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**Fifth North American, Central American and Caribbean Directors of Civil Aviation Meeting
(NACC/DCA/5)**

Port-of-Spain, Trinidad and Tobago, 28 to 30 April 2014

**Agenda Item 8: Regional Cooperation and Training
8.6 Airport-to-Airport Joint Assistance Plan Project**

**SUMMARY OF DISCUSSIONS OF THE MEETING TO DEVELOP THE
AIRPORT-TO-AIRPORT MUTUAL AID PROJECT PLAN**

(Presented by the Secretariat)

EXECUTIVE SUMMARY

Airports have a long history of helping other airports in time of need. However, assistance provided to other airports has not always been pre-planned or coordinated in advance to ensure efficiency and effectiveness. A concept called the Disaster Operations Group (Airport-to-Airport Mutual Aid) grew out of the need to address airport operational recovery following widespread disasters where airports may not be first in line to receive disaster assistance. Currently, the concept exists between airports but only within the borders of individual states. Following the presentation of a working paper by the United States at the C/CAR/DCA/25 Meeting regarding airport-to-airport mutual aid programs, the ICAO NACC Regional Office convened the Airport-to-Airport Mutual Aid Project Plan Meeting to evaluate taking this programme concept across international borders, which was held at the ICAO NACC Regional Office, Mexico City, Mexico, from 28 to 29 January 2014.

Action:	Action is presented in Section 4
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"> • Safety • Air Navigation Capacity and Efficiency • Security & Facilitation • Economic Development of Air Transport • Environmental Protection
<i>References:</i>	<ul style="list-style-type: none"> • ICAO Annex 14, Volume I, <i>Aerodrome Design and Operations</i> • ICAO Doc 9137, Part 7, <i>Airport Emergency Planning</i> • Airport Cooperative Research Program Report 73: Airport-to-Airport Mutual Aid Programs (Guidebook) • Airport Cooperative Research Program 45: Model Mutual Aid Agreements for Airports • US FAA Advisory Circular AC150/5200-31, Airport Emergency Plans • WP/15, C/CAR/DCA/13, Airport to Airport Mutual Aid Programmes, 02/05/13 <p>Airport-to-Airport Mutual Aid Project Plan Meeting at the ICAO NACC Regional Office, 28 to 29 January 2014</p>

1. Introduction

1.1 Disaster response and recovery is one of the most significant challenges that an airport can face. A major disaster such as an earthquake, volcanic ash or a hurricane can devastate airport operations at a time when the airport may be the primary conduit for relief operations. In addition, it is well documented that a major wide-scale disaster in a State may stretch existing in-country relief and recovery assets such that those assets are primarily directed toward relief operations for humanitarian assistance. In such a case, recovery assistance for the airport may fall to a secondary priority during the initial phases of relief and recovery operations. A coordinated, pre-planned, assistance effort involving sister airports that incorporates established protocols, checklists, and trained staff may assist an airport seeking to recover and restore continuity of operations. Such a model exists in the Disaster Operations Group (DOG) concept.

2. Discussion

2.1 Airports throughout the world have historically entered into mutual-aid agreements with others in order to provide assistance to an airport in times of need, particularly when assistance is needed beyond the capabilities of that airport. ICAO guidance in Annex 14, Volume I, and Doc 9137, Part 7, discuss the need to coordinate assistance to and from the airport in times of disaster. This model of mutual aid assistance utilizing local responders works well when the disaster is not widespread and does not overwhelm the capabilities of the airport, such as during an on-airport aircraft crash. The problem arises when the natural disaster is widespread, such as from a hurricane or earthquake, and exceeds the capabilities of the airport. The time when the airport may be most critical may unfortunately be when it is under the most stress. At that time, the airport may not be capable of rapid restoration solely using its existing assets and resources. A model of pre-planned assistance and recovery protocols and assistance from sister airports, countries, or agencies may help to restore essential services at the airport and thus help recovery in the country as a whole.

