Technology

Session #6
Presentation #2
Queen Alia International Airport

• Introduction of AIG
• WILDLIFE
• FOD
Queen Alia International Airport

BELIEVE IN JORDAN

Airport International Group
Airport International Group (AIG) is a Jordanian company comprising a consortium of local, regional and international partners brought together for their experience in finance, airport operations and construction... gathering local, regional and international investors and expertise!
Queen Alia International Airport

- A beautifully designed baggage reclaim area with sufficient space and baggage carts to welcome QAA’s growing passenger numbers.
- A unified terminal building, welcoming departing and arriving passengers through two different floors.
- Upon passing through the only security check point at the terminal, passengers will have plenty of time to shop through a selection of brand names, or just relax at one of the many options of restaurants and cafes available prior to their flight.
- Passengers can safely check-in their luggage through 84 easy-to-access check-in counters operated by state-of-the-art technology.
- Upon entering the terminal, passengers can embrace the elegant mix of colors and room space, shaded by greenery and uniquely designed columns.
Queen Alia International Airport

**Previous Terminal Facilities**
- 32 aircraft stands, including 8 contact stands
- Area of 58,400 Sq.m
- 46 Check in counters

**New Terminal Facilities**
- 14 contact stands further expanding to 18, and 24 remote stands
- PAX Capacity of 7M PAX further expanding to 9M
- Area of 100,000 Sq.m
- 64 Check in counters

**Quick Facts...**
- Two (3660 x 61) meter runways with 2 rapid exits
- High runway PCN (84/F/C/W/T and 79/F/C/W/U)
- 3 Cat II Instrument Landing System (ILS)
- Comprehensive parallel taxiways
- Code E Fire Fighting & Recovery Systems FFRS services
- 24/7 operations – no curfew
Queen Alia International Airport

- **Traffic**

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2013</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PAX</td>
<td>3,857,000</td>
<td>6,502,323</td>
<td>+ 68 %</td>
</tr>
<tr>
<td>Total ACM</td>
<td>44,700</td>
<td>67,959</td>
<td>+ 52 %</td>
</tr>
</tbody>
</table>
Baseline & Foundation

QAIA’s Safety Management System has been certified by Civil Aviation Regulatory Commission back in 2008 (beginning of the concession) and all related procedures implemented, continuously tested and amended.

Since 2009, AIG is ISO certified for:
- Its Quality Management System (ISO 9001) as well as;
- Its Environment Management System (ISO 14001)
- Furthermore, its Customer knowledge & Satisfaction Management System complies with ISO 10002 standards;
Guest... generally protected

- Dogs (fence, cargo area, main access point) - Traps
- Cats (former terminal, construction site) - Traps
- Pigeons (former terminal nest, stakeholders...) – Spikes/repellent;
- Stone curlew, skylark, crested lark, House sparrow, Spanish sparrow, linnet – habitat/scarring;

- Migration/seasonal (October – January)
QAIA - Wildlife

## QAIA - Wildlife

- **Risk assessment**
  - **Probability criteria:**

<table>
<thead>
<tr>
<th>Wildlife Strike Rate per 10,000 movements</th>
<th>&gt;10</th>
<th>3 - 10</th>
<th>1 – 2.9</th>
<th>0.4 – 0.9</th>
<th>0 – 0.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Probability category</td>
<td>Very High</td>
<td>High</td>
<td>Moderate</td>
<td>Low</td>
<td>Very Low</td>
</tr>
</tbody>
</table>

- **Severity criteria:**

<table>
<thead>
<tr>
<th>Percentage of strikes Causing damage</th>
<th>&gt;20%</th>
<th>10–20%</th>
<th>6 – 9.9%</th>
<th>2 – 5.9%</th>
<th>0 – 1.9%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity category</td>
<td>Very High</td>
<td>High</td>
<td>Moderate</td>
<td>Low</td>
<td>Very Low</td>
</tr>
</tbody>
</table>
QAIA - Wildlife


  - 1.3 per 10,000
  - Damage - 0% (further amendment to consider other impact i.e. delays etc.)
QAIA - Wildlife

- Risk matrix

<table>
<thead>
<tr>
<th>SEVERITY</th>
<th>PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very High</td>
</tr>
<tr>
<td>Very High</td>
<td>5A</td>
</tr>
<tr>
<td>High</td>
<td>4A</td>
</tr>
<tr>
<td>Moderate</td>
<td>3A</td>
</tr>
<tr>
<td>Low</td>
<td>2A</td>
</tr>
<tr>
<td>Very Low</td>
<td>1A</td>
</tr>
</tbody>
</table>

- Objective: stay green!
- Next target community surrounding QAIA...
QAIA - Wildlife

• Main action - Habitat management
  • Habitat survey (RSCN) – Procedure amendment
  • Olives trees relocation, systematic grass cutting campaigns;
  • Storm water ditches, no standing waters, WWTP upgrade;
  • Waste management
QAIA - Wildlife

- Watching/scaring actions by mobile and fixed equipment on the runway strips
QAIA - Wildlife

- Fixed scaring devices along runways
Queen Alia International Airport

- FOD
QAIA – Airside safety

- Deviation per movement/per main handler
## QAIA - FOD

### Most frequent deviation

<table>
<thead>
<tr>
<th>ASM Ref.</th>
<th>Violation</th>
<th>Related accidents /incidents</th>
<th>Root Cause</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.9.12.2</td>
<td>Driving around parked aircraft (ASA)</td>
<td>2</td>
<td>Lack of supervision and Safety awareness (Behavior) and staging equipment not in proper specified location (Example: ASA)</td>
</tr>
<tr>
<td>3.9.14</td>
<td>Vehicles &amp; Equipment Parking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.11</td>
<td>Foreign Object Debris (FOD)</td>
<td>1</td>
<td>Not abiding by waste, trash or refuse disposal procedures. Lack of supervision and Safety awareness (Behavior) and not following procedures and regulations (Behavior)</td>
</tr>
</tbody>
</table>
QAIA - FOD

- Equipment used
Queen Alia International Airport

- More inspection during night...
QAIA - FOD

- Challenging FOD
Queen Alia International Airport

- Maintenance...
QAIA - FOD

- For quick removal on RWY/TWY
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- Raising other concern...
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Key of success:
- Have basics right (system, procedure, training);
- Have a consistent/accurate system for continuous monitoring (adjust accordingly);
- Communicate (awareness, committees);
Thank you!