SHREVEPORT AIRPORT AUTHORITY

City of Shreveport

Shreveport Regional Airport Irregular Operations Plan (IROPS)

To comply with the FAA Modernization and Reform Act of 2012 and 14 CFR Part 259

Shreveport Airport Authority Operations Division

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Definitions

Irregular Operations (IROPS): Events which disrupt optimized flight schedules and negatively impacts the normal flow of passengers through the Air Transportation System; and /or extend customer service requirements outside the norm, causing flight delays, cancellations and diversions, whether caused by mechanical problems, bad weather, airport runway closures due to airplane accidents, congestion, or other miscellaneous factors that must be dealt with by airlines and airports. Types of Events include:

- Extended weather-related aircraft delays on airport
    - Weather event(s) at SHV (thunderstorm, tornado)
    - Weather event(s) at other airports
- Diversion of Aircraft from other airports
- Security Breach at checkpoint(s)
- HAZMAT Spill on AOA or key public roadways to SHV
- Alert III (Aircraft fire or crash)
- Incident of National Significance, such as pandemic or other national significant event.

AOS: Airport Operations Supervisors. This division is responsible for the safety, security and passenger experience of normal day to day operations at SHV. This department acts as the Manager on Duty 24/7/365 to include IROPS events (diversions, snow removal, etc.).

ACC: Airport Communications Center. This facility provides the normal communications, collaboration, and coordination for day to day operations at SHV.

AEP: Airport Emergency Plan. A living document maintained by the Airport Operations Department which governs the management of any minor or

catastrophic event which could occur at the airport. This is a legally binding document per 14 CFR 139.

Customer: The SHV customer includes passengers, meet and greet parties, friends and family associated with users of the airport and tenant personnel.

Needs: Any support to the customer required in the event of an IROPS event, such as food, beverage, information, shelter, restrooms, emergency, and non-emergency medical treatment, and other health and comfort care. These needs must be met until the operation is restored back to a normal flow.

PIO: Public Information Officer. This role is filled by the either the SHV Marketing Manager or Airport Operations Supervisor under discretion of the Airport Director.

Provider: SHV Staff, Airlines, Hospitality Services, Government Agencies and contractors.

USCBP (CBP): United States Customs and Border Patrol

TSA: Transportation Security Administration

Summary of IROPS Events

An IROPS event tends to be an extension of some other event taking place, such as a weather event that causes mass delays at the airport. While typically not associated with the FAA emergency planning required under CFR Part 139, it is no less demanding on the airport because of the numerous stakeholders involved and the undefined lines of responsibility to respond. All conceivable IROPS events involve crowd control at some level, which can be triggered by:

- Extended weather-related aircraft delays, cancellations, diversions or airport closures (including indirect events – weather at another airport);
- Security breaches requiring re-screening/evacuation;
- Extended airport roadway closures;
- Aircraft accidents (Alert III);
- Safety and/or Security Event requiring an evacuation;
- Hostage taking situation involving a standoff;
- Hijack situation involving significant airport surface closures;
- A National Incident of Significance. (terrorist attack, act of war, pandemic, etc.).

It is assumed that many of these incidents would be significantly less likely than others. As such, emergency planners have acted accordingly in planning for the worse, but preparing (stockpiling of supplies, pre-contracts for support, etc.) for the more likely IROPS scenario which could take place at SHV. IROPS events that require a law enforcement or Fire/EMS response can be further researched in the SHV AEP.

I. Purpose

The purpose of this Irregular Operations Plan (IROPS) consists of a need to address a broad range of logistical, operational, and human factors which may occur during periods of irregular operations at Shreveport Regional Airport. During irregular operational events such as weather diversions, mechanical diversions, and medical emergencies, flight delays, cancellations or the possible various combinations of these aforementioned factors may need to be addressed to assure that Shreveport Regional Airport's commercial operations continue to function as smoothly as possible, and that the well-being of commercial passengers is properly considered.

Furthermore, this irregular operations contingency plan has been created to conform and comply with the standards set forth by the FAA Modernization and Reform Act of 2012, and 14 CFR Part 259.

