APEC Training Symposium
Optimize the use of audit and investigation
to strengthen aviation security in APEC economies

15-16 April 2009
Ha Noi – Viet Nam

APEC Counter Terrorism Task Force

May 2009
Final Reports
Submitted by: Viet Nam

APEC Training Symposium
Optimize the use of audits and investigation to strengthen aviation security in APEC economies

Ha Noi – Viet Nam
15-16 April 2009
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**APEC SYMPOSIUM**

**OPTIMIZE THE USE OF AUDITS AND INVESTIGATION TO STRENGTHEN AVIATION SECURITY IN APEC ECONOMIES**

*(Ha Noi, 15-16 April 2009)*

*Organized by: Ministry of Transport of Viet Nam*  
*(Civil Aviation Administration of Viet Nam - CAAV)*  
*Ministry of Foreign Affairs of Viet Nam*

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**APEC SYMPOSIUM**
**OPTIMIZE THE USE OF AUDITS AND INVESTIGATION TO STRENGTHEN AVIATION SECURITY IN APEC ECONOMIES**
*(Ha Noi, 15-16 April 2009)*

**Organized by:** Ministry of Transport of Viet Nam
(Civil Aviation Administration of Viet Nam - CAAV)
Ministry of Foreign Affairs of Viet Nam

**Wednesday 15 April 2009 - Day 1**

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<td>8.30 – 9.00</td>
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| 9.00 – 9.05 | Welcoming remarks          | *Mme. Nguyen Nguyet Nga*  
Director General of Multilateral Economic Cooperation Department  
Ministry of Foreign Affairs of Viet Nam |
| 9.05 – 9.10 | Opening speech                  | *H.E. Mr. Le Manh Hung*  
Vice Minister of Ministry of Transport of Viet Nam |
| 9.10 – 9.15 | 5 minutes break                |                                                                                   |
| 9.15 – 9.20 | Self introduction of delegates |                                                                                   |
| 9.20 – 9.50 | Overview of aviation security developments in the Asia Pacific Region and the importance of aviation security audits | *Mr. Scottie R. Laird*  
USA Transport Security Administration (TSA) |
| 9.50 – 10.30 | The ICAO Universal AVSEC Audit Programme (1st Cycle) – useful lessons learnt | *Mr. Nguyen Thanh QUY*  
Chief of Aviation Security Instructor,  
Flight Training Centre, Vietnam Airlines Corporation |
| 10.30 – 11.00 | Coffee break                    |                                                                                   |
| 11.00 – 11.30 | ICAO Security Audit – Experiences and benefits gained | *Mr. Vu Duc HUAN*  
Executive Director of Security Services Company, Northern Airports Corporation (NAC), Viet Nam |
| 11.30 - 12.00 | Preparing for the 2nd Cycle of USAP audit | *Mr. Murray (Hugo) PORTER*  
Senior Technical Specialist - Aviation Security, Aviation House, New Zealand |
| 12.30 – 14.00 | Lunch break                      |                                                                                   |

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| 14.00 – 14.30| Preparing for an AVSEC audit – the need for implementation of AVSEC Quality Control and the development of a National AVSEC Quality Control Programme | Mr. Nicholas LUM  
Assistant Director  
Dept. International Relations and Security  
Ministry of Transport of Singapore |
| 14.30 – 15.00| Compliance management of the Security Programme for aviation services providers (including regulated cargo agents and other airlines related services providers) | Mr. Anjum K. AGARWALA  
USA Transport Security Administration |
| 15.00 – 15.30| Security Management System (SeMS) from an operator’s perspective. | Capt. Toby McNamara  
General Manager Safety, Security and QA, Jetstar Pacific Airlines |
| 15.30 – 16.00| Coffee Break                                                            |                                                                      |
| 16.00 – 16.45| Sharing information of the implementation of the 1st cycle and the preparation for the implementation of the 2nd cycle USAP audit | APEC member economies |
| 16.45 – 17.15| Moderator’s remarks and discussion                                      | Expected outcomes:  
- The strengthen in the aviation capacity of member economies via the full compliance with ICAO Standards and Recommended Practices (SARPS) should be enhanced and promoted to secure the air transport.  
- The perspective of sharing of the results of USAP audit and the corrective actions plan as urged by the ICAO Assembly Resolution A36-20.  
- Encouraging APEC member economies (which are ICAO Member States) to fully cooperate with USAP. |
| 18.30 – 21.00| Welcoming Dinner                                                         |                                                                      |
## Session II: Compliance in Security Oversight System and SeMS

**Chaired by Mr. Murray (Hugo) Porter**  
Senior Technical Specialist - Aviation Security - Aviation House, New Zealand

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<th>Time</th>
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| 9.00 – 9.30| Compliance management of the National Civil Aviation Security Programme | Mr. Murray (Hugo) PORTER  
Senior Technical Specialist - Aviation Security - Aviation House, New Zealand |
| 9.30 – 10.00| Compliance management of the Operator Security Programme             | Mr. John EDWARDS  
Head of Cargo Security Office – International Aviation Transport Association (IATA) |
| 10.00 – 10.30| Security Management System (SeMS) from a regulator’s perspective    | Mr. John EDWARDS  
Head of Cargo Security Office – International Aviation Transport Association (IATA) |
| 10.30 – 11.00| Coffee break                                                     |                                                                        |
| 11.00 – 11.30| Security audits for air cargo – possible best practices         | Mr. Anjum K. AGARWALA  
USA Transport Security Administration |
| 11.30 – 12.00| Security control measures for the hand carriage of Liquids, Aerosols and Gels (LAGs) – the possibilities and challenges towards harmonization amongst stakeholders | Mr. Anjum K. AGARWALA  
USA Transport Security Administration |
| 12.00 – 12.30| Moderator’s remarks and discussion                                |                                                                        |

**Expected outcomes:**  
Encouraging APEC economies to cooperate and collaborate in implementing capacity building projects on bilateral or regional basis, undertaken by both government and industry to ensure that security regimes are strengthened at APAC region and around the world.  
Recognition of the crucial role of certification of supply chain validation procedures, APEC economies are encouraged to consider the role of CASP-AP as a means for States & Administrations to enter into bilateral or multilateral agreements for LAG/STEB acceptance.

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## Session III: Aviation Security: Other perspectives

**Chaired by Mr. John EDWARDS**  
Head of Cargo Security Office – International Aviation Transport Association (IATA)

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| 14.00 – 14.30| Aviation Security Audits – the importance of human factors         | Mr. Nicholas LUM  
Assistant Director  
Dept. International Relations and Security Ministry of Transport of Singapore |
| 14.30 – 15.00| The importance of aviation security audits – the view from IATA       | Mr. John EDWARDS  
Head of Cargo Security Office – International Aviation Transport Association (IATA) |
| 15.00 – 15.30| Coffee break                                                     |                                                                        |
| 15.30 – 16.00| Moderator’s remarks and discussion                                |                                                                        |

**Expected outcomes:**
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| 16.00 – 16.30 | Closing remarks                            | Mr. Luu Thanh Binh  
*Deputy Director General of Civil Aviation Administration of Viet Nam (CAAV)* |
CTTF 01/2009

Summary Report

Purpose: Consideration
Submitted by: Viet Nam

APEC Training Symposium
Optimize the use of audit and investigation to strengthen aviation security in APEC economies

Ha Noi – Viet Nam
15-16 April 2009
The APEC Training Symposium entitled “Optimize the use of audits and investigation to strengthen aviation security in APEC economies” was held in Hanoi, Viet Nam from 15-16 April 2009. Participants from APEC member economies, representatives of international and non-governmental organizations including IATA, air carriers, airport operators and relevant Vietnamese governmental agencies attended the Symposium.

The main objectives of the Symposium were (i) draw the attention of APEC economies to the ICAO USAP and security audit/investigation, hence to facilitate better coordination between economies and ICAO in the implementation of USAP; (ii) to improve the utilization of audit in strengthening the oversight of aviation security activities, and (iii) to encourage co-operation and collaboration in security audit among economies in mutual recognition to enhance the security capability.

The Seminar was opened by H.E. Mr. Le Manh Hung, Deputy Minister for Transport of Viet Nam and Mme. Nguyen Nguyet Nga, Director General of Multilateral Economic Cooperation Department, Ministry of Foreign Affairs of Viet Nam.

Session outcomes and key issues

Session 1: Implementation of the ICAO Universal Security Audit (USAP)

Eight presentations presented by USA, Viet Nam, New Zealand, Singapore and Jetstar Pacific Airlines emphasized the importance of the ICAO Universal Security Audit Programme (USAP) in auditing the security as well shared their own experiences in how to effectively implement the 1st Cycle of USAP and preparation for the next Cycle. Symposium participants also got the views of global results of the 1st Cycle of USAP and learned about the experiences and practices when undertook the 1st Cycle of some economies.

The Symposium also shared the useful experiences of how to prepare for the 2nd Cycle of USAP audit and critical requirements of developing and maintaining of an effective National AVSEC Quality Control Programme. The domestic carrier Jetstar Pacific Airlines presentation also drew the attention of audiences to a new concept but is nowadays mandatory requirements for International Aviation Transport Association (IATA) members – Security Management System (SeMS) practices from the views of an air carrier.

Session 2: Compliance in Security Oversight System and SeMS
Speakers from New Zealand, United States and IATA laid the emphasis on AVSEC auditing in assurance the compliance of AVSEC activities to the national and operator standards and requirements. Taking into account the priority of aviation security quality control system, Malaysia shared with the Symposium her perspectives in AVSEC auditor training.

The SeMS trend of development was reviewed at a regulator’s perspective while best practices in security audits for air cargo and the possible harmonization of security control measures for the hand carriage of Liquids, Aerosols and Gels (LAGs) were debated.

As the harmonization of AVSEC procedures and arrangements is needed to facilitate the traveling by air of public, the Symposium shared the views on the role of ICAO Cooperative Aviation Security Programme – Asia Pacific (CASP-AP) in the harmonization of security standards.

**Session 3: Aviation Security: Other perspectives**

At this last session, speakers from Singapore and IATA highlighted other factors also contribute to the success of AVSEC audit process, i.e. human factor. The future trend of AVSEC audit also was retouched by the IATA representative with proposals for moving forwards.

The collaboration between APEC economies has been underlined in order to effectively assisting economies to enhance its AVSEC capability and further tighten the cooperation in the region.

After two days of extensive and fruitful discussions, participants identified a number of recommendations for consideration by member economies and the APEC CTTF, as follows:

1. Call on member economies who are ICAO Contracting States to fully comply with ICAO Standards and Recommended Practices (SARPS).

2. Encourage the APEC economies who are non Contracting States to ICAO to consider ICAO SARPS as framework for best practices in aviation security.

