribution list according to a predefined communication channel.	X	X			X	X	X	
	Emergency notification call system	Provides automated audio message broadcasting to a predefined distribution list.	X	X			X	X	X	
	Social media (Facebook, Twitter, blogs, podcasts, etc.)	Provides the ability to send ongoing communication to a mass number of subscribers via the Internet or mobile device applications and receive feedback.	X	X	X		X	X	X	
	Flight status alert - email, text	Provides automated text-based message broadcasting to a distribution list of subscribers via email or text message regarding a specific flight status.	X	X			X	X	X	

Category	Solution Type	Function	Phase			Ops		Stakeholder		
			Before	During	After	Airside	Landside	Airport	Air Carrier/ Ground Handler	FAA
Resource Management	Aircraft, gate, and concourse availability	Provides the ability to analyze the cause of delays in order to determine the most time-efficient usage of aircraft, gates, and stands.	X	X	X	X	X	X	X	
	Gate management system	Provides the ability to plan and maintain the scheduling, allocation, and real-time status of gates.	X	X		X	X	X	X	
	Ground handling staff management system	Provides the ability for scheduling and deployment of ramp personnel to optimize ground handling operations.	X	X		X		X	X	
	Ground handling resource management	Provides the ability for scheduling and management of ramp personnel and ground handling equipment to optimize ground handling operations.	X	X		X		X	X	
	Resource management system	Provides the ability to plan and maintain the scheduling, allocation, and real-time status of resources including gates, aircraft parking stands, check-in counters, airline back offices, kiosks, and baggage carousels.	X	X		X	X	X	X	
Passenger Handling	Consulting services	Provides professional consulting support for defining passenger handling strategy before an event, and revising strategy based on lessons learned after an event.	X		X	X		X		
	Passenger transport from aircraft	Provides physical mechanism for transporting passengers from an aircraft that is not docked at a gate to the terminal building.	X	X		X			X	
	Visual docking guidance system	Provides automated visual docking guidance for aircraft based on the active ramp environment to maximize safety and efficiency.	X	X		X			X	

Category	Solution Type	Function	Phase			Ops		Stakeholder		
			Before	During	After	Airside	Landside	Airport	Air Carrier/ Ground Handler	FAA
Baggage Management	Baggage sortation	Provides for the automatic verification of baggage and its destination for accurate and efficient routing.		X		X		X	X	
	Baggage tracking	Provides for the automated tracking of baggage from check-in to final destination.		X		X	X	X	X	
	Baggage recovery	Facilitates the efficient recovery of bags due to mishandling or disrupted aircraft operations.		X		X		X	X	
	Baggage reconciliation	Provides for the identification of passengers that have not yet boarded and prevents their baggage from being loaded.		X		X		X	X	
Passenger Processing	Common use passenger processing	Provides the ability to share check-in and gate resources among airlines for flexibility and efficiency in passenger processing.		X		X	X	X	X	
	Local departure control system	Provides the ability for airline operations without a locally accessible proprietary departure control systems to process passenger and baggage.		X		X	X	X	X	
Weather Detection	Weather display	Provides visual information regarding current weather conditions.		X		X	X	X	X	X
	Weather forecasting and reporting system	Provides the ability to analyze probable weather conditions to enable decisions to be made prior to and during an event.	X	X		X	X	X	X	X
	Instant alert weather system	Provides the ability to receive instant alerts at the desktop workstation for relevant weather events.	X	X		X	X	X	X	X
	Lightning detection system	Provides the ability to detect lightning in local and/or long range conditions.	X	X		X	X	X	X	X

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

TOOL 11 – SAMPLE WORKSHOP AGENDA

(Edit as necessary to meet your airport's needs)

Purpose: Workshops are an effective way to bring together service provider organizations to compare plans, review past performance, and get organizations thinking about the benefits of a consolidated IROPS plan. This tool provides a sample workshop agenda so that an airport can see what topics should be discussed in initial workshops in order to facilitate communication, cooperation, and coordination between all service providers.

Sample Workshop Agenda

Workshop Goals and Objectives

1. *Identify hot button issues and insights from previous IROPS events*
2. *Review status and examples of airline and airport response to the United States DOT's rules on enhancing airline passenger protections (14 CFR Part 259 Enhanced Protections for Airline Passengers)*
3. *Discuss operational challenges associated with IROPS/extended delays:*
 - i. Communication and early notification
 - ii. Shared situational awareness
 - iii. Tracking diverted aircraft (flow of information)
4. *Update airline station managers on the airport's IROPS plans*
5. *Share relevant regional experiences and IROPS planning activities*
6. *Review IROPS best practices*
7. *Strategize for mutual assistance and coordination during the forthcoming fall/winter and/or spring/summer season*

Part One

1. *Update airport staff on local and national IROPS response information*

Review recent IROPS events at the airport, including lengthy tarmac delays. This information will summarize the current state of readiness to successfully minimize the effects of lengthy tarmac delays within a more global summary of related passenger service activities based on experiences in the United States. Current pending passengers' rights legislation and DOT requirements pertaining to IROPS events, including extended tarmac delays, should also be reviewed. This review serves to provide a better understanding of the purpose of the airport's overall IROPS planning process and related activities to date.

2. *Describe approach during an IROPS event/lengthy tarmac delay*

Review key steps necessary for dealing with an irregular operations event, as well as best practice joint actions that have been developed by airports in the United States that have been successfully implemented to mitigate the effects of IROPS events/lengthy tarmac delays on passengers.

Part Two

1. *Identify hot buttons and insights from a recent IROPS event/lengthy tarmac delay*

In breakout sessions, first focus the group on recent local IROPS events/lengthy delays where individuals will have the opportunity to describe what happened from their own perspectives and begin to identify “where your IROPS plan affects my plan.” The discussion opens the dialogue for improved coordination, collaboration, and communication between all aviation service organizations.

Part Three

1. *Strategize mutual assistance and coordination during the forthcoming season*

In a group discussion, request that all aviation service organizations discuss/vocalize what mutual assistance looks like from their perspective. The group should be challenged to use tools from *ACRP Report 65* to describe how to improve local response to IROPS events.

2. *Discuss specific operational challenges associated with customer service during IROPS events, including extended delays:*

- Communication and mutual assistance
- Ground handling equipment
- Gate and hard stand availability
- Tracking diversion aircraft (flow of information)
- Unforeseen operational activities – system implications
- Technology enablers

3. *Describe how recommendations from the workshop will be incorporated into the IROPS plan.*

TOOL 12 – NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) NATIONAL WEATHER SERVICE (NWS) CHECKLIST

Purpose: The NWS provides climate, water, and weather forecasts and warnings to protect life and property and enhance the economy. Support to aviation is a part of this mission. The NWS supports aviation through all phases of flight, from the local weather conditions and forecasts at the airport to forecasts for en-route and international weather. This support is provided by professional meteorologists at 122 Weather Forecast Offices (WFOs), 9 National Centers, and 21 Center Weather Services Units. This tool includes a sample weather checklist for use before, during, and after an event, as well as contact information for NWS offices across the United States.

Aviation support is through all phases of flight. International flight forecasts and advisories are provided by three Meteorological Watch Offices: the Aviation Weather Center (World Area Forecast Center) in Kansas City, the Alaska Aviation Weather Unit in Anchorage, and the WFO in Honolulu. En-route forecasts and advisories for the National Air Space are provided by 21 Center Weather Services Units (CWSUs) and Meteorological Watch Offices, and take-off and landing forecasts are provided by WFOs for over 620 U.S. airports.

The NWS vision is for a weather-ready nation, which is a society prepared for and responding to weather-dependent events. With improved collaboration with airport managers and understanding of weather impacts to airport operations, the NWS can provide decision-support services to reduce the impact of weather.

Each airport is affected differently by weather conditions, and the NWS provides a wide variety of weather information to assist in planning and tactical decisions. For example, National Centers for Environmental Prediction (NCEP) produce long-range forecasts for significant events. These are available at www.hpc.ncep.noaa.gov or www.spc.noaa.gov for thunderstorm outlooks. For weather events affecting a region's airport, that local NWS Office will have the best information. A quick glance at weather hazards is available at <http://www.nws.noaa.gov/largemap.php>. Each NWS office provides localized warnings of hazardous weather for their area of responsibility, including severe thunderstorms, high winds, icing, and snowfall.

NWS offices can also provide Airport Weather Warnings (AWW). These airport-specific warnings address weather phenomena that can adversely affect airport ground operations. Information contained in the AWW is useful to airport managers, fixed-base operators, airline ground personnel, and others responsible for the safety of ground operations. The criteria used to issue these warnings are coordinated between the local airport management and the NWS office so that they focus on those weather conditions that affect the operations of the airport.

Improved weather information through NWS decision-support services before, during, and after weather events will assist airport managers in mitigating the impact of weather on operations.

The contact information contained in this tool is provided by NOAA for internal governmental use including airport managers, the IROPS Champions, and aviation service providers.

Sample Weather Checklist

Before:

- Contact your local NWS office Meteorologist-in-Charge or Warning Coordination Meteorologist (public telephone number lists follow)
- Discuss best method/number for contacting the office
- Discuss critical thresholds for your operations
 - Threshold for planning 2 - 5 days ahead of time, for example
 - Significant snow/ice
 - Significant winds
 - Significant thunderstorm outbreak
 - Thresholds for real-time decisions, for example
 - Onset of snow/icing
 - Amount of snow/ice/rain
 - Onset of significant winds
 - Onset of thunderstorms
- Determine best method of communicating weather information for strategic planning
- Routinely exercise this process to ensure smooth operations during an event

During:

- Contact local NWS office for updated information on weather events and impact
- Receive information from NWS office from predetermined sources

After:

- Provide feedback to NWS office on content and flow of weather information
- Review event for improvements in the process

NWS Office and Phone Number	
Alabama	
Birmingham	(205) 664-3010
Huntsville	(256) 890-8503
Mobile	(251) 633-6443
Alaska	
Anchorage	(907) 266-5105
Fairbanks	(907) 458-3700
Juneau	(907) 790-6800
Arkansas	
Little Rock	(501) 834-0308
Arizona	
Flagstaff	(928) 556-9161
Phoenix	(602) 275-0073
Tucson	(520) 670-6526
California	
Eureka	(707) 443-6484
Los Angeles	(805) 988-6610
Sacramento	(916) 979-3051
San Diego	(858) 675-8700
San Francisco Bay Area	(831) 656-1725
San Joaquin Valley	(559) 584-3752
Colorado	
Denver/Boulder	(303) 494-4221
Grand Junction	(970) 243-7007
Pueblo	(719) 948-9429
Florida	
Jacksonville	(904) 741-4370
Key West	(305) 295-1316
Melbourne	(321) 255-0212
Miami	(305) 229-4522
Tallahassee	(850) 942-8833
Tampa Bay Area	(813) 645-2323
Georgia	
Atlanta	(770) 486-1133
Hawaii	
Honolulu	(808) 973-5286

Permission to print this content has been issued by NOAA on 12/20/11

NWS Office and Phone Number	
Idaho	
Boise	(208) 334-9860
Pocatello/Idaho Falls	(208) 232-9306
Illinois	
Central Illinois	(217) 732-3089
Chicago	(815) 834-1435
Indiana	
Indianapolis	(317) 856-0360
Northern Indiana	(574) 834-1104
Iowa	
Des Moines	(515) 270-2614
Quad Cities	(563) 386-3976
Kansas	
Dodge City	(620) 225-6514
Goodland	(785) 899-7119
Topeka	(785) 234-2592
Wichita	(316) 942-3102
Kentucky	
Jackson	(606) 666-8000
Louisville	(502) 969-8842
Paducah	(270) 744-6440
Louisiana	
Lake Charles	(337) 477-5285
New Orleans/Baton Rouge	(504) 522-7330
Shreveport	(318) 631-3669
Maine	
Caribou	(207) 492-0170
Portland	(207) 688-3216
Maryland	
Baltimore/Washington, D.C.	(703) 996-2200
Massachusetts	
Boston	(508) 828-2672

Permission to print this content has been issued by NOAA on 12/20/11

NWS Office and Phone Number	
Michigan	
Detroit	(248) 620-9804
Grand Rapids	(616) 949-0643
Marquette	(906) 475-5212
North Central Lower Michigan	(989) 731-3384
Minnesota	
Duluth	(218) 729-6697
Minneapolis	(952) 361-6670
Mississippi	
Jackson	(601) 936-2189
Missouri	
Kansas City/Pleasant Hill	(816) 540-6021
Springfield	(417) 863-8028
St. Louis	(636) 441-8467
Montana	
Billings	(406) 652-0851
Glasgow	(406) 228-4042
Great Falls	(406) 453-2081
Missoula	(406) 329-4840
Nebraska	
Hastings	(402) 462-4287
North Platte	(308) 532-4936
Omaha	(402) 359-5166
Nevada	
Elko	(775) 778-6716
Las Vegas	(702) 263-9744
Reno	(775) 673-8100
New Jersey	
Philadelphia/Mt Holly	(609) 261-6600
New Mexico	
Albuquerque	(505) 243-0702
New York	
Albany	(518) 435-9580
Binghamton	(607) 729-1597
Buffalo	(716) 565-0204
New York City	(631) 924-0517

Permission to print this content has been issued by NOAA on 12/20/11

NWS Office and Phone Number	
North Carolina	
Newport/Morehead City	(252) 223-5737
Raleigh/Durham	(919) 515-8209
Wilmington	(910) 762-4289
North Dakota	
Bismarck	(701) 250-4224
Eastern North Dakota	(701) 772-0720
Ohio	
Cincinnati	(937) 383-0031
Cleveland	(216) 265-2370
Oklahoma	
Oklahoma City	(405) 325-3816
Tulsa	(918) 838-7838
Oregon	
Medford	(541) 773-1067
Pendleton	(541) 276-7832
Portland	(503) 261-9246
Pennsylvania	
Central Pennsylvania	(814) 231-2408
Philadelphia/Mt Holly	(609) 261-6600
Pittsburgh	(412) 262-1591
Puerto Rico	
San Juan	(787) 253-4586
South Carolina	
Charleston	(843) 744-0303
Columbia	(803) 822-8135
Greenville/Spartanburg	(864) 848-3859
South Dakota	
Aberdeen	(605) 225-0519
Rapid City	(605) 341-9271
Sioux Falls	(605) 330-4247
Tennessee	
Knoxville/Tri-Cities	(423) 586-3771
Memphis	(901) 544-0399
Nashville	(615) 754-8500

Permission to print this content has been issued by NOAA on 12/20/11

NWS Office and Phone Number	
Texas	
Amarillo	(806) 335-1121
Austin/San Antonio	(830) 606-3617
Brownsville	(956) 504-1432
Corpus Christi	(361) 289-0959
Dallas/Fort Worth	(817) 429-2631
El Paso	(575) 589-4088
Houston/Galveston	(281) 337-5074
Lubbock	(806) 745-4260
Midland/Odessa	(432) 563-5901
San Angelo	(325) 944-9445
Utah	
Salt Lake City	(801) 524-5133
Vermont	
Burlington	(802) 862-2475
Virginia	
Baltimore/Washington, D.C.	(703) 996-2200
Roanoke	(540) 552-0084
Wakefield	(757) 899-4200
Washington	
Seattle/Tacoma	(206) 526-6087
Spokane	509) 244-0110
West Virginia	
Charleston	(304) 746-0180
Wisconsin	
Green Bay	(920) 494-2363
La Crosse	(608) 784-7294
Milwaukee	(262) 965-2074
Wyoming	
Cheyenne	(307) 772-2468
Riverton	(307) 857-3898

Permission to print this content has been issued by NOAA on 12/20/11

Appendices	PART 1
Bibliography	PART 2
Resource D	Resource A
Resource C	Resource B
Resource D	Resource C
Bibliography	Resource D
Appendices	

TOOL 13 – SAMPLE COMMUNICATION PLAN

(Edit as necessary to meet your airport's needs)

Purpose: In order for service providers to achieve effective situational awareness between all organizations during an IROPS event, it is essential that an agreed-upon communication plan be developed, understood, and communicated to all parties. This tool provides the structure for service providers to use during an IROPS event to ensure the right information is discussed in clear language, both oral and written.