II. Scope and Historical Perspective

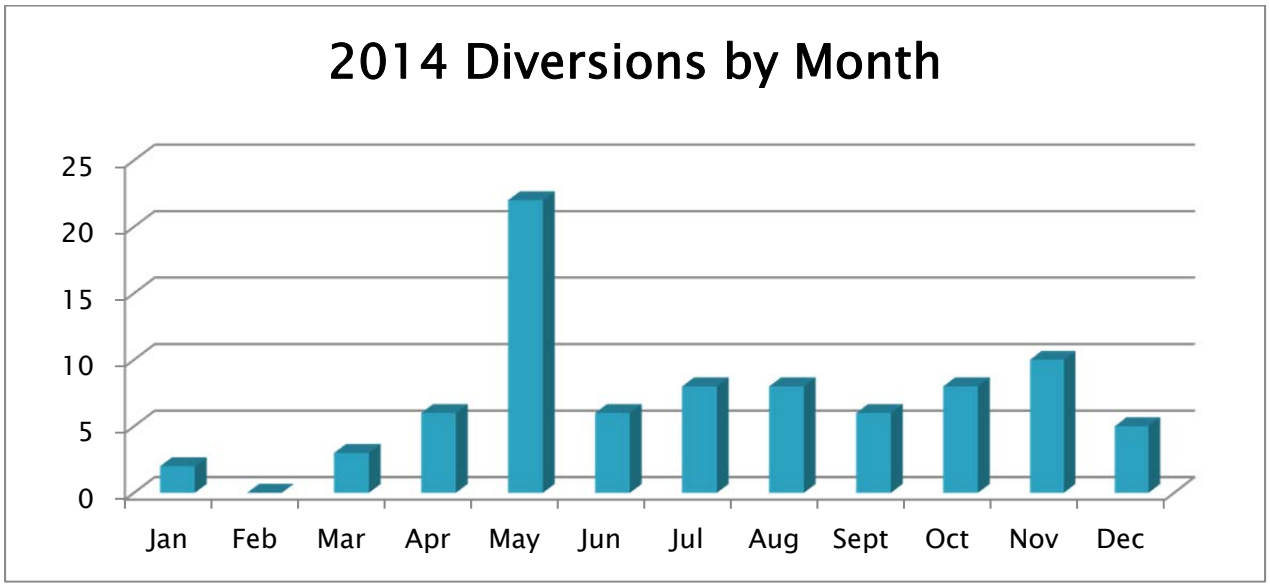
Due to its primary 8,351 x 200 ft. CAT II capable instrument runway and its geographical location in respect to large-hub airports in the State of Texas, and the eastern coast of the United States, Shreveport Regional Airport (SHV) has traditionally been utilized as both a primary and secondary diversion airport for Dallas Fort Worth International Airport (DFW), and a primary and secondary diversion airport for George Bush Intercontinental Airport (IAH). DFW resides in a region that is commonly and historically susceptible to moderate and severe "pop-up" thunderstorms, which typically occur during the mid to late afternoon hours of the spring and autumn months. (See Figure 1)

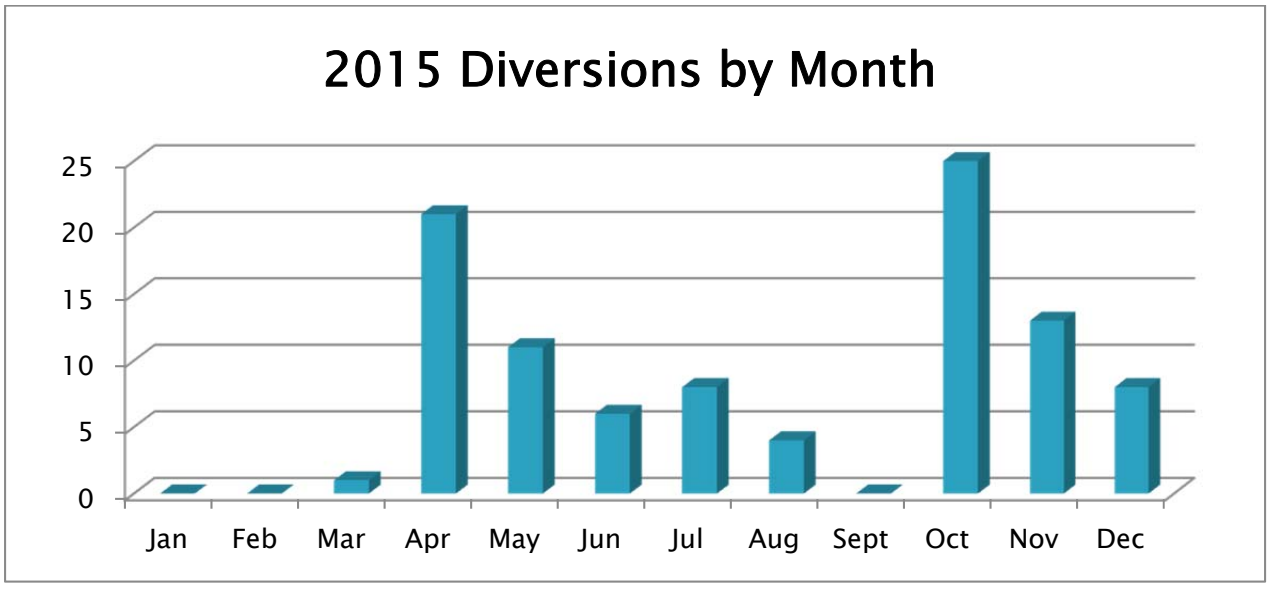
Each year on average, SHV hosts less than 150, but more than 75 weather-diverted aircraft. A majority of the diverted aircraft have a final destination of DFW, and are overwhelmingly attributed to American Airlines' medium to heavy-weight Boeing and McDonnell Douglas airliners such as the B737 and MD-82, in addition to the ERJ series aircraft. As mentioned above, the other primary contributor of weather-diverted aircraft for SHV, albeit far less common of an occurrence, is IAH. These diverted aircraft are commonly the medium to heavy-weight Boeing aircraft of United Airlines, such as the B737-800. Other common types of aircraft that add to SHV's diversions include American Eagle and United Express light-weight Embraer ERJ 145, and Canadair CRJ series regional jets.

