



Security Management Systems (SeMS) Workshop

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Part of the UK CAA International Group

ICAO AVSEC Symposium 2019

What we will cover:



- Aim and expected outcomes of this workshop
- The foundations of a positive security culture
- The link to the UK SeMS Framework
- The SeMS Chapters (including practical examples to help its development)
- How SeMS links into ICAO requirements (Annex 17) and the GASeP

- Break -

- Revisit SeMS and look at other potential benefits it can offer.
- First steps
- Final thoughts



Aim:

To explore the fundamentals of an effective Security Management System (SeMS) and link these to the development of a positive Security Culture

Expected outcomes:

- Gain a better understanding of some of the key aspects that may help within the development of an effective SeMS and the potential benefits that this can bring to an organisation
- Learn and share ideas and best practice in a number of the UK SeMS framework chapters
- Understand the rationale behind how implementing a SeMS can aid in the development of a positive security culture.



The Foundations of a Positive Security Culture



Security Culture - Essential components

Communication
& awareness of
the threat

Guidelines
& Procedures

Clear roles
in security

Supportive
Processes

Reporting and
challenging

Incentives/
Enforcement

Personal
ownership/
Senior
Sponsorship

Security Culture

Key points to a Positive Security Culture:

- Leadership
- Positive work environment
- Understanding the threat
- Training / Education
- Incident Response
- Vigilance
- Effective Reporting Systems

Security Culture

Wealth of information out there relating to Security Culture...

Department for Transport
Framework for an Aviation Security Management System (SeMS)

TOOLKIT ON ENHANCING SECURITY CULTURE

A primary action of the Global Aviation Security Plan (GASP), as endorsed by the ICAO Council on 10 November 2017, is to create secure, resilient and harmonised aviation. This document, developed by the Aviation Security Panel Working Group on Training, seeks to build and promote positive security culture by providing advice and guidance on best practices. Security should be everyone's responsibility - from the ground up. Effective security culture is critical to business success, and is reinforced by the values and behaviours of an organisation's security culture. It is defined as:

- A set of shared values, beliefs, attitudes and assumptions that are embraced by all employees and are reflected in the actions and behaviours of an organisation's security culture.
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Benefits

- Employees are empowered and take responsibility for security issues.
- Levels of compliance with processes and procedures are high.
- The risk of security incidents and breaches is reduced by employees reporting and acting in more security-conscious ways.
- Employees are more likely to identify and report behavioural incidents of concern.
- Employees hold a "greater" sense of security and security-related large expenditure.
- Security is embraced without the need for large expenditure.

November 2018 | ICAO

CPNI
Centre for the Protection of National Infrastructure

Embedding Security Behaviours: using the 5Es

A framework for improving security behaviour within organisations

National Cyber Security Centre

BETA This is our new site, your feedback can help us to improve it.

Information for: Advice & guidance, Education & Training

Blog Post: Growing positive security culture.

If your security culture isn't improving naturally, here's what you can do about it.

WRITTEN BY: [Name]

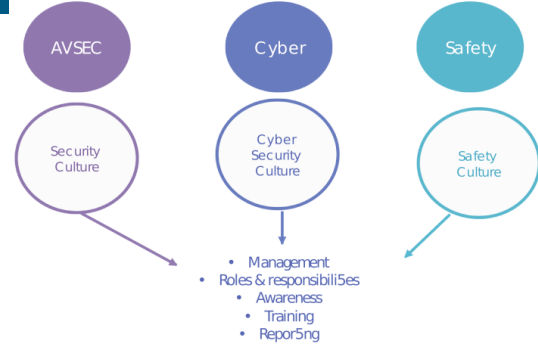
IATA Security Management System (SeMS)

Need Help? 530K, 2.2M

Security Incident Reporting Initiation & Awareness

ICAO Annex 17 and ICAO Council encourage teams, and all opportunities to identify issues and update the current programme and system of existing security awareness training programs to ensure robust reporting awareness and procedures. ICAO is available to help you with this process.

The human element



ICAO SECURITY CULTURE CAMPAIGN - STARTER PACK

The Starter Pack is designed to help the aviation sector raise the profile of security and to encourage all staff and service providers to think and act in a security-conscious manner.

The pack contains advice and best practices on how to run educational security culture campaigns, along with customisable resources which can be downloaded and edited to your local airport environment or organisation.

This easy-to-use kit offers practical security advice on:

- Guide to the running of a Security Culture Campaign: Key principles
 - Explaining the threat
 - Delivering the message
 - Methods of communication
 - Getting Buy-in
 - Creating a project plan
 - Monitoring and maintaining vigilance
 - Incident response

ICAO – GAsEP Priorities:



The Global Aviation Security Plan (GAsEP) provides the foundations for States, industry, stakeholders and ICAO to work together with the shared and common goal of achieving five key priority outcomes:

- 1) enhanced risk awareness and response;
- 2) develop security culture and human capability;
- 3) improve technological resources and innovation;
- 4) improve oversight and quality assurance; and,
- 5) increase cooperation and support



ICAO Global Aviation Security Plan (GAsEP)



The UK Security Management Systems (SeMS) Framework.

