Sustainable Ramp

Hugo Castillo, Quality & Environment Manager, Iberia Airport Services
Florian Eggenschwiler, Head of Innovation, Swissport International
Thomas Hueger, Head of R&D, MULAG Fahrzeugwerk Heinz Woessner GmbH
Maxime Mahieu, Chief Executive Officer, Smart Airport Systems
Dr. Denise Pronk, Head of Sustainability, Royal Schiphol Group

Moderator: Haldane Dodd, Head of Communications, Air Transport Action Group

Kim Melville, Senior Director Global Airside, DHL Air
Jon Godson, Assistant Director, Environment - Best Practices, IATA

IGHC 2019
IATA GROUND HANDLING CONFERENCE
MADRID, SPAIN | 26-29 MAY
Sustainability in ramp operations

IGHC, Madrid | 27 May
Introducing ATAG

Funding members
- ACI
- IATA
- CANSO

Airframe manufacturers
- Airbus
- Boeing
- ATR
- Bombardier
- Embraer

Engine manufacturers
- Pratt & Whitney
- Rolls-Royce

Components
- CFM

Associate members
- ASD
- AIA
- Airlines for America
- AAPA
- EBAA

COMMERCIAL AVIATION, SPEAKING WITH ONE VOICE

www.aviationbenefits.org
Supporting the sustainable development goals

<table>
<thead>
<tr>
<th>Goal Number</th>
<th>Goal Title</th>
<th>Progress Bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NO POVERTY</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>ZERO HUNGER</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>GOOD HEALTH &amp; WELLBEING</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>QUALITY EDUCATION</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>GENDER EQUALITY</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>CLEAN WATER &amp; SANITATION</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>AFFORDABLE &amp; CLEAN ENERGY</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>DECENT WORK &amp; ECONOMIC GROWTH</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>INDUSTRY, INNOVATION &amp; INFRASTRUCTURE</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>REDUCED INEQUALITIES</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>SUSTAINABLE CITIES &amp; COMMUNITIES</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>RESPONSIBLE CONSUMPTION &amp; PRODUCTION</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>CLIMATE ACTION</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>LIFE BELOW WATER</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>LIFE ON LAND</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>PEACE, JUSTICE &amp; STRONG INSTITUTIONS</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>PARTNERSHIPS FOR THE GOALS</td>
<td></td>
</tr>
</tbody>
</table>

[www.aviationbenefits.org/SDGs]
Aviation in context

2% (global)
WWW (the internet)
1.3% (international only)
Indonesia
Canada

Aviation (2%)
Road transport (17%)
Buildings (10%)
Other industrial (9%)
Iron & steel (5%)
Cement (4%)
Shipping (3%)
Heat and electricity (7%)

CO₂ only, does not include forestry

Electricity (44%)
Setting the strategic direction

<table>
<thead>
<tr>
<th>GOAL 1</th>
<th>GOAL 2</th>
<th>GOAL 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRE-2020 AMBITION</td>
<td>IN LINE WITH THE NEXT UNFCCC COMMITMENT PERIOD</td>
<td>ON THE 2°C PATHWAY</td>
</tr>
<tr>
<td>1.5% ANNUAL AVERAGE FUEL EFFICIENCY IMPROVEMENT FROM 2009 TO 2020.</td>
<td>STABILISE NET AVIATION CO₂ EMISSIONS AT 2020 LEVELS WITH CARBON-NEUTRAL GROWTH.</td>
<td>REDUCE AVIATION’S NET CO₂ EMISSIONS TO 50% OF WHAT THEY WERE IN 2005, BY 2050.</td>
</tr>
</tbody>
</table>

TOI TOI+M TOI
Making tactical improvements across the system

TECHNOLOGY

OPERATIONS

INFRASTRUCTURE

MARKET-BASED MEASURE

SUSTAINABLE FUELS
Emissions included and those that aren’t

**INCLUDED IN INDUSTRY GOALS**

- **CO₂ emissions from the use of jet fuel on all international flights**
  - Including use of the auxiliary power unit at gate and taxiing
  - (~65% of aviation CO₂ emissions)

**PARIS AGREEMENT**

- **CO₂ emissions from the use of jet fuel on domestic flights**
  - Including use of the auxiliary power unit at gate and taxiing

- **CO₂ emissions from all ground-based sources:**
  - buildings (terminals, offices)
  - ground service equipment
  - vehicles
  - ATM equipment
  - construction
  - aerospace manufacturing
Where electric action is possible

a) Electrification of gates for aircraft
b) Electrification of ground service equipment
c) Electrification of company-owned ‘normal’ vehicles
d) Coordination of electric fleet adoption for on-airport businesses
e) Promotion of electric / hybrid vehicle use by airport staff
f) Promotion of electric / hybrid vehicle use by passengers and external suppliers
g) Where the electricity comes from
Electrification not the only option for sustainable ramp operations… let’s explore
Sustainable Ramp

