A Crash Course in Runway Disaster Management:
Lessons from Asiana 214

Clement Yeh MD
Medical Director
San Francisco Fire Department
San Francisco Department of Emergency Management
University of California San Francisco
Disclaimer

“The opinions expressed in this presentation are those of the author, Clement Yeh, and may not reflect the official analyses or opinions of the San Francisco Fire Department, Department of Emergency Management, University of California San Francisco, San Francisco International Airport, San Francisco City & County, San Mateo County or the National Transportation Safety Board.”
Overview & Objectives

- Incident Overview
- Response Challenges
- Considerations for change in your area
Take Home Points

- “Normalize” Disaster Response
- Plans + Planning + Practice
- Anticipate Comm Issues
- Overall System Management
Incident Timeline

- 1132 SF DEC Notified of OZ214 Crash
- 1134 Initial Dispatch
- 1134 First Alarm Struck
- 1140 Yellow Alert Declared
- 1145 First SFFD Units on Scene
- 1146 Second Alarm requested
- 1147 Red Alert Declared, First SFFD Ambulance, IC on scene
- 1151 Third Alarm Struck
- 1159 10/1 Modified Response for SF Announced
- 1215 Passenger Count & Manifest Reported
- 1222 First SFFD Ambulance (M86) Transporting to SFGH
- 1259 All patients transported off tarmac
- 1315 190 Passengers at Gate 91 International Terminal
- 1824 All Patients Transported, Red alert Secured
- 1917 IC Closes Incident
Communications

- Language barriers
- Instantaneous
- Comm disruption should be expected
- Mitigating factors
  - Interpreters
  - Redundancy
  - Fallback plans
Communications

I just crash landed at SFO. Tail ripped off. Most everyone seems fine. I’m ok. Surreal... (at @flySFO) [pic] — path.com/p/1lwrZb

12:13 PM - 6 Jul 2013
Patient Characteristics

- 307 Passengers on board
- 291 Passengers
- 16 Crew
- 179 patients transported to area hospitals
Patient Distribution: Counties

- **SF**: 50% (88)
- **SM**: 16% (29)
- **AC**: 1% (2)
- **SC**: 32% (57)

[Map showing counties: Marin, Contra Costa, Alameda, San Mateo, Santa Clara, Santa Cruz, Solano]
Patient Distribution: Hospitals

- Stanford: 57
- SFGH: 53
- Mills Peninsula: 14
- UCSF: 14
- Kaiser Redwood City: 10
- CPMC (all campuses): 9
- Kaiser San Francisco: 5
- St. Francis: 7
- Sequoia Hospital: 5
- St. Mary’s: 4
- Eden: 2
Patient Distribution

- Language resources
- Reunification
- Special populations
  - Trauma
  - Burns
  - Pediatrics
### System Impact

#### Saturday, July 06, 2013

<table>
<thead>
<tr>
<th></th>
<th>Hours Staffed</th>
<th>Time on Task</th>
<th>Non-Transport</th>
<th>Private TH</th>
<th>%M</th>
<th>Ambulance Shifts</th>
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<tbody>
<tr>
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<td>361.0</td>
<td>147.69</td>
<td>27%</td>
<td>36</td>
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<td>341.0</td>
<td>205</td>
<td>260</td>
<td>149</td>
<td>81%</td>
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<table>
<thead>
<tr>
<th>Response Market Share</th>
<th>Shifts Needed</th>
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<tr>
<td>79%</td>
<td>32</td>
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### Graphical Representation

- The graph shows various metrics including:
  - Hours Staffed
  - Time on Task
  - Non-Transport
  - Private TH
  - %M
  - Ambulance Shifts

- The graph also includes a bar chart showing the distribution of shifts needed with a peak at 79%.
Take Home Points

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