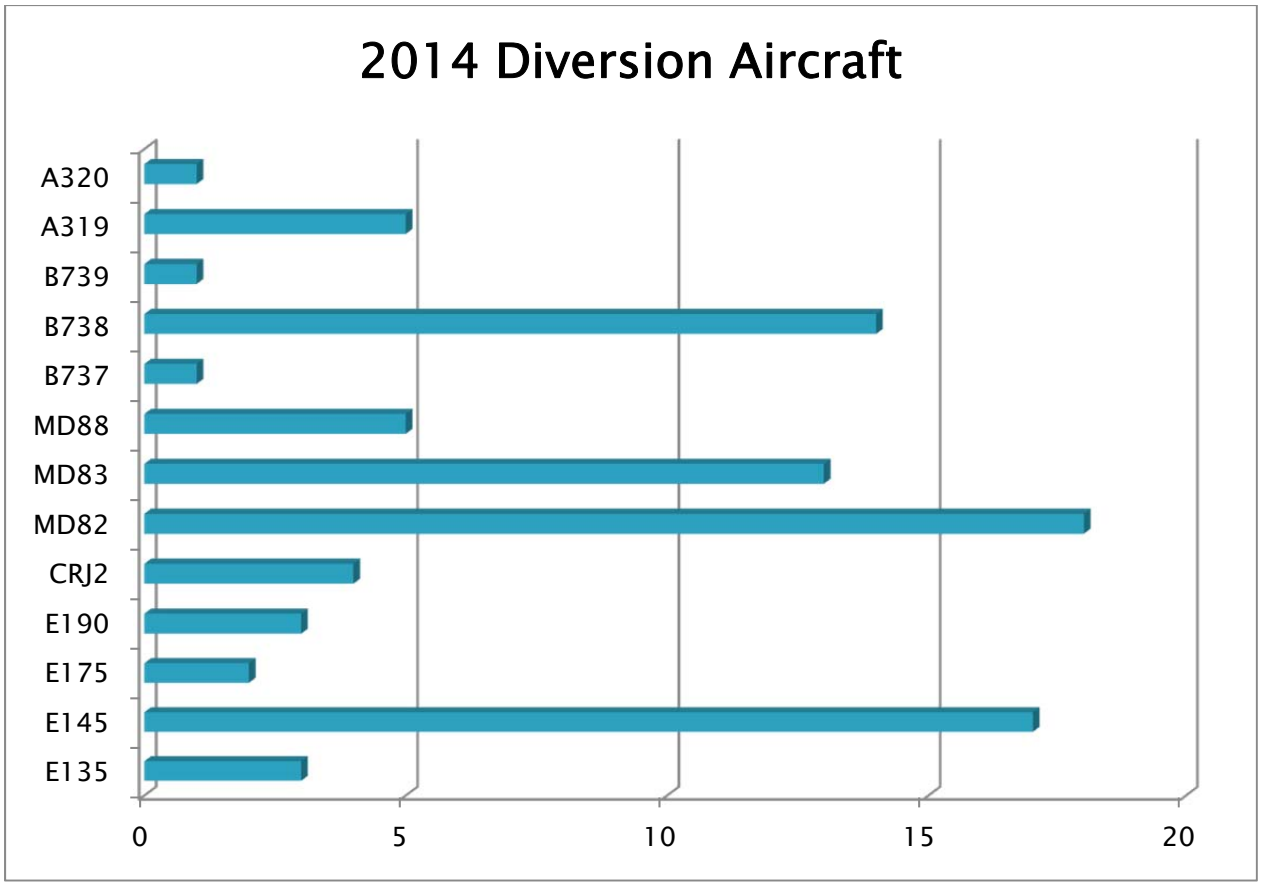
Other considerations include the delays and cancellations of flights arriving and departing SHV due to related meteorological events at the aforementioned airports. Delays have historically been held at an average of 1.5 to 3 hours per aircraft, per event. Other delay, cancellation, and/or diversion events also include medical and mechanical incidents or emergencies. These types of events are covered under direction of the SHV Airport Emergency Plan (SHV AEP), however do fall under IROPS events.