Sample Communication Plan	
Establish talking points: Prepare for the following questions/data requests that are commonly asked, such as: • What is the impact to the airport? • What are the impacts to our customers? • What is the estimated length of time before operations return to normal? • What actions are we taking now? • Is there any system or technology issue arising? • Is the airport closed? YES or NO • Is the airfield closed?	Websites: Prepare to use websites during IROPS events to communicate both internally and externally. • Internal website: – Establish what needs to happen and who will do it – Status board: Display ongoing updates from airport operations center • External website: – Meet with the airport's IT organization to keep flight information display system (FIDS) and paging systems updated during IROPS events – Establish communication links and interfaces

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

TOOL 14 – SOCIAL MEDIA

(Edit as necessary to meet your airport's needs)

Purpose: This tool is intended for use by airport staff to help get started using social media forums to promote their airport and benefit from the leverage these social media sites provide.

In a time of emerging social media forums (e.g., Twitter, Facebook, blogging) it is becoming increasingly important for airports to embrace the leverage these social media forums can provide. It only takes one second for a negative post to reach thousands of people who will now see your airport in a negative light (e.g., “I will never fly out of this Airport again. TSA lines were out the door and I had to wait over an HOUR to get through security!”). Often when passengers are upset, it is directed at an airline, long security lines, concessionaires, etc.; however, because it happened at your airport, you can end up taking the brunt of the comments. Fortunately, it takes just as long for a message to be sent out via social media that sheds a positive light on your airport and airport operations, especially during IROPS events. However, benefits from social media will not be experienced if nobody at an airport is taking the initiative to utilize social media tools. Available airport staff should work with TSA, CBP, and the airlines during IROPS events to get the message out. Some ideas for social media posts include:

- 1) Post information related to widespread delays as soon as you are made aware to notify passengers before they arrive at the airport (e.g., delays as a result of weather, power outages). Direct them to their airline provider for specific information.
- 2) Post information related to extra security measures that are in effect so passengers can arrive at the airport with plenty of time to get through the TSA security lines. No need to divulge why; just post a friendly reminder to arrive at the airport with plenty of time prior to departure.
- 3) Post other information you believe would help enhance the passenger experience, especially during IROPS events.

Setting up an account with a social media outlet is simple. Log on to your preferred social media forum (or multiple forums) via the internet and follow the instructions on how to set up a new account. Most social media sites have tips to help new users take full advantage of the options available to them, including how to make posts to their account (such as those suggested in the list above). It is important for airport staff to keep posts relevant to their audience and not to oversaturate the lines of communication with messages unrelated to the passenger experience.

In order for an airport's intended audience to receive posted messages, they need to know that their local airport participates in social media forums. There are several ways an airport can attract their audience, or “followers,” and let them know they partake in social media outreach. A couple ideas include a signage campaign at an airport, or a news story on local television about “friending” or “following” their airport on the appropriate social media site. Consider reaching out to other airports who engage in social media for tips and tricks on how to most effectively use these tools.

Staying in contact with people who are affected by the airport reassures individuals that airport staff does care and are trying to make the passenger experience more enjoyable. IROPS events are inevitable, but the way you approach it can make all the difference.

Use the table below to organize your social media outreach by identifying the staff responsible for providing updates on each social media forum (if you use multiple forums) and to document the trigger events and the frequency of updates needed during an IROPS event. Please modify the table as appropriate to your situation.

Organization	Media Platform	Staff Responsible	Trigger Events	Frequency of Updates
Airport name	Facebook	Contact name	(Diversion, long TSA lines, power outages, widespread weather delays and cancellations, etc.)	(Per trigger event or per time allotment [e.g., 15, 30, 60+ min])
	Twitter	Contact name	(Diversion, long TSA lines, power outages, widespread weather delays and cancellations, etc.)	(Per trigger event or per time allotment [e.g., 15, 30, 60+ min])
	Blogging	Contact name	(Diversion, long TSA lines, power outages, widespread weather delays and cancellations, etc.)	(Per trigger event or per time allotment [e.g., 15, 30, 60+ min])
	Text messaging	Contact name	(Diversion, long TSA lines, power outages, widespread weather delays and cancellations, etc.)	(Per trigger event or per time allotment [e.g., 15, 30, 60+ min])

TOOL 15 – DURING AN EVENT TOOLS

(Edit as necessary to meet your airport's needs)

Purpose: It is important to gather data on all aspects of IROPS response to make sure no gaps in passenger service exist. This document provides two tools that can be used during all types of IROPS events:

1. A table for service provider management to document actions made
2. A checklist outlining items that should be addressed during an IROPS event for frontline staff

Tool #15a – During an Event Action Table for Service Provider Management

Airport Operations Department
Offer and render assistance as available to air carriers and tenants.
Assist in selecting a parking location for the aircraft. Ground handlers are responsible for parking aircraft because airport operations personnel will not perform this function.
Ensure diverted aircraft do not obstruct loading gates for scheduled incoming flights or trap parked aircraft already at a gate or hardstand. It is preferable that all carriers coordinate parking early to ensure orderly flow.
Advise responsible ground handlers if parked aircraft must be moved.
Assist with vehicle inspections and movement of personnel, vehicles, and equipment in and out of the airport operations area or the security identification display area (SIDA) to unload, load, and service diverted company equipment parked in the SIDA, or on cargo aprons, tenant ramps, or closed taxiways.
Evaluate all actions from a customer service standpoint.
If passengers must be deplaned to meet DOT requirements, coordinate response and necessary holding areas with airline, airport police, TSA, and CBP personnel.
Coordinate with airport police, CBP, TSA, and airline supervisors all planned holding areas to segregate passengers (PAX) if they are deplaned.
Ensure that holding area(s) have operable lavatories and otherwise meet DOT requirements.
Ensure that the storm is monitored real-time and communicate updates to all agencies at least every 30 minutes.
Other.
Airport Police Department
Provide security for containment of international passengers in the sterile area as necessary.
If any non-sterile area is used for holding international PAX, assist in providing security for PAX.
If necessary, request mutual aid support. As necessary, contact other airport departments or airport tenant businesses directly for assistance.
Other.
Airport Fire-Rescue Department
Provide space as needed to segregate passengers.
Augment security efforts as needed.
In addition to normal fire responsibilities, provide emergency first aid to passengers as necessary.
If necessary, request mutual aid.
Other.

Airport Marketing and Community Relations Department	
	Coordinate with national/international news media and all involved parties to ensure proper release of public information as necessary.
	Other.
Airlines	
	Notify the CBP of any diverted international flights that are landing at the airport, regardless of the reason. International passengers will not be deplaned until adequate holding facilities have been coordinated with airport personnel.
	Ensure all decisions regarding deplaning and segregation of international passengers are made in concert with CBP personnel.
	Notify the TSA Coordination Center at least two hours prior to reboarding when passengers have deplaned at the airport. Manual screening requires additional time needed for screening/reboarding.
	Maintain an accurate passenger manifest at all times and present it to CBP personnel for immigration or accountability purposes.
	Coordinate any passenger needs (e.g., food, water, medicine, child care, health and hygiene) with CBP and all appropriate organizations as soon as possible. Comfort, health, and customer service needs must be proactively met.
	For situational awareness and ramp flow, advise airport operations when expecting the arrival of any diverted aircraft.
	Coordinate with ATC services, by way of flight crew communications, on where to direct diverted aircraft for ground handling purposes so as to avoid having a negative impact on the movement of other aircraft.
	Coordinate any passenger needs (e.g., food, water, medicine) with the appropriate organization or airport tenant as soon as possible. If support may be needed from other airport tenants (e.g., TSA, CBP, concessions, car rental agencies), make the call as early as possible, preferably before they close.
	Wherever possible, assist with ground handling support equipment to accommodate other diverted aircraft.
	Ensure that passengers and crew remain with quick-turn or gas and go aircraft.
	Ensure that flight crew communication to airport personnel (e.g., operations, police) pass through local airline supervisory staff. This is a MUST.
	Before deplaning, advise passengers of their circumstances and plan for their care and accommodations. This advisory should come from the crew in coordination with station management. Airport personnel should also be informed.
	Ensure that deplaning passengers understand that they may remove their carry-on luggage, blankets, and pillows if they will later return and subsequently depart on the same aircraft.
	Communicate that passengers may be deplaned into the concourse in accordance with airline policies. It is critical that the airline advise passengers that if they leave the sterile area they will not be allowed to re-enter. Passenger and baggage screening services are unavailable when the TSA checkpoint is closed.
	Ensure that flight crews remain with passengers until alternate provisions are made. They will serve as the customer service representative to and advocate for their customers.
	Ensure ground handling and parking of aircraft and of those of airlines with which airlines have ground handling agreements.
	Make necessary arrangement if passenger transportation is needed from a remote parking location to the concourse or terminal. Vehicles must be operated by properly qualified driver/escorts when accessing any movement area, non-movement area, or the SIDA.
	Implement corporate aircraft diversion plan.
	Other.

GOVERNMENT AGENCIES	
TSA	
Establish procedures to screen international passengers that have been out of a sterile area prior to reboarding an aircraft whose destination is into a controlled sterile area.	
Consider mutual aid requests. Passenger screening and augmentation to monitor secure/nonsecure areas may be needed in extreme situations.	
Other.	
ATC Services	
Establish aircraft ground control procedures to quickly, and safely park aircraft for unloading.	
Maintain open lines of communication with airlines and ground handlers operating at the airport.	
Other.	
CBP	
Authorize any aircraft servicing or crew movement on international flights. This authorization can be given in advance by CBP personnel via telephone if servicing/crew preflight inspection is critical and a CBP officer has not yet arrived at the diverted aircraft.	
Coordinate international diversion deplaning with airport personnel. Passengers will be deplaned and moved directly to the designated area. That location will be determined by the number of passengers on the diverted aircraft and available facilities. Every effort will be made to keep passengers segregated in the concourse for security, comfort, and rapid reboarding.	
Ensure that security for the segregation of passengers and crew will be a coordinated effort by the CBP, TSA, and airport personnel.	
Ensure that due to personnel, equipment, and regulation issues, clearing passengers for entry into the United States will only be done as a last resort. Every effort will be made to move international passengers to their original destination for clearance purposes.	
Ensure that the processing of passengers for entry at the airport port of entry is coordinated with the port of original destination. If authority to clear passengers is granted, they must be processed for entry with all carry-on and checked baggage. A separate clearance area will be set up where both electronic processing and luggage search can be accomplished with the appropriate level of privacy. To do so, TSA requires a minimum of two hours advance notice.	
Other.	
OTHER TENANTS	
Concessions	
See Tool 8 – Concessions Checklist for Snow and Hurricane Events for a sample concessions checklist.	
Ground Transportation	
Cargo, Etc.	

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

Tool #15b – During an Event Frontline Checklist

AIRPORT
Communication ☐ Media and communication plan activated Terminal ☐ Capacity provided for large number of passengers ☐ Rest areas provided/blankets ☐ Lavatory service Parking/Ground Transportation ☐ Ground transportation plan activated Passenger Essential Provisions ☐ Food / hydration (concessions plan activated) ☐ Retail (concessions plan activated) ☐ Lodging (hotels notified) Additional Staffing ☐ Employee transportation ☐ Supplement staffing ☐ Assistance desk ☐ Special services ☐ Medical response ☐ Tracking aircraft ☐ Coordination with relief organizations Equipment ☐ Gate sharing ☐ Hard stands

AIRLINES

Deplaning

- ☐ Onward transportation
- ☐ Coordination with airport operations
- ☐ Ground support equipment (e.g., gates, hardstands, tugs, towbars, AC) requested

Passenger Care

- ☐ Lodging
- ☐ Baggage
- ☐ Compensation
- ☐ Information/communication
- ☐ Food/hydration
- ☐ Cleanliness
- ☐ Special services

GOVERNMENT AGENCIES

ATC Services

- ☐ Priority treatment for delayed flights if requested by the aircraft operator or a designee (pilots, dispatchers, etc.)

CBP

- ☐ Activate plan for after-hour capabilities
- ☐ Creation of ad hoc sterile areas via memorandum of understanding (MOU) activation

TSA

- ☐ Creating of ad-hoc sterile areas via MOU activation
- ☐ Escort plans activated
- ☐ Re-ticketing plan activated

CDC

- ☐ Plan activation for international flights subject to quarantine
- ☐ Plan activation for diversion airports in the system

FBO

- ☐ FBO support equipment provided

TOOL 16 – DIVERSION CHECKLIST

(Edit as necessary to meet your airport's needs)

Purpose: When aircraft are diverted, passengers end up in unexpected places at unexpected times, and service providers need to coordinate efforts to accommodate their needs. In the event an aircraft is diverted to a diversion airport, this tool provides the steps that should be taken by airlines and the diversion airport (including their public safety department [airport police]) before, during, and after a diversion event. Roles of airlines, airport operation (specifically the operations manager and duty manager), and the public safety department are outlined in this tool.

AIRLINE

Before:

- Notify airport operations. Include:
 - Airline
 - Approximate arrival time
 - Approximate departure time – if available
 - Reason for potential diversion
 - Intentions (examples: gas and go, extended delay, or unknown)
 - Potential services needed
 - Number of passengers on board

During:

- Communicate plane's intentions to airport operations.
- Confirm airport operations and ensure that the duty manager will assist with communication.
- If necessary, ask for assistance. Determine who will coordinate passenger accommodations, including:
 - Food
 - Transportation
 - Lodging
 - Security
 - Special Needs
- Communicate status to necessary service providers at least every 30 minutes.

After:

- Supervisor – obtain feedback from employees about what went well, what did not, and what changes could be made.
- Manager and supervisor join post-diversion conference call with airport.

AIRPORT OPERATIONS

Before:

- Create a 24/7 email contact/distribution list of major airport stakeholders in your region, including diversion airports, to communicate status and track diverted flights. For hubs and large airports, establish a conference call with key stakeholders 24 to 48 hours prior to severe weather forecasts to facilitate communications and coordination (i.e., National Weather Service, FAA, airlines, CBP, TSA, and airport departments).
- When notified by airline of a diversion, communicate to airlines that airport operations will be the point of contact during the event.
- Determine whether this is a regular diversion (airline and aircraft that are regularly serviced at airport).
 - If regular aircraft/airlines, determine and communicate equipment available to help service (see attached sample equipment list)
 - If airline has no representation at airport, determine potential services needed and communicate what equipment/options are available to service particular aircraft (see included sample equipment list)
- International diversions: Have a plan in place ahead of time with CBP to handle and/or offload passengers from international diversions, especially if there are no CBP officers or facilities present at an airport. At a minimum, coordinate with the regional CBP official and local law enforcement to share important CBP contact information, such as 24/7 phone numbers.

