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 many 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.

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***Note to User:***

*The page numbers for this online version of Resource C are the same as they are in the printed version of ACRP Report 65 for ease of use when cross referencing.*

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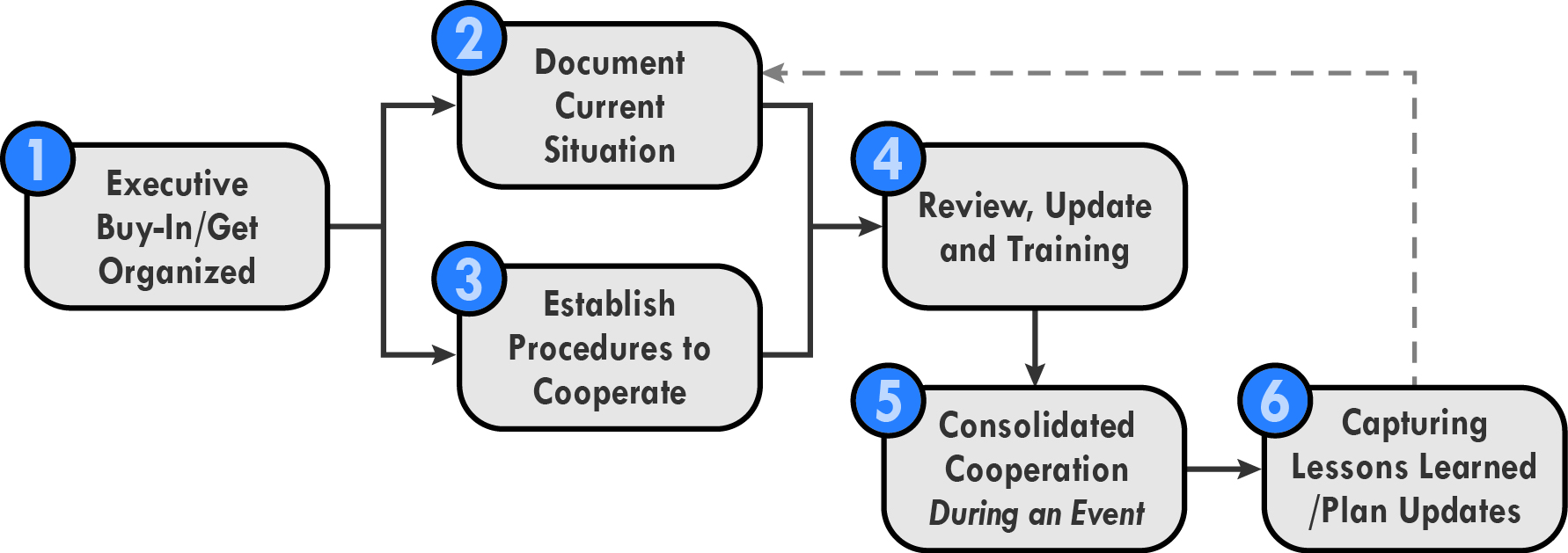
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**Tool 1 – IROPS Planning Process**

**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.

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***Figure 1. IROPS Response Management Process.***

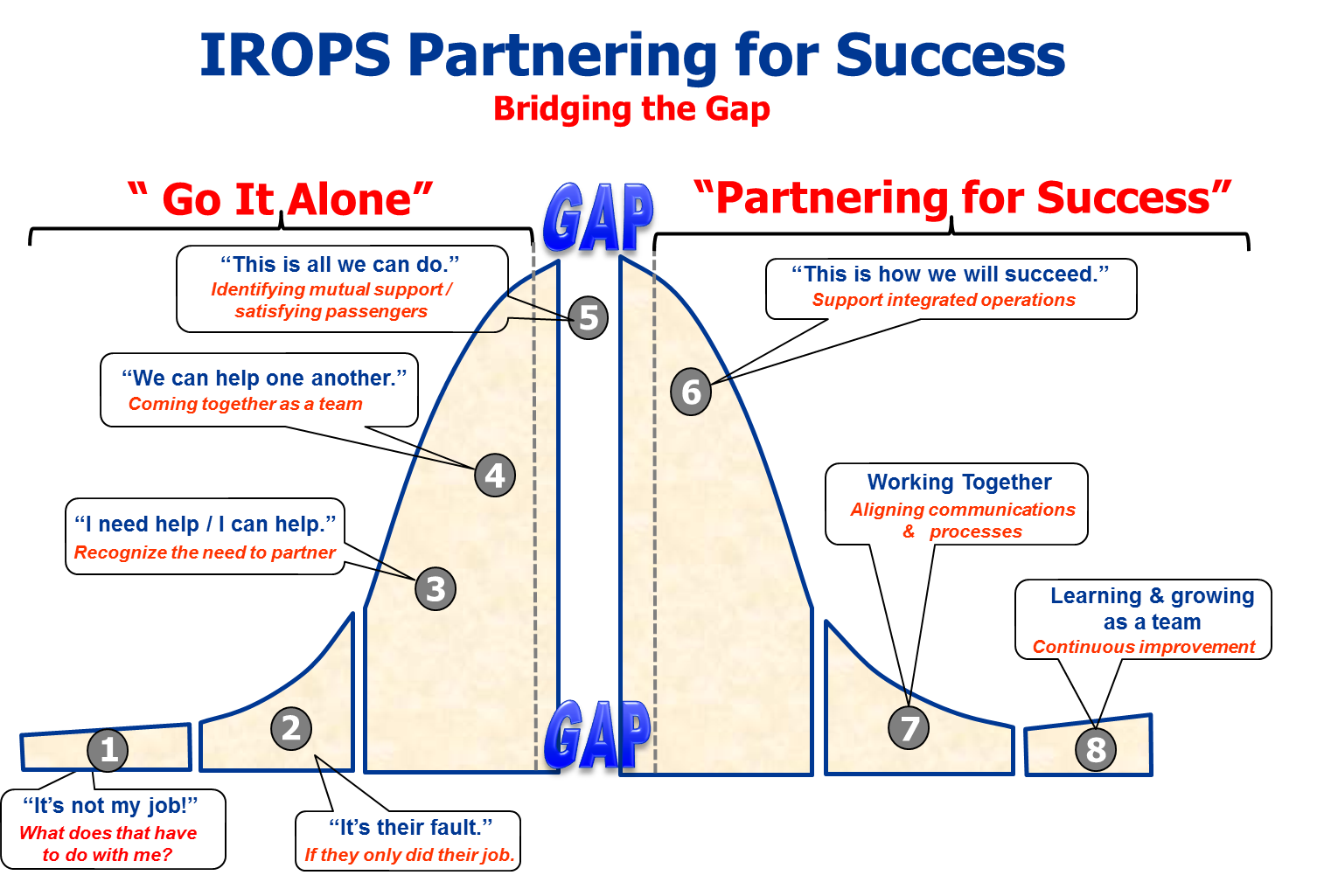
1. **Executive buy-in/get organized:** The first step is to establish executive buy-in from your airport and each of your local aviation service provider organizations. These should include airport operations, airlines, concessions, ground transportation, local accommodations, government agencies (Transportation SecurityAgency–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.

