Under Asian Skies

David Walker
Chief Executive Officer,
Jardine Aviation Services Group
Maybe one day you can work in aviation, son?

No way, dad. I’m going to be a lawyer or join Goldman Sachs!

Good boy!
Manpower

- Working at an airport is no longer aspirational
- Plenty of other opportunities
- Out of town, long unsocial hours, not high paying
- Staff don’t work for love!
Balance the fast turnaround equation
Balancing the Fast Turnaround Equation

- 180 pax + 5MT bulk cargo (in & out) = 40 minutes
  - Given ATA ≠ STA
  - And Py<Py-1
- Please show your working

- There’s a physical limit if you’re using a bulk-loaded aircraft
- Modern GSE can help, but has its limitations (cost, cargo-unfriendly)
Cargo Throughput
Top 20 Cargo Airports, 2016
Nijat Rahimov
Olympic Champion

Ref: Rio 2016 Olympics
Price Pressure \( \uparrow \)
Congestion \( \uparrow \)
Ground Time \( \downarrow \)
Manpower \( \downarrow \)
Flights \( \uparrow \)
Congestion
Congestion

- ATC, especially China flights
- Bad weather (e.g. typhoons)
- Airport infrastructure
- Night time flights (low cost for pax, not for ground handling)
Flights ↑

Price Pressure ↑

Congestion ↑

Ground Time ↓

Manpower ↓
Fares are Falling

Wages are Rising
Striking a Balance

- Disconnect between HQ and local airline ops
- Focus on the end goal: safe flights, on-time, with happy passengers
- Micro-managing restricts flexibility
Manpower ↓
Ground Time ↓
Congestion ↑
Price Pressure ↑
Flights ↑
Ground Time ↓
Manpower ↓
Opportunities
Opportunities

• Simplify the process
  • Collaborate and integrate
• Plan for success (do 200kg pallets need to go in bulk?)
• But also plan to fail - flexibility needs to improve
  • Common training standards
• Pooling of equipment and resources
香港

HONG KONG
Hong Kong Snapshot

- 3% pax and cargo growth to >70 million and 4.5 million MT in 2016
- Third runway in 2024; slot problem before then
- Cargo remaining strong
- Collaboration starting; GSE provision by AA
- HK-Macau-Zhuhai bridge next year
Under Asian Skies
IATA Ground Handling Conference
Bangkok
IGHC Innovator 2017 Competition

Joseph Suidan
Head of Ground Operations, IATA
THE WORLD IS CHANGING
Competition Time!

IGHC INNOVATOR
JURY

- Andrew Badham, Policy Lead Aerodromes, Civil Aviation Authority UK
- Jon Conway, Director General, Airport Service Association (ASA)
- Van Espahbodi, Co-Founder of Starburst Accelerator
- Peter Esteie, Head of Ground Operations & Airport Safety, Airport Operations – EIJG Airbus
- Paul J. Hansen, Manager, MGOS Technical Requirements Group, BCA Customer Support, Boeing
FINALISTS

• An Innovative Data-platform Dedicated to Ground Operations Efficiency - DEOLAN
• Intelligent Baggage Handling - BBHS
• Virtual Reality - Human Factors Training - QANTAS
IGHC Innovator Finalist

An Innovative Data-platform Dedicated to Ground Operations Efficiency - DEOLAN

Jean-Philippe Massin
Chief Commercial Officer, Deolan
Plug & Play
Single place of truth
Efficiencies

Silos  Fragmentation
Communication break downs
Low tech  Low cost
Key features

Data exchange
Interactions
enablement
A unique data platform

35 clients
700 Users
85 countries
350 airports
Why choosing us

DISRUPTION

VALUE

ACCESS

dehylan
THANK YOU AND COME FLY WITH US!