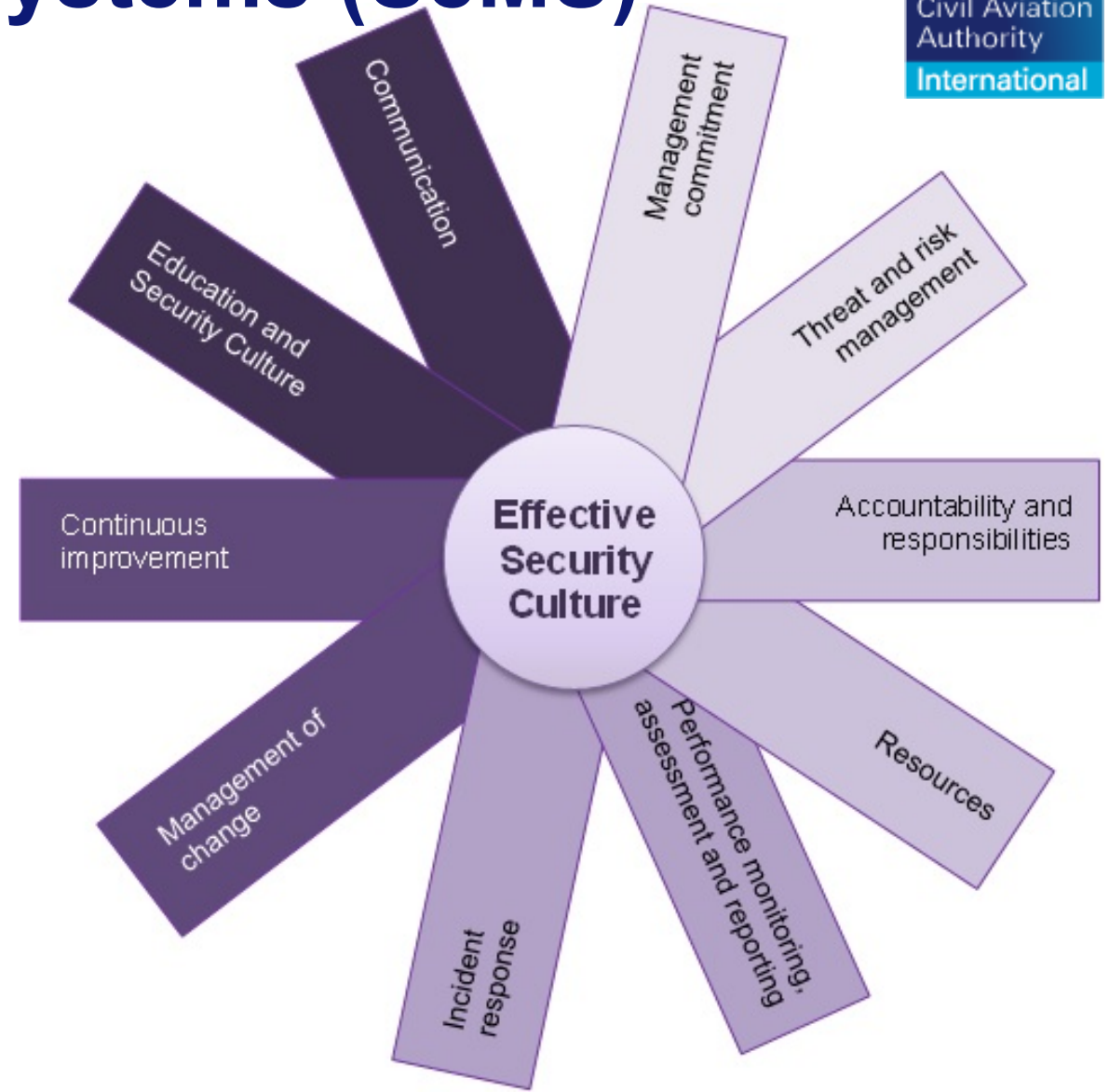
Security Management Systems (SeMS)

- Akin to Safety Management Systems (SMS) a SeMS is made up of...
 - Security Policy and Objectives
 - Security Risk Management
 - Security Assurance and Oversight
 - Security Promotion
- SeMS provides a formalised, risk driven framework for integrating security into the daily operations and culture of an Entity.
- A SeMS enables an Entity to identify and address security risks, threats gaps and weaknesses in a consistent and proactive way



Security Management Systems (SeMS)

1. Management Commitment
2. Threat and Risk Management
3. Accountability and Responsibilities
4. Resource
5. Performance Monitoring, Assessment and Reporting
6. Incident Response
7. Management of Change
8. Continuous Improvement
9. Education and Security Culture
10. Communication



SeMS Chapters

- 1) Management Commitment**
- 2) Threat and Risk Management**
- 3) Accountability & Responsibility**

1) Management Commitment

The Entity's management should show its commitment to security by:

1. Board-level and senior management support of the SeMS
2. Promoting a positive security culture
3. Key appointments that reflect the importance of the SeMS
4. Determining and providing the appropriate resources

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- 3) improve technological resources and innovation;
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- 5) increase cooperation and support**



2) Threat and Risk Management

A SeMS should provide:

- 1) A process for identifying local threats
- 2) A Threat assessment and scoring process
- 3) A Process for assessing the security risks
- 4) A review process.



