BLOWBACK

Stop the bulldozers

Two USC professors say LAX should fix human error before redesigning runways.

By Najmedin Meshkati and Catherine Rae T. Ricafort
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We have to disagree with The Times' editorial on LAX's many near-misses on the runway. It stated, "LAX's woes center on its dangerous and outdated configuration." Certainly, airport design and geometry are contributing causes of runway incursions, but LAX's problems are caused by many other factors, all of which are equally critical.

Based on our research and teaching on aviation safety and runway incursions for the last 20 years at USC, we have found that human factors are the most important contributor to runway incursions. In fact, according to the Federal Aviation Administration's Runway Safety Blueprint 2002-2004, "human factors [are] the common denominator in every runway incursion."

We would like to point out that the most notable causes of runway incursions include, in addition to airport geometry and design: poor visibility (due to fog, for example), ground and approach air traffic controllers' communication practices, air traffic controller staffing, workload and cumulative fatigue, deficient or inoperative ground radar systems, departure delay, duty time limitation and pressure on cockpit crews, cockpit crews' inadequate situational awareness, and cultural and language differences among interacting parties.

The Times also claimed that "LAX controllers aren't any more overworked than their peers elsewhere." But unlike most other airports, LAX controllers have had to handle the added effect of continuous construction on the southern runways. There are strong indications that air traffic controllers — not only at LAX but also nationwide — are increasingly suffering from fatigue. This critical issue prompted the National Transportation Safety Board to update its "most wanted list" of safety improvements, adding, "three safety recommendations on air traffic controller fatigue to the existing aviation issue area that addresses human fatigue."

We agree with The Times that the situation is urgent, and there is no need to wait for the findings of another study — we know that the major human factor considerations in runway incursions are key. Rather than "sending in the bulldozers," the officials should acknowledge these considerations and develop a systematic plan of action.

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He conducts research on human factors in aviation safety and runway incursions and was one of the 25 experts who participated in the Government Accountability Office's recently released study on "Aviation Runway and Ramp Safety." Catherine Rae T. Ricafort is a junior student and Presidential Scholar at USC, and conducts research in the Viterbi School of Engineering.