Booth #42
IGHC Innovator Finalist

Intelligent Baggage Handling

Martin Sattrup Christensen
Chief Executive Officer, BBHS
Biggest innovation within baggage handling in the last 50 years
Enhanced Customer Experience

- Increase quality and safety
- Simplify processes and procedures
- Modernize systems
Enhanced Customer Experience

- Increase quality and safety
- Simplify processes and procedures
- Modernize systems
- Helps fulfill IATA Res. 753
- 95% reduction in manual lifting
- Automated sortation and make-up
- Prioritized bags loaded last, delivered first
- Adds on to existing BHS systems
- Reduced footprint compared to EBS
Improves competitiveness

- Optimize costs
- Increase revenues
- Reduce injuries and damages
Improves competitiveness

- Optimize costs
- Increase revenues
- Reduce injuries and damages
- Reduces lost and damaged bags
- Enhances costumer experience
- Contributes to faster and prioritized deliveries
- Significantly reduces number of carts required
- 95% reduction in manual handling
- Reduced insurance costs
Thank you

For further information on the BBHS system, please contact us at info@bbhs.dk or +45 6020 2405
IGHC Innovator Finalist

Virtual Reality - Human Factors Training - QANTAS

Paul Ferguson
Head of Regional Airports, QantasLink Airports
Ramp Human Factors

Virtual Reality
Safe operating environment
Cost effective – reduction in training costs
Reduced exposure to hazardous situations
Next generation of training
Creates an interesting platform for new training
Speed to market – relatively quick to produce
Portable & simple to use
Virtual Reality – Human Factors Online Training

Exciting and engaging training tool
Virtual Reality – Roll out of training

It delivers and exceeds expectations

- Over 20 ports completed
- Hundreds of people trained
- Overwhelming and outstanding feedback from end users
The end user – feedback

- Best training ever
- Unreal
- Virtual Reality - Review
- Fantastical
- Wow, lucky I’m sitting down
- Feels like I’m there
- How cool is this
- I can actually follow the process
- What’s next?
Press the VOTE button to cast your ballot.

VOTE
FOR THE WINNER!
Having Them Stay

Moderator:
• Jon Conway, Director General, ASA

Panelists:
• Paul Craig, Managing Director, Aviance Ghana
• Mark James Edwards, Chief Executive Officer, dnata Singapore Pte Ltd
• Ingrid Braeuninger, VP Sales & Business Development, Airport Terminal Services
Billions of
Millions of passengers
& cargo tonnes
Thousands
of companies & employees
Hundreds
of airports & suppliers
Dozens of interest
groups & personalities

One industry voice – One global association
IGHC – 2017

Centara Grand Hotel - Bangkok

Panel discussion – ‘Having them Stay’

Moderator – Jon Conway – Director General – ASA
Ingrid Braeuninger, – VP Sales & Business Development, Airport Terminal Services

Paul Craig – Managing Director of Aviance Ghana

Mark Edwards – CEO dnata Singapore
Questions!
Having Them Stay

Moderator:
• Jon Conway, Director General, ASA

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• Mark James Edwards, Chief Executive Officer, dnata Singapore Pte Ltd
• Ingrid Braeuninger, VP Sales & Business Development, Airport Terminal Services
Rising Stars

Cathy Hunot
Young Graduate in Airport Management,
French Civil Aviation University
Airside driving:
New technologies and simulation technology to help strengthen airside safety
Airside driving figures: great safety challenges at stake

- More than 80,000 employees
- ~ 40,000 active airside driving permits
- ~ 13,000 airside driving permits issued every year
- 95% are apron driving permits (2015)
- 110km taxiways
- ~ 200 km airside service roads

The example of Paris CDG

Near collision A/C & GSE

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>Jan - Jun 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>15</td>
<td>17</td>
</tr>
</tbody>
</table>

Taxiway incursions

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>Jan - Jun 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incursions</td>
<td>16</td>
<td>16</td>
<td>11</td>
</tr>
</tbody>
</table>
Current airside driving training process: plenty of room for improvement

The example of Paris CDG

- High amount of information broadcasted during training sessions not tailored to an audience without aeronautical knowledge
- Cruel lack of interactivity and practical advice to make the theoretical part more digest
- Lack of guidelines to perform the practical part of the training
- Practical training not undergone when first permit and very little achieved for refresher courses
New technologies to help drivers in their approach to the airport environment

3 main challenges

- Make the theoretical part of the *training more digest and easy to remember* for new drivers
- Make it *more concrete*
- Increase and encourage companies to *perform the airport familiarization*
Educational tools to enhance the theoretical part and to prepare in-real-life driving

- E-learning digital animation
- In-vehicle video system
- Sharing of reported safety events and their associated videos/photographs

Source: Brussels airport
Focus on the airport familiarization: benefits of the airside driving simulator

- Training in complete airside environment
- Improvement in safety levels
- Skilled and well-trained team
- Safe & standardized training

