2018 November Alaska Cook Inlet Earthquake

Lessons Learned
## Mitigation (Building Codes) Works

<table>
<thead>
<tr>
<th>Date</th>
<th>Location</th>
<th>Magnitude</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-29-08</td>
<td>Pakistan</td>
<td>6.4</td>
<td>215</td>
</tr>
<tr>
<td>4-06-09</td>
<td>Italy</td>
<td>6.3</td>
<td>308</td>
</tr>
<tr>
<td>1-12-10</td>
<td>Haiti</td>
<td>7.0</td>
<td>100,000+</td>
</tr>
<tr>
<td>4-14-10</td>
<td>China</td>
<td>6.9</td>
<td>2,698</td>
</tr>
<tr>
<td>2-22-11</td>
<td>New Zealand</td>
<td>6.3</td>
<td>185</td>
</tr>
<tr>
<td>8-11-12</td>
<td>Iran</td>
<td>6.3</td>
<td>300</td>
</tr>
<tr>
<td>2-20-13</td>
<td>China</td>
<td>6.6</td>
<td>193</td>
</tr>
<tr>
<td>8-3-14</td>
<td>China</td>
<td>6.1</td>
<td>617</td>
</tr>
<tr>
<td>8-24-16</td>
<td>Italy</td>
<td>6.0</td>
<td>298</td>
</tr>
<tr>
<td>8-5-18</td>
<td>Indonesia</td>
<td>6.9</td>
<td>513</td>
</tr>
<tr>
<td>11-30-18</td>
<td>Alaska</td>
<td>7.1</td>
<td>0</td>
</tr>
</tbody>
</table>
Planning Works!

All – Hazard Plans VS. Scenario-specific Plans
Training, Exercise, and Outreach
The Result.....

www.ktva.com/clip/14705873/70-earthquake-caught-on-camera-by-anchorage-teacher
Sharpening the Saw

- Continuity of Operations Drills
- Tsunami Calldown Drills
- Monthly SEOC Training
- Partnerships in Practice
A lifeline enables the continuous operation of government functions and critical business, and is essential to human health and safety or economic security.

Ease of Communication

<table>
<thead>
<tr>
<th>Status</th>
<th>“What?”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact</td>
<td>“So What?”</td>
</tr>
<tr>
<td>Actions</td>
<td>“Now What?”</td>
</tr>
<tr>
<td>Limiting Factors</td>
<td>“Without What?”</td>
</tr>
</tbody>
</table>
Seismic Mitigation Dollars at work

Kodiak Island Borough School District Seismic Roof Bracing Improvements 2011

Ben Boeke Ice Arena Anchorage Wall/Roof Seismic Reinforcements 2009
The Results....

• No Loss of Life
• No Major Injuries
• Most Schools Reopened within 10 days...
• Three schools closed for two academic years
• Over 100 School buildings report damage
Finance and Admin Preparedness

- IDIQ Contracts - immediate hire of contractors for response
- Training for Contracting Staff (preparation based on IDIQ contract)
- Funded Disaster Relief Fund
- Monthly SEOC training prepared Finance/Admin staff in Department
Partnerships are Paramount

- State/Local, State Agencies, Partners and Contractors
- Alaska Partnership for Infrastructure Protection
- Volunteer Organizations Active in Disasters
- Playing in the Sandbox
- Relationships form the Foundation
Alaska DOT&PF Rapid Response

- Not Road Construction Season
- AKDOT&PF Contractors Rapidly Mobilized
- Private Sector Asphalt Plant Fired up the day of the quake
Schools

- Anchorage School District: $22.39 million for repairs so far
- Mat-Su Schools: at least 50 reports of structural damage
Response Coordination Key

• Local jurisdictions and agencies responded well, and informed the State
• FEMA was here fast
• FEMA and State of Alaska – best partnership in the Nation
• State and Local Emergency Operations Centers had the right liaisons at the right time
• Coordinated planning, training, and exercising with partners works!
Disaster Assistance...Works?

- State Individual Assistance
- 13,845 Applicants (Dec. 3-Feb. 28)
- $1,509,437
- Not well-automated
- Limited full-time staff
- Slow to pay
- State-FEMA-SBA-State

- Federal Individual Assistance
- 9,548 Applicants (Feb. 1-now. May 31 deadline)
- $14,180,373
- Automated (sometimes bad)
- Fast to pay
- Safe/Sanitary/Functional
- SBA - $64,254,900 for 1,536 Loans
Disaster Assistance Works

- Public (Infrastructure) Assistance
- December estimate ~$48m (based on the worst we could find at the time)
- 67 Applicants (gov’t, schools, road)
- 38 Private Non-Profits

- Public Assistance = repair or rebuild to how it was
- Public Assistance + Mitigation – Rebuild with Resilience
- Fine print:
  - Reimbursable program
  - Slow....

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“Flexibility”

• Initially, FEMA pays for foundation damage (they don’t inspect foundations) based on line items with fixed prices.
• Out of 67 cases, an average of $3,219
• Survivors, Local + State Officials, Congressional Delegation Request FEMA change their ways.
• FEMA policy change for this disaster pays foundation damage actuals based on private contractor estimates.
• Those 67 cases have received a new average of $20,723 for foundations
Earthquake Insurance

- High Premiums
- Higher Deductible
- FEMA doesn’t provide funding for deductibles
- The State and SBA does

- NO duplication of benefits.
- Insurance, FEMA grants, SBA loans, State grants cannot pay for the same damage
2018 Cook Inlet Earthquake

- Largest home and infrastructure disaster since 1964
- Combined State and federal assistance will likely exceed $250 m
- Mitigation, Building Codes, Individual and Family Preparedness works

- Nobody died
- Nobody was severely injured
- Things looked “too good” within a week
- The damage is bad throughout southcentral
- A little longer, a little stronger – a different story
Where to Find Help

- State IA (2/28) ready.alaska.gov/earthquake
  - 855.445.7131
- FEMA IA (5/31) disasterassistance.gov
  - 800.621.3362
- SBA Loans (5/31) disasterloan.sba.gov
  - 800.659.2955
Bryan J. Fisher
Incident Commander
State Coordinating Officer
2018 November Cook Inlet Earthquake
b.fisher@Alaska.gov

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