Hugo Castillo, Quality & Environment Manager, Iberia Airport Services
Florian Eggenschwiler, Head of Innovation, Swissport International
Thomas Hueger, Head of R&D, MULAG Fahrzeugwerk Heinz Woessner GmbH
Maxime Mahieu, Chief Executive Officer, Smart Airport Systems
Dr. Denise Pronk, Head of Sustainability, Royal Schiphol Group

Moderator: Haldane Dodd, Head of Communications, Air Transport Action Group

Kim Melville, Senior Director Global Airside, DHL Air
Jon Godson, Assistant Director, Environment - Best Practices, IATA

IGHC 2019
IATA GROUND HANDLING CONFERENCE
MADRID, SPAIN | 26-29 MAY
GARD
GET AIRPORTS READY FOR DISASTER
The importance of airports

Airports in particular have to be prepared for a natural disaster

In a disaster, relief supplies have to be processed and stored at the airports. This special situation poses a logistical challenge that calls for special preparations.

<table>
<thead>
<tr>
<th>Situation</th>
<th>Complications</th>
<th>Solution</th>
</tr>
</thead>
</table>
| • Airports are the most important transshipment centers in the relief logistics chain. | • The volume of supplies to be handled increases and unusual supplies are delivered.  
  • Inadequate preparations can delay the delivery of relief supplies or lead to airport closures. | • GARD prepares those responsible for and at the airports for disasters.  
  • GARD delivers a contingency plan that should be implemented in coordination with the national plans. |
GARD concept

GARD is a workshop that prepares airport managers for worst-case scenarios

<table>
<thead>
<tr>
<th><strong>GARD profile</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration:</strong> 3-5 day workshop depending on the size of the airport</td>
</tr>
<tr>
<td><strong>Location:</strong> Training room in airport building and airside</td>
</tr>
<tr>
<td><strong>Target group:</strong> 25-30 selected airport staff and disaster experts</td>
</tr>
<tr>
<td><strong>Pro bono service:</strong> By UNDP (project coordination) and DHL (providing professional DHL aviation trainers)</td>
</tr>
<tr>
<td><strong>Prerequisites:</strong> Airport staff have to be free to attend the entire 5-day workshop</td>
</tr>
<tr>
<td>Easy and complete airport and airside access at all times during the workshop</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Methodology</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive workshops</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Results</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The “Airport Surge Capacity Assessment Report” is prepared by the participants during the workshop. This document stays in the potential disaster area and can be used by the airport.</td>
</tr>
</tbody>
</table>
GARD division of roles

GARD is based on a sustainable and participative approach and brings together the expertise of relevant stakeholders.

**UNDP = Facilitator**
- Engages relevant airport authorities/coordinates with governments
- Provides expertise in disaster risk reduction (DRR)
- Organizes the GARD workshop
- UNDP receives financial support from Germany's Federal Ministry for Economic Cooperation and Development (BMZ) for the GARD program.

**DPDHL = Trainer/consultant**
- Provides logistics expertise
- Provides disaster management experience
- Provides aviation trainers
- Provides methodology and training material
  - Pro bono contribution

**Airport/airport authority = Owner**
- GARD to become integral part of the national DRR plan
- Owns and updates assessment report
- Responsible for follow-up
# GARD trainers

The trainer team is led by aviation and disaster management experts

<table>
<thead>
<tr>
<th>LEAD GARD TRAINERS</th>
</tr>
</thead>
</table>
| **Kim Melville**  
DHL Director of Global Airside & Standards  
Head of Health and Safety  
DHL Express UK  
**Responsible for:**  
Aircraft handling standards and procedures, emergency response, mass & balance procedures, global safety management systems, operational safety management, training standards  
**Professional experience**  
• 23 years of DHL experience in aviation  
• 10 years of prior experience in UK Royal Air Force in aircraft operations |
| **Chris Weeks**  
DHL Director of Humanitarian Affairs  
**Responsible for:**  
Director of DPDHL Disaster Response Team (DRT): 400+ DHL DRT volunteers in three regional centers (Singapore, Dubai and Panama), responsible for the DRT deployments  
**Professional experience**  
• 26 years of experience with DHL’s Express Logistics  
• Multiple DRT deployments across the world (9 major deployments). |

Minimum of 3 additional GARD trainers from the trainer pool
The functions and roles of participants are vital to the success of GARD