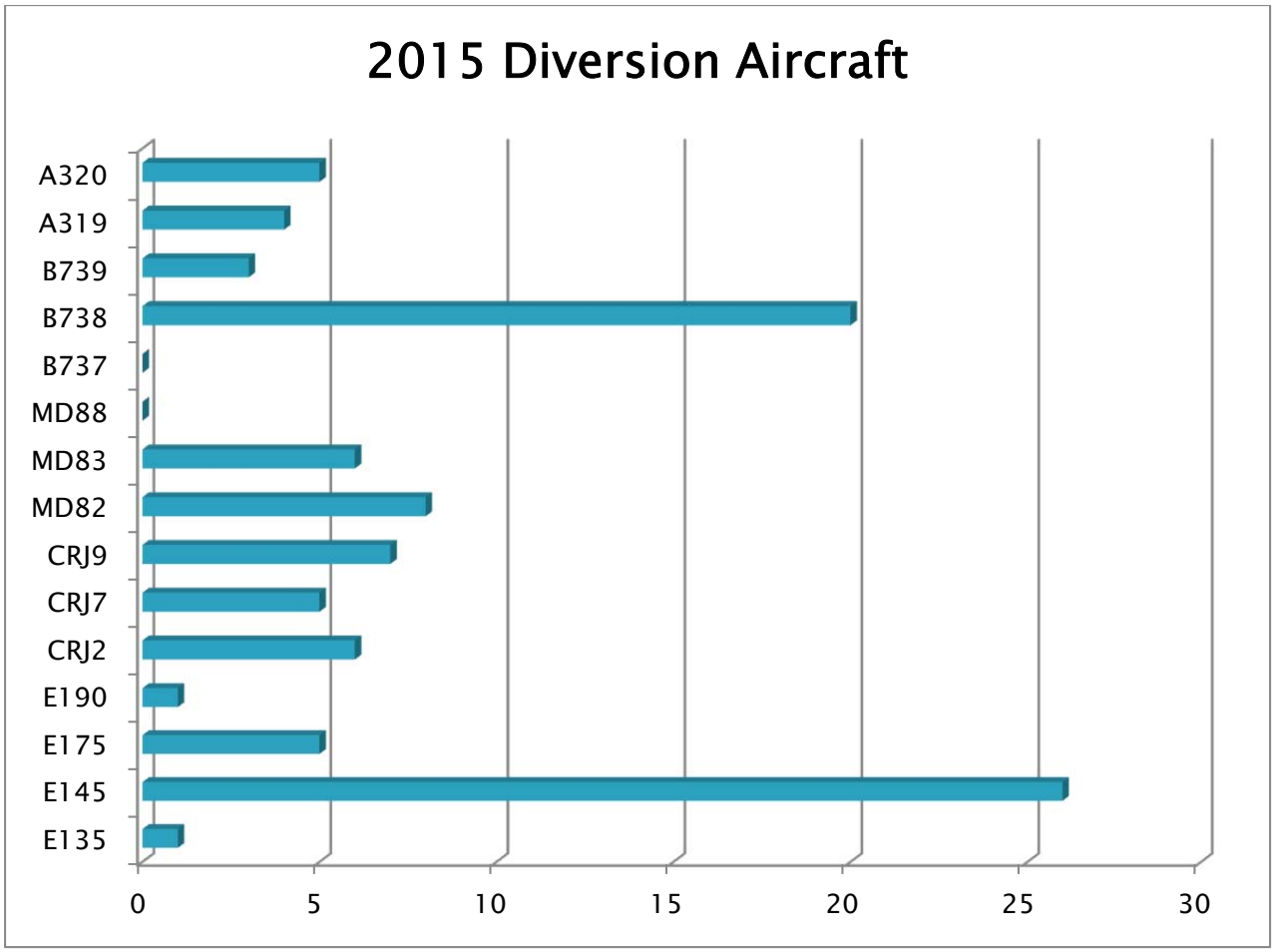
III. Historical Data

During the years of 2014 and 2015, SHV had seen an increase in diversion, delay, and cancellation frequency. Many of these events were due to weather at DFW and IAH. The following charts depict the time frame of which diversions have historically taken place.






2014 Diversion Aircraft
A320
A319
B739
B738
B737
MD88
MD83
MD82
CRJ2
E190
E175
E145
E135
0
5
10
15
20


2015 Diversion Aircraft
A320
A319
B739
B738
B737
MD88
MD83
MD82
CRJ9
CRJ7
CRJ2
E190
E175
E145
E135
0
5
10
15
20
25
30

III. Event Communication and Notification

A) Anticipation Planning

When atmospheric conditions exist that are conducive to the formation of thunderstorm activity in the vicinity of DFW or IAH, the Airport Operations Division begins monitoring live flight tracking software and live Doppler radar feeds. Additionally, Airline Tenants are required to report inbound diversion activity to the Airport Operations Supervisor/Airport Communication Center to allow the airport to prepare for the event and put personnel and equipment on standby. Also affected tenants will be notified by the Airport's Mass Notification System: SHV Alert, to prepare for the event.

B) Airline Management and Tenant Notification

The Airport Operations Supervisor division (AOS) at SHV prides itself on maintaining a very close working relationship with all of the airport's tenants. These relationships provide a distinct advantage in preparation for diversion events. Written agreements with airline management personnel guarantee that the Airport Operations division has a real-time reporting and updating mechanism for any flights that have diverted and are inbound to the airfield. This airline management self-updating and self-reporting mechanism serves as a "fail-safe" backup to the aforementioned resources of flight tracking software and the AOC Diversion Airport Group's electronic notification system. The same level of communication exists with SHV's lone Fixed Base Operator, TAC-Air. The status of incoming diversions will be communicated by Airline Personnel for purposes of refueling, lavatory, and ground handling should the need arise.