During:

Operations Center

Notify:

- Airport duty manager in charge
- Law enforcement officer (LEO) in charge
- Federal security director (FSD)
- Senior duty manager (or deputy aviation director – airside operations)
- Concessions, if services are needed
- CBP (if international flight, need 24/7 contact information)
- Communicate with airlines frequently during event (at least every half hour).
- Remind airlines of available assistance, including:
 - Additional resources (If aircraft cannot taxi from its location, coordinate to use local FBOs and/or aircraft recovery service to have aircraft removed.)
 - Ability to contact resources for airlines if requested
 - Use of social media to inform passengers
 - Providing of flight information display systems (FIDS) updates

Communicate status to necessary service providers at least every 30 minutes.

Ascertain who is making the decisions about the status of an aircraft regarding loading and unloading of passengers, bags, and cargo. This is especially important if an airline is not represented at an airport; airport staff should find out from the flight crew some of the system operations centers (SOCs) or headquarters phone numbers so that they can contact someone in a position to make a decision at critical times (such as when the 3- and 4-hour rule is reached). This should be done as soon as the aircraft is grounded and parked.

Airport Operations Manager

- When notified of a possible diversion, contact the applicable airline to determine the potential length of the delay.
- Record in diversion contact log:
 - Date/time
 - Air carrier name and contact information
 - Flight number
 - Aircraft type and tail number
 - Passenger count
 - Arriving from/original route
 - Parking location
 - Reason for diversion
 - ETA/ETD
 - Jet bridge use and departing flight number
 - Crew time left (international flights only)
 - Services needed
- Determine gate needs (coordinate a gate from which to deplane if delay exceeds 3 hours for domestic flights and 4 hours for international flights), whether airline will accommodate aircraft at their regularly assigned gate(s), and can or will they accommodate other airlines. Gate options must take into consideration:
 - Aircraft type/size
 - Access to restroom facilities and restroom service needs
 - Access to vending machines
 - Access to drinking fountains
 - Food and beverage services through tenant restaurant vendor
 - Ability to restrict international passengers from mixing with domestic passengers*
 - Airline support to contain passengers isolated from domestic passengers*
 - No CBP processing available for international flights*

*international flights only
- If no gates are available:
 - Coordinate with airlines and ATC services to direct aircraft to park at alternate parking location, escort marshaling/ground handling crew as necessary
 - Coordinate with airline or ground handlers to provide access to aircraft for air stairs, refueling, lavatory services, ground power units (GPUs), and other ground service equipment (GSE)
 - Coordinate deplaning of passengers via air stairs and buses or via loading bridge at terminal when delay exceeds 3 hours (4 hours for international flights) and/or when airline requests access to terminal
- If the aircraft delay is a departure and the passengers are deplaned at the terminal:
 - Screening for passengers who leave the concourses must be provided or passengers must remain in the sterile area and food, beverage, and restroom facilities must be provided until the passengers are reboarded for departure

PART 1

PART 2

Resource A

Resource B

Resource C

Resource D

Bibliography

Appendices

- If the projected time at the gate is after the time that screening is closed:
 - Coordinate passenger screening operations to remain open or coordinate with the LEO to provide staffing of the checkpoint to prevent re-entry of unscreened passengers
- Coordinate provisions with the airport's concessions.
- Ensure that LEO is available to assist with disruptive passenger(s).
- Maintain contact with the airline representative to determine if the flight may be cancelled and, if so, the airline's intentions concerning its passengers.
- For international flights:
 - Coordinate with CBP port director for any concerns for passenger boarding/containment
 - Arrange for LEO to monitor passengers to prevent mixing with domestic passengers (must be local airline employee or air crew members when no local representative is available)
 - Establish visual or physical perimeter stanchions, seating, and so forth to contain passengers (perimeter should allow restroom access without escort)
- Communicate status to necessary service providers at least every 30 minutes.

After:

- Initiate conference call:
 - Obtain feedback on what went well, what didn't go well, and any changes that need to be made
- Type up notes from conference call – disseminate to all entities as lessons learned/action items.
- Check that the following entities attended conference call:
 - Airport operations
 - Airlines
 - FAA
 - TSA
 - CBP
 - LEO
 - Public safety
 - Concessions
 - Car rental
 - Parking
 - Military (if on-site)
 - FBO

PUBLIC SAFETY DEPARTMENT

Before (if notified prior to aircraft landing):

- Notify airport operations specialist on duty.
- Fill out diversion contact log.
- If warranted, notify additional personnel or entities such as concessions, FBO, and the like.
- For extended delays at the airport, determine the resources to accommodate the situation and call up resources as appropriate.

During:

- Obtain additional information about aircraft:
 - Tail number
 - Time landed
 - Any other pertinent information
 - Fill out diversion contact log
- Inform airlines of public safety assistance available.
- Communicate status to necessary service providers at least every 30 minutes.

After:

- Obtain feedback from officers regarding what went well, what didn't, and any changes that need to be made (similar to post-incident discussion).
- Join the post diversion conference call and provide input.

Sample Equipment Checklist

(Edit as necessary to meet your airport's needs)

Sample Equipment List	Airline	Airline	Airline	Airline	Airline	Airport	Other
737 Tow Bar (TB)							
757 TB							
767 TB							
A319/320 TB							
AIRBUS TB							
A320 TB							
MD80/90 TB							
CRJ200 TB							
CRJ700/900 TB							
E190 TB							
Q-400 TB							
Universal TB							
737 Pushup stairs							
737 Air stairs							
757 Cabin access stairs							
757 Passenger stairs non-motorized							
767 Stairs							
767 Pushup stairs							
747/777 Stairs							
A320 Diesel powered air stairs							
A320 Pushup stairs							
MD80 Galley access stairs							
Air start							
Air Start Wide body Capable							
Ground Power Unit (GPU)							
Bottle air start							
Lavatory service truck							
Lavatory service truck, wide body capable							
Potable water cart							
Cabin service lift truck wide body							
Pushback tractor, wide body capable							
Pushback tug							

TOOL 17 – AFTER AN EVENT DEBRIEF

(Edit as necessary to meet your airport's needs)

Purpose: It is important to debrief the response to an IROPS event in order to discover lessons learned and improve passenger service during an event. This tool describes how to discuss and document lessons learned, as well as response actions needed by each service provider related to surge, capacity, off-hour, and extended delay situations.

Brief description of event <i>Insert a brief description of event</i> 	Date _____
Causes: • Local weather • Diversion(s) • Aircraft mechanical • Aircraft crew • ATC service system • Other	
Impacts Surge: Potential impact caused by the rate of arrival of aircraft, timing of deplaning passengers, and subsequent movement of passengers through airport. • Aircraft • Passengers*	
Capacity: Potential impact caused by the total number of aircraft that have arrived at the airport and of the number of passengers located in any particular areas of the airport • Aircraft • Passengers*	
Off-hours: Potential impact caused by the time of day at which aircraft arrive at airport and the subsequent need to process passengers • Aircraft • Passengers*	
Extended Stay: Potential impact caused by the duration of stay (often measured in days) that aircraft remain at the airport and that passengers are delayed before resuming their travel • Aircraft • Passengers*	
*Including animals	

Lessons Learned	Response Action	Response Party
Terminal • Communication center • Ramp • Gates • Concessions • Ground transportation		
Aircraft • Tarmac • Cockpit communication • Passenger deplanes • Additional service		
IROPS Actions • Communication issues • Procedure modifications • Equipment and resources • Service lapse • Operations and maintenance restock • New capability • Other		

RESOURCE D – SAMPLE IROPS PLAN

Grand Bay International Airport Irregular Operations Contingency Plan

Adopted 12/12/11

All persons, places and scenarios listed in this sample plan are only examples and are not intended to represent any actual persons, places or situations.

PART 1

PART 2

Resource A

Resource B

Resource C

Resource D

Bibliography

Appendices

[illegible]

CONTENTS

199 INTRODUCTION

201 CHAPTER 1 – EXECUTIVE BUY-IN/GET ORGANIZED

- 201 1.1 Establishing an IROPS Contingency Response Committee

203 CHAPTER 2 – DOCUMENT CURRENT SITUATION

- 203 2.1 Reviewing Existing IROPS Response Plans
 204 2.2 Reviewing Local IROPS Events and Assessing Local Situation
 205 2.3 Passenger Needs during an IROPS Event
 206 2.4 Tracking of Delayed Aircraft
 206 2.5 Trigger Events and Communications Plans
 207 2.6 Support for Passengers
 209 2.7 Tracking Inventory
 209 2.8 Skills Availability

211 CHAPTER 3 – ESTABLISH PROCEDURES TO COOPERATE

- 211 3.1 Cooperation Procedures
 211 3.1.1 Airlines
 211 3.1.2 FAA
 212 3.1.3 CBP
 213 3.1.4 TSA
 214 3.1.5 Concessions
 214 3.1.6 Ground Transportation
 215 3.2 Other Providers to Consider

217 CHAPTER 4 – REVIEW, UPDATE, AND TRAINING

- 217 4.1 IROPS Coordination Workshop
 218 4.2 IROPS Coordinated Frontline Training

219 CHAPTER 5 – CONSOLIDATED COOPERATION ACTIONS DURING AN EVENT

- 219 5.1 Monitoring IROPS Event Indicators
 219 5.1.1 Aircraft Status
 221 5.1.2 Tracking Weather
 221 5.2 Executing IROPS Plans and Procedures
 222 5.2.1 IROPS Communications Plans
 222 5.2.2 Passenger Support Plans
 224 5.2.3 Procedures with Airlines
 224 5.2.4 Procedures with FAA
 224 5.2.5 Procedures with CBP
 225 5.2.6 Procedures with TSA
 225 5.2.7 Concessions Procedures
 226 5.2.8 Ground Transportation Procedures
 226 5.2.9 Procedures with Other Providers

227 CHAPTER 6 – CAPTURING LESSONS LEARNED AND UPDATING PLANS

- 227 6.1 After an IROPS Event
 227 6.2 Lessons Learned

Appendices

Bibliography

Resource D

Resource C

Resource B

Resource A

PART 2

PART 1

INTRODUCTION

Purpose

This document provides the coordinated IROPS Contingency Plan for Grand Bay International Airport. It was developed by the airport's IROPS Contingency Response Committee under the sponsorship of the airport operations department.

Membership in Grand Bay International Airport's IROPS Contingency Response Committee comprises representatives from each of Grand Bay International Airport's aviation service providers. The committee recognizes the importance of individual plans and that a coordinated effort by the airlines, airports, government agencies, and other aviation service providers is essential to successfully minimizing the impact of IROPS events on passengers. This coordinated contingency management plan provides a common point of focus for Grand Bay International Airport's coordinated response to IROPS events.

The emphasis for this plan is the identification and documentation of areas of contingency activities of Grand Bay International Airport's aviation service providers that require support from one or more service provider organizations. The plan format follows the recommendations provided in *ACRP Report 65: Guidebook for Airport Irregular Operations (IROPS) Contingency Planning*.

Grand Bay International Airport has recognized the importance of the guidance provided by the U.S. Department of Transportation (DOT) and its *Model Contingency Plans to Deal with Lengthy On-Board Ground Delays*.

Use of Terms

The following is a list of terms and definitions used throughout this Model Plan and associated topic worksheets. See the glossary contained in *ACRP Report 65: Guidebook for Airport Irregular Operations (IROPS) Contingency Planning* for additional terms and definitions.

Irregular Operations (IROPS) – Exceptional events that require actions and/or capabilities beyond those considered usual by aviation service providers. Generally speaking, an impact of these events is the occurrence of passenger experiencing delays, often in unexpected locations for an undetermined amount of time. Examples include extreme weather events (such as snowstorms, hurricanes, tornados), geological events (such as earthquakes, volcanoes), and other events (such as power outages or security breaches).

Passengers – Includes people traveling, service animals in the cabin, and live cargo onboard aircraft and in the terminal area.

Customers – Includes both passengers and other non-aviation service personnel such as meeters and greeters who are in the terminal area.

FAA – Federal Aviation Administration - Please note that for the purposes of this guidebook, references to the FAA include all forms of air traffic control (ATC) services.

CBP – Customs and Border Protection

TSA – Transportation Security Administration

Service Providers – All entities at an airport that provide services for customers and passengers including but not limited to airports, airlines, concessionaires, ground transportation agencies, government agencies,

fixed base operators (FBO), overnight accommodations, emergency response, military (if joint-use facility), and diversion airports.

Passenger Needs

Needs of passengers, both on-board aircraft on the ground or in the airport terminal during lengthy delay or other IROPS events, vary and normally require the attention of more than one party to meet their needs. By understanding the needs of passengers during such delays, Grand Bay International Airport, diversion airports, airlines, government agencies, and other aviation service providers can take appropriate steps to anticipate and address such needs.

Causes of IROPS Events

Causes of IROPS events can include extreme weather, geological events, reduction of airport facility capacity, aircraft mechanical problems, labor issues and others. The impacts of IROPS events include flight delays, cancellations and diversions resulting in potentially adverse impacts on passengers and other airport customers. In addition to impacts on passengers, IROPS events also have an impact on airport operations. As noted in *ACRP Report 65*, there are four types of impact during an IROPS event that must be planned for:

- Surge
- Capacity
- Off-hours
- Extended Stay

Each IROPS event is unique, and airlines, diversion airports, government agencies, and other aviation service providers will benefit from the Grand Bay International Airport IROPS Contingency Plan accounting for diverse IROPS characteristics by adapting to changing conditions.

Planning for Contingency Response

The purpose of the Grand Bay International Airport IROPS response management process is to identify and document actions requiring coordination between two or more aviation service providers. Joint actions are identified that reflect both current individual contingency plans and areas of recommended communication, collaboration, and coordination between service providers.

CHAPTER 1 – EXECUTIVE BUY-IN/GET ORGANIZED

Activities described in this chapter provide for:

- The establishment of the Grand Bay International Airport IROPS Contingency Response Committee
- Establishment of 24/7 contact/notification list
- Documentation of procedures with airlines, government agencies, and support organizations
- Conducting workshops and training (including table-top exercises)

1.1 Establishing an IROPS Contingency Response Committee

The Grand Bay International Airport IROPS Contingency Response Committee has been established following the guidelines of the DOT's Model Contingency Plan. Grand Bay International Airport's manager Rodney Leavitt provides the sponsorship and designates the chairperson of the committee. The goal of the committee is to establish and enhance contingency plans through collaborative decision making. This will ensure that actions result in a unified level of customer care across all Grand Bay International Airport aviation service providers during IROPS events. Members of the Grand Bay International Airport IROPS Contingency Response Committee include representatives of all local aviation and customer service provider organizations. Organizations and representatives are shown in the following table (IROPS Contingency Response Committee).