3. Emphasize to all APEC economies the importance of ensuring a robust aviation security through rigorous application of quality control and oversight using a risk management framework.

4. Recognizing the importance of information exchange in creating ground for confidence and collaboration, APEC economies are encouraged to consider limited sharing of the results of USAP audit and the corrective actions plan as urged by the ICAO Assembly Resolution A36-20.
5. Encourage APEC economies to cooperate and collaborate in implementing capacity building projects on bilateral and regional basis and to build-up recognition relationships to identify and share best practices in aviation security.

6. Recommend each APEC Member Economy maximize the benefits of ICAO USAP, utilize findings from the economy’s audit to aid in prioritizing revisions to that economy’s programs (NCASP, NCASQCP, NCASTP, etc.), security processes, stakeholder programs, and legislation.

7. APEC economies are encouraged to consider the role of ICAO Cooperative Aviation Security Programme (CASP-AP) in the harmonization of security standards.

In conclusion, Mr. Luu Thanh Binh, Deputy Director General (DDG) of Civil Aviation Administration Viet Nam (CAAV) delivered concluding remarks, summing up what had been discussed and achieved in three seminar sessions. Participants agreed that the recommendations would be circulated for participants’ comments and the final recommendations would be submitted to the coming APEC CTTF meeting for considerations. DDG Binh also thanked member economies for their active participation in and valuable contributions to the Symposium. Member economies highly appreciated the discussion and outcomes of the Symposium and thanked Viet Nam for her good organization and hospitality.
Overview of Aviation Security Developments in the Asia Pacific Region

Presented by: Mr. Scottie R. Laird
USA Transport Security Administration

APEC Training Symposium
Optimize the use of audits and investigation to strengthen aviation security in APEC economies

Ha Noi – Viet Nam
15-16 April 2009
Overview of Aviation Security Developments in the Asia Pacific Region
Scottie R. Laird

APEC Symposium
Office of Global Strategies
April 15-16, 2009
Developments

Improved Security Sustainability Through Information Sharing:
Mutual recognition between countries throughout the Asia Pacific Region has enabled individual countries to identify effective security measures to create solid bases of security throughout the region.

This sharing of information and best practices has led to an effective and viable path toward regional and global harmonization.

Aviation Growth and the Need for Security Resources:
As the aviation growth continues to see a significant increase within Asia Pacific, the need for improved security equipment, personnel, oversight and initiatives in the effort to make our skies safe and secure.

Further Developments

Domain Awareness:
Countries within Asia Pacific have raised the level of awareness of emerging threats, and have worked as partners to collaborate and communicate in reaching common goals;

Goals such as partnering together to ensure the continuation of a full flow of goods, services, trade and tourism – one that is secure, but not impeded or obstructed by our efforts to lower risks.

Heightened awareness that terrorists operate without borders and without rules have shown that terrorists raise money in multiple countries; use the Internet for communication; plan and train in a variety of places; and then conduct operations in an entirely different country. This lack of boundaries has been essential for the international community within Asia Pacific to work together to defeat these potential threats.
Milestones

Due to the projected increase in air traffic and trade, Asia Pacific, as part of the global aviation industry, has worked toward the free flow of commerce and passengers; while at the same time increasing the security and safety of the traveling public.

Throughout the region, Asia Pacific has grown through capacity development, and evaluated each economy’s aviation system to determine adequate needs in terms of size and resource capabilities.

It is understood that not all countries have the same resources. Some countries provide State-of-the-art technologies for screening passengers, baggage and cargo wherever it is possible. However, it is not the only way to provide effective security.

Security Audits

- ICAO defines a security audit as: “An in-depth compliance examination of all aspects of the implementation of the national civil aviation security program.”

- In accordance with this definition; each Contracting State must designate the applicable authority to ensure carrying out security audits are trained to the appropriate standards in accordance with their National Civil Aviation Security Program (NCASP).

- Additionally, personnel carrying out security audits need to be provided with the authority to obtain information to carry out their tasks and enforce corrective actions as necessary.
Security Audits

- ICAO Standard 3.4.4 states “Each Contracting State shall require the appropriate authority to develop, implement and maintain a national civil aviation security quality control program to determine compliance with and validate security and validate the effectiveness of its NCASP.”

- ICAO Standard 3.4.5 adds that priorities and frequency of monitoring shall be determined on the basis of risk assessment carried out by the relevant authorities.

- One of the key components of the NCASP and the NCASQCP consists of the requirement for the Contracting State to ensure that the management, setting of priorities and organization of the NCASQCP shall be undertaken independently from the entities and persons responsible for the implementation of the NCASP.

4 Important Elements

There are four (4) elements that make a NCASQCP effective:

1) Personnel carrying out the security audits are trained to the appropriate standards in accordance with the NCASP;

2) Personnel carrying out security audits have the necessary authority to obtain information and to enforce corrective actions.

3) Supplement the NCASQCP by establishing a confidential reporting system for analyzing security information provided by sources such as passengers, crew and ground personnel.

4) Establish a process to record and analyze the results of the NCASQCP to contribute to the effective development and implementation of the NCASP, including identifying the causes and patterns of non-compliance and verifying that corrective actions have been implemented and sustained.
Aviation audit – results and experience

Presented by: **Mr. Nguyen Thanh Quy**
Chief of Aviation Security Instructor
Flight Training Centre
Vietnam Airlines Corporation

APEC Training Symposium
Optimize the use of audits and investigation to strengthen aviation security in APEC economies

Ha Noi – Viet Nam
15-16 April 2009
AVIATION AUDIT

RESULTS and EXPERIENCES

of

VIETNAM AVIATION SECURITY

Slide 2

Objectives

• Successful of The ICAO Universal AVSEC Audit Programme 1st Cycle in Vietnam

• The achievements of Vietnam AVSEC after The 1st Cycle of ICAO Universal AVSEC Audit Programme.

• Lessons learnt.

Slide 3

RESULTS - EXPERIENCES

AVSEC quality evaluation

• Evaluation Programme
• Internal evaluation
• Independent consultant evaluation
• Co-operation evaluation
CORRECTIVE RESULTS

- Identify AVSEC products
- Complete the legal frame
- Complete the AVSEC Programme
- Complete the training programme
- Develop the AVSEC quality evaluation programme
- Conducting internal – services evaluation

RESULTS - EXPERIENCES

- AVSEC Product
  - Politics security – Legal – Obligation


RESULTS - EXPERIENCES

- AVSEC Product
  - AVSEC Programme – AVSEC Contract – Evaluation

RESULTS - EXPERIENCES

• Comprehensive the legal frame on AVSEC
  – Law on Civil Aviation
  – By-law documents
  – Develop a Template of AVSEC Programme
  – Training

RESULTS - EXPERIENCES
AVSEC Programme
National - Airport - Airlines

RESULTS - EXPERIENCES
Training programme
• Object – content of training
• Training Institutions
• Training cooperation
Slide 10

QUALITY EVALUATION
Views from Vietnam

• Importance:
  – Quality maintaining
  – Index of risk
  – Risk evaluation data

Slide 11

AVSEC QUALITY CONTROL PROGRAMME

• National
• Airport
• Airlines

Discussing agenda issues

Slide 12

PENDING MATTERS

• Legal frame
• Quality programme
• Qualifications of auditor/official
Slide 13

PENDING MATTERS

• Language - Culture - Manner

• Timing – Health – Sentiment

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CONCLUSION

The ICAO AVSEC Audit in Vietnam has following values:

• Identify the sound development progress
• Complete the legal system
• Improve aviation staffs’ qualifications
• Change the view of AVSEC products

Slide 15

THE END

QUESTION ?
ICAO Security Audit
Experiences and benefits gained

Presented by: Mr. Vu Duc HUAN
Executive Director
Security Services Company
Northern Airports Corporation (NAC), Viet Nam

APEC Training Symposium
Optimize the use of audits and investigation to strengthen aviation security in APEC economies

Ha Noi – Viet Nam
15-16 April 2009
PRESENTATION  
ICAO Security Audit – Experiences and benefits gained

Dear distinguished guests and colleagues,

From 2003 to 2007, ICAO had implemented three audits at Noi Bai (the first audit on September 2003, the second on March 2005 and the third on June 2007) in order to review and evaluate aviation security arrangements at Noi Bai airport, examine the corrective actions after ICAO’s previous recommendations and point out future works as:

- Implement of situation deal with mistakes follow ICAO’s suggestions from VIE 801 Project on 2003 and ICAO’s recommendations on March 2005 at Noi Bai international airport.

- Appreciate generally and particularly security-measures at terminals, air field, in-out control, screening, inspect passengers and baggage, security solutions refer to cargos; ready for dealing with acts of unlawful interference...

- Appreciate fully implementation ICAO Annex 17 Standards refer to security operation at all level: 3.18, 3.2.1, 3.2.3, 3.2.6, 3.4.1, 3.4.2, 4.2.1, 4.2.2, 4.3.1, 4.3.3, 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.5, 4.4.7, 4.5.1, 4.5.2, 4.5.3, 4.5.4, 3.2.4, 4.6.3, 4.7.1, 4.7.2, 5.1.2, 5.1.3. at Noi Bai International Airport.

- The 1st Cycle of ICAO USAP had been strong influence and had brought about a fundamental change in quanlity, effectiveness, image of aviation security task at Noi Bai International Airport as follows:

  1. Recommendations of ICAO about finance, expence in guarantee aviation security, about roles, responsibilities of airport security in ensure flight-operation and in planning, construct substructure... has contributed to awaken, positive responsible attitude and realize politic guidance from Leaders of Government, Ministry of Communication, Civil Aviation Administration of Viet Nam and Northern Airports Corporation and organs, enterprises at Noi Bai with aviation security importance.

  Realize responsibility and attitude of officer, staff in SASC as well as, others organs, enterprise at Noi Bai had a deep change. They understood aviation security importance and obey strictly all safety rules and instroduction.

  2. Immediately after ICAO USAP in 2003 ultil now, thanks to aviation security specialist’s recommendations, there are increasing number of investment, buying more specialized aviation instruments, as well as reparing, upgrading to support effectively for terminal’s security safety. Many new tools as: Portable Explosive Detector, Passport Detector, Alcohol Detector and Explosive Warning Software. Basic substructures support aviation safety as: camera, security check-point...after ICAO’s examination security system has been invested, built strenthenly follow ICAO’s Standards and Recommendations.