<table>
<thead>
<tr>
<th>Participants required for GARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Airport manager (introduction/wrap-up)</td>
</tr>
<tr>
<td>• Duty or airfield operations manager (e.g. ramp)</td>
</tr>
<tr>
<td>• Air traffic control officer</td>
</tr>
<tr>
<td>• Security manager (essential for access to airport)</td>
</tr>
<tr>
<td>• Military/Air Force</td>
</tr>
<tr>
<td>• Government/Ministry of Transport</td>
</tr>
<tr>
<td>• Disaster risk reduction management/agency</td>
</tr>
<tr>
<td>Nice to have:</td>
</tr>
<tr>
<td>• Immigration manager</td>
</tr>
<tr>
<td>• Fire department</td>
</tr>
<tr>
<td>• Customs manager</td>
</tr>
<tr>
<td>• Facility manager</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Role of participants in GARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>• They have to be fully engaged in each of the sessions</td>
</tr>
<tr>
<td>• They collect data during the airport assessment and explore and develop a number of alternatives for increasing the airport surge capacity</td>
</tr>
<tr>
<td>• They write the Airport Surge Capacity Assessment Report, with help and support from the GARD trainers.</td>
</tr>
</tbody>
</table>
## GARD modules

<table>
<thead>
<tr>
<th>Part</th>
<th>Content</th>
<th>Facilitated by</th>
</tr>
</thead>
</table>
| **Opening ceremony and press conference** | • Official opening of the GARD training and press conference.  
• Opening speeches from Airport Director, UNDP officials, DPDHL representatives and other dignitaries. | Airport officials / UNDP rep. / DPDHL rep. |
| **GARD methodology Part 1** | • Inflow – In-depth look at the potential constraints on the ability to increase the number of flights arriving at the airport.  
• ATC / aircraft types / airport condition / airport capacity / personnel handling / VIP & VVIP | DHL GARD training team |
| **GARD methodology Part 2** | • Handling & outflow – In-depth look at constraints on handling additional a/c and people throughout the airport, using existing facilities: Customs / immigration / accommodation / airfield equipment / cargo handling / Armed Forces / SAR / field hospitals / fuel / aid distribution. | DHL GARD training team |
| **Airport airfield assessment** | • Walk around airfield to review and document current facilities.  
• Identify the airport’s specific potential constraints in the event of a capacity surge. | DHL GARD training team & participants |
| **Writing Airport Assessment Report** | • Participant group work, facilitated by DHL GARD trainers, to work through Airfield Assessment Report to identify content requirements and physically tour the airport to collect data. Participants are expected to contribute written and photographic content to the report.  
• Report format should be modular, and data compiled into a single Airfield Assessment Report. | Participants (supported by DHL GARD training team) |
| **Airport Assessment Report and finalization** | • Participants to finalize report with any last minute information, photographs, diagrams or figures.  
• Classroom-based session. | Participants (supported by DHL GARD training team) |
| **Wrap up and closing ceremony** | • Review and wrap up of GARD methodology.  
• Closing ceremony and presentation of workshop certificates. | Airport officials / UNDP rep. / DPDHL rep. |
GARD Workshops worldwide

- **40 airports assessed through GARD**
- **More than 800 participants trained**

- **Panama**
  - GARD 2013
  - GARD plus 2013

- **El Salvador**
  - GARD 2013
  - GARD plus 2013

- **Peru**
  - GARD 2013
  - GARD plus 2014

- **Dominican Republic**
  - GARD 2014/2015
  - GARD plus 2015

- **Macedonia**
  - GARD 2015

- **Armenia**
  - GARD 2014/2015
  - GARD plus 2014

- **Turkey**
  - GARD 2012
  - GARD 2013

- **Lebanon**
  - GARD 2012
  - GARD plus 2013

- **Jordan**
  - GARD 2014/2015

- **Bangladesh**
  - GARD 2011

- **Sri Lanka**
  - GARD 2014

- **Philippines**
  - GARD 2013/2014

- **Nepal**
  - GARD 2010/2017

- **Mauritius**
  - GARD 2016

- **Armenia**
  - GARD 2013/2014
  - GARD plus 2014

- **Deutsche Post DHL Group**

- **Turkey**
  - GARD 2012

- **Peru**
  - GARD 2014, GARD plus 2014

- **Seychelles**
  - GARD 2016

- **Indonesia**
  - GARD plus 2013
Get Airports Ready for Disaster (Graphics as of May 2019)

25 countries have received GARD training so far

49 airports made disaster-ready by GARD

1200+ GARD workshop participants so far
Beira, Mozambique
march 2019 – Crucial role of ground handlers
GARD Workshops worldwide