ICAO – GAsEP / Annex 17 Priorities:



The Global Aviation Security Plan (GAsEP) provides five key priority outcomes:

- 1) **enhanced risk awareness and response;**
- 2) develop security culture and human capability;
- 3) improve technological resources and innovation;
- 4) improve oversight and quality assurance; and,
- 5) increase cooperation and support

Annex 17 states:

‘2.2.2 Each Contracting State shall ensure that measures designed to safeguard against acts of unlawful interference are applied to domestic operations to the extent practicable, based **upon a security risk assessment carried out by the relevant national authorities.**’

3) Accountability and Responsibility

Accountability and responsibilities for security should be clearly defined throughout an Entity, including security responsibilities at all levels. This should be tailored to an individual's role.

- Airport Chief Executive Officer (CEO)
- Airport security officer
- Airside maintenance staff at airport
- Cleaner at airport
- Front desk staff at independent airport hotel
- Airport taxi driver
- Passenger

ICAO – GAsEP Priorities:



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- 2) **develop security culture and human capability;**
- 3) improve technological resources and innovation;
- 4) improve oversight and quality assurance; and,
- 5) **increase cooperation and support.**



Break away session. (1)



Please discuss within groups some examples of best practice that you have seen, or future ideas that you may have, in relation to developing / evidencing:

- 1) Management Commitment to security
- 2) Threat and Risk Management
- 3) Defining Accountabilities & Responsibilities to staff

Time: 5-10minutes

Outcome: A few suggestions to present to the group of best practice that you have seen either from industry or from the regulator / Government.

Best Practice - Management Commitment

A Security Policy which can:

- Describe who the **policy applies to**.
- Cover the entity's **security standards and recommended practices**
- Define who **enforces the policy**
- Explain what the **consequences of failure** to follow the policy are.
- Encourage a **Just Culture** and the reporting of incidents.
- Be endorsed and visibly **signed by the Accountable Manager**

AVIATION SECURITY POLICY



The primary objective of Airport A is to assure the protection and safety of passengers, crew, ground personnel, third parties based at the airport, the general public, aircraft and facilities serving civil aviation, against acts of unlawful interference perpetrated on the ground or in flight.

Responsibility for implementing the aviation security policy rests with all persons who work at Airport A. In addition, the Accountable Manager (Operations Director) has the following specific commitments to:

- A) A continuous improvement programme which consistently monitors and reviews security performance;
- B) Ensure aviation security requirements and all applicable standards are met, and consider best practices;
- C) Provide appropriate resources, assign clear responsibilities within the security team and ensure adequate training is provided;
- D) Enforce security awareness as the responsibility of all personnel within the Airport;
- E) Include security reporting procedures (including access to the Anti-Terrorist hotline) and whistleblowing arrangements;
- F) Promoting a positive security culture through the SeMS framework; and
- G) Develop and maintain an Airport Security Programme (ASP) to ensure compliance with the National Aviation Security Programme (NASP) taking into account threat and risk.

The Accountable Manager will endorse this policy and shall:

- A) Identify security as a high organisational priority mutually supportive of commercial and operational priorities;
- B) Reflect organisational commitments regarding security and the Airport's proactive and systematic management;
- C) Be communicated, with visible endorsement, throughout the Airport;
- D) Include security reporting principles, such as reporting acts of unlawful interference and credible threats against the Airport to the Appropriate Authority;
- E) Be periodically reviewed to ensure it remains relevant and appropriate to the Airport

John Doe (Operations Director)

Sept. 2017

Best Practice Management Commitment

- Managerial walkabouts
- Breakfast with the board
- Back to the floor exercises
- Open phone lines
- Newsletters
- Release of Board Minutes / Actions
- Recognition of good deeds