C) Security Notification

SHV's Airport Communications Center (ACC) is also a participant in event notifications. Airport Operations communicates with ACC via 800 MHz radios, relaying airline flight numbers, aircraft types, origin and destination codes, and

estimated arrival times. Upon a diversion aircraft's arrival, Airport Operations again notifies ACC with the arrival's flight number. This communication ensures that Airport Police has up-to-date flight information and are promptly standing by to provide security for diverted aircraft once they reach their parking positions.

In the event that an incoming diversion should be international in origin, ACC or AOD shall notify the U.S. Customs Service (USCBP), which maintains an "on-call" office at SHV.

D) Screening Services Notification

Should a diversion event occur after-hours, TSA management personnel are notified by ACC of the possibility of passenger screening requirements, in which case said management makes notifications for screening personnel to be placed on stand-by status.

E) Passenger Amenity and Sanitation Notification

For the purposes of passenger amenities, ACC will notify the management personnel of Tailwinds per contractual agreements. Tailwinds, the airport's concession and restaurant service company, has café and storefront facilities on both of the airport's concourses, which feature full-service food, drink, entertainment, and personal hygiene commodities, etc. In addition to the concourse café and storefront facilities, Tailwinds also provides full food and drink services at its restaurant in the main terminal. This restaurant also features an outdoor smoker's balcony complete with circulation fans and patio furniture for applicable passengers. Additionally, SHV has free Wi-Fi service throughout the terminal and concourses.

Per contractual agreements, ACC shall also notify the management personnel of the airport's custodial services provider, Red River Sanitors. Custodial employees are thereby placed on stand-by notification in anticipation of

performing cleaning services and maintenance of trash receptacles, concourse restroom facilities, etc.

F) Scheduled Aircraft Delays and or Cancellations

For purposes of planning and resource management, Airline Station Managers or their respective designees must communicate if there is a delay or cancellation of any inbound or outbound flight at SHV to ACC/AOS personnel. At which time the issue will be logged and an SHV Alert, will be sent to airport management, the airport PIO, Airport Police, TSA, Tailwinds Concessions, and Red River Sanitors. AOS/ACC will log the event in the IROPS Delay/Cancellation Log.

IV. Ramp Parking Accommodations

Typically, aircraft that are diverted to SHV have company representation at the airport. American Eagle/Envoy, United Express, and Delta Connection/Delta, and Allegiant all have assigned gates at SHV. In order to provide company-specific service, diverted aircraft are parked adjacent to their respective company gates and serviced directly by their company ground personnel. TAC-Air, our Fixed Base Operator (FBO), provides refueling and lavatory services to all diversion aircraft.

In the case of airlines that have no company representation at SHV, parking accommodations and ground handling are provided by TAC-Air at the common use gate at the terminal (Gate 11) or on the General Aviation Ramp at the FBO.

In the event that SHV receives any international diversions, these aircraft are parked and serviced by TAC-Air and/or company respective ground personnel at terminal Gate 3. The exception being if USCBP has cleared the flight as domestic, then they can be handled at their company's respective gate area.

Diversion aircraft that arrive at SHV can be categorized into three categories, Gas & Go, Deplanement, or Standby. Gas & Go being the ideal category, as the aircraft will arrive and have a fuel order ready within minutes, then depart. A deplanement can be caused by several issues, crew timeout, or extensive ground stop/delay tend to be common causes. If deplanement is necessary and or imminent, it is highly recommended that the company aircraft be parked at or near the respective company gate. The last category, Standby, is when the diverted aircraft will not need any assistance or services and wishes to just simply land for a short period of time and take off. Standby aircraft are encouraged to park at the East Apron or Gate 12 should the need arise.

For diversion aircraft being ground handled by TAC-Air personnel, flight crews shall establish radio contact with those personnel via TAC-Air's UNICOM aviation-band radio frequency.

Should the diversion event become overwhelmingly large, over-flow parking of aircraft is accommodated by TAC-Air on the General Aviation ramp, which has the capacity to hold a dozen large commercial airliners. In the rare event that the General Aviation ramp becomes fully occupied, the airport's East Apron will be utilized for the parking of additional diversions. The last resort shall be to utilize taxiways/runways as temporary parking location until space on the various aprons becomes available. The priority and flow of locations is as follows:

Apron	Aircraft Availability
Commercial Ramp	Contracted Airline tenants or subcontracted companies respectively
Gate 2/3	International Diversions ONLY
Gate 11	Common Use gate for non-signatory air carriers.
General Aviation	All non-signatory air carriers or contracted air carriers that have been agreed upon by the AIRLINE and TAC AIR only.
East Cargo	Overflow and Standby aircraft.
TWY B	Overflow if other areas are unusable.
TWY D	Overflow if other areas are unusable.
TWY C	Overflow if other areas are unusable.
TWY L	Overflow if other areas are unusable.
RWY 6/24	Overflow if all previously mentioned areas are unusable or full.

See pages 19 & 20 of this plan for maps regarding parking zone priority.

