Supply Chain Security Requirements For Air Cargo (ICAO DOC 8973/7)

الإجراءات الأمنية لسلسلة الإمدادات للشحن الجوي
Each Contracting State shall keep under constant review the level of threat to civil aviation within its territory, and establish and implement policies and procedures to be responsible for threat evaluation specially to the air cargo to avoid being a means of committing an act of unlawful interference.
There exist two main threats to the air cargo industry:

1. The introduction of an Improvised Explosives Device (IED) in a cargo consignment that will be loaded on board a passenger aircraft; and

2. The commandeering of an all-cargo aircraft in order to use it as a weapon of mass destruction.

Here are the two main threats to the air cargo industry:

1. If a device is placed in a cargo consignment, it could potentially be loaded onto a passenger aircraft, posing a risk.

2. An all-cargo aircraft could be commandeered and used as a weapon of mass destruction.
Complex industry grows continuously and traded in more than one source:

(shipper-forwarder-air carrier-airport-aircraft)

* A large number of employees so can know strength and weaknesses in the air cargo system, which could hack through.

* A strength security measures applied to passenger and their luggage which draws attention to air cargo operations and direction as a substitute impenetrable.

Why trading is always a hit due to:

• A large number of employees so can know strength and weaknesses in the air cargo system, which could hack through.

• A strength security measures applied to passenger and their luggage which draws attention to air cargo operations and direction as a substitute impenetrable.

• The implementation of security and security of the passenger and their luggage where it is concerned with the direction of the air cargo system, which always available.

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why the air cargo considered a particular sensitivity

 لماذا يعتبر الشحن الجوي ذو حساسية خاصة

- increase in the large volume of air cargo.
- difficulties in inspection and screening of all shipping.
- low risk on perpetrators or terrorists.

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SUPPLY CHAIN SECURITY
أمن سلسلة الإمدادات

SHIPPER
المرسل

Forwarder
معهد الشحن

AIR CARRIER
مشغل الطائرة

AIRPORT
المطار

AIRCRAFT
الطائرة
Establish a security programme for identifying responsibilities and measures with all shared entities regarding air cargo

STANDARD 4.6.1 (Annex 17)

Each Contracting State shall ensure that appropriate security controls, including screening where practicable, are applied to cargo and mail, prior to their being loaded onto an aircraft engaged in passenger commercial air transport operations.

Seamless transit of consignment from one entity to another.

Faster transit as there is no need to perform security controls at every point of transfer.
Security polices and procedures from each entities.

Validated security training programme for all staff involving with handling cargo.

Accreditation programme for known shippers/consignors with through entry requirements.

Regularly updated database of all known shippers/consignors and regulated agent that is shared by all parties involved in supply chain security programme.

Regular review of supply chain accreditation to insure security controls are continually performed as prescribed.
GROUND SECURITY
أمن العمليات الأرضية

All cargo building or ware houses and air cargo supplies infrastructure should be protected through implementing a security procedures since the time of receiving it until it is loaded on board the aircraft, and should be include measures for:

• Secure cargo warehouses and building.
• Protecting cargo which subjected to security procedures.
• Protecting and guarding aircraft.
• Issuing (I D) for all staff.
• Searching aircraft before loading cargo.
• Protecting cargo before loading on aircraft.

- Tأمني مباني ومخازن البضائع
- حماية البضائع متى تم فحصها أمنياً.
- حماية الطائرة وحراستها.
- إصدار بطاقات هوية للعاملين.
- تفتيش الطائرة قبل تحميلها.
- حماية وحراسة البضائع متى تم تخليصها أمنياً قبل تحميلها علي الطائرة.
HOW TO MINIMISE RISKS
Deter, Detect & Delay

**DETER :-**

- FENCES
- ACSESSES CONTROL.
- I D (for persons / VEHICLE).
- LIGHTINING.
- CCTV
- ALARMS + IDS (INTROUSION DETECTION SYSTEMS).
- Capable security staff are major contributors to deterrence

**الردع :-**

- الأسوار
- تأمين المداخل والبوابات.
- نظام تصاريح (أفراد / مركبات).
- الإضاءة.
- كاميرات المراقبة.
- وسائل إنذار.
- موظفون مدربون على تنفيذ الإجراءات الأمنية.
How to Reduce Risks (Detect)

Detect:

- Security personnel on control points
- Mobile patrols contribute to detection when they are “well trained, motivated and managed.”
- IDS. with good access control measures.
- X-RAY
- K9
- Decompression Chambers.
- Full flight simulation systems.

الاكتشاف:

- هو كشف إختراق أمني يوجب الشروع في تنفيذ إجراءات مضادة:
  - تواجد أفراد أمن مدربين على المداخل والمخارج.
  - دوريات أمنية بصفة مستمرة وعلى فترات.
  - بوابات كشف المعادن.
  - أجهزة كشف التسلل.
  - أجهزة الكشف بالأشعة السينية.
  - الكلاب البوليسية.
  - جهاز محاكاة الطيران.
  - غرف تفرير الضغط.
HOW TO REDUCE RISKS (delay)
كيفية تقليل المخاطر

- DELAY

- Fences, controlled gates, doors, windows
- Removal steps and jetties
- Locking and sealing of aircraft all designed to delay and increase the chance of being detected and detained.