IROPS Contingency Response Committee		
As of 12/15/11		
Organization	Contact Name & Phone Number	Alternate Contact
Committee Chairperson		
Grand Bay International Airport	James Row	Adam Siegfried
Airport Operations		
Landside	Randy Holbrook	Tom Mulcaster
Airside	Rachel Clark	Sean Hayes
Airlines		
Flyer Airlines	Zach Thompson	Dan Walter
Omega Air	Gary Nettleton	John Davis
Concessions		
GBI Concessions	Jennell Black	Jamie Williams
Ground Transportation		
Zoom Rentals	Al Kehoe	Nathan Johnson
Hotel		
Shoreline Hotel	Nolan Jackson	Katie Carter
Government Agencies		
FAA	Jeff Ballard	Brett Adams
TSA	Jared Engel	Lance Foster
CBP	Ron Hoover	Bryan Dean
Public Safety Operations		
Police	Ben Wilson	Ryan Banks
Diversion Airport		
Long Isle Airport	Matt Young	Jessica Richardson
Fixed Base Operations		
Centennial FBO	Lynn Schell	Ashley Schiller
Executive Management Liaison		
Grand Bay International Airport	Rodney Leavitt	Allison Robinson

CHAPTER 2 – DOCUMENT CURRENT SITUATION

The IROPS data collection activities focus on:

- Reviewing existing IROPS contingency plans
- Local IROPS events history
- Local customer needs
- Local tracking of delayed aircraft
- Local trigger events and communications plans
- Local support for passengers on-board, being deplaned, and in-terminal
- Local tracking of inventory
- Local skills availability

2.1 Reviewing Existing IROPS Response Plans

It is recognized that each of Grand Bay International Airport's organizations may have their own plans for response to IROPS events. It is also recognized that United States DOT's rules on enhancing airline passenger protections (14 CFR Part 259 *Enhanced Protections for Airline Passengers*) require air carriers to adopt tarmac delay contingency plans and the coordination of those plans with airports. The purpose of this section is to identify the several IROPS plans of local airlines, airport operations, and FBO organizations as they relate to areas of coordination between organizations.

The following table (IROPS Response Plan Review) describes both formal and informal understandings of coordination between these organizations, as well as individual organization standard operations procedures (SOPs) related to IROPS response. Descriptions of procedures with concessions, ground transportation, and government agencies (FAA, TSA, and CBP) are found in Sections 3.1.1 through 3.1.5 of this plan.

IROPS Response Plan Review	
Organization Contingency Plan	Description of Coordination
Flyer Airlines	• Deplaning – If deplaning, contact police and the TSA, determine if passengers will stay in sterile area, and coordinate with TSA for boarding passes that will be issued for reentry into the sterile area. • Not deplaning – Flyer airlines will coordinate with police and airport operations regarding their needs (and concessions if they need food and/or water). • Fueling – Flyer airlines will coordinate with Centennial FBO.
Omega Air	• Deplaning – If deplaning, contact police and the TSA, determine if passengers will stay in sterile area, and coordinate with TSA for boarding passes that will be issued for reentry into the sterile area. • Not deplaning – Omega Air will coordinate with police and airport operations regarding their needs (and concessions if they need food and/or water). • Fueling – Omega Air will coordinate with Centennial FBO.
Airport Operations	If Grand Bay receives a diversion, airport operations will be available during normal hours and after hours if necessary. Administration will be notified in the event of a diversion in order to streamline communication between affected parties and the local community.
Centennial	Centennial will provide fueling and other services to diversion aircraft when notified by the airline and/or chief pilot. Centennial will handle scheduled flights first and diversion flights second.
GBI Concessions	Concessions will stay after hours when needed to handle aircraft diversions and an influx in passengers.
Zoom Rentals	Zoom Rentals will keep normal office hours; however, in the event of a diversion event, key staff will return to the airport to handle passengers who need ground transportation.
Shoreline Hotel	Shoreline Hotel staff is available 24 hours a day/7 days a week to book hotel reservations if needed.

2.2 Reviewing Local IROPS Events and Assessing Local Situation

The following table (IROPS Event History) describes the history of local IROPS events, including lengthy onboard ground delay events. It also describes the role of various service providers in providing passenger and other customer support during IROPS events. The purpose of this history is to provide a basis for identification and review of IROPS response activities with focus on areas needing process improvement.

IROPS Event History	
Date	Event Description
1/15/2009	GBI received 20 diversion flights during a snowstorm.
3/2/2009	GBI had to shut down temporarily after the main power feed was damaged during a tornado. Operations resumed to full capacity after 2 days.
5/17/2009	A thunderstorm near GBI grounded all flights for 12 hours; terminal reached capacity since no passengers were able to fly out.
2/23/2010	Flyer Airlines staff went on strike and all scheduled flights were cancelled.
6/10/2010	A fire in the tower at Boston required evacuation of FAA personnel, and all flights in the area were grounded until the tower was up and running from the backup site.
7/12/2010	The President of the United States was flying into a nearby airport, and the FAA shut down the nearby airspace for a period of 8 hours. All flights were grounded during this time.
12/23/2010	A snowstorm in the Midwest resulted in numerous wide body aircraft diversions of flights originally headed for Chicago, which were diverted to GBI. CBP had to be called in off-site to handle the international passengers.

2.3 Passenger Needs during an IROPS Event

The following table (Passenger Needs) focuses on needs of passengers and other customers during IROPS events, with special focus provided for special-needs passengers. The needs analysis is provided by consideration of general information of customer needs during IROPS events.

Passenger Needs	
Need	Description
Customer needs during an IROPS event	• Lavatory services – Restrooms are available while on the aircraft and in the terminal within the sterile area for deplaning passengers. • Food and beverage – Airlines provide water and snacks on board the aircraft when possible; once passengers are deplaned GBI Concessions will provide food and water as necessary. During times of multiple diversions or cancellations, bulk food orders from nearby restaurants will be placed by airlines.
Support for special-needs passengers	• Transportation – Wheelchair services and motorized vehicle services available. • Lavatory services – Handicap accessible restrooms are located in the sterile area for passengers. • Medical needs – Local hospital and pharmacy to provide delivery of vital medications for special-needs passengers if they do not have the medications needed with them. • Deplaning/boarding – Handicap accessible jet bridges, air stairs, and lift devices are available if needed.
Obtaining passenger feedback	Passengers are able to provide feedback through various methods including email, airport website, mail, in-person comments with airport staff and service provider staff, and social network sites.

2.4 Tracking of Delayed Aircraft

The following table (Tracking Delayed Aircraft) describes Grand Bay International Airport processes providing accurate, complete, and timely information in regard to expected flight delays including diversions. These processes describe local situations as they develop, including both flight delays and delayed aircraft on the ground.

Tracking Delayed Aircraft	
Organization	Description
Flyer Airlines	Airline staff tracks flights via www.flightaware.com to see where potential diversion flights are relative to GBI Airport. Airline-specific tools are also utilized to track flights identified as potential diversions.
Omega Airlines	All aircraft are tracked by Omega Airlines Dispatch at airline headquarters. Staff at the GBI are notified by dispatch when a flight has been identified as a diversion and is given the flight number so staff can track the flight via www.flightaware.com .
FAA	Upon request by GBI staff, the ATC may advise on general arrival and departure delay situations and potential diversions to GBI.
Airport Operations	Airport operations staff (including police) will record time aircraft landed and will monitor to ensure aircraft are being provided necessary service. If a potential problem is noted, operations will contact the proper airline authorities for correction.
Long Isle Airport (primary diversion airport)	Coordinate expected duration of the event to help the number of diversions.

2.5 Trigger Events and Communications Plans

Effective response to an evolving IROPS event depends on timely shared situational awareness among all aviation service providers. Relevant IROPS information includes the early identification of a potential IROPS situation and the evolving IROPS condition as the event evolves.

Key elements of communication during an IROPS event require coordinated IROPS response actions by airport operations, the airlines, the FAA ATC, and by affected diversion airports to track and share aircraft status both in-air and on-ground. Based on the situational need, additional communications among other organizations such as the TSA, CBP, concessions, and ground transportation may also be required.

The following table (Trigger Events and Communication Plans) describes shared information, including aircraft delay tracking performed by airlines, the FAA, Grand Bay International Airport operations, and diversion airports.

Trigger Events and Communication Plans					
Organization	Trigger Event	Responsible Party	Target Group(s)	Communication Method(s)	Comments
Flyer Airlines	IROPS situation alert	Aircraft pilot in charge	Airline operations	Internal	“Your station has been selected as an alternate for flight XXX.”
Flyer Airlines	Preparation for deplaning PAX	Aircraft pilot in charge	Airport operations	Internal	Pilot will generally advise of an approximate time of when they want to deplane passengers.
Omega Air	IROPS situation alert	Aircraft pilot in charge	Airline operations	Internal	“Your station has been selected as an alternate for flight XXX.”
Omega Air	Preparation for deplaning PAX	Aircraft pilot in charge	Airport operations	Internal	Pilot will generally advise of an approximate time of when they want to deplane passengers.
Airport	Diverted flight	Airport operations	Service providers	Internal	“Prepare to handle.”
Airport	Complex diversion situations	Airport	Passengers	Social media, in person, Flight Information Display System (FIDS)	Airport staff will use social media outlets and be available in person to record passenger comments and handle passenger concerns.

2.6 Support for Passengers

The key goal of the Grand Bay International Airport IROPS plan is to ensure focus on coordinated support of passengers and other customers during an IROPS event. Three areas of coordination recognize U.S. Congressional concerns for the provision of:

- Support for deplaning of passengers from aircraft
- Sharing of facilities, including making gates available
- Having a sterile area available for passengers who have not yet cleared CBP

The following table (Support for Passengers) describes coordinated support for passengers at airports while they are on-board aircraft, during their deplaning (especially from remote parking areas), in the terminal, and when they need ground transportation.

Support for Passengers		
Passenger Location	Service Provider	Description
On board aircraft	Flyer Airlines	The crew will provide support for passengers. Flyer Airlines will deplane passengers after 90 minutes. If needed, Flyer Airlines will service the lavatory on-board and provide air conditioning/heat cart.
	Omega Air	Ensure flight attendant(s) has enough drinks and ice onboard. If needed, GBI concessions will be contacted for additional supplies. Lavatory will be serviced when aircraft arrives.
	Airport	Airport police will be informed of a diversion. Airport staff will note the flight number and time that plane arrived to track time spent on board the aircraft. If airline requests assistance, airport will provide bottled water.
	GBI Concessions	If necessary, GBI Concessions will provide airlines with additional supplies for passengers aboard aircraft.
Deplaning aircraft	Flyer Airlines	Flyer Airlines will coordinate with the crew of the aircraft about possible deplanement. When deplaning passengers, airline will inform the TSA, CBP, and airport police of its intentions.
	Omega Air	If aircraft is off the jet bridge, Omega Air will ensure there are enough employees to escort the customers to the terminal.
	Airport	GBI will make resources available and coordinate resource use (jet bridges, parking areas, special needs assistance, and more)
In terminal	Flyer Airlines	Airline will coordinate with TSA about potentially allowing passengers to leave the sterile area depending on the length of the delay. Special-needs passengers will be accommodated as needed.
	Omega Air	If the delay is short, Omega Air will try to keep customers in the gate area. If the delay is longer, they will advise passengers to retain boarding passes so they can enter elsewhere through security. If delays are more than 4 hours long, Omega Air will call the local pizza restaurant to order pizza and drinks for the passengers.
	Airport	Airport police and the TSA will be on site to ensure passengers are kept in the sterile area, unless passengers are allowed to leave in the event of an extended delay. They will assist airlines/passengers by whatever means necessary.
	GBI Concessions	GBI Concessions will accommodate passenger needs as needed, including callback after hours. Special dietary needs and infant needs will be accommodated as needed.
	TSA	The TSA and airport police will determine need for passengers to leave the sterile area. They will help keep passengers in the sterile area if needed.
	CBP	In the event of an international diversion, agreements with the CBP will be in effect. An area for deplaning international passengers has been made, and this area will be monitored by the CBP, TSA, and airport police.
Extended delay accommodations	Zoom Rentals	Airlines will contact Zoom Rentals for extended delay situations.
	Shoreline Hotel	Airlines will contact Shoreline Hotel for extended delay or extended stay situations.
	GBI Concessions	GBI Concessions will make staff available after hours to serve passengers during extended delays.

Support for Passengers		
Passenger Location	Service Provider	Description
	Airport	The airport has cots available for passengers who will be spending the night in the terminal. This is a last resort and is not offered as an alternative to staying at the Shoreline Hotel.

2.7 Tracking Inventory

This section describes guidance for planning and developing procedures across local organizations identifying resources (equipment and supplies) held by an airport service organization beyond those which have been planned for shared use, but that could be made available for use if requested by another Grand Bay International Airport organization during an IROPS event.

Descriptions of understandings of planned coordination related to sharing of resources are listed in Section 2.1 – Reviewing Existing IROPS Response Plans. The following table (Tracking Resource Inventory) describes specific categories of resources that have been identified as being available for shared use.

Tracking Resource Inventory		
Organization	Inventory Item	Description
Flyer Airlines	Tugs	Flyer Airlines has 10 tugs to service their standard aircraft.
Omega Air	Air stairs	Omega Air has two sets of air stairs that are stored in the equipment building on airport property.
Airport	Cots	The airport has a total of 500 cots available for use if needed. They are stored in the first floor storage closet near the escalators.
GBI Concessions	Bottled water	GBI Concessions has 200 bottles of water on hand at all times.
Centennial FBO	Fuel	Centennial FBO keeps fuel tanks at levels that will last 2 days under normal operating levels.
Zoom Rentals	One-way rental cars	Zoom Rentals keeps 10 cars designated for one-way rentals.

2.8 Skills Availability

This section describes guidance for planning and developing procedures across local organizations identifying categories of skilled personnel employed by an airport service organization beyond those which have been planned for shared use, but that could be made available for use if requested by another Grand Bay International Airport organization during an IROPS event.

Descriptions of understandings of planned coordination related to sharing of skilled staff are listed in Section 2.1 – Reviewing Existing IROPS Response Plans. The following table (Skills Availability) describes specific categories of skilled personnel that have been identified as being available for shared use.

Skills Availability		
Organization	Skill	Description
Flyer Airlines	Various	Each employee is trained on every piece of equipment that is owned by the airline. If agents are uncomfortable operating a piece of equipment, they are encouraged to ask for assistance until they are comfortable themselves to perform the task.
Omega Air	Various	All employees are trained on loading/unloading aircraft, parking aircraft, servicing lavatories, and so forth. All employees can be made available for assistance in any area needed.
Airport	Jet bridge operation	Airport holds annual training on the use of jet bridges. Airlines are responsible for training new hires to ensure that all employees are trained properly on the use of jet bridges.
GBI Concessions	Multilingual	GBI Concessions staff is multilingual and can speak English, Spanish, and French. If translation services are needed, contact GBI Concessions.
Centennial FBO	Air carrier fueling	All Centennial FBO staff are NATA trained and certified. They are trained and certified to fuel both Flyer Airlines and Omega Air aircraft. Ground handling is limited to the availability of equipment on hand.
Zoom Rentals	Paging	Zoom Rentals staff are trained on the use of the airport public address (PA) system and can assist with announcements during times of extended delays.

CHAPTER 3 – ESTABLISH PROCEDURES TO COOPERATE

The following sections document the establishment of operating procedures with service providers (e.g., concessions, ground transportation, FAA, TSA) for use during IROPS events.

3.1 Cooperation Procedures

There are a group of service providers that are considered to be typically found at airports that are vital in local IROPS planning efforts. Coordination with these entities (identified in the following sections) is critical in order to establish procedures that will be followed during an IROPS event.