  3. Before ICAO has made inspection, Noi Bai had built and deploied the Noi Bai Airport Security Program (ASP) itself and apply a list of accumulative rules at the same time, unscientific in consulting and apply. In the first edition, USAP’s rules as well as introductions of National Aviation Security Program (NASP) are general, imparticality, inflexibility and infeasibility.
Through ICAO’s audit, doc-system of stimulations, procedures, introductions about aviation security from Government, Ministry of Communication, VietNam Aviation Department, Northern Airports Corporation and enterprises at Noi Bai Int’l Airport has been revised, strengthened. A/P ASP and NASP had been amended, edited totally. Scientific and feasible in application, fit for ICAO’ Standard and Recommendations, affirmation is a kingpin-doc of NASP as well as Noi Bai ASP.

4. Through ICAO’s audit had pointed out one important point in Noi Bai security tasks: stimulated Docs as well as put-into-practise are not clear in ranged responsibility, authority of each organ, unit during in charge of emergency airport or dealing-with acts of unlawful interference. It makes difficulty in co-operation. When something go wrong, it can not accuse of responsibility, recrimination.

To make good above USAP 1st Cycle’s suggestions had built base of relation, co-operation. Assign a duty and role in a clear way. Procedure ensure security safety as well as airport emergencies.

5. The USAP had helped to improve prestige, image and position of Noi Bai airport security forces.

Finally, on my behalf and NASC’s representation, with useful lessons from USAP (Cycle 1) for guarantee security at Noi Bai Int’l Airport. I greatly appreciate to:

- Mr. Graham Lockwood - ICAO’s specialist who in charge of Chief Technical Advisor for VIE 801 Project.

- Mrs. Anderson Penny, Mr. Duthie Alex, Mr. Lee Joo-Hyung and Mr. Vandekamp Richard who are ICAO auditors in the audit team in 2005;

- Member of ICAO audit team who undertook the follow-up visit in 2007.

- All organs, units that had co-operated, supported NASC so much in improving, reforming process of Noi Bai Int’l Airport security aviation system.

Thank you for your kind attention!
Preparing for the 2\textsuperscript{nd} Cycle of the USAP Audit

Presented by: Mr. Murray (Hugo) PORTER  
Senior Technical Specialist - Aviation Security,  
Aviation House, New Zealand
Preparing for the 2\textsuperscript{nd} Cycle of the USAP Audit

Murray (Hugo) Porter
Senior Technical Specialist
Aviation Security
New Zealand Civil Aviation Authority

Slide 2

Objectives
- Understand the 3 principal parts
- Understand questionnaire purpose
- Understand responsibilities of the State

Slide 3

The 3 Parts
- Part 1
  - National Aviation Security Organisation and Legislation
  - Implementation of Annex 17 Standards at the National Level
- Part 2
  - Airport Level security organisation
  - Operations
  - Security measures
The 3 Parts

- Part 2 cont...
  - Purpose – to provide the audit team with overview of responsibilities and activities at the airport

- Part 3
  - Contracting States policies regarding certain security related provisions of Annex 9 - Facilitation

Preparation

- Ensure that sufficient administration resources are in place before you commence
- Effective co-ordination and relationships with authorities and other government departments
- Keep those other participants briefed and on board

Preparation cont..

- Good principals to follow (the 3 C’s)
  - Co-operation
  - Communication
  - Co-ordination
- Imperative to have effective engagement with stakeholders
The Questionnaire

- For accurate completion by Contracting States to help with assessment
- Should not be regarded as onerous
- Gives comprehensive information of State Oversight System
- One of the major tools required for conducting an Aviation Security Audit
- Timely completion and submission back to ICAO to ensure effective and efficient audit

Completion of Questionnaire

- Provides ICAO Audit Team with adequate information on the
  - Contracting State and its Aviation Security Legislation
  - National Aviation Security Legislation and Organisation
  - Airport level security organisation and operations
- Benefit - Enables self-analysis of legislation/programmes/regulations

Supporting Evidence

- Legislation
- Programmes
- Regulations and Rules
  - Allows for proper evaluation and recording
Slide 10

**Purpose**

- Allows for ICAO to maintain database on the States aviation security activities
- Allows for the development of an audit plan
- Ensures proper and detailed preparation to allow the conduct of a standardised aviation security audit

Slide 11

**Who is Audited?**

- Contracting State
- Not individual stakeholders in system
- Findings and Recommendations are against the State – NOT individual stakeholders

Slide 12

**Questions?**

porterh@caa.govt.nz

www.caa.govt.nz
Preparing for an AVSEC Audit –
the need for implementation of AVSEC Quality Control and the development of a National AVSEC Quality Control Programme

Presented by: Mr. Nicholas LUM
Assistant Director
Dept. International Relations and Security
Ministry of Transport of Singapore

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Preparing for an AVSEC Audit – the need for implementation of AVSEC Quality Control and the development of a National AVSEC Quality Control Programme

Nicholas Lum
Assistant Director (Security Policy)
Ministry of Transport, Singapore

Slide 2

Introduction

• Audits and quality control are an intrinsic part of the ICAO system for States to ensure compliance and that measures are in place – eg safety and security audits.
• Important part of the State’s oversight of its national civil aviation security system

Slide 3

Introduction

• Introduction
• Why the need for Quality Control
  – ICAO as an example
• Developing AVSEC Quality Control
Introduction

• 3 primary references:
  – ICAO Annex 17
  – Oversight Manual Part C
    – Doc 9734

Introduction

• In the case for Aviation Security (AVSEC):

Why the need for quality control?

• Because it is required by ICAO?
• Monitor implementation of AVSEC measures
• Compliance of the measures with the National Civil Aviation Security Programme (NCASP)
• Ensuring the effectiveness of the NCASP
• Identifying measures that might call for changes in the regulation, programme or means of implementation.
Slide 7

**Why the need for quality control?**

- Ensure effective oversight of AVSEC activities
- Harmonisation of standards across the State – weakest link
- Assessment of security standards and procedures implemented by airports, aircraft operators and other providers of security services

Slide 8

**Why the need for quality control?**

- Identification of deficiencies and recommends and/or enforces corrective procedures
- Prevention of insider threat - independence of quality control so that even oversight personnel are also subject to surveillance
- Legislation - penalties – the teeth

Slide 9

**ICAO as an example**

- Annex 17 = NCASP
- ICAO has an independent team to audit States to ensure that States come up to a minimum standard – that standard being that set out in Annex 17.
- Annex 17 sets out as the minimum required to prevent acts of unlawful interference
- Audits on programmes, and national oversight activities etc
- Checks corrective action plans
ICAO as an example

- Follow up audits to ensure that gaps are closed
- Prevention of the case of weakest link – global harmonisation
- Review of Annex 17 and Doc 8973 to reflect currency of measures to be able to respond to latest threats.
- The teeth – transparency of audit results
- 2nd cycle audits to emphasize on security oversight
- The future of ICAO audits?

Developing AVSEC Quality Control

- **General Principles** (Doc 8973 Vol 1 Chap 8 – 7th ed)
  - Legal basis
    - empowerment
    - structure
      - Organisation – reporting to the boss
      - Activities – the plan and schedule
      - Documentation – reports – not only for ICAO auditors
  - Resources
    - Sufficient manpower
    - Access rights

- The human factors – (covered in another session)
- Independence
  - not part of the organisation / team it is auditing
- Scope, means and methods of monitoring
  - Should cover all aspects mentioned in NCASP
  - New and emerging threats
  - Impact on passengers and on facilitation
Developing AVSEC Quality Control

- **General Principles** (Doc 8973 Vol 1 Chap 8 – 7th ed)
  - Methods of monitoring
    - **Security Audits**
      - An in-depth examination of all aspects of the NCASP requirements (preparation allowed)
    - **Security Inspection**
      - An examination of the implementation of relevant NCASP provisions by aircraft operator, airport or other entities involved in aviation security
      - Notice may not be provided in advance and may be overt or covert

- **Security Test**
  - A trial of an AVSEC measures which simulates an attempt to commit an unlawful act
  - Examples are red-teaming activities

- **Security Survey**
  - An evaluation of security needs and is intended to highlight vulnerabilities which could be exploited to carry out an act of unlawful interference and to produce recommendations for corrective actions. Should be carried out whenever an threat necessitates an increased level of security

- **Monitoring**
  - Consistency
    - eg Security Audit Reference Manual – Doc 9807, Auditor's Aid etc
  - Information classification and restriction
    - reports
    - information in the wrong hands vs transparency
    - Sharing of information with other States
Developing AVSEC Quality Control

- General Principles (Doc 8973 Vol 1 Chap 8 – 7th ed)
  - Corrective Actions and enforcement
    - What to do with the reports
    - Addressing deficiencies – immediate and longer term action plan
    - Penalties – advice, warnings and enforcement notices vs no-blame culture
  - Model programme (Doc 8973 Vol 1 Chap 8 Appendix 6)

Preparing for an AVSEC audit

- 2nd Cycle USAP
  - 8 critical elements
  - The emphasis on oversight – on quality control

- Good luck for your audits!

Thank you for your attention
Any questions?
Compliance Management of Security Programs for Aviation Services Providers

Presented by: Mr. Anjum K. AGARWALA
USA Transport Security Administration
Compliance Management of Security Programs for Aviation Services Providers

APEC Symposium
Ha Noi, Viet Nam
April 15-16, 2009

Agenda
- Background
- Importance of quality control
- Role of aviation services providers
- Compliance management of operator security programs
- Challenges and benefits

Importance of Quality Control
- Network nature of aviation
- Shared responsibility
- Managing risk
- Ensuring compliance
Role of Aviation Services Providers

- ICAO SARPs – States are responsible
- Aviation security – all providers are responsible
- Relevant standards
  - 3.1.9: States
  - 3.2.1: Airports
  - 3.3.1: Aircraft operators
  - 4.6.3: Regulated agents

Compliance Management

- Appropriate authority
- Approval, adoption, modification of programs
  - Appendix 9: Airport security program
  - Appendix 15: Aircraft operator’s model security program
- Compliance evaluation standards
  - 3.4.5: Verification of compliance based on risk assessment
  - 3.4.6: Audits, tests, surveys and inspections
  - 3.4.7: Independence
  - 3.4.7d: Recording and analysis
- Compliance and enforcement philosophy

Challenges and Benefits

- Challenges
  - Securing effective internal quality control
  - Ensuring corrective actions take place
- Benefits
  - Contributes to policy-making process
  - Builds relationship between regulator and stakeholders
  - Provides information exchange opportunity
Security Management System (SeMS) from an operator’s perspective

Presented by: Capt. Toby McNamara
General Manager Safety
Security and QA, Jetstar Pacific Airlines

APEC Training Symposium
Optimize the use of audits and investigation to strengthen aviation security in APEC economies

Ha Noi – Viet Nam
15-16 April 2009
APEC Symposium April 2009  
Hanoi, Vietnam  

“Optimize the Use of Audits and Investigation to Strengthen Aviation Security in APEC Economies”

“SeMS from an Operator’s Perspective”

Captain Toby McNamara  
General Manager Safety, Security and Quality Assurance  
Jetstar Pacific Airlines AJS

Slide 2

Theme

- Enhancing AVSEC through shared results.
  - Standardization
  - Audit phobia
  - Take away the mystery
  - Reporting Culture
  - Investigation confidentiality
  - Managing Risk Through SeMS
  - An example for consideration

Slide 3

Standardize to Optimize?