2.2 **Concept Framework:** Although non-aviation mutual aid programs established the model by which the DOG concept was developed, it is airport-to-airport mutual aid that is the most intriguing. The DOG airport-to-airport mutual aid concept incorporates certain functional elements and expectations that are detailed in **Appendix A** to this working paper.

2.3 **Development of a Programme:** Although non-aviation mutual aid groups (i.e., public utilities) are widespread and well-developed, there is limited experience in application of such programmes between airports. There are currently no known international efforts that take this concept across international boundaries between airports. Current guidance available to those interested in developing a disaster operations group programme is detailed in Appendix A to this working paper.

2.4 Benefits of a disaster operations group concept are detailed in Appendix A to this working paper.

Meeting to Develop the Airport-to-Airport Mutual Aid Project Plan

2.5 Costa Rica, Cuba, Dominican Republic, Haiti, Honduras, Jamaica, Mexico and United States participated in the Meeting to Develop the Airport-to-Airport Mutual Aid Project Plan held at the ICAO NACC Regional Office from 28 to 29 January 2014.

2.6 The Meeting heard presentations on the Airport Cooperative Research Program (ACRP), Reports 45 and 73, regarding the airport-to-airport mutual aid concept and the development of mutual aid agreements from the principal investigator of Reports 45 and 73. Haiti, Jamaica and Mexico also provided presentations. Each member State offered a review of existing emergency management structures and capabilities in their respective States. The Meeting agreed that the concept had applicability within the international context, and all agreed to work to develop a model that could take the concept to cross-border operations.

2.7 The Meeting discussed and agreed on the following definition of airport-to-airport mutual aid that will be used in the development of the model and pilot project: ***“A mutual aid program is a voluntary, non-contractual, written arrangement that provides short-term emergency or disaster assistance between two or more entities.”***

2.8 The Meeting agreed to examine the best way to lead the programme under one of the following schemes: ICAO NACC Regional Office, airports, member States, international organizations or a contractor (depending on the member airports/countries signing the agreement and their situation, i.e., concessionaire airports, State-owned airports, available resources, etc.

2.9 The Meeting agreed upon a list of stakeholders that need to be included in the coordination of this project, which is detailed in Appendix A to this working paper.

2.10 The Meeting agreed that the types of airports to be included in the model programme and pilot project are: international airports (initially) and domestic airports (only after the programme is developed and tested, depending upon the effectiveness of the program test).

2.11 The Meeting agreed to the following definition for when to activate the DOG programme: ***“As prudent and coordinated between involved parties to restore an airport to operational status - normally restricted to the response phase of an emergency unless coordinated further between parties.”*** It also agreed on the type of emergencies that would trigger airport-to-airport mutual aid deployment as follows: ***“Disasters that would affect the operational status of an airport, except in those events where parties agree that the safety and security of the providers could be adversely affected. Normally restricted to natural disasters and not provided for terrorism, labour issues, or civil unrest situations.”***

2.12 The Meeting agreed to complete the following steps to move the DOG programme forward:

- Research existing agreement documents
- Develop survey of capabilities and capacities
- Develop working paper for presentation at NACC/DCA/5
- Develop model programme
- Develop proposed pilot project, among others

2.13 The Meeting agreed to draft a capabilities survey of emergency planning and airport capabilities and capacity to be sent to all CAR Region States and Territories. United States will draft the survey and submit it for approval through the ICAO NACC Regional Office after the NACC/DCA/5 Meeting.

2.14 An outline of a model airport-to-airport mutual aid programme and agreement will be developed by United States and coordinated with the ICAO NACC RO before the next Meeting to Develop the Airport-to-Airport Mutual Aid Project Plan.