Best Practice.... Threat and Risk Management

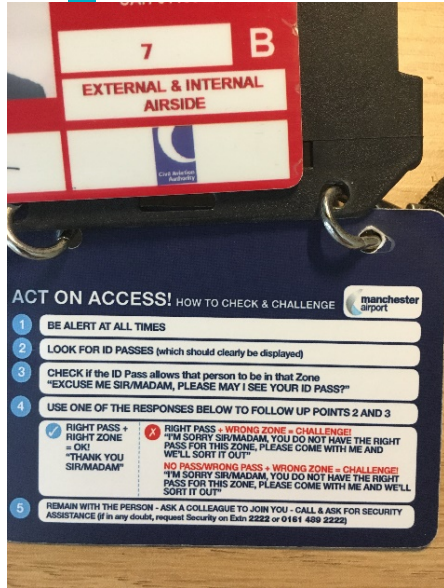


- Holding regular meetings with appropriate departments / organisations present
- Maintaining a collaborative relationship with your regulator / Government body
- Suitably trained staff
- Having a defined risk tolerability matrix within the company

Best Practice

Accountability &

Responsibility



- Drop in sessions / Security days
- General Security Training to all staff / 3rd parties
- Posters / Audio messages
- Job Adverts
- Security Champions in all departments

AVIATION SECURITY OFFICER

Location: Derby, United Kingdom | Salary: £10.01 hourly | Posted: 9 Sep 2019 | Contracted Hours: Full-190001U1

We have a position for a Relief Cargo Screener operating with our prestigious, household name client a. The position requires primarily operation of an X-Ray machine to assist in processing large volumes of. Additional duties would include Gatehouse Operation and other Aviation Security tasks.

The position offers a contracted minimum of 40 hours per week.

The operation does require our Relief Staff to mostly work nights, and also some weekends – but not every requirement to cover these shifts is much lower. There is no specific shift pattern for the Relief Cargo Shift pattern of Monday to Friday, with some weekend shifts to be expected.

No previous experience is required, and comprehensive Training is provided. All staff are tested following

No previous experience is required, and comprehensive Training is provided. All staff are tested following

[Apply now](#)



SeMS Chapters



4) Resource

5) Performance Monitoring, assessment and reporting

4) Resources

1. The provision of adequate facilities, resources, equipment and support
2. The Entity placing an appropriate degree of importance on security in the selection of personnel



3. Appropriate specifications for security equipment and services and maintenance
4. Effective contracting and oversight of 3rd parties, contractors and suppliers

ICAO – GAsEP Priorities & Annex 17



The Global Aviation Security Plan provides five key priority outcomes:

- 1) enhanced risk awareness and response;
- 2) **develop security culture and human capability;**
- 3) **improve technological resources and innovation;**
- 4) improve oversight and quality assurance; and,
- 5) increase cooperation and support.

Annex 17 **recommends:**

2.5.1 Each Contracting State should **promote research & development of new security equipment, processes and procedures** which will better achieve civil aviation security objectives (...).

2.5.2 Each Contracting State should ensure that the development of **new security equipment takes into consideration Human Factors** principles.

2.5.3 Each Contracting State should consider **implementing innovative processes and procedures** to allow operational differentiation of screening and security controls based on clearly defined criteria.

5) Performance Monitoring, Assessment and Reporting



- 1) Collection, analysis and sharing of honest and accurate data is an essential SeMS principle.
- 2) Effective, targeted performance measurement and reporting is part of the bedrock of a SeMS
- 3) Think wider than security requirements – how can overall performance be improved and potential gaps closed?
- 4) An open SeMS is a good SeMS. Clear reporting procedures will encourage involvement

ICAO – GAsEP Priorities & Annex 17



The Global Aviation Security Plan (GAsEP) provides five key priority outcomes:

- 1) enhanced risk awareness and response;
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- 3) improve technological resources and innovation;
- 4) **improve oversight and quality assurance;** and,
- 5) increase cooperation and support.

Annex 17 states:

3.4.5 Each Contracting State shall ensure that the implementation of **security measures is regularly subjected to verification of compliance** with the national civil aviation security programme. The priorities and frequency of monitoring shall be **determined on the basis of risk assessment** carried out by the relevant authorities.

Break away session. (2)

Please discuss within groups some examples of best practice that you have seen, or future ideas you may have, in relation to developing:

4) Resource management

5) Performance Monitoring, assessment and reporting

Time: 5-10 minutes

Outcome: A few suggestions to present to the group of best practice that you have seen either from industry or from the regulator / Government.

Best Practice... (Resource Management)

Goal of every organisation is to retain staff when possible, this retains and allows development of their skill whilst building culture...

Empowering staff means higher retention rate.

- Close engagement with training team and continuous monitoring and updating of training material
- Dedicating oversight responsibility for 3rd parties to an individual within the security team
- Speaking to and engaging with other entities, sharing best practice and ideas

***‘Train people well enough so they can leave,
Treat them well enough so they don't want to’***

Richard Branson



Best Practice Performance Monitoring, Assessment and Reporting



- Using live and retrospective monitoring (CCTV) as a form of quality assurance
- Using 3rd party providers to conduct performance monitoring to gain unbiased results
- Identifying the root cause of an issue and rectifying. (Root Cause Analysis)
- Development of a Just Culture (Including a written process shared with staff identifying the procedure the company will follow when a deficiency is identified).
- Confidential reporting lines being created and promoted (external to security)

SeMS Chapters

6) Incident Response

7) Management of Change

8) Continuous Improvement

6) Incident Response & 7) Management of Change

- A robust security incident response process is in place, that encapsulates all roles and personnel, building on a positive culture where all play their part.
- Methods of improving the response process.
- A process to implement additional security measures as appropriate.
- Effectively plan, communicate and implement changes to security policy and procedures, in a formalised manner.
- Monitor the effects of change on security as part of the change process.