3.1.1 Airlines

It is recognized that the DOT has issued a rulemaking that requires airlines to adopt tarmac delay contingency plans and coordinate them with both scheduled airports they serve and their diversion airports. The following table (Procedures with Airlines) describes airline procedures specific to IROPS events for each airline operating out of the airport. Appendix B contains copies of specific airline procedures and tarmac delay contingency plans on file.

Procedures with Airlines		
Organization	Contact Name	Local Agreements
Flyer Airlines	Zach Thompson	Flyer Airlines will coordinate existing tarmac delay contingency plans with the Grand Bay International Airport IROPS Contingency Response Committee and will notify the appropriate entities of any changes or modifications to the plan as they may occur. See Appendix B for specific procedures.
Omega Air	Gary Nettleton	Omega Air will coordinate existing tarmac delay contingency plans with the Grand Bay International Airport IROPS Contingency Response Committee and will notify the appropriate entities of any changes or modifications to the plan as they may occur. See Appendix B for specific procedures.

3.1.2 FAA

It is recognized that FAA has issued directives to air traffic personnel pertaining to aircraft making tarmac delay requests related to United States DOT's 14 CFR Part 259 *Enhanced Protections for Airline Passengers*. The FAA has also established procedures allowing Airports access to aircraft flight status. The following table (Procedures with FAA) describes Grand Bay International FAA/ATC facility actions specific to IROPS events. Appendix B contains copies of specific procedures with the FAA.

Procedures with FAA		
Organization	Contact Name	Local Agreements
FAA	Jeff Ballard & Brett Adams	ATC will taxi all aircraft to the terminal ramp. When a request is made by the pilot-in-command of an aircraft to return to the ramp, gate, or alternate deplaning area due to the 3-hour rule, ATC will coordinate necessary parties to quickly relocate the aircraft for deplaning. ATC will provide support and advisory information to the Grand Bay International Airport when workload allows (considering traffic load, complexity and other available resources). Information provided may include: → Notifying airport when diversion flights are inbound. → Establishing irregular parking areas for IROPS events with the airport. → Advising the airport on known ground delay programs that could affect developing or active IROPS events.

3.1.3 CBP

It is recognized that CBP has issued guidance to directors of field operations concerning passengers on diversion flights, including those into airports not normally staffed by CBP.

The following table (Procedures with CBP) describes the Grand Bay International CBP procedures specific to IROPS events. Appendix B contains copies of specific procedures with the CBP.

Procedures with CBP		
Organization	Contact Name	Local Agreements
CBP	Ron Hoover & Bryan Dean	The airline or pilot in command will notify the CBP officer on duty or the CBP port director of an intended or actual arrival, whether making emergency or technical fuel stops, a weather related stop, stops due to illness on board the aircraft, or other emergency stops. Notifications made to CBP will include the following: • Name and contact number of airline representative • Flight number • Original routing • Passenger count • ETA and actual lock time • Reason for diversion, intention of airline, special requests/needs • Crew status • Additional updates and flight departure time During an extended stay in excess of 2 hours, an airline may request

Procedures with CBP		
Organization	Contact Name	Local Agreements
		permission from CBP to deplane passengers of a diverted aircraft into a sterile and secure holding area. Permission may be granted if the airline communicates with CBP the nature of the diversion and the anticipated length of delay and secures passengers from contact with other domestic or foreign flights. If a diversion occurs outside normal business hours, Airport Operations are to call the CBP. If there is no answer, they are to call the regional CBP office and speak to the Duty Officer. If necessary, the duty officer will issue a permit to proceed and other necessary permissions over the phone.

3.1.4 TSA

It is recognized that the Department of Homeland Security has issued procedures to TSA Federal Security Directors concerning establishing and utilizing secure areas using procedures in the Airport Security Program or Aircraft Operator Standard Security Program.

The following table (Procedures with TSA) describes Grand Bay International Airports TSA procedures specific to IROPS events. Appendix B contains copies of specific procedures with the FAA.

Procedures with TSA		
Organization	Contact Name	Local Agreements
Grand Bay International Airport TSA	Jared Engel & Lance Foster	During regular operating hours Passengers from diverted flights will have discretion whether to leave the sterile area. If that occurs, TSA staff will ensure that appropriate screening staff are maintained at the airport in order to process the increased influx of passengers back into the sterile area. During minimal operating hours TSA officers will be briefed by airline and/or airport operators to determine the most appropriate course of action under the impending circumstances. In these instances, the TSA encourages the airline operator to inform passengers that they should remain in the airport sterile area and that should they exit the sterile area, they may be delayed in regaining access to the sterile area, which may affect their travel that day.
Regional TSA Center		During off hours If IROPS occur at the airport during a time when the security screening checkpoint is closed and no TSA officers are present at the airport, the airline and/or airport operators will call the 24-hour TSA Regional

Procedures with TSA		
Organization	Contact Name	Local Agreements
		Center with details of the IROPs flight and wait for further instructions.

3.1.5 Concessions

Concessions at Grand Bay International Airport have been requested to agree to provide service during IROPs events, including those resulting in extended passenger (and other customers) stay in the terminal area. Key considerations include agreement to remain open during extended hours and support for special-needs passengers, including new infant supplies.

The following table (Procedures with Concessions) describes specific concessions support procedures identified as being available during IROPs events.

Procedures with Concessions		
Organization	Contact Name	Local Agreements
GBI Concessions	Jennell Black & Jamie Williams	• GBI Concessions will accommodate the sharing of supplies. • Additional staffing will be called back if needed to provide services during IROPs events. • If assistance is needed after hours, Jennell Black needs to be contacted and efforts will be made to accommodate passenger needs. • If special needs are identified (e.g., dietary needs, infant needs), GBI Concessions will make arrangements to meet the needs of passengers. • Menu availability at the restaurant may be limited during IROPs events, but passengers will be cared for. • Airport police and TSA staff will assist GBI Concessions staff through security when called back after hours.

3.1.6 Ground Transportation

Ground transportation organizations at Grand Bay International Airport have been requested to agree to provide service during IROPs events, including those resulting in extended passenger (and other customers) stay in the terminal area. Key considerations include agreement to provide service during extended hours and procedures for obtaining additional resources when required.

The following table (Procedures with Ground Transportation) describes specific ground transportation support procedures identified as being available during IROPs events.

Procedures with Ground Transportation		
Organization	Contact Name	Local Agreements
Zoom Rentals	Al Kehoe & Nathan Johnson	- In the event of an IROPS event, Flyer Airlines and Omega Air have agreements with Zoom Rentals to provide a limited number of one-way rentals. - Should a major IROPS event occur, Zoom Rentals will assist the Shoreline Hotel in shuttling passengers back and forth to the hotel.
Airport	Randy Holbrook & Tom Mulcaster	- Should passengers need bussing to a nearby airport, GBI-owned busses will be used. - If additional ground transportation is needed, the airport will help Flyer Airlines and Omega Air in securing additional transportation by the local bussing company and/or taxi companies.

3.2 Other Providers to Consider

Above and beyond the service providers identified in the previous section, several other entities should be coordinated with, as appropriate to Grand Bay International Airport. The list below highlights some of these service providers that should be considered when establishing procedures to follow during IROPS events.

- Alternate transportation providers (mass transit, bussing companies, off-site rental car agencies)
- Extended stay accommodations (nearby hotels)
- Military installations (if joint-use)
- Fixed base operators (FBO)
- Refuelers
- Off-site restaurants
- Emergency response (local police, fire, EMT)
- Red Cross
- FEMA
- Special needs service providers (wheelchairs, oxygen, etc.)

The Grand Bay International Airport has requested support service for special-needs passengers during IROPS events, including those resulting in extended passenger (and other customers) stay in the terminal area. Key considerations include an agreement to provide service during extended hours, off-hours, and procedures for obtaining additional resources when required.

The following table (Procedures with Other Providers) describes specific special-needs passenger support procedures identified as being available during IROPS events.

Procedures with Other Providers

Organization	Contact Name	Local Agreements
A-1 Medical	Sammi Folick	In the event of an IROPS event, Grand Bay International Airport has an agreement with A-1 Medical to provide a limited number of wheelchairs and oxygen tanks.

CHAPTER 4 – Review, Update, and Training

The Grand Bay International Airport IROPS plan should be updated periodically throughout the year with improved practices, procedures, and coordinated response. In order for this to happen, the IROPS Contingency Response Committee should host coordination workshops and training at least a couple of times annually.

4.1 IROPS Coordination Workshops

Periodic IROPS coordination workshops are held at Grand Bay International Airport providing a common format and venue for periodic review and confirmation/update of local IROPS plans. The Grand Bay International Airport will determine the frequency and specific agenda for these meetings, as appropriate.

The following table (IROPS Coordination Workshop) describes Grand Bay International Airport plans for holding these workshops.

IROPS Coordination Workshops		
Date	Workshop Name	Description
10/10/2010	Grand Bay International Airport IROPS Workshop #1	In October 2010, the first IROPS meeting was held at the airport. The outcome of this workshop is summarized below: • DOT updates on protecting passenger rights were presented to ensure compliance with the most recent regulations • IROPS operational challenges were identified including: ◦ Importance of effective and early communication ◦ Situational awareness by ensuring timely sharing of information between service providers ◦ Reporting and tracking diverted aircraft Service providers were urged to share any provider-specific changes (e.g., personnel changes, procedural changes, inventory changes) to the workshop attendees who may be affected. Service providers were also urged to share any experiences or lessons learned with the group to support continued improvement and coordination during IROPS events. A table-top exercise was completed at the end of the workshop that required all service providers to work through an IROPS scenario together.

4.2 IROPS Coordinated Frontline Training

Periodic coordinated frontline training for IROPS response is held at Grand Bay International Airport. In addition to emphasis on actions requiring coordination of two or more organizations, this training provides an opportunity to test new policies, practices, and procedures.

The following table (IROPS Coordinated Frontline Training) describes Grand Bay International Airport plans for holding this training.

IROPS Coordinated Frontline Training	
IROPS Training Activity	Description
Initial IROPS training	Training included discussion and instruction on the following topics: • IROPS plan familiarization • Trigger points for service providers • Contact information • Skills tracking • Effective communication strategies
Follow-up IROPS training	Training included discussion of the following: • Updates to DOT regulations affecting service providers • IROPS lessons learned from the airport and other airports • Feedback and ideas for improvement from experiences

Note: Initial IROPS training was coordinated during the annual and/or biannual security badging process at Grand Bay International Airport.

CHAPTER 5 – Consolidated Cooperation Actions during an Event

The joint actions occurring during an IROPS event are described in the following diagram. The Grand Bay International Airport IROPS Contingency Response Committee ensures that there is capability for coordinating shared aircraft status information. Notification of relevant aspects of aircraft status are provided to appropriate aviation service provider organizations during an IROPS event by the Grand Bay International Airport communication center or point of contact, as appropriate.

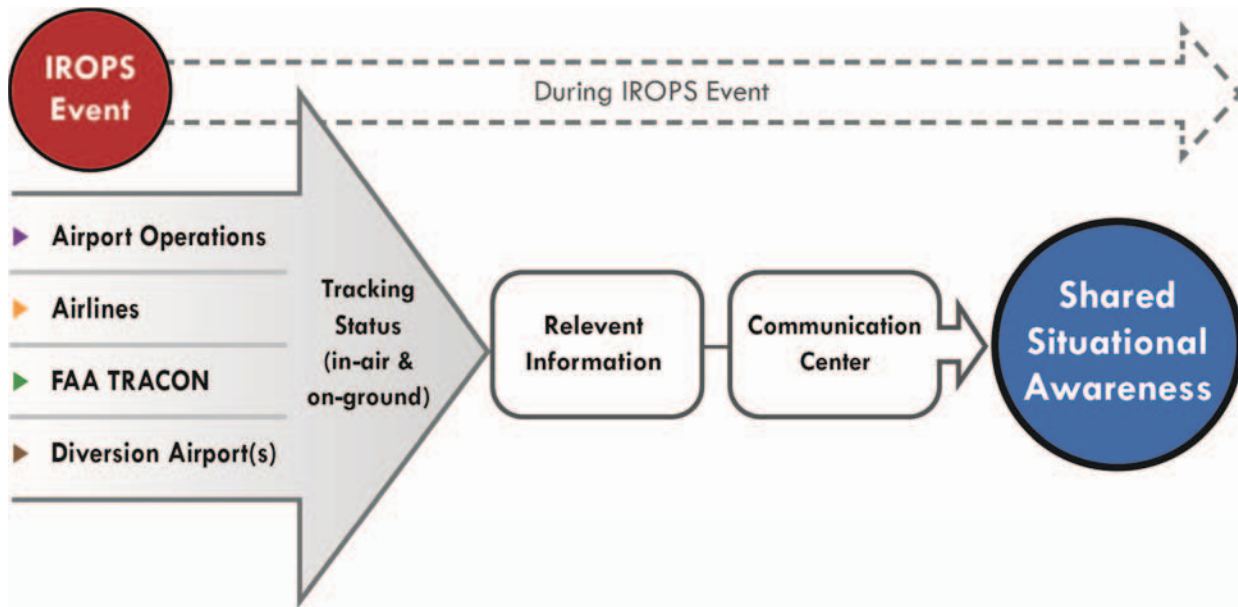


Figure 1. Joint Actions during an IROPS Event.

5.1 Monitoring IROPS Event Indicators

While some IROPS events are unpredictable (such as power outages, and security breaches), many can be handled successfully if service providers are actively anticipating an event. Certain actions taken by service providers on a constant basis can position them well to handle an IROPS event, should one occur. Some examples of these actions are tracking aircraft status and tracking weather patterns. Each of these is discussed in more detail below.

5.1.1 Aircraft Status

Aircraft status in the air and on the ground is tracked by both airlines and the FAA to provide accurate, complete, and timely information in regard to expected flight delays and developing local situations. The following table (Aircraft Status) describes Grand Bay International Airport procedure checklists for tracking aircraft during IROPS events.

Aircraft Status	
Organization	Aircraft Status Actions
Flyer Airlines Omega Air	Diverted Flights • Maintains status of aircraft in flight with respect to schedule • Determines aircraft requires flight diversion • Ensures aircraft diversion notice is communicated to Airport Operations at Long Isle Airport • Ensures aircraft diversion status is maintained (ongoing) with updated status communicated to Airport Operations at airport where flight was initially planned to arrive • Continues tracking and communicating status until flight ultimately arrives at original destination
Flyer Airlines Omega Air	Aircraft on Ground • Maintains status of arriving and departing aircraft to determine compliance with "3-Hour Rule" • Determines aircraft situation may result in lengthy ground delay • Ensures other relevant service providers are notified of possible IROPS related impact and to confirm any related support including gate availability that is potentially needed is available if required • Determines aircraft will deplane passengers after lengthy ground delay • Ensures other relevant service providers are notified of unplanned passengers arriving in terminal
Long Isle Airport Operations	Diverted Flights • Initiates monitoring of flight when notified of flight diversion • Confirms relevant service providers have been notified of unplanned passengers arriving in terminal ○ Concessions ○ TSA ○ CBP ○ Ground Transportation
Grand Bay International Airport Operations	Aircraft on Ground • Tracks status of arriving and departing aircraft to determine compliance with "3-Hour Rule" • When notified aircraft will deplane passengers after lengthy ground delay, confirms relevant service providers have been notified of unplanned passengers arriving in terminal ○ Concessions ○ TSA ○ CBP ○ Ground Transportation

5.1.2 Tracking Weather

Weather patterns are tracked by the airport, airlines, and the FAA to predict potential impacts to aircraft operations and to carry out alternate operating procedures (such as diverting flights to alternate airports) to maintain the safety of the crew and passengers, as well as operations staff out on the airfield. The following table (Tracking Weather Patterns) outlines the roles and responsibilities of airport, airline, and FAA staff in tracking weather.