- Aviation has the advantage of relatively common guidelines with respect to security under ICAO guidelines and various globally recognized international treaties.

- Currently APEC economies use numerous methods to assess risk and report on possible consequences to their respective regulators and businesses. Assessments of certain risks can be subjective and reporting tailored for desired affect.

Could a standardized audit reporting process assist APEC economies in strengthening aviation security?

- We don’t intend to provide a definitive answer during this discussion but request that you consider the concept as a possible way forward in strengthening AVSEC.
Audit Phobia

- Experiences, history and culture can lead to varied interpretation of regulations and guidelines.

- While designed as a tool to quality assure our systems an “Audit” often makes and auditee feel uncomfortable.

- Options such as agreed actions and agreed timelines have improved the audit process however auditor / auditee relations however it is suggested that we could go further in ensuring the audit process is a positive experience.

Examples: When we first started to audit in VN we found auditees suspicious and skeptical.

**Ask audience to think of an audit they have done or when they have been subject to an audit.**

Agreed actions occur following the Audit. A more proactive and collaborative approach can prepare auditees and improve the actual processing being audited.

Slide 5

Take away the mystery

- Prepare

- Discuss

- Result Circulation

- Review

- External Review

Prepare: Clearly outline to the auditee what it is you require. This should be done as early as possible. Audits should be welcomed as a time for auditees to prove they not only comply with requirements but they understand why such requirements are necessary.

Discuss: Ask the auditee if anything is unclear. If you are the auditee question the auditor.
Result Circulation: It is important that auditees understand where audit results will be tabled and who may view them. This provides some context and includes the auditee in the overall goal of sustaining an effective security culture.

Review: Be open to debate the points of contention. Regulators and Operators would benefit from periodic reviews of audit programmes.

External Review: Encourage and invite other operators or regulators to review your concepts and discuss local issues. Symposiums and conferences such as this one are an excellent starting point to share ideas and experiences however we should consider more regular external reviews among the AVSEC community contained within APEC economies.

Slide 6

<table>
<thead>
<tr>
<th>Audit Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Findings and specifically ACTIONS should IMPROVE your System.</td>
</tr>
<tr>
<td>□ Communication is key – Auditors should ask questions to establish what issues face the Auditee. Auditees should clearly communicate problems and issues that effect their environment.</td>
</tr>
<tr>
<td>□ The last thing either Auditor or Auditee want is for the Security System to be worse after the Audit Actions are put in place.</td>
</tr>
</tbody>
</table>

Examples: When we first started to audit in VN we found auditees suspicious and skeptical.

Ask audience to think of an audit they have done or when they have been subject to an audit.

Agreed actions occur following the Audit. A more proactive and collaborative approach can prepare auditees and improve the actual processing being audited.
Reporting Culture

- Clearly defined Security Policy signed by the Chief Executive Officer
- Clear communication of reporting requirements.
- Mutual understanding of staff that Security is everybody’s business
- TRUST – Confidentiality is protected if required.

Prepare: Clearly outline to the auditee what it is you require. This should be done as early as possible. Audits should be welcomed as a time for auditees to prove they not only comply with requirements but they understand why such requirements are necessary.

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Investigation confidentiality

- By its very nature security tends to be secretive and classified to the point that many investigation results are suppressed.
- Alternately safety tends to publicize investigation findings in an effort to reduce repetition. (SMS)
- It is often the case that a small incident is part of a larger trend.
- Operators and regulators tend to classify investigations to the point where the result does not provide a wider lesson to the AVSEC industry community.

Should operators share AVSEC investigation and audit results? Generally Operators will say NO citing competitive commercial concerns.

AVSEC Community vs. Commercial Protection: To be truly open and effective ALL involved in AVSEC need to share both investigation and audit results. The challenge for Security Managers is to protect commercial concerns while warning AVSEC colleagues of potential risks. This is where regulators can offer assistance by way of facilitating periodic forums where audit results and investigation results can be discussed in generic terms.

Managing Risk through SeMS

- SeMS provides a systematic approach to managing security risks, including the necessary organisational structures, accountabilities, policies and procedures.
- The SeMS elements MUST be INTEGRATED into the routine of the business rather than being an appendage to the main business.
- Investigation and audits provide reactive and proactive findings to assist managing risks.
- By sharing the findings the Security System can become predictive and work toward optimal performance.
<table>
<thead>
<tr>
<th>Port</th>
<th>Plans</th>
<th>Security Occurrences</th>
<th>Local Security Meetings</th>
<th>Physical</th>
<th>Comment / Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port 1</td>
<td>Crisis and Security plans in place.</td>
<td>Pile-ordering and staff check in staff, staff handling of baggage, and table check done by airport staff</td>
<td>AA, BL Security monthly, BL and AA Security meetings</td>
<td>“Port”</td>
<td>Security has improved but staff effort needs to be continued. An effective level of cooperation has been maintained. A security plan has been introduced.</td>
</tr>
<tr>
<td>Port 2</td>
<td>Crisis and Security plans in place.</td>
<td>Pile-ordering, entry, effective and entry done by security.</td>
<td>BL Security monthly, staff handling of baggage, and table check done by airport staff</td>
<td>“Port”</td>
<td>Security has improved but staff effort needs to be continued. An effective level of cooperation has been maintained. A security plan has been introduced.</td>
</tr>
<tr>
<td>Port 3</td>
<td>Crisis and Security plans in place.</td>
<td>Pile-ordering, entry, effective and entry done by security.</td>
<td>BL Security monthly, staff handling of baggage, and table check done by airport staff</td>
<td>“Port”</td>
<td>Security has improved but staff effort needs to be continued. An effective level of cooperation has been maintained. A security plan has been introduced.</td>
</tr>
<tr>
<td>Port 4</td>
<td>Crisis and Security plans in place.</td>
<td>Pile-ordering, entry, effective and entry done by security.</td>
<td>BL Security monthly, staff handling of baggage, and table check done by airport staff</td>
<td>“Port”</td>
<td>Security has improved but staff effort needs to be continued. An effective level of cooperation has been maintained. A security plan has been introduced.</td>
</tr>
<tr>
<td>Port 5</td>
<td>Crisis and Security plans in place.</td>
<td>Pile-ordering, entry, effective and entry done by security.</td>
<td>BL Security monthly, staff handling of baggage, and table check done by airport staff</td>
<td>“Port”</td>
<td>Security has improved but staff effort needs to be continued. An effective level of cooperation has been maintained. A security plan has been introduced.</td>
</tr>
<tr>
<td>Port 6</td>
<td>Crisis and Security plans in place.</td>
<td>Pile-ordering, entry, effective and entry done by security.</td>
<td>BL Security monthly, staff handling of baggage, and table check done by airport staff</td>
<td>“Port”</td>
<td>Security has improved but staff effort needs to be continued. An effective level of cooperation has been maintained. A security plan has been introduced.</td>
</tr>
<tr>
<td>Port 7</td>
<td>Crisis and Security plans in place.</td>
<td>Pile-ordering, entry, effective and entry done by security.</td>
<td>BL Security monthly, staff handling of baggage, and table check done by airport staff</td>
<td>“Port”</td>
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This is an example of one tool we are currently using to provide a security snapshot to our Station Managers, General Managers, Board of Management, Airport Authorities and the CAAV AVSEC dept. “Port” has replaced the actual Airport name and AA = Airport Authority. The content is a sample only.

The snapshot is as much a review of our own operation as it is of our assessment of the security operation observed in the ports. It is updated every two months. Initially the snapshot provided a tool for the Security department to communicate to the board. As we circulated it to a wider audience within the company we began to get positive responses from stations. In addition the Station Managers and GM Ground operations wanted to know how they were tracking. The CEO is quizzed by the board as to the results and obviously the security manager is quizzed by the CEO as to the comments and results. With increased interest in the snapshot came an enhanced culture. Our first two snapshots were predominantly AMBER / MEDIUM. It is now the case that the majority is LOW/GREEN. Most recently we have shared the snapshot with one of the Airport Authorities and the CAAV AVSEC dept. Common findings were held among the operator, authority and regulator. While maybe not for everyone the circulation among current recipients is has proved an effective tool. It is suggested that this could be provided to all ports and stations as one way of tracking progress against each other. It could be discussed and debated in the previously suggested periodic AVSEC Community meetings. No commercial information is relayed – depending on the particular AVSEC Community issues can be discussed and presented in generic terms as opposed specifically naming ports. A similar approach can be used in circulating investigation results. Details can be generic with focus on the issue as opposed to the company experiencing the incident.
Standardize does not equal compromise: It is sometimes believed that standardizing and sharing audit requirements lowers standards. It was not long ago that the mentality of auditors was to actively seek as many non-compliant issues as possible and then issue impossible corrective actions. This goes for both regulators and operators internal auditors.

As we move to enhancing AVSEC through concepts such as SeMS Security needs to embrace well developed Safety SMS concepts such as no blame culture, sharing data across operators and authorities and actively engaging external parties to review procedures.
Quality control: Malaysian perspective in AVSEC
Auditor training

Submitted by: Malaysia

APEC Training Symposium
Optimize the use of audits and investigation
to strengthen aviation security in APEC economies

Ha Noi – Viet Nam
15-16 April 2009
QUALITY CONTROL: MALAYSIAN PERSPECTIVE IN AVSEC AUDITOR TRAINING

BY
DEPARTMENT OF CIVIL AVIATION
MALAYSIA
15-16 APRIL 2008
HANOI, VIETNAM

CONTENTS
1. INTRODUCTION
2. TYPES OF QUALITY CONTROL ACTIVITIES
3. WHY ECONOMIES NEED FOR QUALITY CONTROL TRAINING?
   i. Objective of Quality Control (QC)
   ii. Scope of QC Training
   iii. Code of Conduct
   iv. Enhancement in Techniques and Methodology
   v. Preparation of Reporting
4. ACTIVITIES QC IN MALAYSIA
   i. Training Facilities In Malaysia
   ii. Aviation Security Stakeholders
   iii. Developed Quality Control Scheduled
   iii. Scene During Implementation Quality Control
5. CONCLUSION
1. INTRODUCTION

- A fundamental component of an aviation security system is the effective implementation of national civil aviation security quality measures.
- Quality control activities should cover all aspects of the NCASP including the organization of the national security system and the security of the operations at airports.
- A key element of those performing quality control measures is to possess a good working knowledge of the security processes and associated regulations.
- This can be achieved through appropriate training that conducted by the authority or aviation security stakeholder training center.

