THE ECONOMY OF GENERAL AVIATION AIRPORT SECURITY AWARENESS

Lorena de Rodriguez, President, SSI, Inc.
Necole Hampton, Sales Coordinator, SSI, Inc.
Carlton Harrison, Assistant Airport Manager

WHAT WE DO

Scalable & Flexible For Every Sized Airport

Computer Based Training (CBT)

Regulatory Airport Consulting

Total Training Solution

Mobile Device Compatible

Integrated 3rd Party Systems

Workshops & Seminars

Compliant

ARFF Consulting
ARFFRecurrent.com
WHAT WE’LL COVER

- GA impact on US economy
- Security vulnerabilities, threats to avoid
- Reporting programs in place
- Getting stakeholder buy-in to keep them flying in
- Engaging strategies to use

ECONOMY OF AVIATION
**ECONOMY OF AVIATION**

<table>
<thead>
<tr>
<th>Item</th>
<th>Direct</th>
<th>Indirect and Induced</th>
<th>Enabled</th>
<th>Total</th>
<th>Percent of US Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment (Jobs)</td>
<td>255,000</td>
<td>736,000</td>
<td>110,300</td>
<td>1,101,800</td>
<td>0.66%</td>
</tr>
<tr>
<td>Labor Income⁽²⁾</td>
<td>$22.7</td>
<td>$41.9</td>
<td>$4.5</td>
<td>$69.1</td>
<td>0.68%</td>
</tr>
<tr>
<td>Output</td>
<td>$75.2</td>
<td>$130.1</td>
<td>$13.3</td>
<td>$218.6</td>
<td>0.75%</td>
</tr>
<tr>
<td>Contribution to GDP</td>
<td>$89.5</td>
<td>$72.1</td>
<td>$7.6</td>
<td>$109.3</td>
<td>0.65%</td>
</tr>
</tbody>
</table>

Source: PwC calculations using the IMPLAN modeling system.

⁽¹⁾ Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.

⁽²⁾ Labor income is defined as wages and salaries and benefits as well as proprietors’ income.

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**AVIATIONS GLOBAL EMPLOYMENT AND GDP IMPACT 2014**

- **JOBS** – 62.7 Million
- **GDP** – 2.7 Trillion
- **3.5%** of global GDP supported by aviation

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QUICK QUESTION

Where do you think FLORIDA ranks in Aviation importance?

STATES THAT LEAD THE MARKET

<table>
<thead>
<tr>
<th>State</th>
<th>Total Jobs</th>
<th>Total Labor Income</th>
<th>Total Output</th>
<th>Total Contribution to GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>139,100</td>
<td>$10.3</td>
<td>$30.2</td>
<td>$16.2</td>
</tr>
<tr>
<td>Texas</td>
<td>88,900</td>
<td>$6.0</td>
<td>$21.6</td>
<td>$10.3</td>
</tr>
<tr>
<td>Florida</td>
<td>77,600</td>
<td>$4.3</td>
<td>$12.3</td>
<td>$6.7</td>
</tr>
<tr>
<td>Georgia</td>
<td>51,300</td>
<td>$3.4</td>
<td>$13.7</td>
<td>$4.9</td>
</tr>
<tr>
<td>Illinois</td>
<td>42,400</td>
<td>$3.0</td>
<td>$9.1</td>
<td>$4.8</td>
</tr>
<tr>
<td>Kansas</td>
<td>42,300</td>
<td>$2.8</td>
<td>$8.3</td>
<td>$3.7</td>
</tr>
<tr>
<td>Arizona</td>
<td>41,200</td>
<td>$2.6</td>
<td>$7.9</td>
<td>$3.8</td>
</tr>
<tr>
<td>Ohio</td>
<td>39,200</td>
<td>$2.3</td>
<td>$7.1</td>
<td>$3.4</td>
</tr>
<tr>
<td>New York</td>
<td>37,800</td>
<td>$2.9</td>
<td>$7.1</td>
<td>$4.5</td>
</tr>
<tr>
<td>Washington</td>
<td>30,400</td>
<td>$2.2</td>
<td>$6.6</td>
<td>$3.6</td>
</tr>
</tbody>
</table>

Source: PwC calculations using the IMPLAN modeling system.
(1) Employment is defined as the number of payroll and self-employed jobs, including part-time jobs.
(2) Labor income is defined as wages and salaries and benefits as well as proprietors’ income.

*Aviation Benefits Beyond Borders (pp. 4-9, Publication). (2016), United Kingdom: Air Transport Action Group.
A&E’s, contractors, & subs need to understand the relationship among various security-related areas, to design for their differences.

