Tips for Operational Safety on Airports During Construction

AC 150/5370-2, *Operational Safety on Airports During Construction*, contains guidelines for operational safety during airport construction. It helps airport operators comply with 14 CFR Part 139, *Certification of Airports* and with the requirements of airport construction projects funded with federal funds. It is worth reviewing during all phases of construction at your airport.

All airports must perform construction or maintenance activities in order to develop and grow. As needed as these activities may be, though, airports assume substantial risk when performing them. Airport construction activities can be difficult and dangerous, so airports must take appropriate precautions to reduce the potential risks. Below are some actions that airports should take.

**Pre-Construction Planning**
- Develop a Construction Safety and Phasing Plan (CSPP). This is a mandatory item for all projects funded with federal funds. AC 150/5370-2 gives details on CSPP requirements.
- Meet with contractors, tenants, and affected parties before beginning construction.
- Develop and coordinate a construction vehicle safety plan.
- Establish haul routes and gate access procedures to minimize impact on operations.
- Set specific limits for construction activity.

**Safety Areas and Work Limits**
- Construction activities are prohibited in safety areas while the associated runway or taxiway is open to ALL aircraft.
- Only the airport operator may initiate or cancel NOTAMs on airport conditions, and is the only entity that can close or open a runway.
- Stockpiled materials and equipment storage are not permitted within the runway safety area and object free zone, and if possible should not be permitted within the object free area of an operational runway.
- Stockpiling material in the object free area requires submittal of a 7460-1
- Open trenches or excavations are not permitted in the Taxiway Safety Area.
Marking and Lighting
- Construction areas, obstructions, hazards, and closed areas must be marked and lighted. See AC 150/5370-2 for specific guidance.
- Barricades must be of low mass, of low-height, be retro reflective orange/white in color, and be easily collapsible/frangible.
- Use flags to mark barricades during the day. Use red lights at night – steady burning or flashing.
- Non-frangible barricades, such as metal drums or concrete dividers, are prohibited in movement areas. Do not use wood railroad ties on runways.
- Turn off runway lights and approach lighting on closed runways. Obscure lighting on closed portions of runways (i.e. displaced thresholds).
- When runways are closed, operators should place X’s on the runway ends to identify the closure. At night, the use of lighted X’s is highly recommended. See AC 150/5345-55.

Ground Vehicles
- Your vehicle driver-training program is your first line of defense against runway incursions. Make sure driver training is significant and adequate.
- All vehicle operators must be trained in airport procedures, safety, work area limits, security, and communications.
- Vehicle parking areas must not restrict ATCT line-of-sight, impact NAVAID signals or penetrate FAR Part 77 imaginary surfaces.
- Use only designated haul routes or roads.
- Aircraft always have the right of way!

Construction Reminders
- Establish procedures for the immediate notification of users and the FAA of any condition adversely affecting safety.
- Develop a good, specific Construction Safety Plan. Update during the project, as needed.
- Conduct periodic safety meetings with contractors and tenants.
- Continually review NOTAMs.
- Remember to include the aircraft rescue and firefighting department in all construction planning and updates and NOTAM notification.
- Penalties for non-compliance established in construction contracts are useful in ensuring contractor compliance with safety procedures.
- Remember to use sweepers to control FOD from construction vehicles at movement area crossings.
- Inspect construction areas completely before opening/re-opening any airport surfaces.
- Use a “start-up/shut-down” checklist.
• Train, train, train all employees and contractors who move around the Airport Operations Area.
• Check construction barricades and other lighting during the night inspection.
• Coordinate all construction at the planning stage with the Air Traffic Control Tower to determine if a Safety Risk Management Document (SRMD) is needed.

References

FAA Aviation Circulars, 150 series

• AC 150/5370-2, Operational Safety on Airports During Construction
• AC 150/5200-28, Notices to Airmen
• AC 150/5340-1, Standards for Airport Markings
• AC 150/5340-18, Standards for Airport Sign Systems
• AC 150/5210-20, Ground Vehicle Operations on Airports
• AC 150/5200-18, Airport Safety Self Inspection
• AC 150/5380-5, Debris Hazards at Civil Airports
• AC 150/5345-55, Lighted Visual Aid to Indicate Temporary Runway Closure

TSA publications

• TSA Recommended Security Guidelines for Airport Planning, Design, and Construction.

The Role of Airport Certification Safety Inspectors

• Offer guidance to airports regarding safety during construction.
• Ensure that the airport is complying with AC150/5370-2 and the construction safety plan.
• Investigate any Vehicle/Pedestrian Deviations or incidents occurring because of construction activity on the airfield.
• Provide recommendations to prevent or correct any unsafe conditions.

Contact Us

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