2. TYPES OF QUALITY CONTROL ACTIVITIES

2.1 SECURITY AUDIT
- “... an in depth examination of all aspects of NCASP requirements”.

2.2 SECURITY INSPECTION
- “… is examination of the implementation of relevant NCASP requirements on aviation security stakeholders and the scope is smaller than audit may be specific on certain parts only”.

2.3 SECURITY SURVEY
- “an evaluation of security needs including the identification of vulnerabilities which could be exploited to carry out an act of unlawful interference, and the recommendation of corrective actions.”

2.4 SECURITY TEST
- “a covert or overt trial of an aviation security measures which simulates an attempt to commit an unlawful act.”
3. WHY EVERY ECONOMIES NEED FOR AVSEC QUALITY CONTROL TRAINING?

(1). OBJECTIVE OF QUALITY CONTROL TRAINING

a. Promote a common understanding of how to evaluate implementation of the NCASP.
b. Standardize work practices to achieve goals of NCAS QCP.
c. Provide the trainees with necessary information and documentation to carry out their missions.
d. Enhancement of skills in field quality control such as knowledge of principles, procedures and techniques, learning to review documentation and preparation of reporting.

(II) SCOPE OF QUALITY CONTROL (QC) TRAINING

All elements aviation security shall outlined in training QC

a. Organization and Administration
b. Security Documents
c. Aviation Security Committee
d. Response to Acts of Unlawful Interference And Contingency Arrangements.
e. Logistic Equipment/Security Equipment
f. Access Control
g. Passenger and Cabin Baggage Security
h. Hold Baggage Security
i. Aircraft and In-Flight Security
j. Cargo/Mail Security and Catering; etc
(III) CODE OF CONDUCT IN QUALITY CONTROL

a. National Audit Mission Commitments
   - Able to exercise the responsibility that has been delegated by DGCA.
   - abide by the rules, procedures and criteria that has been set out in NCASP and other procedures that related to this functions.

b. Integrity Commitments
   - conduct yourself with integrity, impartially and honesty.
   - not to receive benefits of any kind from a third parties which might reasonably be seen to compromise.

c. Tact and Respect Commitments
   - understand and respect the operating procedure and culture of working in which the quality control take place.
   - diplomatic in dealing with the aviation security stakeholder personnel.

d. Confidentially Commitments
   - not to disclose any information of confidential nature related to the findings of the quality control to any other parties.
   - not to disclose any of the following document such as an quality control questionnaire form to any other parties.
(IV). ENHANCEMENT IN TECHNIQUES AND METHODOLOGY FOR QUALITY CONTROL

a. Any Quality Control activity should include the following techniques:
   1. Preparation
   2. Questioning
   3. Observation
   4. Reviewing Documents
   5. Recording Information
   6. Debriefings; and
   7. Completion of the report

a.1. Preparation
- Required Documents
- Team Discussions
- Awareness of allocation responsibilities at the airport

a.2. Questioning
- Questioning through interviews
- Basic principles of asking questions
- Ask one question at a time
- Do not interrupt
- Do not show impatience or lack of interest
a.3. **Observation Of Procedures**
- Rigour
- Objectivity
- Allocation of Tasks
- General Awareness

a.4  **Reviewing Documents**
- Validation through proof
- Documents
- Photographs

a.5  **Recording Information**
- Agreement during interviewees
- Key words
- Names and functions

a.6  **Conduct QC Briefing**
- Introduce audit team to aviation security stakeholders
- Outline the conduct of the audit
- Describe methodology and procedures used
- Reviews details of Audit Plan
- Collecting the audit form
- Answer questions
- Thank Those Present
a.7 Contents of Post-Quality Control Debriefing
- Introductions
- Brief review of the scope of the quality control
- General Conclusions
- Proposals for immediate actions for any procedure that not complies with the national and ICAO standard.
- Reminder of the principles of confidentiality
- Answers to any questions asking by aviation security stakeholders.
- Thanks for the assistance and cooperation

(V). PREPARATION OF REPORTING IN QUALITY CONTROL.
a.1 Basic Principles During Drafting the Quality Control Report
- Time Management
- Respecting Deadlines
- Protection of Documents
- Confidentiality Of Information
4. QUALITY CONTROL ACTIVITIES AND TRAINING FACILITIES IN MALAYSIA

- Malaysia steadfastly believes that upgrading human capital and standardization of aviation training is fundamental to achieving ICAO’s goals of enhancing safety, regularity and efficiency of international civil aviation.

- Any personnel that has been appointed to implementing security control included carrying out screening operations are certified and their performance standards are consistently and reliably achieved.

- Despite of, DCA Malaysia has developed internal quality control training based on syllabus from the National Inspector Course by ICAO for the personnel whose appointed to carry out monitoring activities.

Quality control activities should be performed by persons suitably selected and trained according to the criteria that have been established in NCASP.

In addition, this internal quality control training has been approved by the Director General of Civil Aviation Malaysia and the personnel will received their certificate signed by DGCA.

All the AVSEC training was conducted in Malaysia Airports Training Centre as an ICAO accredited training facility.

cont.
Basically Malaysia Airports Training Centre conducted AVSEC training as follow:-

(i). Aviation Security Training Packages (ASTPs) based on the ICAO scheduled for international and local participants.

(ii). Internal training for AVSEC personnel that has been approved by DCA Malaysia as follow:-
   a. X-ray screeners certification
   b. AVSEC development
   c. Intelligence for Task Force
   d. Manage and Handling Weapons;
   e. Physical Body Search Technique and etc.

(II) AVIATION SECURITY STAKE HOLDERS

cont.
### III. DEVELOPED QUALITY CONTROL SCHEDULE

#### SECURITY AUDIT 2008

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>IMPORT NO</th>
<th>DC A</th>
<th>MARK</th>
<th>NAME OF AIRPORT</th>
<th>VITAL LOCATION</th>
<th>CHIEF NAME</th>
<th>AIR ASIA AVAIL.</th>
<th>PAYDAY [Avail.]</th>
<th>PAYDAY</th>
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<td>20/0</td>
<td>18/0</td>
<td>18/0</td>
<td>7</td>
</tr>
</tbody>
</table>

#### IV. SCENE DURING IMPLEMENTATION OF QUALITY CONTROL

**a.1 AIRPORT AND VITAL INSTALLATION**

- **AIRPORT**
  - [Image of airport scene]
  - [Image of airport scene]
- **DVOR DME**
  - [Image of DVOR DME]
- **RADAR & CONTROL TOWER**
  - [Image of radar and control tower]

---

*Slide 19*

*Slide 20*
5. CONCLUSION

- Through this training, it is important to noted that authorized personnel is flexible enough to conduct any process of quality control towards aviation security stakeholders in Malaysia.

- Furthermore, DCA will utilize any technical cooperation that focusing for improvement the techniques and pursuing knowledge in monitoring activities.

- Finally, DCA personnel will take opportunity if ICAO conducted any Quality Control training under Aviation Security Training Packages (ASTPs).
Compliance in Security Oversight System

Presented by: Mr. Murray (Hugo) PORTER
Senior Technical Specialist - Aviation Security,
Aviation House, New Zealand

APEC Training Symposium
Optimize the use of audits and investigation
to strengthen aviation security in APEC economies

Ha Noi – Viet Nam
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Compliance in Security Oversight System

Murray (Hugo) Porter
Senior Technical Specialist
Aviation Security
Civil Aviation Authority New Zealand

Overview
• Background - CAA
• MOT
• Board
• Aviation Security
• Outcomes based
• Participants responsibilities and security programme requirements
• Advisory Information

Legal Framework
• Legislation
• Based on Conventions
  • Civil Aviation Act
  • Aviation Crimes Act
  • CAA Rules
• NCASP (NASP in NZ)
  • Security Committee meetings
Functions of CAANZ

- Establish aviation safety and security standards
- Monitor adherence
- Review standards to promote safety and security

Standards

- Rule 108 – Air Operator Security Programme
- Rule 109 – Cargo
- Rule 139 – Aerodromes
- Rule 140 – Aviation Security Service
- Rule 171 – ATC facilities

Certificated Operators

- CAA Rules 119 (NZ Operators) and 129 (Foreign Operators) – Certification and QA Requirements
- CAA Rule 140 Aviation Security Service
- Expositions/Security Programmes to meet rule requirements i.e. Rule 108
- Procedures to meet outcome requirements
Certificated Operators
Cont...

- QA systems
- Senior Persons
  - CEO
  - QA Manager
  - Security

Security Programmes

- Acceptance to meet rule requirements
- Surveillance Audit
- Outcomes required
- Evidence based
- Occurrence notification and reports
- Risk Assessments

Recording of Audit

- Computer based
- Evidence scanned into system
- Individual comment boxes to record information
- Audit analysis (forms basis of report to certificate holder)
- Risk Assessment
CAA Rule Part 109

- Provides for certification of RACAs by CAA
- Enables airline to accept & carry consignments without having to apply further controls other than:
  - Checking of security declaration
  - Check for any signs of tampering
  - Maintain security of consignment once accepted (by CTO on behalf of airline)

Advisory Information

- Advisory Circulars for all rules
- Available off CAA website
- Provide guidance & direction on acceptable means of compliance – not compulsory

Security Regulatory Work

- Overseeing security programmes & measures to be taken by airlines, Aviation Security Service, Airways & aerodromes
- Audit of airlines, aerodromes, Aviation Security Service, & Airways Corp
- Analysis of audit findings, investigations into breaches/incidents including follow-up actions
- Contingency planning
Complacency

No room for complacency

“In all my years at sea I have never been involved in, nor have I seen any incident of note”

Captain Edward J Smith
SS Titanic
9 April 1912

Questions?
porterh@caa.govt.nz
www.caa.govt.nz
Compliance management
of the Operator Security Programme

Presented by: Mr. John EDWARDS
Head of Cargo Security Office
International Aviation Transport Association

APEC Training Symposium
Optimize the use of audits and investigation
to strengthen aviation security in APEC economies

Ha Noi – Viet Nam
15-16 April 2009
OPTIMIZE THE USE OF AUDITS AND INVESTIGATION TO STRENGTHEN AVIATION SECURITY IN APEC ECONOMIES

John Edwards, Head Cargo Security

Content:
- Industry Crisis
- Compliance with Airline Security Programmes
- SeMS & Audit
- IATA Secure Freight

We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.
Deep recession and the most challenging revenue environment for 50 years will lead to larger losses during 2009 in all regions except the US. In both Europe and Asia we expect losses of $1 billion or more. The exception is the US where low hedging, leading to the full benefits of low fuel prices and early substantial capacity cuts will lead to a counter-cyclical return to profit, albeit small.
Airlines unable to return cost of capital

Deep recession and the most challenging revenue environment for 50 years will lead to larger losses during 2009 in all regions except the US. In both Europe and Asia we expect losses of $1 billion or more. The exception is the US where low hedging, leading to the full benefits of low fuel prices and early substantial capacity cuts will lead to a counter-cyclical return to profit, albeit small.