2.15 The Meeting proposed that the next meeting for the DOG programme to be scheduled for summer 2014 after the NACC/DCA/5. The Secretariat asked for volunteers to host the meeting. Several States offered to explore the possibility of hosting the meeting. One proposal suggested that the meeting be held in Miami at IATA offices, which would begin IATA/ALTA involvement in the project. United States will coordinate with the Secretariat and discuss further with IATA/ALTA. A summary of the meeting discussions to develop the airport-to-airport mutual aid project plan is available at: <http://www.icao.int/NACC/Pages/meetings-2014-airport-to-airport.aspx>

3. Disaster Operations Group for Latin America (LACDOG)

3.1 The establishment of a Disaster Operations Group for Latin America (LACDOG) was proposed by the Meeting to Develop the Airport-to-Airport Mutual Aid Project Plan, to be implemented in NAM/CAR Regions States/Territories upon approval by the NACC/DCA/5 Meeting in order to develop the airport-to-airport mutual aid project plan.

3.2 There are many safety challenges faced by airports throughout the world, disaster response and recovery is but one of them. There are also creative solutions to address those challenges. The LACDOG would explore the development of a model programme that could take this concept cross-border and establish programmes that could aid airports in operational recovery following disasters.

3.3 The Meeting to Develop the Airport-to-Airport Mutual Aid Project Plan developed a regional airport capabilities survey (see **Appendix B**) to develop a model programme proposal and a proposal for a pilot project to test the applicability of the airport-to-airport mutual aid concept in the region.

3.4 The LACDOG concept for the Caribbean Region, along with the capabilities survey, the model programme outline and the Pilot Project Outline are submitted to this meeting for approval by the NACC Directors of Civil Aviation.

4. Recommendation:

4.1 The Meeting is invited to:

- a) take note of the efforts presented in this working paper to develop the Airport-to-Airport Mutual Aid Project Plan;
 - b) approve the establishment of the Latin America Disaster Operations Group (LACDOG) identified in Section 3; and
 - c) approve development of a regional airport capability survey, model programme outline and Pilot Project Outline as per **Appendix B**, and Summary of Discussions from the Meeting to Develop the Airport-to-Airport Mutual Aid Project Plan.
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APPENDIX A
GUIDELINES AND BENEFITS IN DEVELOPING A DISASTER OPERATIONS GROUP (DOG)

- A. The DOG airport-to-airport mutual aid concept incorporates certain **functional elements and expectations** including:
- Protocols, procedures, agreements and financial considerations should be developed.
 - Agreements and technical guidance should form a Standard Operating Procedure (SOP) document.
 - The SOP should include asset inventories and define a Minimum Essential Resource (MER) list.
 - Logistics, communications, work processes, security and other required protocols are established.
 - Aid should remain under the control of the receiving airport.
 - It must have strong governmental and senior management support.
 - It should only be used for aviation related assistance and only following a disaster.
 - Disasters are categorized by scale, and this categorization is used to establish response protocols.
 - Operated under a ‘pull’ methodology with the receiving airport determining what is needed.
 - It must be completely voluntary.
 - Includes disaster phase recognition, establishment of standard terminologies, command and control authority, communications, functional teams, security, training, and outreach.
 - There must be an effective communications system in place prior to activation.
 - It must have a clearly defined purpose and scope.
 - Any dispatched aid teams must be as self-sustaining as possible.
 - Any costs and funding agreements must be addressed by agreement.
 - The effort must incorporate all entities involved in airport operations and continuity of operations (government agencies and authorities, air carriers, local agencies, non-governmental agencies, professional organizations, ICAO, etc.).
- B. Current **guidance** available to those interested in developing a disaster operations group program includes:
- Creation of a new program should be based on need and a realistic determination that the proposed program members are serious and capable. There must be a common interest and a sincerity to participate.
 - Stakeholders are identified and an organizing committee is established.
 - Goals and objectives are determined.
 - As part of a scoping process, a hazard and risk analysis is conducted.
 - The organizational structure is defined. Note: the disaster operations group concept is scalable to the needs of the members and the determination of risk. There are a number of different models discussed in ACRP 73.
 - Liability and reimbursement are addressed.
 - Members and volunteers, are recruited, and an awareness campaign is executed.
 - Funding requirements are identified and addressed.
 - Committees are formed and team coordinators are assigned.
 - Training is developed and provided.

