SECURITY BYPASS

Cause Map

Man boards plane without ticket

"He completely bypassed TSA screening. He was in a public area and went out an emergency fire door, which gave him access to the tarmac."
- San Diego Harbor Police Chief John Bolduc

Cause Mapping is a Root Cause Analysis method that captures basic cause-and-effect relationships supported with evidence.

CAUSE MAPPING
Problem Solving • Incident Investigation • Root Cause Analysis

Step 1 **Problem** — What's the Problem?
Step 2 **Analysis** — Why did it happen?
Step 3 **Solutions** — What will be done?

For a free copy of our Root Cause Analysis Template in Microsoft Excel, used to create this page, visit our web site.

ThinkReliability
Investigate Problems. Prevent Problems.
Houston, Texas 281-412-7766 ThinkReliability.com

Copyright ThinkReliability 2012

1 Problem

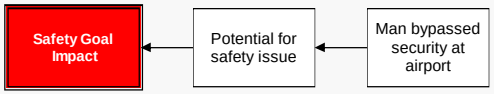
What	Problem(s)	Man boarded plane without ticket, security check
When	Date	May 29, 2012
	Time	Early morning
	Different, unusual, unique	Able to go out an emergency fire door to tarmac
Where	State, city	San Diego, CA
	Facility, site	International Airport
	Task being performed	Boarding

Impact to the Goals

Safety	Potential for safety issue
Environmental	No environmental impact
Customer Service	Deplaning required for plane passengers
Production-Schedule	Delay in take-off
Property, Equip, Mtls	No damage to property, equipment
Labor, Time	Searches, rechecks by airport personnel

2 Analysis

Basic Level Cause Map - Start with simple Why questions.



Basic Cause-and-Effect

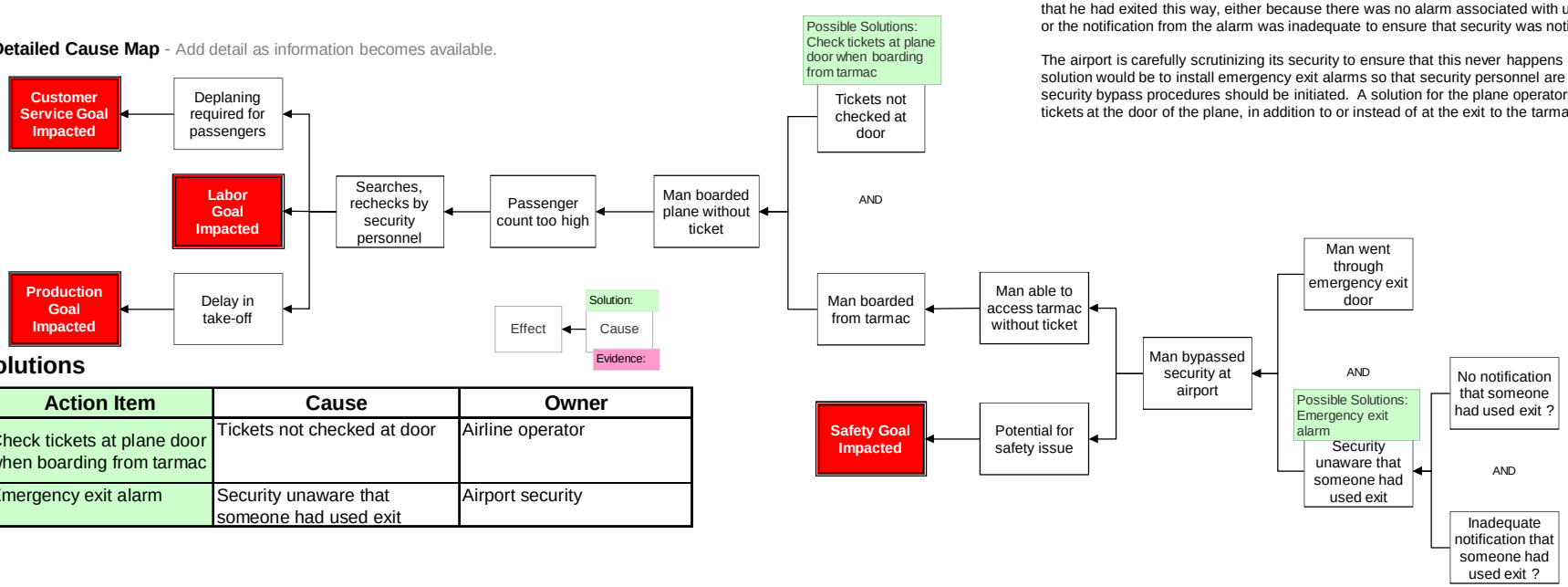
On May 29, 2012 a man boarded a flight from the tarmac at San Diego International Airport. The man did not have a ticket, and had not been through security. The extra passenger was not noticed until a flight attendant's head count was noted to be off. Although no one was hurt, there was the potential for a safety issue. The plane was delayed due to the rechecks required of passengers.

More Detailed Cause-and-Effect

Because the man was able to board the plane from the tarmac without showing a ticket, tickets were presumably not checked at the aircraft door. Likely they were instead checked at the door leading to the tarmac. Because the unticketed man was able to access the tarmac through an emergency exit, he was able to get on the plane without a ticket. How was he able to access the tarmac? He went through an emergency exit door in a public area. Security did not realize that he had exited this way, either because there was no alarm associated with using the door, or the notification from the alarm was inadequate to ensure that security was notified.

The airport is carefully scrutinizing its security to ensure that this never happens again. One solution would be to install emergency exit alarms so that security personnel are notified that security bypass procedures should be initiated. A solution for the plane operators is to check tickets at the door of the plane, in addition to or instead of at the exit to the tarmac.

More Detailed Cause Map - Add detail as information becomes available.



3 Solutions

No.	Action Item	Cause	Owner
1	Check tickets at plane door when boarding from tarmac	Tickets not checked at door	Airline operator
2	Emergency exit alarm	Security unaware that someone had used exit	Airport security