AREA TO PROTECT

<table>
<thead>
<tr>
<th></th>
<th>Secured Area</th>
<th>SIDA</th>
<th>AOA</th>
<th>Sterile Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>meeting 49</td>
<td>access controls</td>
<td>controls meeting</td>
<td>controls meeting 49</td>
</tr>
<tr>
<td></td>
<td>CFR 1542.207</td>
<td>required by reg.</td>
<td>CCR, or SIDA</td>
<td>CFR, or SIDA</td>
</tr>
<tr>
<td></td>
<td>4. ID display challenge</td>
<td>4. ID display challenge</td>
<td>4. ID display challenge</td>
<td>4. ID display challenge</td>
</tr>
</tbody>
</table>

Security Level

Highest level of security including access controls, training, CBT, STA, and ID display challenge procedures.

SIDA relates to ID display and CBT/STA only. Access controls are determined by requirements of AOA, SIDA, or Sterile Area location.

Broadest application of security requirements are not specifically set forth in 1542 or STA required.

Sterile Area(s) may be SIDA depending upon the Airport Security Program, CBT, and STA required.

A Sterile Area is always a SIDA, because all three SIDA elements are present. Training, CBT, STA, and ID display challenge procedures. However, a Sterile Area goes beyond SIDA by also requiring access controls.

SIDA links access controls, so a SIDA cannot be a Sterile Area.

The AOA requires only basic access controls, but sets no specific standards beyond those adopted locally in the airport security program.

The Sterile Area begins immediately after the screening checkpoint(s) and extends to the boundaries where access controls are required.

AREA QUESTION

What Area begins immediately after the screening checkpoint(s) and extends to the boundaries where access controls are required?
**AREA QUESTION**

What Area is always a SIDA because Training, CHRC/STA, and ID display/challenge procedures and access controls that are required?

**Knowledge Check**

![Secured Area]

**AREA QUESTION**

What Area lacks access controls, therefore is not categorized as Secured?

**Knowledge Check**

![SIDA]
Knowledge Check

What Area requires only basic access controls and only specific standards in the ASP?

Security Related Areas

Security vulnerabilities, threats to avoid
FBO has responsibility for managing the security concerns surrounding both locally based and transient GA persons and aircraft.

Imposing commercial designs and procedures on general aviation may result in unnecessary restrictions, potentially causing a decline in operations at the airport and a drop in GA activity and revenues.

**ACCESS CONTROL**

**Perimeter Intrusion Detection Systems (PIDS)**

Security vulnerabilities, threats to avoid

<table>
<thead>
<tr>
<th>Sensor</th>
<th>Personnel Targets</th>
<th>Vehicle Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Crawling</td>
<td>Walking</td>
</tr>
<tr>
<td>Video Motion Detection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video-Based Tracking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ladar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active Infrared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Passive Infrared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fence Vibration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiber Optic Cable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underwater Fiber Optic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiber Optic Mesh</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buried Pressure Line</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buried Coax</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buried Cable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taut Wire &amp; Taut Fiber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ri-static Microwave</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- Green: Generally applicable in most conditions with proper engineering
- Blue: Limited application with proper engineering
- Red: Generally not applicable except in special situations
Q&A

Challenges?

INFORMATION SECURITY

Security vulnerabilities, threats to avoid

Safety & Security Instruction
INFORMATION SECURITY

GUIDELINES FOR OPERATORS AND USERS

GA Airports
- Not covered under §1542
- TSA Guidelines are scalable, flexible, adaptable to GA

GA operations at Commercial Airports
- Follow airport requirements
Q&A

GUIDELINES FOR OPERATORS AND USERS

Regulations unchanged...
  • ...Except the drones...

Security vulnerabilities, threats to avoid
SEE SOMETHING...SAY SOMETHING

- GA-Secure
- 911
- This is My Airport
- Airport Watch
- Community Watch programs

Q&A
IT’S ABOUT BUSINESS

• Safe Environment
• Community Awareness

SECURITY IMPROVEMENTS PROJECT

INSTALLED:
- 38,000 linear feet of 6’ high and 8’ high barbed-wire fencing along the perimeter of the airport property
- 31 pedestrian gates
- 24 manually operated vehicle gates
- 30 automatically operated vehicle gates and gate operators
- Security signage
- 35,540 linear feet of fiber optic conduits and cabling
- 29 CCTV cameras
- Security system to monitor and control access to the airside property

Total Cost: $4,309,838

Project Costs
- Construction 41%
- Design 4%
- CEI Services 55%

Project Funding
- FAA: $1,163,238, 15%
- FDOT: $3,146,599, 75%

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STRATEGIES

- Regular Meetings
- Location to Post Security Alerts
- Awareness Training for Community of Knowledge
- Safety Expo
- Air Show
- Community Awards
Q&A

Beyond Safety and Security

Airfield Driver / Fueler
ARFF Training
Aviation Security

Safety and Communications
Product Training
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