Alternate Aerodrome Requirements

ABSTRACT

IFALPA believes there is a great need to improve safety at airports that serve as alternates. States and operators need to cooperate to provide the necessary safety improvements to elevate minimum requirements for airports to be designated as alternates.

INTRODUCTION

There have been numerous cases where fully loaded wide-body aircraft have had to make a diversion to an airport lacking the facilities usually required for their category. In some instances, the passengers and crew had to remain onboard the aircraft for up to 30 hours before relief efforts arrived. In other situations, when passengers and crew are not able to stay onboard, they may have to evacuate the aircraft, possibly facing additional challenges such as inclement weather.

As technology improvements and the need for maximum efficiency and minimum environmental impact result in more aircraft flying over specific areas, there is an increasing need for a joint effort between airline operators, airports, governments, and regulators. This will develop infrastructure and procedures to support aircraft that service the community or overfly the area, and to have an adequate number of airports available within a reasonable distance in case of a diversion. This could be accomplished by extending operational hours, adding ground personnel, and constructing new and/or updating existing structures wherever feasible.

SUMMARY

Operators should consider the following when selecting an alternate aerodrome:
- Communication available on VHF
- Communication in English ICAO Level 4 or better (a third party may provide this)
- Approach procedures suitable for your aircraft operations
- ADS-B coverage
- Paved runways capable of supporting the largest aircraft that overfly the region
- Lit and marked runways according to ICAO Standards
- Ground handling facilities, suitable for aircraft type:
    - Rescue and firefighting
    - Stairs and/or terminal facilities

- Tug and towbar
- Refuelling equipment
- Suitable shelter for passengers
- Means of further transportation
- Sufficient water and food
- Customs, immigration and health, entry arrangements

AIR TRAFFIC CONTROL NEEDS

What type of ATC communication is needed?

- VHF is the most effective available means of communication, offering clarity that is essential in overcoming potential language barriers. This can be achieved either by ensuring the airport's ATC is continuously staffed during times when a diversion is possible, or through reliable remote VHF transmitters/receivers located at the airport.
- Air Traffic control or other personnel should be available to assist in language coordination.

Are the navigation facilities adequate?

- ILS approaches should be available, or other ground-based navigation systems approaches.
- Ensure satellite coverage if no ground-based navigation systems are available.
- Ground-based navigation systems are required as a backup to space-based navigation aids at the locations where signal availability is not reliable due to GNSS interference or possible terrain obstructions in the area.
- Suitable ground visual aids.

Does ATC have surveillance capability in the area to assist the aircraft?

Like RNAV, ADS-B has come a long way in helping fill some of the surveillance gaps in remote areas. It provides a less expensive means of monitoring traffic compared to traditional radar. For ADS-B to be effective, there still needs to be transmitters and receivers in the area if space-based ADS-B is not employed by the region's Air Navigation Service Provider. These can be remotely located with the VHF transmitters and receivers to provide coverage near airports.

AIRPORT INFRASTRUCTURE

Suitable Airport Infrastructure is essential to maintaining safe aircraft operations on the ground. IFALPA supports developing additional requirements as follows.

Airfield Standards
- Paved runways capable of supporting any aircraft that uses the listed alternate. The airport must be adequately equipped, and airport personnel trained to maintain the airport surfaces.
- Runway lights to allow aircraft to use the airport at night. These should be installed and operational at a minimum on the primary runway.
- Runway markings and signage meeting ICAO SARPs. These should be installed at a minimum on the primary runway and taxiways.
- A visual vertical guidance system should be installed on the primary runway. This will allow pilots on approach to remain clear of terrain and allow them to safely touchdown at the beginning of the runway, allowing the pilots the most available runway to safely decelerate the aircraft.

Airfield Equipment
- Rescue and firefighting (RFF) equipment should be available at the aerodrome by the time of the approach following the notification of a diversion in the event of an emergency on the airport. Thirty, 30, minutes or less response time.
- A daily reports on RFF condition and category of ARFF.
- Disembarkation means suitable for an aircraft that designates an airport as an alternate should be adequately maintained and available for use to safely deplane passengers.
- An aircraft tug capable of moving the largest aircraft that uses the listed alternate. Tow bars for the most common aircraft types should also be available.
- Fuel and refuelling equipment suitable for the aircraft type should be available.
- Ground transportation to move the passengers and crew from the aircraft to a suitable holding facility and/or structure.
- Operations should be restricted or limited to specific aircraft and passenger numbers if the airport cannot comply with the items above.

Airport/ Community Facilities and Supplies
- Lodging: There needs to be an adequate facility capable of protecting passengers and crew against any hostile outside conditions. More community centers should be built in remote areas to serve both the community and passengers in need. Water, waste, and other environmental components would be readily available.
- Food and water: A three-day supply of food and water should be made available at these structures.
- Lavatory facilities: Adequate lavatory facilities should be available to support basic hygiene requirements.

FACILITATION AND SECURITY – CUSTOMS AND IMMIGRATION

Customs Procedures

Customs protocols should be in place to allow passengers to leave the aircraft and stay in a quarantined location until they are able to either leave the area on relief transportation or until the proper authorities arrive to clear them.

Pilots should be able to perform a preflight inspection, which is exempt from immigration/customs procedures.

Security considerations

Appropriate airport design, procedures, equipment and personnel should be in place to ensure perimeter protection, physical security of buildings (including passenger terminal buildings), access control, and screening and security measures for non-passengers and the items they carry when entering security-restricted areas.