Tracking Weather Patterns		
Organization	Contact Name	Weather Tracking/Communicating Responsibilities
Flyer Airlines	Zach Thompson & Dan Walter	Flyer Airlines staff will check weather reports every morning. If weather reports indicate severe weather that may impact operations at the airport, the weather reports will be checked more frequently until the weather has passed. Flyer Airlines will communicate any severe weather to Omega Air and vice versa.
Omega Air	Gary Nettleton & John Davis	Omega Air staff will check weather reports every morning. If weather reports indicate severe weather that may impact operations at the airport, the weather reports will be checked more frequently until the weather has passed. Omega Air will communicate any severe weather to Flyer Airlines and vice versa.
Grand Bay International Airport	Rachel Clark & Sean Hayes	Airside operations staff will monitor weather patterns throughout the day and communicate to all service providers who may be affected, especially in the event of diversions or cancellations.
FAA	Jeff Ballard & Brett Adams	FAA ATC staff at the airport constantly monitor weather patterns in the surrounding areas. Should any severe weather have the potential to impact operations at the airport, ATC staff will notify airside operations immediately to prepare.

5.2 Executing IROPS Plans and Procedures

In Section 3.1 of this plan, procedures were established with service providers, including concessions, ground transportation, the FAA, CBP, and TSA. This section provides specific procedures that are to be executed at the time of an IROPS event. The following paragraphs outline procedures for each of the service providers.

5.2.1 IROPS Communications Plans

Relevant IROPS information including status and related situational information is communicated among appropriate Grand Bay International Airport organizations during an IROPS event. The following table (IROPS Communication Plans) describes key elements of Grand Bay International Airport IROPS communications plans.

IROPS Communication Plans	
Organization	Communication Actions
Flyer Airlines Omega Air	Diverted flights - Ensures aircraft diversion notice is communicated to Airport Operations at Long Isle Airport - Communicates diversion status to onboard passengers - Communicates diversion status to passengers awaiting next segment of flight and to people meeting arriving passengers (in terminal where initially planned to land and externally via electronic notification) - Updated status communicated to Airport Operations at airport where flight was initially planned to arrive - Continues tracking and communicating status until flight ultimately arrives at original destination
Flyer Airlines Omega Air	Aircraft on ground - Communicates delay status to onboard passengers - Ensures other relevant service providers are notified of possible IROPS related impact and to confirm any related support including gate availability that is potentially needed is available if required - Communicates delay status to passengers awaiting next segment of flight and to people meeting arriving passengers (in terminal where initially planned to land and externally via electronic notification) - Ensures other relevant service providers are notified of unplanned passengers arriving in terminal after lengthy ground delay
Long Isle Airport Operations	Diverted flights Confirms relevant service providers have been notified of unplanned passengers arriving in terminal
Grand Bay International Airport Operations	Aircraft on ground When notified aircraft will deplane passengers after lengthy ground delay, confirms relevant service providers have been notified of unplanned passengers arriving in terminal

5.2.2 Passenger Support Plans

Support procedures for passengers and other customers at Grand Bay International Airport during IROPS events include focus while they are on-board aircraft, during their deplaning, in the terminal, and when they need ground transportation. The following table (Passenger Support) describes procedures at Grand Bay International Airport for support during an IROPS event.

Passenger Support		
Passenger Location	Service Provider	Description
On-board aircraft	Flyer Airlines Omega Air	- Support for special needs passengers - Passenger support (status notification, water/food, restrooms, etc.) per DOT “Three-hour rule”
On-board aircraft	Grand Bay International Airport	Backup (to airlines) passenger support by sharing supplies
On-board aircraft	GBI Concessions	Backup (to airlines) passenger support by sharing supplies
Deplaning aircraft	Flyer Airlines Omega Air	- Shared gate (as required) - Passenger support for deplaning aircraft at remote parking area (provision of mobile stairs, bus transport to terminal, special needs lift, etc.)
Deplaning aircraft	Grand Bay International Airport	- Status for shared gate availability - Shared equipment support for remotely parked aircraft (mobile stairs, bus transport to terminal, special needs lift, etc.)
In terminal	Flyer Airlines Omega Air	- Periodic status update - Re-booking as required - Support for providing accommodations for lengthy delays (including food / lodging as required)
In terminal	Grand Bay International Airport	- Support for special needs passengers - Support for after-hours accommodations - Agreement with TSA for after-hours secure area - Agreement with CBP for after-hours delayed flights
In terminal	GBI Concessions	- Support for after-hours operation - Inventory support for infants and special needs passengers
In terminal	TSA	Utilization strategy for after-hours secure areas
In terminal	CBP	- After hours support for delayed flights - Support to diversion airports not having CBP presence
Extended delay accommodations	Zoom Rentals	- Support for special needs passengers - After hours transportation to/from off-site accommodations
Extended delay accommodations	Shoreline Hotel	Overnight accommodations for stranded passengers including shuttle to and from Grand Bay International Airport

5.2.3 Procedures with Airlines

Airlines operating out of Grand Bay International Airport have implemented procedures pertaining to the DOT 3-Hour Rule and 4-Hour Rule relating to IROPs event response. The following table (Execute IROPs Procedures with Airlines) describes the actions to be taken during IROPs events.

Execute IROPs Procedures with Airlines	
Organization (24/7 Contact #)	Local agreement(s)
Flyer Airlines Zach Thompson (777) 777-7777	Execution of procedures documented in Flyer Airlines Tarmac Delay Contingency Plan upon request by airline
Omega Air Gary Nettleton (555) 555-5555	Execution of procedures documented in Omega Air Tarmac Delay Contingency Plan upon request by airline

5.2.4 Procedures with FAA

The FAA/ATC organization at Grand Bay International Airport has implemented procedures pertaining to tarmac delay requests related to the United States DOT's 14 CFR Part 259 Enhanced Protections for Airline Passengers. The following table (Execute IROPs Procedures with FAA) describes Grand Bay International Airport FAA/ATC facility actions specific to IROPs events.

Execute IROPs Procedures with FAA	
Organization (24/7 Contact #)	Local agreement(s)
FAA Air Traffic Control Tower Grand Bay International Airport Jeff Ballard & Brett Adams (999) 999-9999	- Local execution of aircraft ground control procedures per the DOT 3-hour rule - Execution of IROPs procedures including providing information to the airport on: - Aircraft status related to flight diversions - Aircraft status related to ground delays during taxi-in - Aircraft status related to ground delays during taxi-out
FAA TRACON (888) 888-8888	

5.2.5 Procedures with CBP

Grand Bay International Airport has implemented procedures with CBP relating to response to IROPs events. The following table (Execute IROPs Procedures with CBP) describes Grand Bay International Airport CBP actions specific to IROPs events.

Execute IROPS Procedures with CBP	
Organization (24/7 Contact #)	Local agreement(s)
Grand Bay International Airport CBP Ron Hoover & Bryan Dean (333) 333-3333	- Execute IROPS procedures for CBP in situations including: - Scheduled international flight arrivals - Unscheduled international flight arrivals - Scheduled international flight arrivals after hours - Unscheduled international flight arrivals after hours

5.2.6 Procedures with TSA

The TSA organization at Grand Bay International Airport has implemented procedures concerning establishing and utilizing secure areas using procedures in the Airport Security Program or Aircraft Operator Standard Security Program. The following table (Execute IROPS Procedures with TSA) describes Grand Bay International Airport TSA actions specific to IROPS events.

Execute IROPS Procedures with TSA	
Organization (24/7 Contact #)	Local agreement(s)
Grand Bay International Airport TSA Jared Engel & Lance Foster (111) 111-1111 Regional TSA Center (222) 222-2222	- Execute IROPS procedures for TSA, including: - Rescreening procedures for passengers deplaned during regular, minimal, and off-hours operations at the airport.

5.2.7 Concessions Procedures

Concessions at Grand Bay International Airport have agreed to provide specific support during IROPS events. The following table (Execute IROPS Procedures for Concessions) describes these procedures.

Execute IROPS Procedures for Concessions	
Organization (24/7 Contact #)	Local agreement(s)
GBI Concessions Jennell Black & Jamie Williams (123) 456-7891	- Provide backup (to Flyer Airlines and Omega Air) for on board passenger support by sharing supplies such as bottled water and granola bars - Execute IROPS procedures for concessions - Provide support for special-needs passengers - Provide support for infants (diapers, formula, etc.)

Execute IROPS Procedures for Concessions	
Organization (24/7 Contact #)	Local agreement(s)
	• Provide support during after-hours service • Implement backup staffing to respond to passenger surge if needed

5.2.8 Ground Transportation Procedures

Ground transportation organizations at Grand Bay International Airport have agreed to provide specific support during IROPS events. The following table (Execute IROPS Procedures for Ground Transportation) describes these procedures.

Execute IROPS Procedures for Ground Transportation	
Organization (24/7 Contact #)	Local agreement(s)
Zoom Rentals Al Kehoe & Nathan Johnson (987) 654-3210	• Execute IROPS procedures, providing one-way rentals for passengers and assisting Shoreline Hotel in shuttling passengers to and from the hotel • Support for special-needs passengers • Implement backup staffing/resources to respond to passenger surge
Grand Bay International Airport Randy Holbrook & Tom Mulcaster (012) 345-6789	• The airport will execute IROPS procedures for ground transportation, providing airport busses if needed for shuttling passengers to and from the airport and off-site locations and assisting airlines in securing additional support from local bussing companies if needed.

5.2.9 Procedures with Other Providers

The Grand Bay International Airport has coordinated with additional service providers to provide specific support during IROPS events. Specific procedures for each of these service providers are listed here.

Execute IROPS Procedures with Other Providers	
Organization (24/7 Contact #)	Local agreement(s)
A-1 Medical Sammi Folick (444) 444-4444	• Execute IROPS procedures, providing a limited number of wheelchairs and tanks of oxygen for special-needs passengers when needed, including during extended hours and off-hours.

CHAPTER 6 – CAPTURING LESSONS LEARNED AND UPDATING PLANS

Since recovery from an IROPS event is critical to the continual improvement of the Grand Bay International Airport IROPS Plan, this chapter is divided into two sections: debrief after an IROPS event and lessons learned. The following tables describe Grand Bay International Airport's procedures for these actions, including incorporation of lessons learned into the update of Grand Bay International Airport's IROPS Contingency Plan, as appropriate.

6.1 After an IROPS Event

After an IROPS event, it is important to have a timely and comprehensive assessment of the event. The Grand Bay International Airport will coordinate this debriefing meeting and include all aviation service providers, as well as the IROPS Contingency Response Committee.

The following table (Debriefing IROPS Event) describes Grand Bay International Airport's plans for holding this training.

Debriefing IROPS Event	
Organization	Detail
Flyer Airlines Omega Air GBI Concessions Zoom Rentals FAA TSA CBP Airport Police Long Isle Airport (primary diversion airport) Centennial FBO	- Review and debriefing with Grand Bay International Airport IROPS Champion and Contingency Response Committee - Summarize findings (including any lessons learned) and recommendations - Send to Chairperson of Grand Bay International Airport Contingency Response Committee
Grand Bay International Airport IROPS Contingency Response Committee	- Consideration if further study is required to fully understand the effectiveness of Grand Bay International Airport's response - Results of the review (and study if required) considered to determine if revisions are required in Grand Bay International Airport's IROPS Response Plan - Redistribution of Grand Bay International Airport's IROPS Response Plan (if revised)

6.2 Lessons Learned

As part of the debriefing, it is important to catalog the lessons learned from the individual IROPS events. The Grand Bay International Airport will coordinate these lessons learned and provide them to the aviation service providers, as well as the IROPS Contingency Response Committee members.

The following table (Capturing Lessons Learned) describes Grand Bay International Airport's plans for collecting lessons learned.

Capturing Lessons Learned	
Organization	Detail
Flyer Airlines Omega Air GBI Concessions Zoom Rentals FAA TSA CBP Airport Police Long Isle Airport (primary diversion airport) Centennial FBO	• Review and debriefing with Grand Bay International Airport IROPS Champion and Contingency Response Committee • Summarize findings (including any lessons learned) and recommendations • Send to Chairperson of Grand Bay International Airport Contingency Response Committee
Grand Bay International Airport IROPS Contingency Response Committee	• Consideration of any additional lessons learned from examples of coordinated response by Grand Bay International Airport service providers • Compile and distribute any new lessons learned • Periodic sharing of lessons learned with other airports in the aviation community

BIBLIOGRAPHY

Department of Transportation

- Bureau of Transportation Statistics. *Airline On-Time Data: Ranking of Airline On-Time Performance by Month since 1995*.
http://www.bts.gov/programs/airline_information/airline_ontime_tables/2011_09/html/table_02.html.
- Chapman, L., Jr. "Enhancing Airline Passenger Protections: DOT/Washington Update." Presented at MSP Irregular Operations Regional Workshop. October 13, 2010.
- Department of Transportation, OIG Testimony Number CC-2009-067. *Progress and Remaining Challenges in Reducing Flight Delays and Improving Airline Customer Service*. Released May 20, 2009.
http://www.oig.dot.gov/sites/dot/files/pdffdocs/Updated_May_20-09_Testimony.pdf.
- Department of Transportation, OIG Testimony Number CC-2008-058. *Status Report on Actions Underway to Address Flight Delays and Improve Airline Customer Service*. Released April 9, 2008.
http://www.oig.dot.gov/sites/dot/files/pdffdocs/WEB_FILE_OIG_Statement_for_April_9_Hearing_correct.pdf.
- Department of Transportation, Office of the Secretary. *Enhancing Airline Passenger Protections*. Updated April 29, 2010. <http://www.federalregister.gov/articles/2011/04/29/2010-0140/enhancing-airline-passenger-protections>.
- Department of Transportation, Office of the Secretary. *Enhancing Airline Passenger Protections*. Updated April 2011. <http://www.federalregister.gov/articles/2011/04/25/2011-9736/enhancing-airline-passenger-protections>.
- Econometrica, Inc. *Final Regulatory Flexibility Analysis, Consumer Rulemaking: Enhancing Airline Passenger Protections II*. Bethesda, Maryland. April 8, 2011.
http://www.econometricainc.com/markets/transportation_ost_consumer.html.
- FAA Report AV-2010-003. *Status of the Aviation Rulemaking Committee's 77 Initiatives for Reducing Delays in the New York Area*. Issued October 21, 2009.
- FAA Report AV-2011-007. *New York Flight Delays Have Three Main Causes, but More Work is Needed to Understand Their Nationwide Effect*. Issued October 28, 2010.
- GAO Study. *Airline Passenger Protections: More Data and Analysis Needed to Understand Effects of Flight Delays*. Released September 14, 2011. <http://www.gao.gov/assets/330/322962.pdf>.
- Mosley, Bill. *Airlines Report Seven Tarmac Delays Longer than Three Hours on Domestic Flights, 11 Longer than Four Hours on International Flights in October 2011*. Press Release DOT 162-11. Issued December 12, 2011.
- National Task Force to Develop Model Contingency Plans to Deal with Lengthy Airline On-Board Ground Delays. *Development of Contingency Plans for Lengthy Airline On-Board Ground Delays*. Released November 12, 2008.
<http://airconsumer.dot.gov/publications/TarmacTFModelContingencyPlanningDocument.pdf>.