Source: TecknoSim
Focus on the airport familiarization: benefits of the airside driving simulator

Financial benefits

- **Lower potential for damage** to vehicles, aircraft and ground service equipment

- **Saving of out-of-hours training cost** for LVO and night driver training

- Allows to perform familiarization in 1h instead of 3
Airside driving simulator

- To promote know-how over an accumulation of knowledge

- A concrete way to address operational issues

- Needs for a real memorandum between airports and training centers
THANK YOU FOR YOUR ATTENTION
Session

LEARNING EXPERIENCES ARE LIKE JOURNEYS

Name: Chris Bala, CST (USA)
Managing Director, CJ Security Consulting Group Pte Ltd (Singapore)
CHALLENGES’

For employers
- Very labour intensive
- High turnover
- Manpower is difficult to find
- Job is not attractive
- Very thin margins
- High fixed cost
- Extensive and continuous training.
  This costs money.

For employees
- Tasks are demanding
- Takes a toll on them
- Potential of getting injured
- Huge level of responsibility
- Often poorly compensated.

Their findings on typical training budget allocations are as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery</td>
<td>35%</td>
</tr>
<tr>
<td>Content Development</td>
<td>26%</td>
</tr>
<tr>
<td>Administration</td>
<td>24%</td>
</tr>
<tr>
<td>Technology</td>
<td>15%</td>
</tr>
</tbody>
</table>

*https://cdns3.trainingindustry.com/media/1574122/expertus_-_training_efficiency_surveyresults%20(2).pdf*
Training leaders identified the following as the top ways to cut costs in each of the four budget areas.

<table>
<thead>
<tr>
<th>Budget Area</th>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>Optimize, customize/consolidate learning technologies</td>
<td>67%</td>
</tr>
<tr>
<td>Administration</td>
<td>Streamline evaluations or reporting process</td>
<td>53%</td>
</tr>
<tr>
<td>Delivery</td>
<td>Reduce travel and lodging</td>
<td>53%</td>
</tr>
<tr>
<td>Content Development</td>
<td>Increase use of content development software</td>
<td>46%</td>
</tr>
</tbody>
</table>

*https://cdns3.trainingindustry.com/media/1574122/expertus_-_training_efficiency_surveyresults%20(2).pdf*
Psychology of Learning

- Action Learning
- Sharing their experiences
- Discovery and Experiential learning.

- Stuck with traditional learning methods
- Theory-based.
Reducing Dependency

- Less dependent on too much theory-based learning
- More technology based learning solutions
That means relying less on this…….
And progressing more into this…….
Virtuality
Replacement of face-to-face classroom training is improbable
Content-centered

Learner-centered
Traditional Learning vs New Ways

Traditional Learning methodologies are time consuming, costly and sometimes a “stretch” for employees.

These include:

- Demonstration
- Direct Instruction
- Lecture
- Lecture-discussion
- Case studies
- Role Play
- Basic Simulations
New Ways of Learning

Organization's have more options today such as:

- E-learning
- On-line learning
- Distance learning
- Blended learning

- These are cost-effective
- More effective

This leads me to the future of learning.
Technology is making it much easier for people to connect
Future Learning Ways

- Learning is **moving in tandem with technological advancements**
- Enhance the **learning experiences** of employees
- Save **training time** and **cost** in the long term

Examples of which include:

- **Multimedia learning**
- Technology-enhanced learning (TEL)
- Computer-based instruction (CBI)
- Virtual reality
- Augmented Reality
- Advanced simulations

- cyber-learning and multi-modal instruction
- Virtual leaning Environments (VLE)
- 3D Holographic
- Digital learning
- **Cloud learning**
Training providers must ensure that younger generations are enticed by careers in aviation by creating a learning journey.
What does this mean to GH Companies?

To Invest in advanced training methodologies.
This in turn will help aviation ground handling companies……..

- Reduce cost of training whilst increasing productivity
- Increase motivation for employees to learn
- Shorten the training time without affecting employee effectiveness
- Allow for realism to operational requirements to be brought into the classroom
- Allow for complex scenarios to be exercised in the classroom

Introducing the IATA Virtual Realty training video as an example.
IATA Virtual Reality (RAMPVR)
Thank you!

Chris Bala, CST (USA)

chris@cjsc.com.sg
Thank you to our Networking Lunch Sponsor
13:30 - 14:30