Thank you
Sustainable Ramp

Hugo Castillo, Quality & Environment Manager, Iberia Airport Services
Florian Eggenschwiler, Head of Innovation, Swissport International
Thomas Hueger, Head of R&D, MULAG Fahrzeugwerk Heinz Woessner GmbH
Maxime Mahieu, Chief Executive Officer, Smart Airport Systems
Dr. Denise Pronk, Head of Sustainability, Royal Schiphol Group

Moderator: Haldane Dodd, Head of Communications, Air Transport Action Group

Kim Melville, Senior Director Global Airside, DHL Air
Jon Godson, Assistant Director, Environment - Best Practices, IATA

IGHC 2019
IATA Ground Handling Conference

MADRID, SPAIN | 26-29 MAY
Helping tackle the illegal wildlife trade

Jon Godson
Assistant Director, Aviation Environment
Agenda

1. Introduction
2. United for Wildlife Transport Taskforce
3. USAID ROUTES Partnership
4. Staff reporting tool
5. Automated illegal wildlife detection
6. Role of ground handlers
Introduction
Global nature of the illegal wildlife trade

Top 5 Countries by Trafficking Instance Count:
1. China
2. Thailand
3. UAE
4. Vietnam
5. Indonesia

Flight Routes for All Wildlife Seizures in the C4ADS’ Air Seizure Database (Jan 2009 – Dec 2017)
United for Wildlife Transport Taskforce
72nd IATA Annual General Assembly
IEnvA-IWT Certification System

- IEnvA-Illlegal Wildlife Trade (IWT) Standards and Recommended Practices (IWT-ESARPs) independently assessed through the IATA Environmental Assessment (IEnvA) Program
- IWT-ESARPs transpose the Buckingham Palace Declaration commitments and the AGM resolution into Standards
- Airlines can expand the scope of their IEnvA Program to include ground handling
- The first assessment was undertaken at the beginning of May
USAID ROUTES Partnership
GOAL: To disrupt wildlife trafficking by reducing the use of legal transportation supply chains.

- Improving Data Analytics
- Engaging Corporate Leaders
- Training Transport Personnel
- Strengthening Policies & Protocols
- Increasing Client Awareness

• 5-year, $9.4 million dollar partnership through 2020
• Funded by USAID
• 20+ partners from the transport sector, US government and NGOs

http://routespartnership.org/
Awareness raising materials

A. POSTERS IN STAFF / CUSTOMER SPACES

- Hang posters in staff lounges and/or public areas.

Posters available from ROUTES
- General Awareness Posters
- Baggage Handler Awareness Posters
- Freight Forwarder Awareness Posters

Sizes available (vertical and horizontal)
- A1, A2, A3, A4
- Arch D (24 x 36 in) and tabloid

B. VIDEOS IN STAFF / CUSTOMER SPACES

Play awareness videos in staff areas and for customers. Videos are available from ROUTES & AEA

C. AWARENESS EXHIBITS

Schedule an awareness event or exhibit for staff and or customers on wildlife trafficking

Guidance on staff awareness installations available from ROUTES
GENERAL AWARENESS TRAINING
Global Focus or Regional Focus*

One-hour presentation or half day training
*Available for Africa, the Americas, Asia Pacific, Europe, Middle East and South & Central Asia

OPERATIONS-FOCUS
eModules*, presentations* & toolbox talks for:

- Check-in Staff
- Cabin Crew
- Cargo Acceptance
- Ground Handler

materials for screening staff (passenger and cargo/baggage) can be obtained upon request
* ~30 minutes
Staff reporting tool
Report Incidents

Incident Details

Type
Animal

Anonymously logged

Description
Heavy bag with something moving inside.

Location

[Map showing location]
Automated illegal wildlife detection
What can artificial intelligence do for wildlife?

- Enforcement providing information on IWT seizures that also breach AVSEC procedures
- Regulators beginning to look at outbound screening for IWT
- Interest in sharing intelligence between AVSEC and enforcement agencies
- Combined with remote image processing, machine learning algorithms could allow for law enforcement to detect wildlife automatically using aviation security screening images
- IATA has a pilot project collecting x-ray images of rhino horn and ivory that would facilitate algorithm development
Role of ground handlers
What can ground handlers do?

1. Make sure you are a part of the solution and not the problem
2. Understand the nature of wildlife trafficking at the stations you operate
3. Raise awareness using visual resources in staff areas
4. Train staff how to detect and report wildlife trafficking
5. Ensure you’re aware of the commitments your clients (airlines) have made
6. Be aware of the potential for IWT to pose secondary threats to aviation security
7. Share your actions over social media