Office of the Assistant General Counsel for Aviation Enforcement and Proceedings. Answers to Frequently Asked Questions Concerning the Enforcement of the Final Rule on Enhancing Airline Passenger Protections. Washington, DC. April 8, 2010.

Office of the Assistant General Counsel for Aviation Enforcement and Proceedings. Answers to Frequently Asked Questions Concerning the Enforcement of the Second Final Rule on Enhancing Airline Passenger Protections (EAPP #2). Washington, DC. August 19, 2011; revised September 6, 2011 and October 19, 2011.

Peters, M. Letter to Michael Chertoff. July 21, 2008.

Department of Homeland Security

Chertoff, M. Letter to Mary E. Peters. September 4, 2008.

Airport Publications

Albuquerque International Airport. *Sunport Operations Plan to Assist the Airlines Requirements to Meet CFR 259 Extended Tarmac Delays*.

Atlanta Hartsfield International Airport. *ATL IROPS Extended Delay Contingency Plan*. 2009

Aviation Innovation, LLC. Irregular Operations Issues and Nuggets Summary Checklist. Issued 2010.

Aviation Innovation, LLC. DOT 3-4 Hour Rulemaking Airport Summary for Airports. Issued August 23, 2011.

Begg, D. *Heathrow Winter Resilience Enquiry*. London, England. March 2011.

http://www.baa.com/assets/Internet/BAA%20Airports/Downloads/Static%20files/BeggReport220311_BAA.pdf.

Dallas Fort Worth International Airport. *Event Contingency Plan for Irregular Operations (IROPS) – Version 1.5*. February 11, 2011.

General Mitchell International Airport. *Lengthy Onboard Airline Tarmac Delay Standard Operating Guideline (SOG)*.

Gerald R. Ford International Airport. *GRF International Diversions Plan*.

Greater Toronto Airports Authority. *Emergency Planning Skills Survey*.

Greater Toronto Airports Authority Emergency Planning Division. *Emergency Contact and Skills Survey*.

Houston Airport System Plans. *HOU IROPS Contingency Plan (2010)* and *IAH IROPS Contingency Plan (2010)*.

Phoenix Sky Harbor International Airport. *Unscheduled Deplanement of Passengers*. July 15, 2008.

Sacramento International Airport. *Lufthansa: Ground Products & Procedures, Tarmac Delay Contingency Plan*. August 15, 2011.

Salt Lake City Department of Airports. *Irregular Operations Work Sheet*.

Salt Lake City International Airport. *Family and Friends Assistance Support Plan*. January 19, 2010.

Salt Lake City International Airport. *Standard Operating Procedure. Assistance to Aircraft Operators During Irregular Operations IAW 49 CFR 259*.

San Diego International Airport: Airport Emergency Plan. *Lengthy Airline Ground Delays: Airport Contingency Plan*. June 2010.

Aviation Associations

Staton, Katherine A. Esq. Partner, Jackson Walker L.L.P. DOT Regulations as to Passenger Delays and Rights, and Their Ramifications. January 6, 2011

Passenger Advocacy Organizations

2010 Media Report Card. <http://flyersrights.org/2010Mediareportcard.pdf>.

FlyersRights Member Survey. December 12, 2010. <http://Flyersrights.org>.

Letters to Members of Congress Regarding Airline Passenger Rights. May 9, 2011.

Passenger Rights Stakeholder Hearing. September 22, 2009.

Stranded Passenger Survival Guide. June 6-11, 2008.

Meetings and Conferences

Callister, T. "What Can Your Airport Do to Prepare for Irregular Operations (IROPS)?" Panel Topic Presentation at the AAAE National Airport Conference. Tuscon, AZ. September 2011.

Dunne, Gregory. "FAA Tarmac Briefing." Presented at the New York Customer Forum. April 7, 2010.

Efthimiou, Gregory G. "Jetblue Airways: Regaining Attitude After the Valentine's Day Massacre of 2007." Case Study submitted by M.A. in Mass Communication candidate, University of North Carolina, Chapel Hill, School of Journalism and Mass Communication. http://www.awpagesociety.com/images/uploads/08JetBlue_Note.pdf.

Forbes, Dr. Greg. Severe Weather Expert. "High Impact Transportation Events." Presented at the 6th Annual Impacts Session at the AMS Annual Meeting. Atlanta, GA. January 19, 2010.

Golaszewski, Rich. GRA, Incorporated. "What's It Worth Now? Assessing Value of Delay in Today's Aviation Industry." Presented at the 88th Annual Meeting of the Transportation Research Board, Washington, D.C., 2009.

Schlesinger, A., Harris, B. Gilson, K. et al. "Analysis of Tarmac Delays Under Decreased Airport Capacity." Paper submitted to the University of Michigan, Industrial and Operations Engineering. April 14, 2010. <http://www-personal.umich.edu/~amychohn/PAPERS/E6.pdf>.

Ulfarsson, D. and Unger, E. "The Eyjafjallajökull Volcano & Best Practices: Critical Transportation Infrastructure and Impacts from No-Notice Natural Hazard Events." Presented at the 90th Annual Meeting of the Transportation Research Board, Washington, D.C., 2011.

Media Sources

- Anderson, E. "Grounded Flight Tests Albany Airport Plan." *AirportBusiness.com*. June 22, 2011. [http://www.airportbusiness.com/web/online/Top-News-Headlines/GROUNDED-FLIGHT-TESTS-ALBANY-AIRPORT-PLAN/1\\$45612](http://www.airportbusiness.com/web/online/Top-News-Headlines/GROUNDED-FLIGHT-TESTS-ALBANY-AIRPORT-PLAN/1$45612).
- Buyck, C. "EC to Review Air Passenger Rights Legislation." *Air Transport World*. April 12, 2011. <http://atwonline.com/international-aviation-regulation/news/ec-review-air-passenger-rights-legislation-0411>.
- Carey, S. "Tracking Planes That Aren't in the Sky." *The Wall Street Journal*. August 31, 2010. <http://online.wsj.com/article/SB10001424052748704340504575447852785706396.html>.
- Cohn, A. "A Year Later, Tarmac-Delay Rule Needs Some Maintenance." *BusinessTravelNews.com*. August 22, 2011: 54. http://web.mit.edu/airlines/news/news_new_documents_files/Cohn-Business-Travel-News-2011.pdf.
- Hoyt, D., O'Reilly, C., Rao, H., Sulkowicz, K. "JetBlue Airways: A New Beginning." *Case L-17, Stanford Graduate School of Business*. September 13, 2010.
- McCartney, S. "Room Service in Terminal B: Flight Cancelled? How to Get a Cot, Food, a Shower and the Fastest Flight Out." *The Wall Street Journal*. January 20, 2011. <http://online.wsj.com/article/SB10001424052748703951704576091923287595948.html>.
- "Metron Aviation Launches Industry's First Air Traffic Flow Management Solutions for Airlines." *Marketwire.com*. August 26, 2010. <http://www.marketwire.com/press-release/metron-aviation-launches-industrys-first-air-traffic-flow-management-solution-airlines-1310329.htm>.
- Nelson, N. "Processing Passenger Rights Regulations: Where Do Airports Come into Play?" *Centerlines*. September 2010: 50-53.
- "New Survey Shows Consumers Mad as Hell About Hidden Airline Fees." *Ereleases.com*. September 7, 2010. <http://www.ereleases.com/pr/survey-shows-consumers-mad-hell-hidden-airline-fees-twothirds-surprised-additional-fees-airport-39847>.
- Odoni, A., Stamatopoulos, M., Kassens, E., Metsovitis, J. "Preparing an Airport for the Olympic Games." *Journal of Infrastructure Systems* 15(1). March 2009: 50-59. ASCE.
- Poole, R. W., Jr. "Tarmac delays and canceled flights, taking airport privatization seriously, and pathetic perimeter security." *Airport Policy News*. September 14, 2010: 60. <http://reason.org/news/show/airport-policy-and-security-newslet>.
- Underhill, R. "Refining Irregular Operation Responses." *Airport Magazine*. December 2010/January 2011: 36-37.

MSP Irregular Operations Workshop

- Aviation Innovation, LLC. "MSP Irregular Operations Workshop Executive Summary." Paper presented after the October Workshop. Released October 29, 2010.
- MAC Airside Operations Information Binder. Minneapolis-Saint Paul International Airport Overflow Aircraft Parking Plan (May 7, 2010); Stranded Passengers (January 2009); MAC Airside Operations Protocol: Diversions to MSP (March 15, 2011); Minneapolis-Saint Paul International Airport: Hazard 11 – Tarmac Delays (January 31, 2011). Revision #3: 11-70–11-80.

Airline Plans

- AirTran. *Customer Service Commitment*. http://www.airtranairways.com/about-us/customer_service_commitment.aspx.
- Alaska Air. *Customer Service Commitment*. <http://www.alaskaair.com/content/about-us/customer-commitment/customer-commitment-overview.aspx?>.
- Allegiant Air. *Allegiant Contingency Plan for Lengthy Tarmac Delays*. Effective on and after August 23, 2011. <http://www.allegiantair.com/aaTarmacDelayPlan.php>.
- American Airlines. *Customer Service Plan*. Effective July 29, 2011. <http://www.aa.com/i18n/customerService/customerCommitment/customerServicePlan.jsp>
- Atlantic Southeast. *Customer Service Plan*. <http://www.flyasa.com/passengers/customer-service-plan/>.
- Comair. *Contingency Plan for Lengthy Tarmac Delays*. Updated April 28, 2010. <http://www.comair.com/comair/ShowProperty?nodeId=/ComairDotComRepository/20001>.
- Continental Airlines. *Contingency Plan for Lengthy Tarmac Delays*. Updated April 29, 2010. http://www.continental.com/web/en-US/content/co_tarmac_delay_plan.2010042901.pdf.
- Delta Air Line. *Contingency Plan for Lengthy Tarmac Delays*. Updated August 23, 2011. http://www.delta.com/legal/plan_for_tarmac_delays/index.jsp
- Frontier Airlines. *Tarmac Delay Public Disclosure*. <http://www.frontierairlines.com/customer-service/~media/Files/docs/Frontier-Tarmac-Delay-Public-Disclosure.ashx>.
- Hawaiian Airlines. *Tarmac Delay Policy*. Effective August 23, 2011. http://help.hawaiianair.com/app/answers/detail/a_id/1923.
- JetBlue. *Contingency Plan for Lengthy Tarmac Delays*. http://www.jetblue.com/p/Contingency_Plan_for_Lengthy_Tarmac_Delays.pdf.
- Lufthansa. *Tarmac Delay Contingency Plan*. August 15, 2011. <http://www.lufthansa.com/online/portal/lh/us/nonav/local?nodeid=3375826&l=en>.
- SkyWest. *Tarmac Delay Contingency Plan*. <http://www.skywest.com/tarmac-delay-contingency-plan.php>.
- Southwest Airlines. *Tarmac Delay Contingency Plan*. <http://www.southwest.com/assets/pdfs/corporate-commitments/tarmac-delay-commitment.pdf>.
- Spirit Airlines. *Contract of Carriage*. Updated November 18, 2011. http://www.spirit.com/Content/Documents/en-US/Contract_of_Carriage.pdf.
- United Airlines. *Lengthy Tarmac Delay Plan*. Update August 23, 2011. http://www.united.com/ual/asset/United_Lengthy_Tarmac_Delay_Plan_8-23-2011.pdf.
- US Airways. *Contingency Plan for Lengthy Tarmac Delays*. <http://www.usairways.com/en-US/aboutus/customersfirst/contingencyplan.html>.
- Virgin America. *Contingency Plan for Lengthy Tarmac Delays*. Revised August 2011. <http://www.virginamerica.com/html/Virgin-America-Contingency-Plan.pdf>.

Appendices	
Bibliography	
Resource D	
Resource C	
Resource B	
Resource A	
PART 2	
PART 1	

APPENDIX A – CONTRIBUTORS TO THE FOCUS GROUPS/TESTING SITES

INTRODUCTION

As a part of *ACRP Report 65*, the project team was tasked with testing the draft Guidebook for Airport Irregular Operations (IROPS) Contingency Planning at five sites which were chosen by the project panel. Prior to drafting the guidebook, the project team held two focus groups in order to gain an even greater understanding of the challenges associated with IROPS planning and to gather best practices prior to drafting the initial document. The list below includes the participants at these two focus groups, as well as the participants who participated at the five testing sites.

Focus Group #1 – John F. Kennedy International Airport (JFK) New York, New York

Lysa Scully – Port Authority of New York & New Jersey
Tom Bock – Port Authority of New York & New Jersey
Rich Louis – Port Authority of New York & New Jersey
Flo Woods – United Airlines
Jean Healey – Terminal 1
John Grasser – JFK IAT Terminal 4
Sanjay Wadhawan – Jet Blue
Joseline Yearwood – Delta
Stephanie Baker – Delta
John Selden – Port Authority Ops
Ronnie Bendernagel – Port Authority Ops
Sean Porter – Port Authority Ops
Stephan DiTomaso – Port Authority Ops
Joseph Maltero – TSA
Peter Carbonaso – Air Traffic Control
Claude Viera – FAA JFK
Dave Siewert – FAA
John McCormick – American Airlines
Bill Leonard – American Airlines

Focus Group #2 – Newark Liberty International Airport (EWR) Newark, New Jersey

Sunder Vardyanathan – Jetairways
Dieter Grosse – Lufthansa
Chris Rupprecht – Southwest Airlines
Ray Whalen – TSA
Elaine Thompson – FAA
Ragaey Mansour – FAA/ATCT
Robert H. Lehmann – FAA/ATCT
Harry Rater – PA Operations
Renee Spann – PA AOD

PART 1

Kevin Bleach – PA Operations
 Hipolito Vazquez – Jet Blue Airways
 Deborah Traynor – United Airlines
 Roy Steiner – Scandinavian Airlines
 Maureen Briody – CO/UA
 Rita Shah – Air India

PART 2

R. Prabhudesan – Air India
 Laldat Tusing – Air India
 Chris DeFelice – Jet Blue Airways
 Frank Krupicka – PA Operations
 Ron Wiscox – APP

Resource A

Frank Radics – PA Maintenance
 Tom Bock – PA Ops Enhancements
 Diane Papaanni – Port Authority – Term B
 Ron Dudar – Delta Airlines B1

Resource B

Testing Site #1 – Waco Regional Airport (ACT) Waco, Texas

Joel Martinez – Waco Regional Airport
 Kendal Butler – FAA TRACON
 Brent Price – TSA
 Candice – Colgan Air
 Sue Holderson – American Eagle
 Paul Martinez – Dallas/Fort Worth International Airport

Resource C

Testing Site #2 – Salt Lake City International Airport (SLC) Salt Lake City, Utah

Brad Wolfe – SLCD A
 Jeff Thomas – SLCFD
 Ed Cherry – SLCD A IT
 Pete Higgins – SLCD A Maintenance
 Randall Berg – SLCD A
 Terry Craven – SLCD A
 Ken Whitaker – FAA
 Ty Alred – Delta SLC
 Kim Bradshaw – Skywest
 Don McLeish – DL
 Connie Proctor – SLCD A Operations
 Alvin Stuart – SLCD A Operations
 Mark Lewis – TSA
 Craig Vargo – SLCD O A Police
 Pat McFadden – Customs & Border Protection
 Bruce Barclay – SLCD A Operations
 Medardo Gomez – SLCD A Maintenance