ICAO – GAsEP Priorities & Annex 17



The Global Aviation Security Plan (GAsEP) provides five key priority outcomes:

- 1) enhanced risk awareness and response;
- 2) develop security culture and human capability;
- 3) **improve technological resources and innovation;**
- 4) improve oversight and quality assurance; and,
- 5) increase cooperation and support.

Annex 17 states:

5.1.4 Each Contracting State shall ensure that contingency plans are developed and resources made available to safeguard civil aviation against acts of unlawful interference. The contingency plans shall be tested on a regular basis.

8) Continuous Improvement

- Routine monitoring of Security Performance Indicators
- Determine the immediate cause of below-standard performance and their implications within the operation of the SeMS
- Rectifying situations involving below-standard performance identified through security assurance activities.
- Look for where something might fail – anticipate issues and mitigate as appropriate.
- Track organisational changes and risk mitigations to ensure they are effective.

ICAO – GAsEP Priorities & Annex 17



The Global Aviation Security Plan (GAsEP) provides five key priority outcomes:

- 1) enhanced risk awareness and response;
- 2) **develop security culture and human capability;**
- 3) **improve technological resources and innovation;**
- 4) improve oversight and quality assurance; and,
- 5) increase cooperation and support.

Annex 17 states:

2.5 Innovation, research and development...

2.5.1 Recommendation.— Each Contracting State **should promote research and development of new security equipment, processes and procedures** which will better achieve civil aviation security objectives

Break away session. (3)



Please discuss within groups some examples of best practice that you have seen, or future ideas you may have, in relation to:

- 6) Incident response
- 7) Management of Change
- 8) Continuous Improvement

Time: 5-10 minutes

Outcome: A few suggestions to present to the group of best practice that you have seen either from industry or from the regulator / Government.

Best Practice... (Incident Response & Management of Change)



- Clear governance in place to manage an incident
- Robust exercise schedules in place and published
- Exercising of crisis teams (where appropriate)
- Robust wash ups and incident reviews – capturing learnings and continuous improvement
- Robust Management of Change process, that is initiated at the beginning of any change. Here, every departmental area is consulted and this is formally logged.

Best Practice... (Continuous Improvement)



Best Practice.... Continuous Improvement



'We commenced our SeMS journey in 2008 with the development of a 45 page SeMS Manual outlining the roles and responsibilities (current and future state) of senior management and each of our business units. The manual was widely circulated and formed the foundation of what we have today

In 2019, the SeMS Manual is gone as SeMS is now part of the Qantas way of life. It is part of each business unit's way of thinking, but this has been a long and sometimes difficult journey.'

SeMS Chapters

9) Education and Security Culture

10) Communication

9) Education and Security Culture



- A organisation must never become complacent and must continually strive to develop and maintain a positive security culture within its organisation, encompassing not only the staff conducting a security role, but also all others that work for, work alongside, engage with or travel through this entity.
- As such a SeMS education programme should reach everybody and the message tailored to suit.
- The sharing of information between SeMS entities and the regulator will benefit everyone and help build an industry-wide Security Culture.