التعطيل:

- الأسوار، التحكم في الأبواب والنوافذ.
- إبعاد السلالم والجسور
- إغلاق أبواب الطائرات ووضع اللاصق الأمني والمصمم للتعطيل وزيادة فرص الكشف والاحتجاز.
The cargo must be stored in a secure manner that includes the following:

- All cargo receiving and dispatching doors should have the capability of being closed and locked when not in use.
- Cargo receiving and dispatching doors. If possible should be equipped with intruder detection devices and CCTV.
- Doors intended for use by vehicle should not be used by any person to enter or exit building (should be separate).
- Signs indicating that all dangerous devices and weapons contained in a consignment should be declared.
- Consignments that have been secured should be held in a secure premises until they are loaded on board the aircraft.

Storage of Cargo
 تخزين البضائع

- لابد من تخزين البضائع بصورة مأمونة على أن تتضمن الآتي:
  - إغلاق جميع المخازن في حال عدم الاستخدام.
  - استخدام أجهزة كشف السمس و كاميرات المراقبة.
  - فصل أبواب دخول الأفراد عن المركبات.
  - وضع اللافتات التحذيرية والتي تتطلب الإعلان عن أي أشياء خطرة أو أسلحة أو ذخائر.
  - حفظ البضائع التي خضعت للضوابط الأمنية في مكان مأمون لحين تحملها على متن الطائرة ومنع الوصول إليها إلا للمصرح له بذلك.
Cargo should only transported by:

- A known hipper/consignor’s a regulated agent’s or an aircraft operator’s own transport; or
- Transporters whose operating procedures and security measures have been approved by the regulated agent or the aircraft operator.
A strict instructions to the drivers:

- Carry and present a valid security permit or company identity.
- Immediately prior loading on cargo compartment of vehicle should be searched.
- Cargo compartment should be secured or made tamper-evident using seals or locks.
- The driver should not leave the vehicle unattended.
- The driver should not make unscheduled stops (except to his journey).
- Before cargo consignment is transported to the aircraft, it should be checked to insure that was not tampered.
- The vehicle should be recorded before leaving premises or exit and when its return.

立即通知司机以下事情:

- 携带和出示有效的安全许可或公司身份。
- 货物装载前应立即检查货舱。
- 货舱应被封闭或用封条或锁封。
- 司机不应离开车辆。
- 司机不应在未经许可的情况下停车（除正常行程外）。
- 在将货物装机前，应检查货物以确保没有被篡改。
- 车辆应在离开场所或出口前及返回时被记录。
Known consignor. A consignor who originates cargo or mail for its own account and whose procedures meet common security rules and standards sufficient to allow the carriage of cargo or mail on any aircraft.
In order to be designated as a regulated agent, the entity (freight forwarder, courier service, aircraft operator, etc.) needs to produce and demonstrate continued compliance with a regulated agent’s security programme which may be one of the following forms:

- Regulated agent security programme, written by the freight forwarder, courier service, etc. And its compliance acknowledged by the appropriate authority; and

- Manuscript security programme, drafted by the appropriate authority for acceptance and adherence by entities wishing to become a regulated agent.

To become a regulated agent, an entity must prepare and submit a security programme that meets the requirements of the regulatory authority. This programme should demonstrate the entity’s commitment to maintaining a secure and compliant environment.

TAHER 17
Establish and register the identity of consignors.

Ensure that the consignor delivers a full description of the contents of the consignment.

Ensure that consignments are safeguarded from unauthorized interference after reception.

Ensure that reception, processing and handling of cargo are carried by properly recruited and training staff.

Ensure that each consignment be accompanied by documentation and providing the following information:

I. Name, dress and contact details of a regulated agent.

II. Name and details of consignor.

III. Contents of the consignment.

IV. Consignment security declaration.
Regulated agent

شاحن المعروف

تعريفه: - وفقًّا ماجأء بالملحق رقم 17

هو الجهة التي ترسل البضائع أو البريد لحسابها الخاص والتي تفي إجراءاتها بمعايير وقواعد الأمن المشتركة الكافية للسماح بنقل البضائع والبريد على متن الطائرة.

Regulated agent. An agent, freight forwarder or any other entity who conducts business with an operator and provides security controls that are accepted or required by the appropriate authority in respect of cargo or mail.
A regulated agent or an aircraft operator may recognize a customer or consignor as a known shipper/consignor and register its identity, address and the agent(s) authorized to carry out deliveries on the shipper/consignor’s behalf and the consignor should also declare that:

- Consignment are prepared in secure premises.
- Consignments are prepared by reliable staff members.
- Consignments are protected against unauthorized interference during preparation, storage and transportation for which is responsible.
- It accepts that packaging and contents of any consignment may be examined for security reasons.
- Certifies in writing that, to the best of its knowledge, the consignment does not contain any restricted article or dangerous devices or substances.