V. Passenger Deplaning

A) Personnel Activation

In the event that ground delays become long-term, (passengers on ramp for greater than 3 hours) passenger deplaning may be deemed necessary. Airline Tenants must give **No less than 1 hour of warning of a deplanement due to IROPS.** Notifications via SHV Alert shall be made to the management personnel of TSA, Tailwinds, Red River Sanitors, and also to the on-duty Airport Police officers. If necessary, U.S. Customs Service shall also be activated. All applicable personnel shall then be put into active status.

B) Gate Accommodations

Once the passenger deplaning process begins, passengers are escorted by airline personnel and airport police officers to their respective airline concourse gates. Here, the passengers are in contact with an airline representative who shall keep them informed on flight status and delay times. Also, passengers are free to roam the concourses and partake in the use of restroom and vending facilities. However, they may not leave the sterile area if TSA screeners are not present. If the flight is terminated, all bags removed from the aircraft must be delivered in a timely manner to the passengers.

- International Flights

Should a flight be international in origin, Gate 3 shall be utilized for passenger housing. This gate has been deactivated for airline use, and so serves as an ideal location for holding deplaned international passengers. Gate 3 is also considered a sterile area, and U.S. Customs Service shall be on hand for the handling of international passengers. Passengers are not comingled with other domestic passengers on the concourse and do not have use of

C) Transportation

The Shreveport Airport Authority maintains two 50-passenger transit buses. For any diversion aircraft that are parked on the General Aviation ramp, or in another remote parking location, these buses shall be utilized for the purpose of transporting passengers to the terminal concourses upon the request of an airline station manager. In addition to these transit buses, SHV also maintains a 12-passenger van in its inventory that may also be utilized for passenger or flight crew transport, in addition to two 10 passenger buses accessible for ADA passengers. . **Airline managers must give at least 1 hour notice for any remote location deplanement.** This will allow the airport to have resources in place to relocate the passengers in a safe, secure, and efficient manner. AOS/ACC will coordinate with Airport Police officers to monitor the transport process and insure all passengers are accounted for, and that they all enter the sterile area at their respective gate.

VI. Medical Emergencies

A) Notification

In the event that a passenger on-board a diversion aircraft experiences a medical emergency, the flight crew has several options for making notification. The most efficient, quickest, and most commonly used method is that of radio contact with ATCT ground control. ATCT personnel shall utilize SHV's emergency alert system, which is also utilized for the declaration and notification of aircraft in-flight emergencies, or "Alerts." Further information on SHV's emergency alert system can be found in the SHV AEP.

A second option for a flight crew to notify personnel of a medical emergency would be the utilization of TAC-Air's UNICOM frequency, in which case TAC-Air personnel would make the appropriate notification to ACC and AOS.

The third, most basic and generalized method for a flight crew to make emergency notification would be that of dialing "9-1-1" from any phone. The appropriate call routing will take place and notify the appropriate SHV airport emergency personnel of the situation.

B) Emergency Response

SHV has a unique advantage for purposes of medical emergency response. In addition to the appropriately EMT-trained personnel at the airport's ARFF station, the City of Shreveport maintains a district fire station (Station 16) that is adjacent to the airport's terminal concourses. This station houses EMT-trained firefighters and includes a response ramp that has direct AOA access to the commercial aviation ramp and all concourse gates. Station 16 is a participant in SHV's emergency alert system as well as the AEP.

VII. Media Interaction

Once the Airport Operations Department establishes that a diversion event is indeed going to begin, contact is made with the airport's Public Information Officer via SHV Alert system. Operators shall provide the Public Information Officer with information such as the estimated number of inbound diversions, estimated times of arrival, flight numbers, etc., which shall then be relayed to local media news outlets at the Public Information Officer's discretion. Airport Operations shall also notify the airport's Public Information Officer when any diversion aircraft begins the deplaning process.