ICAO – GAsEP Priorities & Annex 17



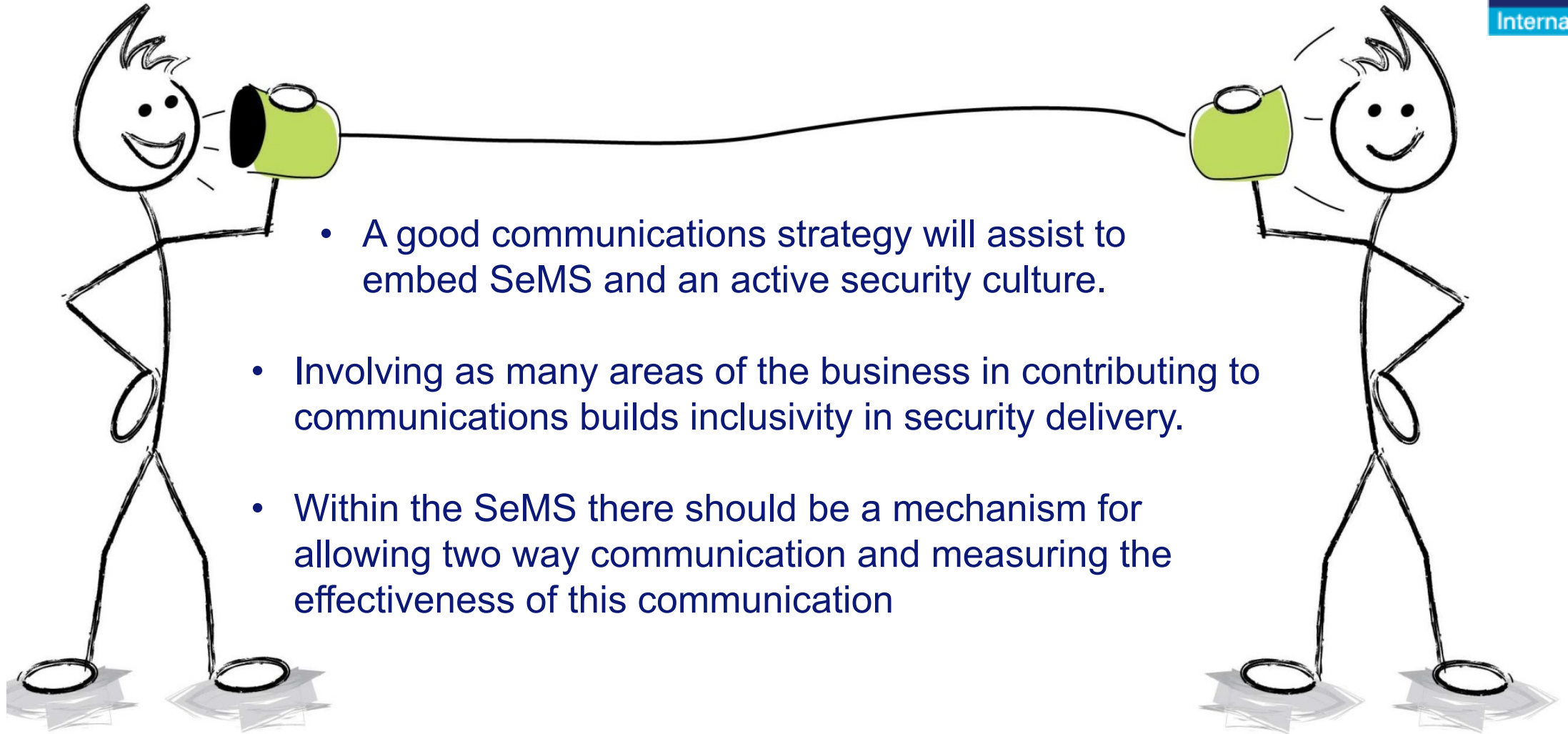
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- 5) increase cooperation and support.

Annex 17 states:

13.4.2 The operator shall also **establish and maintain a training programme** to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aeroplane so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference

10) Communication



- A good communications strategy will assist to embed SeMS and an active security culture.
- Involving as many areas of the business in contributing to communications builds inclusivity in security delivery.
- Within the SeMS there should be a mechanism for allowing two way communication and measuring the effectiveness of this communication

Communication



“Nobody attended the Effective Communications Seminar. They didn’t understand the invitation.”

ICAO – GAsEP Priorities:



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Break away session. (4)



Please discuss within groups some examples of best practice that you have seen, or future ideas you may have, in relation to developing:

9) Education and Security Culture

10) Communication

Time: 5-10 minutes

Outcome: A few suggestions to present to the group of best practice that you have seen either from industry or from the regulator / Government.

Best Practice... (Education and Security Culture)



- Evidence within the UK has demonstrated that those entities who have commenced the development of a SeMS have seen a general trend in improved compliance with an increase in number of reported incidents.
- Every operation will be unique, as such adapting and amending ideas presented over the day to suit your organisation and its operating environment is important.

Best Practice... (Communication)