- Manuals, SOPs, and protocols are written and reviewed. Regarding the contents of the SOP, the following items are recommended to be included by ACRP 73:
 - Roles, responsibilities, and functional procedures of the committee and its leadership
 - Membership criteria
 - Steps needed to create/update member resource lists
 - Responsibilities of membership in regards to:
 1. Pre-incident
 2. Pre-activation
 3. Deployment
 4. Execution
 5. Post-deployment
 6. After-action reporting
 - Communications protocol
 - Liability and reimbursement
 - Conflict resolution procedure
 - Standardized, forms, agreements and checklists

C. **Benefits and Challenges:** Some of the benefits discussed in the disaster operations group concept are:

- Airports know airports and assistance received following a disaster will be expert, experienced, and capable of addressing the specific requirements of the airport in need.
- The program, if designed properly, can be cost-effective and capable of a timely response as protocols, processes, agreements are developed and coordinated in advance.
- Implementing an airport-to-airport mutual aid program can enhance the preparedness of all participants.
- The program offers the opportunity for training and professional growth of airport staff for all airports in the compact.
- Restoration of airport services is faster and enhances the capability of the airport to provide the lifeline needed for humanitarian assistance to the country or region.
- Following a disaster, lessons-learned can benefit all members of the compact.
- Some of the challenges faced in developing such a program are:
 - Establishing awareness on the need for a program within government and the airport community can be difficult.
 - Sovereignty and program ownership are complicated.
 - There will be concerns about cost and reimbursement among program members.
 - Liability of members, especially across borders, will be an issue that must be addressed within the context of the legal system(s) affected.
 - Airports often underestimate emergency response needs. Without an accurate estimation of risk and threat it is difficult to determine and coordinate protocols and needs lists.

D. Essential **characteristics** of the program.

- Clearly defined purpose and scope
- Voluntary program
- Existing bilateral, or multilateral, agreements fully considered and incorporated
- Involvement of the full range of stakeholders in all stages of the program
- Involvement of industry
- Limited to aviation related assistance following a disaster
- Aid remains under the control of the receiving airport
- No self-initiated deployment authorized
- No impact to the operational effectiveness of the airports sending assistance
- An organizational structure that provides coordinators at the local and program level
- A SOP document to guide response
- Authorization is defined and agreed to in the agreement
- Asset inventories, including a minimum essential resources list for airport operations
- Identifies minimum staffing/equipment required and required skill set(s) of volunteers
- An effective communication system in place prior to activation
- Estimated costs and funding agreements established in advance
- A broadly accepted coordination function in place
- Information flow sufficient to allow matching of needs to aid
- Liability and indemnity addressed
- A rapid assessment capability to identify and prioritize needs
- Close cooperation of airlines, airports, and national agencies to facilitate travel
- Familiarization among airports in advance of disasters
- Promotion of the program and education of stakeholders
- Development of an after action review process

E. List of **stakeholders** that need to be included in coordination of this project.

- ICAO
- Regional Safety Oversight Organizations (RSOOs)
- Aviation regulatory and safety agencies
- Air traffic control agencies
- Transportation security agencies
- National law enforcement agencies
- Immigration, border control and customs agencies
- National emergency management agencies
- Military
- Fire, law enforcement, emergency management, and health at the local level
- Management, operations, maintenance, firefighting, security and emergency management
- Legal counsel at the national and local level
- Tenants and concessionaires
- IATA, ALTA, ACI, and unions
- NGOs
- Airlines and cargo carriers

F. Unique **challenges** in development of the DOG program.

- Costs
- Qualifications
- Authorization
- Immigration/Customs
- Security
- Language, culture
- Liability
- Equipment differences
- Procedure differences
- Enabling legislation
- Funding control
- Coordination
- Lack of aerodrome certification in the region
- Record keeping and accounting