Net loss of $4.7bn forecast for 2009

Source: IATA
Five pillars have been identified for long-term strategic benefits:

Taking a threat-based, risk managed approach to security, in particular through Security Management Systems, to maximize efficiency in security programmes.

Shaping the regulatory framework for security, to remove unnecessary and duplicative measures.

Building relationships with key decision makers, and forming industry coalitions to tackle industry issues.

Putting technology to its best use, harmonising standards and seeking new cost effective solutions for both security and facilitation.

Dealing with ineffective measures and inappropriate requirements globally, to prevent costly non-standard requirements being implemented.
Key Projects, Delivering Clear Benefits:

- SeMS
- One-Stop Security
- Technology Standards
- Data Exchange
- Secure Freight

We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.

Slide 10

Performance of Airline Security Programmes

Slide 11

Global / Regional Context
Managing Expectations

From the Commission of Inquiry into the Investigation of the Bombing of Air India Flt 182

“There is an expectation that the industry will take ownership of its own aviation security issues.”

Managing Partners

- Some industry actors (still) believe “security is a responsibility of governments and public authorities.”
  
  (or, it's not their problem!)

- Sub-contractors are often considered a weak link, but are key to most airline business models

The reality of airline security operations
The 14 Core Elements necessary to have a SEMS according to IOSA requirements can be integrated in many ways.

In its most basic form, if the intent of an airline is only to pass the IOSA audit, what is required is to have all the core elements present somewhere in the airline’s document library. SEMS can simply a document Organisational chart that has cross-references to other airline publications where the appropriate documentation is found.

IATA and IOSA is not asking its Members to engage in an effort that will result in duplication of documentation, this would be counter productive and not beneficial. Therefore, if an air carrier already has well develop security crisis management procedures as part of its crisis management plan, there is no need to re-write everything, a simple cross-reference in the SEMS document will suffice.

Then, when it is time for the IOSA audit, the airline only needs to ensure that all the documents that are referred are available for consultation and obviously that the procedures described have been implemented.
We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.
We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.

Slide 21

We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.
Security Management System (SeMS)  
from a regulator’s perspective  

Presented by: Mr. John EDWARDS  
Head of Cargo Security Office  
International Aviation Transport Association  

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We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.
Need all 14 to have 0 finding audit in the AVSEC part
Appears challenging but very much achievable
Lets look at a couple of elements, starting with QC & QA
Airlines need to know their programmes are working as intended, that standard operating procedures are understood and being followed and security performance is acceptable. This can’t be properly achieved without having quality assurance mechanisms in place. However these can and should be proportionate to the size and complexity of their operation.

Slide 4

There are multiple levels of compliance when it comes to SEMS and other Security Requirements.
Obviously, the baseline is meeting air carrier security programme requirements of your State of registry. Without this, you will lose your certificate to operate and have to end operation.
Currently, in order to pass the security part of IOSA, all you need is to have the SEMS core element in documented and implemented.
For the moment integrating these into every aspect of your operation is only a highly desirable security best practice.
And a fully integrated SEMS becomes an integral component of an Integrated Airline Management System (I-AMS) which IATA is hoping will become the industry standard for operational best practices.
Governments & industry stakeholders must jointly own the problem and solution
Security & facilitation controls need to fit business models where-ever possible, not the reverse

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**Slide 6**

**IOSA Regulatory Mandates**

- Arab Civil Aviation Commission (end 2008)
- Brazil (January 2009)
- Chile (May 2005) (Not enforced)
- Costa Rica (2nd half 2008)
- Egypt (End 2006)
- Madagascar (January 2008)
- Mexico (January 2008)
- Panama (Not Determined)
- Turkey (3 years after AOC)

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**Slide 7**

Findings Per IOSA Security Sub Section (ISM 2nd Edition)
to include:

i) a means of identifying the version of operational security documents;

ii) a controlled distribution process that ensures availability of the current version of the Security Manual in areas of the operation where security measures are implemented;

iii) procedures for the identification, dissemination and disposal of security sensitive information;

iv) review and revision as necessary to maintain the currency of information contained in documents;

v) a method for issuing temporary or emergency revisions;

vi) retention of documents that permits easy reference and accessibility;

vii) identification and disposal of obsolete documents;

viii) retention and dissemination of documentation received from external sources, to include manuals and documents from applicable regulatory authorities. (GM)
SeMS Considerations:

- Adds value - neither completes with nor duplicates Annex 17
- Dynamic security is best
- Success depends on end-to-end process clarity
- Only train what each actor needs to know
- Meaningful measurement is key
- A wide range of measures & multiple layers are required

We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.

Audit Considerations:

- Audit objective - to pass whether “now” or later
- How to audit unpredictable measures?
- Announce intent, agree date, work together
- Assess performance relative to responsibilities, no more, no less
- Audit protocol & transparency essential
- Be objective whenever possible, minimise opinion

We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.
Slide 11

Proposals for moving forwards

- Establish APEC / industry cooperation & collaboration agreement
- Accelerate joint industry / regulatory consultations
- Enhance communication of strategic objectives & priorities
- Promote & accept low-cost low-tech solutions
- Share desensitised audit findings, trends etc.

We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.

Slide 12

Proposals for moving forwards

- Where resources are scare allow industry to help
- Accelerate performance improvements while volumes are depressed
- Collective review to optimise benefits from available resources
- Develop & agree communication process
- Join Secure Freight development group

We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.
Air cargo Security

Presented by: Mr. Anjum K. AGARWALA
USA Transport Security Administration

The IGIA member agencies (the Federal Communications Commission abstained) and the Department of Justice by informal action completed February 24, 2009, approved IGIA 18/6.61 dated February 5, 2009.

The approval of IGIA 18/4.61 was forwarded to the U.S. Representative on February 26, 2009, for submission to ICAO.

Attachment
AGENDA ITEM x: REVIEW OF ANNEX 17

THE SUPPLY CHAIN APPROACH TO AIR CARGO SECURITY

(Presented by the United States)

SUMMARY

This paper details the elements of and benefits associated with the use of supply chain screening and “chain of custody” requirements for securing air cargo, which emphasizes effective security management of the entire air cargo supply chain. The supply chain approach to air cargo security has been implemented successfully in Ireland and the United Kingdom; is under consideration by Canada and the European Commission as a way of increasing air cargo security; and is similar to an initiative undertaken by the International Air Transport Association referred to as “Secure Freight.” The United States has developed a system, modelled after those in the UK and Ireland, referred to as the Certified Cargo Screening Program, to provide a mechanism by which industry may achieve 100% screening without impeding the flow of commerce. Benefits include decreased air carrier delays and expedited supply chain flow; the ability to build bulk configurations that can be tendered without rescreening; the ability to ship certain cargo types without potential invasive screening later in the chain; and an ability to maintain in-house packaging integrity.

Action by the AVSECP is in section 3 of this document.

1. INTRODUCTION

1.1 In the United States, the Implementing Recommendations of the 9/11 Commission Act of 2007, Pub. L. No. 110-53 (Aug. 3, 2007) ("9/11 Act"), mandates 100 percent screening of cargo transported on passenger aircraft not later than August 2010. These changes are expected to cause significant air cargo handling delays at airports where all screening is currently performed. To meet this challenge, the United States is emphasizing effective security management of the entire air cargo supply chain by building upon established programs: air cargo security regulations, standard security programs, security directives, information sharing, increased use of certified explosives detection canine teams, and an augmented inspector cadre for cargo. Key to the success of this air cargo security regime is collaboration with domestic and international stakeholders—U.S.-based shippers, freight forwarders, and passenger air carriers—through a program that facilitates screening early in the supply chain using currently approved screening methods and stringent facility and personnel security standards. The United States advocates a multi-layered approach to secure all air cargo before loading onto passenger aircraft. Consequently, in an effort to avoid
slowdowns in global trade, the United States recommends securing cargo early in the supply chain by trusted, vetted, and validated facilities. Allowing these entities to secure cargo at the earliest possible point in the supply chain minimizes shipment delays by preventing the bottlenecks that may result from limiting this process to a single point further down the supply chain. Approved facilities will ensure shipment integrity at each facility and maintain that integrity through stringent chain of custody controls.

1.2 This collaborative strategy involves every component of the air cargo shipping system: shipping facilities, manufacturing facilities, third party logistics companies, haulers, warehouses, distribution centers, contract manufacturers, and independent cargo screening facilities. These system components may apply for certification as an authorized screening facility. Freight forwarders are also eligible to apply.

2. DISCUSSION

2.1 In the United States, approximately 12 million pounds (approximately 5.45 million kilograms) of cargo are transported daily on passenger aircraft. To accommodate this considerable stream of commerce, the United States currently has in place a multi-layered, risk-based system for securing cargo traveling on passenger aircraft. As required by applicable security programs and regulations, air carriers are now primarily responsible for screening a percentage of cargo to be transported on passenger aircraft. In addition, air carriers are required to screen, or provide to the U.S. Transportation Security Administration (TSA) for screening, all cargo that meets certain high-risk criteria. Regardless of risk, TSA screens 100 percent of cargo at smaller, low volume airports.

2.2 Currently, required cargo screening is conducted by air carriers, using the following TSA-approved methods of screening: physical search with manifest verification, x-ray, explosives trace detection, explosives detection systems, and decompression chamber. Cargo consolidations built by air carriers or accepted in that form from shippers and freight forwarders are subject to random screening by TSA-trained and certified explosives detection canine teams. For unique cargo types that do not lend themselves easily to these established screening methods, TSA permits alternative screening methods.

2.3 Additional layers of security augment the required screening. For example, with very few exceptions, cargo may only be accepted for transport on passenger aircraft when there is an established business relationship between the shipper and accepting freight forwarder or air carrier. Employees and authorized representatives of air carriers and freight forwarders with unescorted access to cargo must undergo a TSA security threat assessment. Also, Security Identification Display Area security requirements at regulated airports have been expanded to include areas where cargo is loaded and unloaded.

2.4 The 9/11 Act’s mandate cannot be achieved by relying on the current system, whereby air carriers are almost exclusively responsible for screening cargo. Currently, air carriers alone do not have the capacity to screen the volume of cargo that is now transported on passenger aircraft daily. Requiring passenger air carriers to screen 100 percent of air cargo would inevitably result in flight delays, congestion at airport cargo facilities, backlogs of unscreened cargo, and missed flights—in short, such a requirement would significantly impede the flow of commerce. Likewise, requiring screening of the current volume of cargo carried on passenger aircraft at the airports by parties other than air carriers would be impractical, if not impossible, if only because of the lack of space to accommodate such an operation.