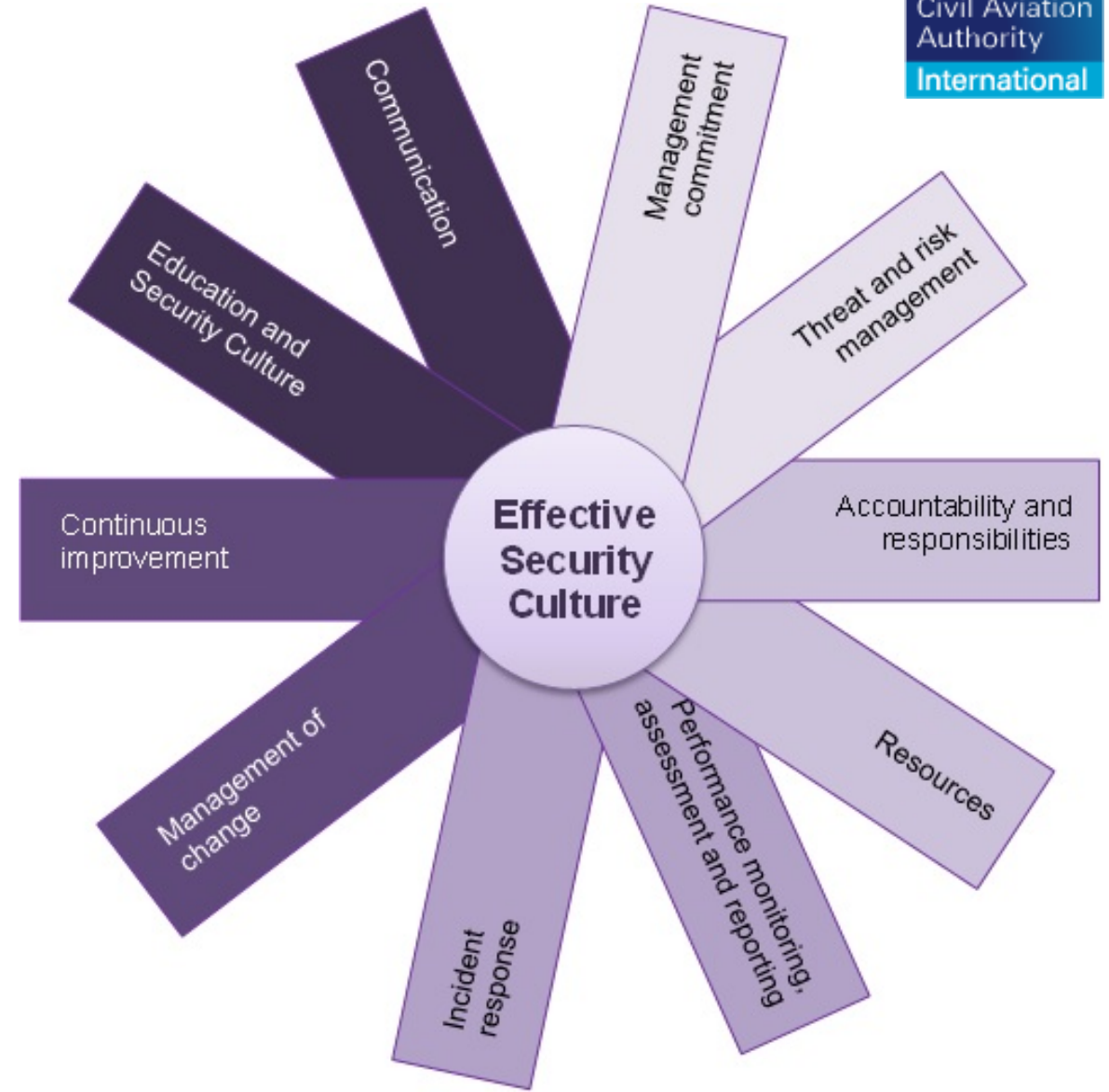
- Morning briefings, Availability of managers, Availability of regulators and government departments.
- Newsletters, posters, leaflets
- Visual displays / TV screens / Lightboxes
- Tannoy announcements, Security champions/representatives to promote security in their department.
- Using different languages / making messages simple / changing on regular basis



- Break -

SeMS Chapters

1. Management commitment
2. Threat and Risk Management
3. Accountability and Responsibilities
4. Resource
5. Performance monitoring, assessment and reporting
6. Incident response
7. Management of Change
8. Continuous Improvement
9. Education and Security Culture
10. Communication



SeMS; additional benefits:



SeMS; additional benefits:

- Improved oversight of operations for managers & appropriate quality assurance conducted
- Improved ability to identify threats prior to incident & using a more proactive approach to aviation security
- The development of a security culture where security is everybody's responsibility
- Improved communication within the entity & between an entity & its third party partners

Comments from industry...



*‘With accountability and responsibility moving closer to the front line, employee understanding has increased, training becomes more relevant, feedback and reporting has improved, trust has increased and the security culture has improved. **With an improved security culture, incidents (and repeat incidents or breaches) are fewer – compliance is up’.***

Comments from industry...

“It’s made security everyone's business”