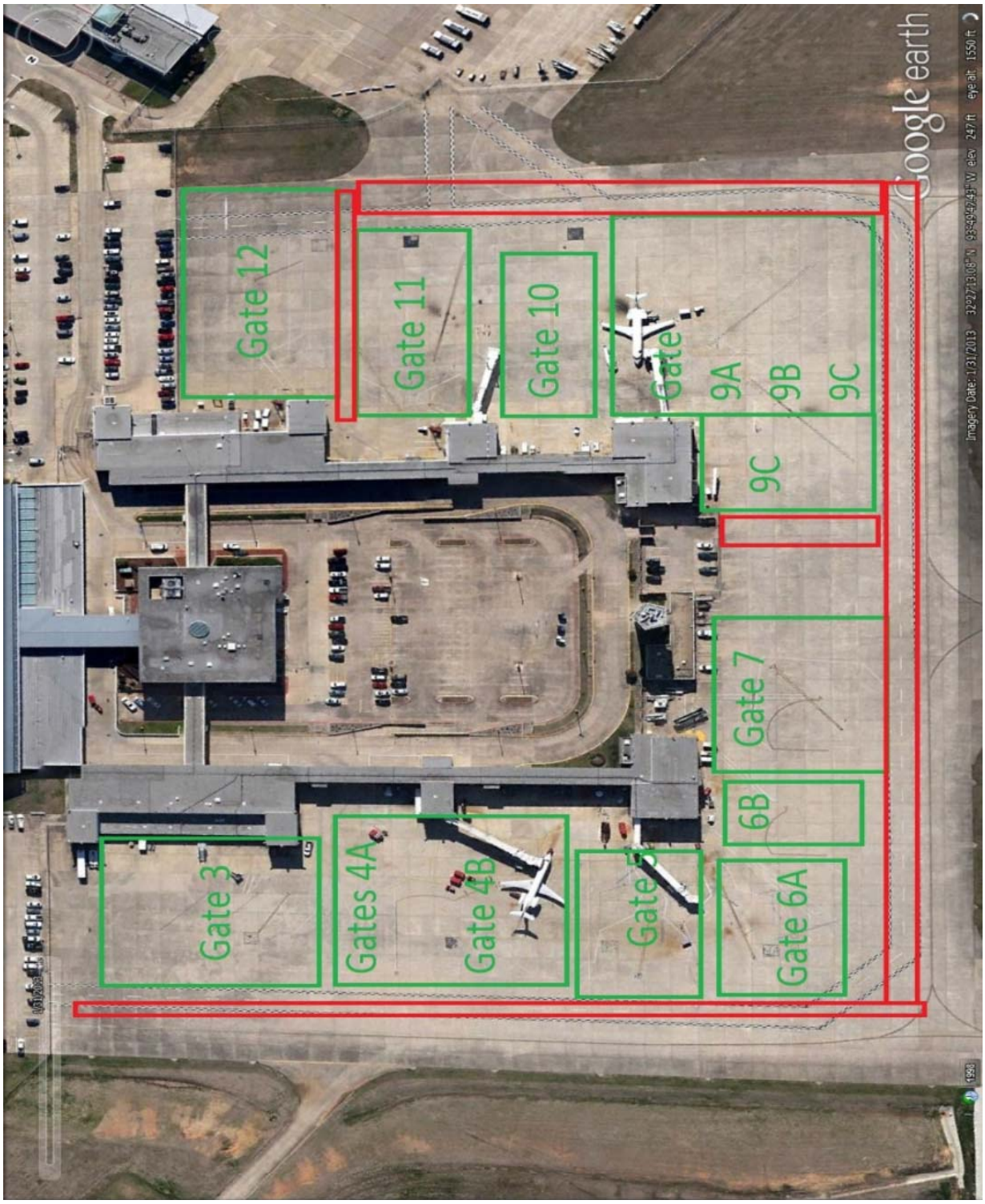
VIII. IROPS Working Group

Quarterly or after a significant IROPS Event, the SHV IROPS Working Group will meet to discuss events in detail. This debrief will allow the working group to examine the details of the event, good or bad. The IROPS Working Group members shall include but not limited to:

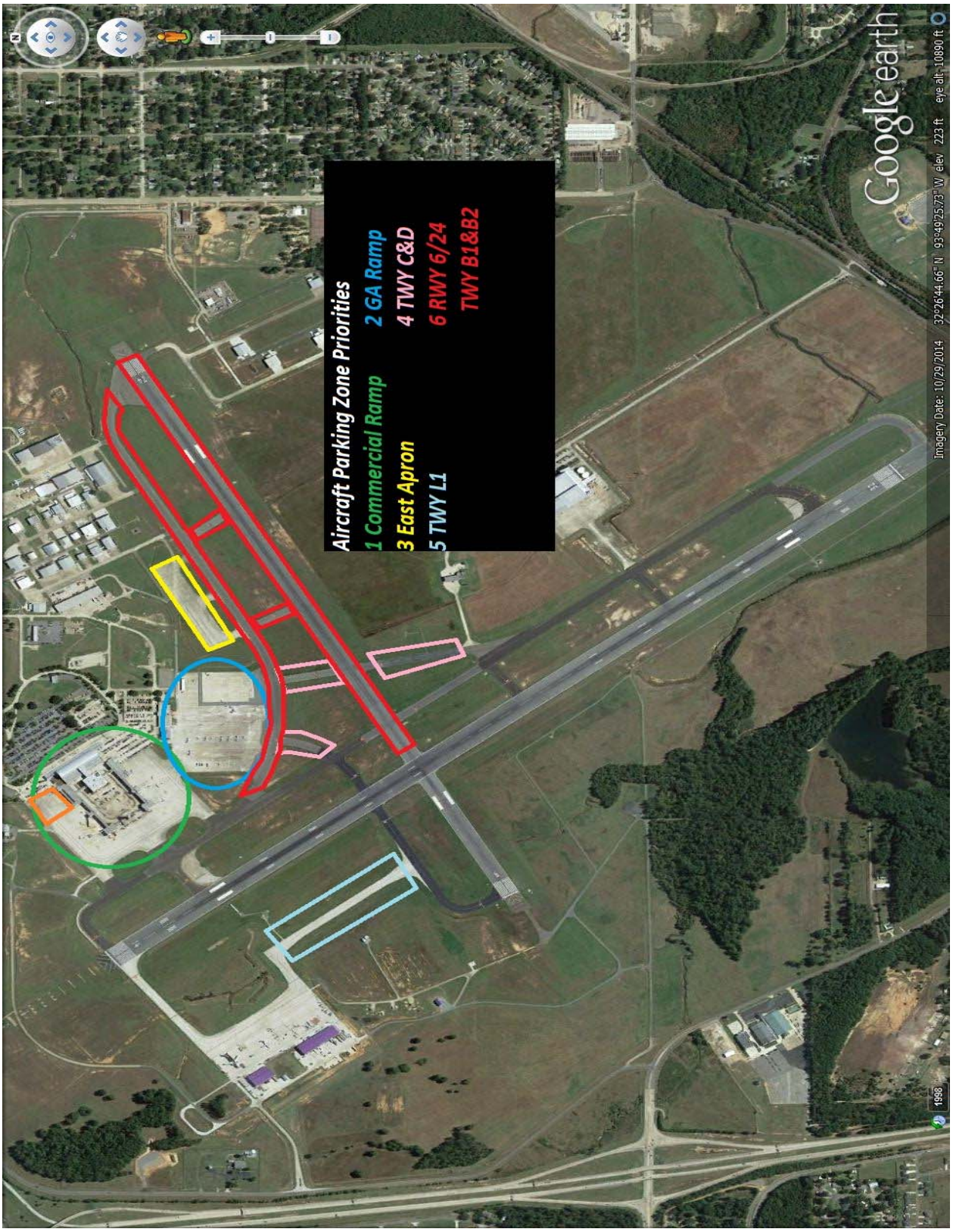
- Airline Station Managers
- Airport Operations Staff
- Airport Upper Management
- Airport Police
- Airport Communications
- Concession Manager
- FBO Manager
- US Customs and Border Patrol
- FAA Air Traffic Control Manager/Supervisor
- TSA
- Rental Car Managers
- Sanitation Contractors