2.5 Stakeholder Involvement. To fulfill the 9/11 Act’s requirements, the United States must rely on the cooperation of industry. Success will only be achieved by augmenting current screening resources with those of multiple stakeholders and ensuring that screening is conducted at earlier stages in the air cargo supply chain. As discussed more fully below, in connection with the Certified Cargo Screening Program, TSA is working with air carriers, freight forwarders, and shippers to create, pilot, and ultimately implement a program in which air cargo security is a responsibility shared by the entire air cargo industry.

2.6 Technology. A critical challenge to meeting the requirements of the 9/11 Act is the development of technology to accomplish the contemplated level of screening, particularly given current industry practices for packing cargo for transport aboard passenger aircraft. Under current
industry practice, a significant percentage of cargo that will be placed aboard passenger aircraft, particularly wide-body aircraft, is tendered at the airport in a consolidated state (i.e., it has already been packaged on standard skids ready for loading and transport onboard the aircraft). Without the development of effective technology for dealing with cargo tendered in this manner, screening would require costly reengineering of existing packaging and shipping processes.

2.7 The new requirements for screening cargo on passenger flights will have the biggest impact on cargo that is transported on wide-body aircraft, the majority of which are operated on international lanes. For efficiency in operation, wide-body aircraft utilize Unit Load Devices (ULDs) to transport the cargo in the lower holds of the aircraft. These ULDs can hold up to 11,000 lbs. (4,990 kg) of cargo and can contain hundreds of pieces. Some ULDs are hard-sided (similar to baggage containers) within which the pieces are hand-stacked, while other ULDs are flat metal pallets on which the pieces are stacked, contoured to the aircraft shape, then shrouded in plastic and covered in heavy netting to prevent shifting during flight. Freight forwarders control most of the market; most shippers work through a freight forwarder for a variety of reasons, and do not negotiate directly with air carriers. As a result, a very high percentage of ULDs are filled or built by the freight forwarder at its own facility, not at the air carrier’s facility. This is done not only for efficiency, but also because it enables freight forwarder to obtain better rates than when cargo is tendered “loose” (because less handling by the air carrier is required). For international cargo, the cut-off time for air carriers to receive cargo from freight forwarders (or shippers) is approximately 4 hours prior to departure time.

2.8 Without the development of technology to effectively screen cargo built on large pallets and in ULDs, screening cannot be executed primarily by air carriers on airport premises. If all cargo were to be screened only at airports by air carriers, they would have to either (a) break down or remove cargo from all ULDs previously built-up by freight forwarders, screen the cargo, and re-build the ULDs, or (b) require the freight forwarders to tender the cargo “loose,” and then the air carrier would screen the cargo and build up all of the containers. Either scenario would be extremely labor intensive, costly in time, and eliminate rate discounts for industry, and therefore increase the cost of transport to shippers/consumers.

2.9 **100 Percent Screening for the Majority of Passenger Flights.** A key component of achieving the 9/11 Act’s 50 percent milestone by February 2009 is a 100 percent screening requirement for narrow-body passenger aircraft that comprise approximately 95 percent of all domestic passenger flights and carry approximately 25 percent of all cargo that is carried on passenger aircraft. Most significantly, this requirement covers flights that carry more than three-quarters of all passengers. A benefit of this requirement is that the majority of air passengers are protected by enhanced screening measures, even in advance of full deployment of TSA’s air cargo security strategy.

2.10 **Canine Program.** Current TSA security requirements already require that bulk cargo consolidations be made available by air carriers for screening by TSA-certified explosives detection canine teams. TSA has trained more than 450 teams that are deployed and operated by local law enforcement agencies at airports. Standard operating procedures governing these teams require that they devote a certain percentage of their duty time to the air cargo environment. Canine teams generally are concentrated at or near airports where there are high volumes of passengers and cargo. The U.S. Congress recently appropriated additional funding to TSA to expand its explosives detection canine program by 170 teams. More than half of these teams will be proprietary, that is, comprised of TSA-owned dogs and TSA-employed handlers, and devoted exclusively to screening air cargo. The deployment of additional canine resources ensures that a greater number of cargo consolidations that are subject to screening will in fact be screened.

2.11 **Increased Cadre of Inspectors.** In 2008, TSA employed 300 cargo inspectors exclusively dedicated to the oversight of air cargo. Since then, the United States has trained and deployed an additional 150 air cargo inspectors. Cargo inspectors operate under work plans to ensure that all air carriers and freight forwarders are inspected regularly, and that those that have had previous compliance issues are inspected more frequently and thoroughly. Cargo inspectors also conduct outreach to all regulated entities to ensure their ability and willingness to comply with the TSA requirements for freight forwarders prior to their approval. Along with performing daily oversight of cargo operators, inspectors also conduct covert testing of the air cargo system and participate in “cargo strike” surge activities at the largest cargo airports in the United States.

2.12 **The Certified Cargo Screening Program.** Another key component of TSA’s air cargo security strategy involves working with partners across the air cargo industry to establish the
linchpin of TSA's—the Certified Cargo Screening Program (CCSP)—a voluntary program under which TSA will certify certain cargo screening facilities to screen cargo before it is tendered to air carriers for transport on passenger aircraft. This program will establish full supply chain security for air cargo and play a major role in overcoming the hurdles inherent in a 100 percent screening regime. The CCSP relies on layers of security to provide the best possible protection for cargo transported on passenger aircraft, with the least disruption to the flow of commerce. Under the CCSP, facilities upstream in the air cargo supply chain such as shippers, manufacturers, warehousing entities, distributors, and third party logistics companies will be able to apply to TSA to be designated as certified cargo screening facilities (CCSFs).

2.13 Freight forwarders that screen cargo may also apply for certification as CCSFs in order to screen cargo for transport on passenger aircraft. CCSFs will be required to screen cargo using TSA-approved methods and to implement chain of custody measures to ensure the security of the screened cargo throughout the air cargo supply chain prior to tendering it for transport and/or loading onboard passenger aircraft. Employees and authorized representatives of CCSFs with unescorted access to cargo, as well as the validators who will assess them, will be required to successfully undergo TSA-conducted security threat assessments. Before being certified, and periodically thereafter, the CCSF will be required to undergo examination by a TSA-approved validator. CCSFs will also be subject to regular and random inspections by TSA cargo inspectors to ensure their adherence to program requirements.

2.14 **Pilot Programs.** Once TSA's program is implemented, CCSF-screened cargo will contribute greatly toward meeting the 50 and 100 percent cargo screening requirements of the 9/11 Act. As part of the process of establishing this regulatory program, the United States is already testing the concept of screening earlier in the supply chain by conducting two pilot programs: (1) the CCSP (Phase One) pilot, involving shippers and other entities such as manufacturers, distributors and third party logistics companies; and (2) the screening technology pilot. The Phase One pilot program is currently being conducted at the following major gateway airports: San Francisco, Chicago, Philadelphia, Seattle, Los Angeles, Dallas-Fort Worth, Miami, Atlanta, and New York/Newark. The freight forwarder technology pilot is running at these same airports, with the addition of Dulles, Honolulu, Houston Intercontinental, Boston/Logan, Detroit, Denver, San Juan and Orlando airports.

2.15 Over 94 percent of all cargo transported on wide-body passenger aircraft transits through one or more of these 18 pilot airports, while approximately 61 percent of cargo transported on wide-body aircraft originates at just 6 of these airports. By focusing its outreach in the pilots on the entities using the airports with the highest volume of cargo transported on wide body passenger aircraft, the TSA is able to maximize the impact of the pilots and to gather significant data to determine the program's efficacy. The freight forwarder technology pilot is evaluating the effectiveness of cargo screening equipment recommended by TSA (such as Advanced Technology X-ray (AT X-Ray), ETD machines, and EDS) by commodity class at each participant’s consolidation facility. The U.S. Congress appropriated funds to TSA specifically for the screening of air cargo. TSA is using these funds to assist in the deployment of appropriate screening technology for use in the screening technology pilot. In addition to testing the equipment, the screening technology pilot will evaluate the volumes of cargo the freight forwarder community is able to screen, and the effectiveness of the chain of custody procedures.

2.16 **Industry response.** Industry has responded enthusiastically to the call for participation in the pilot program. During 2008, TSA teams met with over 3,000 interested parties (including shippers, freight forwarders, and air carriers) in these 18 cities to explain the impact of the 9/11 Act screening mandate and the resulting TSA regulations, as well as the solution presented by the CCSP. To date, TSA is working at over 200 freight forwarder locations, with over 300 shipper locations undergoing the validation process to become certified to screen cargo. More than 50 major freight forwarders, with approximately 120 facilities, have committed to participating in the screening technology pilot and are in various stages of certification. In addition to the freight forwarders that are formally participating in the screening technology pilot, the TSA received applications from 47 other freight forwarder facilities that wish to become certified and plan to purchase the approved technology on their own.

2.17 The United States believes this approach has many benefits, in particular because moving the screening of cargo to shippers and these larger freight forwarders and away from the airports will allow air carriers to focus their screening capabilities on cargo accepted from smaller
freight forwarders and shippers that do not have the volumes of cargo or the financial ability to invest in the infrastructure needed to screen cargo themselves.

2.18 **Research and Development.** To address technological challenges, the United States is working to identify technology gaps and to prioritize research and development requirements. Specifically, relevant U.S. agencies are working to develop and qualify technologies in the areas of automated break-bulk and bulk explosives detection; trace explosives detection; alternative screening technologies such as metal detection, non-linear junction device detectors, and Improvised Explosives Device (IED) disruptor technologies; blast mitigation technologies; stowaway detection technologies; and supply chain integrity technologies. U.S. agencies have collaborated in conducting laboratory and field assessments of AT X-ray and skid-sized x-ray technologies. The United States completed technology readiness evaluations of bulk air cargo screening technologies in 2007, and cooperative research activities are continuing concerning other promising technologies. Formal qualification testing of break-bulk (box/piece) air cargo screening technologies commenced in fall 2008, with a view toward adding successful technologies to an air cargo screening technology "TSA Approved Products List."

2.19 **Chain of Custody Maintenance.** To ensure that there is no single point of failure in the air cargo supply chain, approved facilities are required to establish and carry out a chain of custody protocol, immediately securing cargo before it leaves the designated cargo area. Having established shipment integrity, a secure chain of custody must be maintained until the cargo is accepted by an air carrier or another approved facility, which then implements its own security controls before loading onboard a passenger aircraft.