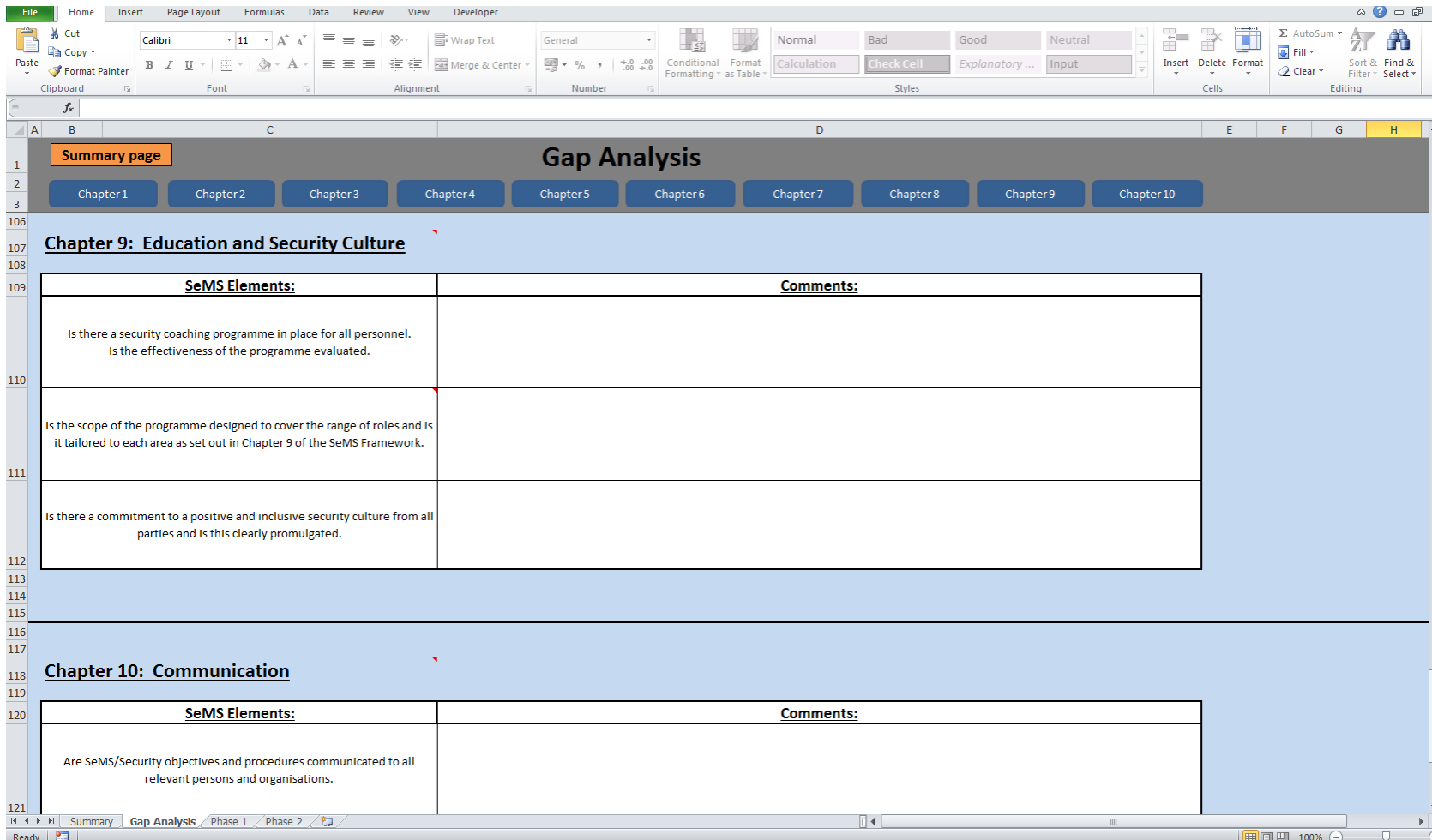
“A SeMS enables more effective use of existing tools and systems”

“SeMS has joined up procedures that we are already implementing” (...) “generating a clearer picture for senior managers”

“SeMS has provided me with a complete overview of security within my business that I did not have previously”

“Since implementing a SeMS we have seen a 50% increase in security incident reporting”

SeMS; First steps...



The screenshot shows an Excel spreadsheet with the following structure:

- Summary page** (row 1): A navigation bar with buttons for Chapter 1 through Chapter 10.
- Chapter 9: Education and Security Culture** (row 107):
 - SeMS Elements:**
 - Is there a security coaching programme in place for all personnel. Is the effectiveness of the programme evaluated.
 - Is the scope of the programme designed to cover the range of roles and is it tailored to each area as set out in Chapter 9 of the SeMS Framework.
 - Is there a commitment to a positive and inclusive security culture from all parties and is this clearly promulgated.
 - Comments:** (empty column for notes)
- Chapter 10: Communication** (row 118):
 - SeMS Elements:**
 - Are SeMS/Security objectives and procedures communicated to all relevant persons and organisations.
 - Comments:** (empty column for notes)

Visit:

www.caa.co.uk/SeMS

Open:

[SeMS entity self-assessment questionnaire](#)

Final Thought

- *As a regulator, state representative or member of industry, regardless of the amount of time and effort you put into implementing change you still face the same problem as everyone else:*

‘security is only as strong as the weakest link in the aviation chain. We need to work together globally to improve standards throughout.

Further information



- Framework for an Aviation Security Management System (SeMS) CAP 1223*
- Implementing a Security Management System : An Outline CAP 1273*
- SeMS : A guidance note for Accountable Managers CAP 1224*
- External FAQs*

* Available at www.caa.co.uk/SeMS



Questions?