APPENDIX B**DATA COLLECTION/AIRPORT SURVEY/ANALYSIS OF CAPABILITIES AND CAPACITIES
BY LACDOG COMMITTEE MEMBERS**

Purpose: The ultimate goal of the regional Disaster Operations Group for Latin America (LACDOG) Project is to promote the development of airport-to-airport mutual aid throughout the region. To do that, the LACDOG Committee must study existing airport-to-airport mutual aid models. The committee then must develop a plan/model that will work in the cross-border, regional context. However, before a regional plan/model can be considered, the Committee must be aware of existing airport and emergency planning structures, capabilities and capacities. Thus, Committee members will engage in specific, targeted data collection and analysis of their emergency management structure(s), organization, and airport capabilities and capacities in their respective States.

Goals: Each committee member will collect the following data, conduct basic analysis of that data, and report data to the committee before the next LACDOG committee meeting. Data provided will be used by the committee at the next LACDOG meeting to further develop the plan/model for regional, cross-border airport-to-airport mutual aid.

Data elements to be collected:

- 1) A list of international airports in the State:
 - a. Name
 - b. Identifier
 - c. Location
 - d. Hours of operation
 - e. Aircraft Rescue and Firefighting (ARFF) category
 - f. Number of and length of runways
 - g. Type of pavement on runways, grooved/un-grooved; condition of pavement
 - h. A list of air carriers that fly to the airport; types of aircraft operated
 - i. Airport management structure
 - j. Status of certification for each airport
 - k. Last ICAO audit
- 2) A list of regional airports (these will not be specifically evaluated at this time).
- 3) A preliminary list of the most significant hazards facing each airport on the list.
- 4) The existing emergency planning and management structure at the State level; federal level; regional level; and local level.
- 5) Emergency plans (existing) at the:
 - a. Federal level
 - b. Regional level
 - c. Local level
 - d. Airport(s)
- 6) Structure of the regulatory authority that provides airport regulatory oversight in the State.

- 7) Structure of air navigation services - specifically the Air Navigation Service Provider (ANSP) in the State and at each individual airport that could be involved in this programme.
- 8) A review of required entry/customs requirements, and an analysis of whether this will be a significant issue for airport-to-airport mutual aid planning.
- 9) Capabilities of the airport(s)
 - a. Number and type of ARFF vehicles
 - b. Amount and type of ARFF agent normally maintained
 - c. Number and type of staff employed in maintenance, electrical operations, management etc.
 - d. Types of equipment (make/model)
 - i. Instrument Landing System (ILS)
 - ii. VHF Omnidirectional Radio Range (VOR)
 - iii. Electrical lighting systems (transformers, regulators, lighting fixtures)
 - iv. Visual Glide Slope Indicator (VGSI)
 - v. Sign systems
 - vi. Marking/paint systems
 - vii. Friction testing equipment
 - viii. ARFF Self Contained Breathing Apparatus (ARFF SCBA) systems and bottles
- 10) Coordinated with input from your airport(s), a synopsis of your take on a Minimum Essential Resources List (MERL) for airport operations following a disaster.
- 11) Cargo/ramp capacity - a general analysis of the number and type of aircraft that can be accommodated at any one time on existing ramps and aprons.
- 12) Your take on what you believe to be the level of willingness to participate in this effort by the regulatory authority and by each individual airport that could be involved.
- 13) Existing communications channels, their current use, and the level of redundancy/resiliency in a disaster and/or disaster response.
- 14) Your take on the most significant hazards that may affect the State in general and each individual airport.
- 15) Existing agreements/arrangements for airport assistance in time of crisis, and an analysis, in your opinion, of whether these existing arrangements could be incorporated or used in a LACDOG model.
- 16) Search and Rescue (SAR) capabilities and organization in your State.