**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.

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

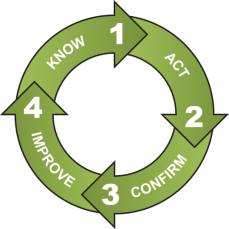
This phase is demonstrated in Chapters 3 and 4 of the IROPS planning process. It involves communicating and leveraging resources, combining capabilities to meet passenger needs, and becoming a team. It means considering that an airport has a joint reputation with all aviation service providers in a region.

1. **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.

1. **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.



**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?

1. 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?

1. 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?

1. 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?

1. **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)?

1. **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?

1. **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?

1. **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?

1. **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

**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:**  **Bowsers** | **Phone:**  **Hydrant** | **Email:** |
| **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 |
| 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** |
| **Shared Aircraft Status** | Airspace monitoring system | Provides overview of airspace environment around the airport using real-time data from the airport's radar system, for the purpose of scheduling airport resources. |  | X |  | X |  | X |  |  |
| Flight tracking/  management tool | Provides aircraft planning and management capabilities by monitoring real-time aircraft positions, airport status, and weather conditions. |  | X |  | X |  |  | X |  |
| Air traffic flow management | Provides capability to manage the complete range of aircraft operations from gate to gate, as well as provides operational and post operations metrics and performance analysis. |  | X | X | X |  | X | X | X |
| Flight status data feeds | Provides data stream to support flight information displays and custom flight tracking solutions. |  | X |  |  | X | X |  |  |
| Surface detection system (ASDE-X) | Provides a traffic management system for the airport surface that maintains seamless coverage and aircraft identification to air traffic controllers. |  | X |  | X |  |  |  | X |
| Surface management system | Provides a browser-based surface management system for efficient and cost-effective management and measurement of airside operations. |  | X | X | X |  | X | X | X |
| Information web dashboard | Provides information dashboard over the Internet to facilitate collaborative decision making for airside and landside operations. |  | X |  | X | X | X |  | X |
| Navigation system | Provides the operational information, altitude, and position necessary for aircraft guidance in all flight phases (in flight and on ground taxiing). |  | X |  | X |  |  | X |  |
| Consulting services | Provides professional consulting support for strategic implementation, implementation oversight, and improvement of shared aircraft status solutions. | X | X | 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 |

**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:*
   * 1. Communication and early notification
     2. Shared situational awareness
     3. 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.

1. *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.

1. *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

1. *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:*

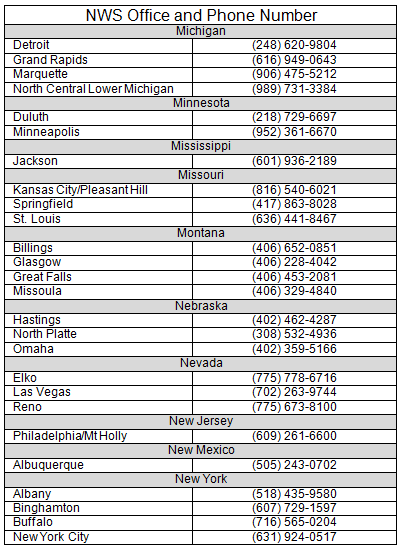
* Provide feedback to NWS office on content and flow of weather information
* Review event for improvements in the process



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**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 |

**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 | (Diversions, 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 | (Diversions, 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 | (Diversions, 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 | (Diversions, 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 faculties. 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.** |
|  |
|  |

**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
* 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 Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

*Insert a brief description of event*

**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 |  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |