



## RUNWAY STATUS LIGHTS

### ■ PROJECT DESCRIPTION

Under a partnership between the Federal Aviation Administration (FAA) and Los Angeles World Airports (LAWA), technology that warns pilots about potential runway safety hazards is now operating at Los Angeles International Airport (LAX). The system, called Runway Status Lights, uses a series of red lights embedded in the pavement to warn pilots if it is unsafe to cross or enter a runway, or to take off.

Pilots approaching a runway equipped with Runway Status Lights will see red lights illuminated if LAX's ground surveillance radar detects traffic on or approaching that runway. Clearance to cross or enter a runway must be given by air traffic control. Pilots must verify clearance before proceeding even after the warning lights are no longer illuminated. The lights are installed on eight taxiways intersecting more than one runway. LAX is the first airport to have the lights installed on multiple runways. Runways Status Lights are the latest safety enhancement at LAX.



Red lights indicate stop while air traffic passes by much like regular street traffic lights.

The FAA also installed the most technologically advanced ground radar system, known as Airport Surface Detection Equipment - X, or ASDE - X, in the air traffic control tower. ASDE - X collects data from more sources than LAX's previous ground radar system, and provides air traffic controllers with color map displays showing the location of all aircraft and vehicles on the runways and taxiways.

The system, which has been tested at Dallas/Fort Worth International and San Diego International Airports, has improved runway safety without reducing capacity or increasing controller workload. The FAA was responsible for installation, testing and will maintain the system.

### ■ TRAVELER BENEFITS

This new technology promises to become a valuable tool in LAWA's ongoing efforts to reduce runway incursions at LAX and improve airfield safety. During the period from 2000-2003, LAX experienced the highest number of runway incursions of any U.S. commercial airport. A runway incursion is defined as an incident in the runway environment involving an aircraft, vehicle, person or object on the ground that creates a collision hazard or prevents an aircraft, that has been authorized by federal air traffic controllers to take-off or land, from doing so.

### ■ CONSTRUCTION DATES

A prototype system was installed June 2009. Full construction completed in September 2014.

### ■ COST

The FAA funded the initial prototype at a cost of \$7 million and will completely fund and manage installation of Phase 2.