Resource D

Bibliography

Appendices

Testing Site #3 – Fort Wayne International Airport (FWA) Fort Wayne, Indiana

Kim Fuhrmann – FWA

Lisa Scott – TSA
 Kennis Bourne – TSA
 Mary Burke – TSA
 Beth Coleman – Delta/United Airlines
 Andrea Ash – Delta/United Airlines
 Fred Boucher – FAA
 Mike Snaer – FAA
 Ronald Mudrack – Atlantic
 Rose Lindbo – 122 Fighter Wing
 Eddie York – 122 Fighter Wing
 Scott Krieg – 122 Fighter Wing
 Dennis Hollopeter – FWA/Public Safety Department
 Scott Hinderman – FWA
 Tory Richardson - FWA
 Michelle Lockridge – First Class Concessions
 Mike Melendez – American Eagle and Allegiant Air
 Troy Coleman – American Eagle and Allegiant Air
 Katie Scherer – FWA/Public Safety Department
 Dan Rak – FWA Operations
 John Simons – Customs & Border Protection

Testing Site #4 – General Mitchell International Airport (MKE) Milwaukee, Wisconsin

Beth Nacker – Frontier Airlines
 Mark Parlon – Frontier Airlines
 Kathie David – GMIA Operations
 Mike Keegan – GMIA Security
 Jim Grava – GMIA Operations
 Jim Davisson – Delta
 Ann Nienas – Delta
 Frank Pipia – TSA
 Holly Ricks – GMIA Landside
 John Moore – GMIA Landside
 Jay Bailey – FAA ATCT
 Doug Drescher – Signature ASIG
 Frank Jayne – ASIG
 Jeff Plizka – ASIG
 William Braun – Customs & Border Protection
 Amanda Key – Customs & Border Protection
 John Hardy – Customs & Border Protection
 Amy Bartlett – 128 ARW
 Monet Mayo – GMIA Public Relations
 Ryan McAdams – GMIA Public Relations
 Tom Czajkowski – Delta
 Ed Wewel – US Airways
 Kathy Nelson – GMIA

PART 1

**Testing Site #5 – John F. Kennedy International Airport (JFK)
New York, New York**

Stephen D. Tomasso – Port Authority of New York & New Jersey

Peter Carbonaro – Port Authority of New York & New Jersey

Steven Brocchini – Port Authority of New York & New Jersey

Frantz Constant – Port Authority of New York & New Jersey

Hilda Perez – Port Authority of New York & New Jersey

Jon Winslow – Port Authority of New York & New Jersey

David Willner – OTG Management

Michael Murphy – OTG Management

Tim VonHollweg – OTG Management

Jon Balan – Delta Airlines

John Barile – Delta Airlines

John Grasser – JFK International Airport

Susana Cunha – JFK International Airport

Frank DiMola – Transportation Funding Advisory Commission

Nishal Nawbatt – Jet Blue Airlines

Joseph Maltezo – Transportation Security Administration

Robert H. Junge – Port Authority of New York & New Jersey

Heidi K. Nassallek – Customs & Border Protection

Brian Roe – Customs & Border Protection

Gary Steiner – Customs & Border Protection

Al Graser – Transportation Research Board

PART 2

Resource A

Resource B

Resource C

Resource D

Bibliography

Appendices

APPENDIX B – GLOSSARY OF TERMS

“3-Hour Rule” – In April 2010 the United States DOT issued rulemaking on enhancing airline passenger protections (14 CFR Part 259 *Enhanced Protections for Airline Passengers*), which established rules covering domestic air carriers and prohibiting a domestic flight from remaining on the tarmac for more than 3 hours without allowing passengers to deplane subject to safety, security, and ATC exceptions. It also required (among other things) domestic airlines to adopt contingency plans for lengthy tarmac delays for scheduled and public charter flights at large and medium hub airports. (DOT-OST-2007-0022)

“4-Hour Rule” – In April 2011 the United States DOT updated its rulemaking on enhancing airline passenger protections (14 CFR Part 259 *Enhanced Protections for Airline Passengers*), which extended rules to include foreign air carriers and prohibited an international flight from remaining on the tarmac for more than 4 hours without allowing passengers to deplane subject to safety, security, and ATC exceptions. It also required (among other things) international airlines to adopt contingency plans for lengthy tarmac delays and expanded the airports at which all airlines must adhere to the contingency plan terms to include small hub and non-hub airports, including diversion airports. Carriers are required to coordinate their contingency plans with all of these airports as well as CBP and TSA. (DOT-OST-2010-0140)

14 CFR Part 382 (Americans with Disabilities Act) – Establishes requirements for ensuring equal opportunity for persons with disabilities for any public entity that provides designated public transportation.

After-Hours Operations – Operations of service providers that are outside of their normal working business hours.

Air-Carrier Aircraft – An aircraft that is being operated by an air carrier and is categorized as either a large air-carrier aircraft if designed for at least 31 passenger seats or a small air-carrier aircraft if designed for more than nine passenger seats but less than 31 passenger seats, as determined by the aircraft type certificate issued by a competent civil aviation authority (14 CFR 139.5). General aviation aircraft include all other civilian-owned and -operated aircraft.

Aircraft Operator Standard Security Program (AOSSP) – A program under the TSA aimed at increasing security during a time of evolving threats to commercial airlines. This program is issued to United States airlines with scheduled passenger service and public charter operations flying from the sterile area of airports.

Airline – An air transportation system including its equipment, routes, operating personnel, and management.

Airport – An area of land or other hard surface, excluding water, that is used or intended to be used for the landing and takeoff of aircraft, including any buildings and facilities (14 CFR 139.5).

Airport Operator – The operator (public or private) or sponsor of a public-use airport.

Airport Security Program – A program that has been approved by TSA and provides for the safety and security of persons and property on an aircraft operating in air transportation or intrastate air transportation against an act of criminal violence, aircraft piracy, or the introduction of an unauthorized weapon, explosive, or incendiary onto an aircraft. (49 CFR Ch. XII § 1542.101)

Customs and Border Protection Office of Field Operations – Field Operations Offices provide guidance to their regional ports and ensure the dissemination and implementation of core CBP guidelines. Offices also provide for mission support functions within their regions.

Concessionaire – The owner or operator of a concession (e.g., restaurants, snack stands).

Customers – Includes passengers and other non-aviation service personnel such as meeters and greeters who are in the terminal area.

Diversion Airports – Airport(s) surrounding an airport that are identified as diversion locations by airlines and which are intended to be used as alternate landing locations should the pilot need to divert.

Diverted Flight – A flight operated from the scheduled origin point to a point other than the scheduled destination point in the carrier's published schedule. For example, a carrier has a published schedule for a flight from A to B to C. If the carrier were to actually fly an A to C operation, the A to B segment is a diverted flight, and the B to C segment is a cancelled flight. (United States DOT definition)

Emergency Operations Center – A central command and control facility that is responsible for carrying out emergency management functions in an emergency situation.

Emergency Response Providers – Any agency providing emergency assistance, such as airport police, local police, fire departments, and paramedics.

Enhancing Airline Passenger Protections – A rule issued by the United States DOT that improves the air travel environment for consumers. One key provision of this rule is the requirement of air carriers (both domestic and international) to adopt and adhere to tarmac delay contingency plans. This rule establishes the "3-Hour Rule" and "4-Hour Rule," which require air carriers to allow passengers to deplane after being out on the tarmac for 3 hours (domestic flights) or 4 hours (international flights).

Extended Ground Delays – Events that disrupt optimized flight schedules and negatively affect the normal flow of passengers through the air transportation system (i.e., severe weather, air traffic control programs, airport service issues, and airline operations difficulties). The outcome includes crowded terminal spaces, distressed passengers, swamped airline passenger service agents, and other situations that will demand the attention of the airport and airline. From the United States DOT's *Development of Contingency Plans for Lengthy Airline On-Board Ground Delays*.

Federal Aviation Administration (FAA) – The United States government agency responsible for ensuring the safe and efficient use of the nation's airports and airspace. For the purposes of this guidebook, references to the FAA include all forms of air traffic control (ATC) services.

Federal Inspection Station – A CBP facility set up to screen passengers and cargo at ports of entry throughout the United States.

General Aviation Aircraft – All civilian aircraft not owned or operated for commercial passenger transport.

General Aviation Airport – A public use airport that is primarily focused on serving general aviation aircraft and is closed to air carrier operations except in unusual circumstances such as emergencies.

Government Agencies – Including but not limited to the FAA, TSA, and CBP, agencies that operate at an airport or affect an airport's operation.

Ground Transportation Providers – All transportation entities that provide transportation service for passengers and customers, including but not limited to rental car agencies (on- and off-site), taxi companies, and local mass transit entities.

Irregular Operations (IROPS) – Exceptional events that require actions and/or capabilities beyond those considered usual by aviation service providers. Generally speaking, an impact of these events is the occurrence of passengers experiencing delays, often in unexpected locations for an undetermined amount of time. Examples include extreme weather events (such as snowstorms, hurricanes, tornados), geological events (such as earthquakes, volcanoes), and other events (such as power outages or security breaches).

IROPS Champion – The point person who has been identified by an airport’s management as responsible for handling coordination between all service providers and developing an airport’s IROPS plan.

Large Hub Airport – An airport that accounts for at least 1.00 percent of the total enplanements in the United States. (United States DOT definition)

Late Flight – A flight that arrives at the gate 15 minutes or more after its published arrival time. (United States DOT definition)

Medium Hub Airport – An airport accounting for at least 0.25 percent but less than 1.00 percent of the total enplanements in the United States. (United States DOT definition)

Movement Area – The runways, taxiways, and other areas of an airport that are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps (apron areas) and aircraft parking areas. (14 CFR 139.3)

On-Time Flight – A flight that arrives less than 15 minutes after its published arrival time. (United States DOT definition)

Overnight Accommodations – Including but not limited to hotels, Red Cross, and other facilities that could house passengers should an IROPS event occur.

Passengers – Includes people traveling, service animals in the cabin, and live cargo on board aircraft and in the terminal area.

Passenger Core Needs – From the United States DOT’s *Development of Contingency Plans for Lengthy Airline On-Board Ground Delays*:

- Information (Flight status, gate status): Information provided to the passenger so as to keep passenger informed on status of situation – situational awareness
- Communication (Cell phone usage, rebooking): Means of enabling the passenger to communicate
- Food/hydration (Grab-and-go food and water): Types of sustenance made available to passengers
- Cleanliness (Availability of clean and serviceable restrooms): A means to address bodily needs and maintain personal hygiene
- Special Services (Oxygen, medicine): A means to address health-related needs

- Executable plan to deplane aircraft: Provide concise information on steps that will be taken after a period of time

Public Airport – An airport used or intended to be used for public purposes, which is under the control of a public agency, and of which the area used or intended to be used for landing, taking off, or surface maneuvering of aircraft is publicly owned. [49 USC § 47102 (16)].

Refuelers – Fuel providers who supply fuel to customers at an airport and who may assist in the refueling of aircraft.

Service Providers – All entities at an airport that provide services for customers and passengers, including but not limited to airports, airlines, concessionaires, ground transportation agencies, government agencies, FBOs, overnight accommodations (e.g., hotels, Red Cross), emergency response (e.g., police, fire, EMT), military (if joint-use facility), and diversion airports.

Tarmac Delay – The holding of an aircraft on the ground either before taking off or after landing with no opportunity for its passengers to deplane.

Trigger Event – A specific event that leads to the initiation of communication, a decision, or action. A “trigger event” normally is a warning cue that personnel should begin preparations to deal with irregular operations to mitigate effects on passengers. Each aviation service provider should have established trigger events and associated decision-making criteria to determine the timing and scale of their response efforts. The aviation service provider response efforts can involve multiple aviation service providers based on the determined scale of the response effort. The information that decision makers rely on often comes from multiple aviation service providers. As a result, collaboration across aviation service responders is important to foster well-informed decision making and well-defined response efforts.

Unites States DOT National Task Force to Develop Model Contingency Plans to Deal with Lengthy Airline On-Board Ground Delays – A temporary organization of individuals appointed by the Secretary of Transportation that was formed to study and develop recommendations for meeting customer needs. In November 2008 the task force released its recommendations in a document called *Development of Contingency Plans for Lengthy Airline On-Board Ground Delays*.

APPENDIX C – ACRONYMS AND ABBREVIATIONS

AA – American Airlines	NIMS – National Incident Management System
AC – Advisory Circular	NOTAM – Notices to Airmen
AEP – Airport Emergency Plan	NPRM – Notice of Proposed Rulemaking
AIP – Airport Improvement Program	NWA – Northwest Airlines
AOSSP – Aircraft Operator Standard Security Program	OFA – Object Free Area
API – Advance Passenger Information	OFZ – Obstacle Free Zone
ATC – Air Traffic Control	RPZ – Runway Protection Zone
ATCT – Airport Traffic Control Tower	SIDA – Security Identification Display Area
AUS – Austin-Bergstrom International Airport	SOC – System Operations Center
CBP – United States Customs and Border Protection	SOP – Standard Operating Procedures
CFR – Code of Federal Regulations	TRACON – Terminal Radar Approach Control Facilities
EOC – Emergency Operations Center	TSA – Transportation Security Administration
EMT – Emergency Medical Technician	
ETA – Estimated Time of Arrival	
FAA – Federal Aviation Administration	
FBO – Fixed-Base Operator	
FIDS – Flight Information Display System	
GA – General Aviation	
IROPS – Irregular Operations	
JFK – John F. Kennedy International Airport	
LEO – Law Enforcement Officer	
MOA – Memorandum of Agreement	
MOU – Memorandum of Understanding	
MSP – Minneapolis-St. Paul International Airport	

Appendices	
Bibliography	
Resource D	
Resource C	
Resource B	
Resource A	
PART 2	
PART 1	

Abbreviations and acronyms used without definitions in TRB publications:

AAAE	American Association of Airport Executives
AASHO	American Association of State Highway Officials
AASHTO	American Association of State Highway and Transportation Officials
ACI-NA	Airports Council International-North America
ACRP	Airport Cooperative Research Program
ADA	Americans with Disabilities Act
APTA	American Public Transportation Association
ASCE	American Society of Civil Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATA	Air Transport Association
ATA	American Trucking Associations
CTAA	Community Transportation Association of America
CTBSSP	Commercial Truck and Bus Safety Synthesis Program
DHS	Department of Homeland Security
DOE	Department of Energy
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
IEEE	Institute of Electrical and Electronics Engineers
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
NASA	National Aeronautics and Space Administration
NASAO	National Association of State Aviation Officials
NCFRP	National Cooperative Freight Research Program
NCHRP	National Cooperative Highway Research Program
NHTSA	National Highway Traffic Safety Administration
NTSB	National Transportation Safety Board
SAE	Society of Automotive Engineers
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (2005)
TCRP	Transit Cooperative Research Program
TEA-21	Transportation Equity Act for the 21st Century (1998)
TRB	Transportation Research Board
TSA	Transportation Security Administration
U.S.DOT	United States Department of Transportation

Provided compliments of:



*For more IROPS contingency plan
information, please contact:*

Rose Agnew
Report 65 Author and
National Practice Leader
rose.agnew@meadhunt.com
314-604-6677