The wide spectrum of participants allows the Working Group to have a greater perspective of the event and better understanding of all the working aspects of any IROPS event. As mentioned, an IROPS event does not limit itself to one event, but rather spreads out and becomes larger over time if it is not properly managed.

Terminal Parking Availability



Airfield Parking Priorities



IX. Action Charts

The following figures should be used as a guide in the event of an IROPS event.

Diversion Response			
	Action	Response	
Initial Phase	Diversions are immenent/enroute	Notify AOD/ACC	Airline Tenant
Response Phase	Diversion notification received by AOC/ACC	Begin Everbridge Notifications	ACC
		Warm up 50 PAX bus	AOD
		Consult Airline Reps for Type ACFT	
Initial Phase	Diversion Lands	None	
Response Phase	Diversion Landed	Collect information on ACFT	AOD
		Relay Parking information to ATCT	
		Marshal and Park ACFT	Airline Tenant TAC Air
		Provide bridge or mobile ramp	Airline Tenant TAC Air
Initial Phase	Diversion Deplanement Requested	Notify AOD if at remote parking location.	Airline Tenant TAC Air
		Notify ACC if at Gate	
Response Phase	Diversion Deplanement Request Received	If at gate: deplane aircraft directly to terminal	Airline Tenant
		If at remote location: acquire 50 PAX bus, board PAX, and disembark them at sterile side of terminal at company gate unless requested otherwise	Airport Operations Designee
Initial Phase	Diversion Reboarding Request	Notify ACC/AOD of reboarding event	Airline Tenant
Response Phase	Diversion Reboarding Notification Recieved	If at Gate: board as practical without delay	Airline Tenant
		If at remote stand: notify AOD/ACC	Airline Tenant
		Remote Stand: Board 50 pax bus and deliver PAX from terminal to aircraft	Airport Operations Designee

Delay/Cancellation Response			
Initial Phase	Aircraft is going to delay/cancel	Notify ACC/AOD	Airline Tenant
Response Phase	Delay/Cancellation Notification Received	Log Notification	AOD/ACC
		Notify PIO via Everbridge	ACC
		Make announcement via Social Media	PIO
	If Diversion XLD	Notify AOD/ACC	Airline Tenant
		Make appropriate arrangements for PAX	
		Remove and deliver bags per SOP	
		Notify front terminal tenants/custodians via Everbridge	ACC
		Check front terminal traffic flow	APD
		Check inside terminal passenger flow	AOD
		Check with Airline on passenger bags	

X. SHV Aviation Frequencies

FAA Air Traffic Control	
SHV Tower	121.400 MHz
SHV Ground	121.900 MHz
SHV Clearance Delivery	124.650 MHz
SHV Approach/Departure West	119.900 MHz
SHV Approach/Departure East	123.750 MHz
Automated Terminal Information System	128.450 MHz
SHV UNICOM	122.950 MHz
Air Carrier Operations	
American Eagle	131.950 MHz
GAT/United	129.675 MHz
DGS/Delta	129.600 MHz
Quick Flight/Allegiant	
FedEx	131.925 MHz
UPS	129.425 MHz
Fixed Based Operator (FBO)	
TAC Air (UNICOM)	122.950 MHz
TAC Air (ARINC)	130.070 MHz
Maintenance	
Expressjet Maintenance	123.350 MHz