2.20 "Chain of custody" is a tiered process that begins with proper documentation. For example, the United States supports programs that require the accepting entity to receive documentary proof that each particular shipment has been secured prior to acceptance. Additionally, the accepting entity must visually confirm that proper physical security was applied and remains intact to prove chain of custody integrity. Such physical security methods include tamper-evident technology or the presence of a human escort. Chain of custody maintenance must be verified through these or other acceptance procedures before a shipment can be tendered to the accepting entity.

3. **ACTION BY AVSEC**

3.1 The AVSEC Panel is invited to:

a) Provide this information to the Amendment 12 Working Group for its consideration when reviewing the standards and recommended practices related to air cargo;

b) Consider developing guidance material related to chain of custody and other aspects of air cargo security.

— END —
ATTACHMENT – Secure Supply Chain Graphic

Shippers → Shipper Facilities → Approved Freight Forwarders → Approved Facilities → Shipper Facilities → Freight Forwarders → CARGO SCREENING

- Approved Freight Forwarders
- Unsecured cargo
- Ensure chain of custody
Security Controls for the Hand Carriage of Liquids, Aerosols and Gels (LAGs): Possibilities and Challenges towards Harmonization amongst Stakeholders

Presented by: Mr. Anjum K. AGARWALA
USA Transport Security Administration

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April 15-16, 2009

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**Agenda**

- Background
- Actions to date
- 3-1-1 Rule
- Moving forward
- Technologies under consideration

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**Background**

- August 2006: US-UK plot
- Other efforts
  - January 1995: Bojinka plot
  - December 1999: Los Angeles International Airport
  - July 2005: London bombings
  - September 2007: Ramstein Air Base
Slide 4

**Actions to Date**

- Immediate response to August 2006 plot
- ICAO Secretariat Study Group on LAGs
  - 100ml /3-1-1 rule
  - Security tamper evident bags (STEB)
- Response outcomes
  - Passenger inconvenience
  - Impact on duty free industry

Slide 5

**3-1-1 Rule**

Slide 6

**Moving Forward**

- Balance impact with security
  - Volumetric limits not a long-term solution
  - Collaborative development of technology solution
- Technology solution
  - Effective
  - Sustainable
- Harmonization
  - Consistent standards
  - Consistent procedures
Slide 7

Advanced Technology (AT) X-Ray

Cabin baggage screening with multiple views and an adaptable software package for detecting emerging threats

Slide 8

SABRE 4000

Hand-held trace detector for explosives, chemical agents, toxic industrial chemicals or narcotics

Slide 9

FIDO PaxPoint

Trace detector used to differentiate liquid explosives from common, benign liquids by analyzing vapors emitted from bottles
Slide 10

**Test Strips**

pH indicator-type strips that detect particles of liquid explosives and liquid explosives components

Slide 11

**Whole Body Imager**

Designed to detect possible liquid explosives in addition to other metallic and non-metallic threats
Aviation Security Audits –
the Importance of Human Factors

Presented by: Mr. Nicholas LUM
Assistant Director
Dept. International Relations and Security
Ministry of Transport of Singapore

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Introduction

- Human Factors are a critical part of the security audit process. Having motivated, background-screened, competent, certified and empowered persons performing security functions are essential.
- Out of 8 standards in Annex 17 on Quality Control, 4 of them relate to human factors. This reflects the importance placed on human factors in the quality control process.

Introduction

- Introduction
- The Human Factors
  - Selection
  - Training
  - Certification
  - Empowerment / Authority
  - Motivation
- Challenges
- Conclusion
Introduction

• 3 primary references:
  – ICAO Annex 17
  – Oversight Manual Part C
    – Doc 9734

Introduction

• In the case for aviation security (AVSEC):
  National Organisation & Appropriate Authority
    National Civil Aviation Security Programme
      National Civil Aviation Security Quality Control Programme
      Airport Security Programme
      National Civil Aviation Security Training Programme
      Operator Security Programme

Human Factors - Competency

• Selection (Annex 17 Std 3.4.1 – 3.4.2)
  – “Each Contracting State shall ensure that the persons implementing security controls are subject to background checks and delection procedures.”
Human Factors - Competency

- **Selection** (Doc 8973 Vol 1 Chap 8, 7th edn)
  - There should be a set of selection criteria, eg
    - education level
    - job experience
    - good knowledge of aviation and security matters, preferably from the Avsec industry
    - clean criminal record and clearance for access to sensitive information
    - good writing and speaking skills
    - good interpersonal skills
    - Appropriate physical attributes (eyesight, hearing etc)

Human Factors - Competency

- **Training** (Annex 17 Std 3.4.2)
  - “Each Contracting State shall ensure that the persons implementing security controls possess all competencies required to perform their duties and are appropriately trained according to the requirements of the national civil aviation security programme and that appropriate records are maintained up to date. Relevant standards of performance shall be established and initial and periodic assessments shall be introduced to maintain those standards”

Human Factors - Competency

- **Training**
  - Training by appropriate authority or approved third party
    - Basic Security related skills
    - Basic Service related skills
    - Specialisations – eg x-ray screener or secondary search
    - Training in security quality control skills
    - Common understanding of how to evaluate implementation of the NCASP
    - Info gathering / observation skills
    - Documentation review and report writing
    - On-the-job training
  - Instructors must be competent and certified
  - Take advantage of ICAO’s Avsec Training Packages
Human Factors - Certification

• Certification (Annex 17 Std 3.4.3)
  – Each Contracting State shall ensure that the persons carrying out screening operations are certified according to the requirements of the national civil aviation security programme to ensure that performance standards are consistently and reliably achieved.

• Certification
  – Suitable written and/or oral examinations could be required, and certification should ideally be performed by the appropriate authority
  – These exams could include questions on Avsec, QC methodology & techniques, report writing
  – Assessors or examiners could include members from Appropriate authority or suitable government agency(s)

• Authority / Empowerment (Annex 17 Std 3.4.7b extract)
  – Each Contracting State shall ensure that the management, setting of priorities and organisation of the national civil aviation security quality control programme shall be undertaken independently from the entities and persons responsible for the implementation of the measures taken under the national civil aviation security programme. Each Contracting State shall also:
  – (b) ensure that the personnel carrying out security audits, tests, surveys and inspections are afforded the necessary authority to obtain information to carry out these tasks and to enforce corrective actions;
Human Factors - Certification

- **Authority / Empowerment** (Doc 8973 Vol 1 Chap 8, 7th edn)
  - Scope and responsibilities to be clearly defined and structured.
  - Legal empowerment
  - Access into security restricted areas
  - Power to require immediate (where appropriate) rectification of faults or deficiencies
  - Right to interview
  - Strict confidentiality required to observation and findings – handling of classified information

Human Factors - Motivation

- **Motivation**
  - Remuneration
  - Incentives – Carrot and Stick
  - Campaigns
  - Security Culture
  - Passion for the job
  - Red-teaming
  - Pep-talks
  - Staff retention
  - Prevention of Corruption

Challenges

- **Hampered by**
  - Language barriers – re-interpreting Annex 17 and guidance materials in own language
  - Shortage of funds for training
  - Inconsistency of training / lack of standardisation of training and certification
  - Lack of quality control and audits on quality control itself
## Conclusion

- Prevention of the Insider threat
- Corrective actions
- Reports – transparency vs information classification
- Auditing of the auditors
- Making for a better organisation

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Thank you for your attention

Any questions?
Security Freight (IATA Cargo)
Supply Chain Security Solution

Presented by: Mr. John EDWARDS
Head of Cargo Security Office
International Aviation Transport Association

APEC Training Symposium
Optimize the use of audits and investigation
to strengthen aviation security in APEC economies

Ha Noi – Viet Nam
15-16 April 2009
Slide 1

Security Freight (IATA Cargo) Supply Chain Security Solution

Slide 2

Secure Air Cargo Ops

Why?

Terrorism  Crime  Legal  Reputation

Slide 3

Secure Air Cargo Ops

Scope

Terrorism  Crime  Legal  Reputation
Presented by: Ben
Championed by: Rich
Learnings

- There are few global standards for supply chain security
- Global loss (crime prevention) standards do not exist
- Global standards for carriage of SALW’s do not exist
- Definitions for the same words / terms vary significantly
- Some issues are not defined e.g. “tamper evidence”
- Incident reporting if done, is generally to a poor standard

This slide further illustrates the challenge we face, and in particular that the effectiveness of some measures, whether they are old or new, is not adequately understood.

Take the storage period, it provides no capability to detect and has little deterrent value and yet is approved in some form or other, by 66% of our survey sample.

And random screening. Unlike passengers and their bags, random screening of cargo adds very little value. Boxes are not humane, they can not see other boxes being selected for random screening and don’t show detectable signs of anxiety that they may be next.

The chances of finding a device concealed in cargo as a result of random screening are negligible. Secondary screening of cargo, when required must be based on threat assessment alone.

Standards for implementation of the same control measure also vary, i.e. the protocols for using canines are very inconsistent and in some States non-existent.

The variety of approved measures and the extent to which approvals vary between States is confusing for regional and global operators and I suspect for many regulators; and it reduces the prospect of harmonization - between willing partners.

But for effective controls, and I include regulated agents and known consignors in this, to be credible, they must be properly regulated, applied and enforced.

Without this the critical and compelling argument against 100% inspection is significantly devalued and the efficient flow of goods, on which our global economy relies, is threatened, and that Ladies and Gentlemen would be extremely detrimental to us all. Thank you.
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Slide 9

Indicative Standards Manual Chapters

- International & National Programme Templates
- Elevated Threat Measures
- High-level & Detailed Readiness Assessments
- Technology & Tamper Evidence
- Audit Protocol & System
- Incident Reporting & Management
- Training & Competency Development
- Record keeping & Document Control

Slide 10

Developing Indicative Requirements

- Comparison of relevant programmes complete
  - ISO 28000, C-TPAT, AEO, EU, TAPA, WCO, AIMSS, etc.
- 1st draft QA requirements & definitions identified

Developing Indicative SF Requirements

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<th>MEASURE (IATA)</th>
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<td>Internal audit review and assessment</td>
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**Mission:** To work with state authorities and the industry to secure international air cargo against terrorism & crime

- 2008: Vulnerable air cargo network
- 2010: SF gains initial State recognition
- 2013: SF SOP & SM are mature
- 2020: Effective Annex 17 & efficient SF, secure global network

**ICAO Annex 17 – standards & quality control implemented**

**Smart sustainable security**

**Mission:** To work with state authorities and the industry to secure international air cargo against terrorism & crime

**Q & A**

**Thank You**

We need ICAO to endorse Security Management Systems. This will lead to more efficient implementation of security measures, better use of resources and a direct reduction in cost. It must apply to airlines, airports and regulators alike.