National Institute of BUILDING SCIENCES™
Building American Innovation

Portland's Resilient Runway Saves Up to $25 per $1 Invested

Natural Hazard Mitigation Saves: A Transportation Case Study
By the Multi-Hazard Mitigation Council (MMC)

Oregon could experience a magnitude-8.7 or larger earthquake within 50 years that causes catastrophic deaths and damage. Portland International Airport (PDX) can play a crucial role speeding the response and recovery and prevent much of the harm. The Port of Portland engaged the National Institute of Building Sciences (NIBS) to estimate the benefit of protecting PDX's south runway from earthquake damage. NIBS estimates savings of $12 billion (2030 USD) which is 25 times the cost. A resilient runway will:

SAVE LIVES

$750 million in health and medical benefits. The area has 3 million people, but fewer than 400 vacant ICU and emergency department beds. Medical evacuation through PDX can save up to 1,600 lives.

SPEED RETURN TO HOMES AND WORKPLACES

$9.3 billion from fast re-occupancy of buildings. Up to 600,000 buildings will need safety evaluation. We need a resilient runway so thousands of experts can help people return quickly to safe buildings.

AVOID BUSINESS INTERRUPTION

$2.0 billion in reduced business-interruption losses. Much of $330 billion in gross regional product relies to some extent on PDX. A resilient runway will allow PDX to resume operations up to one year sooner.

REDUCE REPAIR COST

$7 million in reduced repair costs to fix the remaining (un-strengthened) portion of the runway. PDX can rely on the strengthened part during recovery.

Natural hazard mitigation saves. Earthquakes, fires, and storms threaten our infrastructure. Much of it was designed with a false economy, minimizing initial investment but costing society more in the long run. Studies like this show that we can cost-effectively improve our infrastructure and prevent future catastrophes. For more information, see www.nibs.org/PDXreport.

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