- يمكن للوكيل النظامي أو مشغل الطائرة أن يعترف بالعميل أو مرسل البضائع باعتباره شاحنا معلوما أو مرسل بضائع معلوما ويسجل هوئتهما وع Conan nous ووكيل أو الوكلا المصدر لهم تنفيذ عمليات التسليم بالنبيهة عنههما وينبغي للشاحن والمرسل القيام بما يلي:

I. الإقرار بأن الشحنات قد أعدت في مراقبة مؤمنة وذلك بواسطة موظفين موثوقين.

II. الإقرار بأن الشحنات قد تمت حمايتها من أي عبث بهما أثناء إعداد الشحنة وتخزينها ونقلها وأنه مسؤول عن ذلك.

III. الإقرار بقبول إخضاع تغليف ومحتويات أي شحنة لفحص إغراض الأمن.

IV. الإقرار كتابة بأن الشحنة لاحتوي على أي بنود أو أجهزة أو مواد خطرة.
One of the tools to ensure that cargo is protected throughout its entire movement in the supply chain and to ensure regulated agents are held accountable is use of consignment security declarations:

1. The identity of the regulated agent, shipper/consignor or other entity forwarding the consignment.
2. A unique means of reference (air waybill number, invoice number, tracking number etc).
3. The destination of the consignment.
4. A declaration that the consignment has been searched or screened.
5. The originator of the freight is known and that the contents of the shipment are safe for transport.
6. A declaration that the consignment has been secured and not been interfered with while in their custody.
7. A signature of staff member.
8. Disclaimer stating that any false declaration will lead to criminal prosecution.
Air carrier responsibilities

القاعدة القياسية رقم 4-6-4 من الملحق 17

يجب على كل دولة متعاقدة أن تضمن أن المشغلين الجويين لا يقبلون بضائع أو بريد للنقل على متن طائرة تنفذ عمليات نقل جوي تجاري للركاب إلا إذا ما تم التثبت من إخضاعها للكشف الأمني وأن وكيل ممثلا مسؤول عنها أو أن الإرسالات التي لا يمكن التثبت منها وتولي وكيل معتمد المسئولية عنها خضعت للكشف الأمني.

* تطبيق الإجراءات الأمنية على الرسائل.
* حماية الرسائل من التدخل غير المشروع حين تكون في حوزته.
* ضمان تأمين كل الرسائل بالمستوي المناسب قبل وضعها على متن الطائرة.
* ضمان تسجيل كل الرسائل الموضوعة على متن الطائرة على ماتيفست الرحلة.

Annex 17 standard 4–6–4

Each Contracting State shall ensure that catering, stores and supplies intended for carriage on passenger Commercial flights are subjected to appropriate security controls and thereafter protected until loaded onto the aircraft.

* Carry out appropriate security control to the required level.
* Protect the consignment from unlawful interference while it is in the aircraft operator’s custody.
* Ensure that all consignments have been secured to an appropriate level before being placed in the aircraft.
* Ensure that all consignments placed on board the aircraft are recorded on the aircraft manifest.
Screening

- Threat detection techniques, the purpose of which is to detect one or many components of an improvised explosive device (IED) (DETONATOR, ENERGY, CHARGE, EXPLOSIVES)
  - Manual search.
  - Conventional x-rays
  - EDS
  - Metal detector
  - Explosives trace and vapour detection.
  - Explosives detection dogs K9
  - VERY LARGE X-RAY
  - ADVANCED TECHNOLOGY X-RAY OR OTHER WAVE BASED SYSTEMS.
Screening

- **Threat activation techniques** which are designed to activate an IED before the consignment is loaded on board the aircraft:

  - **Decompression chambers**
  - **Full flight simulation**

**Assaib Tafeel Tadheyd** - التي تصمم لتفعيل جهاز تفجير ارتجالي قبل تحميل الشحنة على الطائرة والتي يستخدم فيها:

غرف تفرير الضغط - مصممة لتفعيل المتفجرات أو الأجهزة الحارقة باستخدام الضغط البارومتر من خلال تغيير الضغط داخلها من ضغط أرضي إلى ضغط جوي مماثل للضغط داخل مقصورة الطائرة.

جهاز محاكاة الطيران الكامل - وهو يستطيع محاكاة اثنين على الأقل من ظروف الطيران بهدف صعق أو تدمير أجهزة تفجيرية أكثر تعقيدا وتتمثل لظروف طيران مثل الصوت والمدة وموجات الراديو ومستويات الإشعاع.
Security storage :-

(Security storage should only be used when it is not feasible to apply any other method of screening due to the particular nature of the consignment. Holding a shipment will impede on the advantage that air cargo has no other modes of freight shipping, namely its speed. When its used, the hold period should be of at least 24 hours and no more than 48 hours)
THANKS

God bless Egypt!