Organización de Aviación Civil Internacional 27/04/06
GRUPO REGIONAL DE PLANIFICACIÓN Y EJECUCIÓN CAR/SAM (GREPECAS)
Quinta Reunión del Comité de la Seguridad de la Aviación del GREPECAS (AVSEC/COMM/5)
Buenos Aires, Argentina, 11 al 13 de mayo de 2006

Cuestión 4
del Orden del Día Desarrollo del programa de trabajo del Comité AVSEC/COMM
4.1 Desarrollos del Grupo de Tarea sobre Inspección del Equipaje de Bodega (AVSEC/HBS/TF)
4.1.1 Informe Final de la Reunión AVSEC/HBS/TF/1

REVISIÓN DEL INFORME FINAL DE LA PRIMERA REUNIÓN DEL GRUPO DE TAREA SOBRE INSPECCIÓN DEL EQUIPAJE DE BODEGA DEL COMITÉ DE LA SEGURIDAD DE LA AVIACIÓN DEL GREPECAS (AVSEC/HBS/TF/1)

(Nota presentada por la Relatora)

RESUMEN

La presente nota de estudio presenta para la revisión de la Reunión el Informe Final de la Reunión AVSEC/HBS/TF/1.

Referencias:

- Informe Final de la Reunión del Grupo de Tarea HBS (Monterrey, Nuevo León, México, diciembre de 2005)

1. Introducción

1.1 La Primera Reunión del Grupo de Tarea sobre Inspección del Equipaje de Bodega (AVSEC/HBS/TF/1) se reunió en Monterrey, Nuevo León del 1 al 2 de diciembre de 2005 con el fin de analizar los resultados y las recomendaciones emanadas del Seminario de la OACI para las Regiones NAM/CAR/SAM sobre Inspección del Equipaje de Bodega (HBS) que también se celebró en Monterrey, Nuevo León, México, del 28 al 30 de noviembre de 2005.

1.2 El Informe Final del AVSEC/HBS/TF/1 se incluye en el **Apéndice** a esta nota de estudio.

2. Acción requerida por la Reunión

2.1 Se invita a la Reunión a:

a) revisar el Informe Final del AVSEC/HBS/TF/1 y, en caso de ser necesario, preparar los Proyectos de Conclusión que correspondan a la materia; y

b) utilizar el Informe Final del AVSEC/HBS/TF/1 como material de referencia durante el Grupo Ad Hoc convocado a través de la NE/05.

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ORGANIZACIÓN DE AVIACIÓN CIVIL INTERNACIONAL

GRUPO REGIONAL DE PLANIFICACIÓN Y EJECUCIÓN CAR/SAM

(GREPECAS)

PRIMERA REUNIÓN DEL GRUPO DE TAREA SOBRE INSPECCIÓN DEL EQUIPAJE DE BODEGA DEL COMITÉ DE LA SEGURIDAD DE LA AVIACIÓN DEL GREPECAS

(AVSEC/HBS/TF/1)

INFORME

Monterrey, México
1 al 2 de diciembre de 2005

Preparado por la Relatora
Diciembre de 2005

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ii.1 Lugar y Duración de la Reunión

La Primera Reunión del Grupo de Tarea sobre Inspección del Equipaje de Bodega del Comité de la Seguridad de la Aviación del GREPECAS (AVSEC/HBS/TF/1) se celebró en las instalaciones del Hotel Crowne Plaza en Monterrey, Nuevo León, México del 1 al 2 de diciembre de 2005.

ii.2 Ceremonia Inaugural

El Sr. David Flores, Especialista Regional en Seguridad de la Aviación de la Oficina Regional de la OACI para Norteamérica, Centroamérica y Caribe se dirigió a la Reunión y dio la bienvenida a los participantes a la Reunión de dos días del Grupo de Tarea. Se dio reconocimiento al interés mostrado por los Estados en las Regiones NAM/CAR/SAM ya que el Grupo de Tarea original contaba con 8 miembros originales pero creció sustancialmente debido a la representación en la reunión. Se dio una bienvenida especial a los Consultores de los Estados Unidos, Reino Unido y Canadá, quienes compartieron durante el Seminario y estuvieron disponibles para ayudar al Grupo de Tarea en esta importante tarea de la seguridad. Miembros de organizaciones internacionales como la Dirección de Cooperación Técnica de la OACI, la Sección de Relaciones Internacionales de Transport Canadá, la CLAC, IATA, ACI, COCESNA/ACSA y la TSA fueron reconocidos por su apoyo.

La Sra. Judith Goodison, Inspectora en Jefe de la Seguridad de la Autoridad de Aviación Civil de Jamaica y Relatora del AVSEC/HBS/TF también se dirigió a los participantes y les dio la bienvenida. El Presidente del AVSEC/COMM y Vicepresidente del GREPECAS, el Teniente Coronel Oscar Derby estuvo durante la apertura y el representante de Barbados fue felicitado por el trigésimo noveno año de la independencia de su Estado, cuya celebración coincidió con el primer día de la reunión.

ii.3 Organización de la Reunión

La Reunión fue dirigida por la Relatora, la Sra. Judith Goodison y por el Secretario del Comité, el Sr. David Flores, Especialista Regional en Seguridad de la Aviación. El Sr. Flores y el equipo de la Oficina de México de la OACI deben ser agradecidos por el importante apoyo que brindaron y continúan brindando a la Relatora, quien no había realizado una tarea similar en el pasado.

ii.4 Idiomas de Trabajo

Los idiomas de trabajo de la Reunión fueron el español y el inglés. La documentación y el Informe de la Reunión estuvieron disponibles para los delegados en inglés y dos notas fueron presentadas en español. Tuvimos la fortuna de contar con los servicios de los intérpretes del Seminario por lo que todos los participantes a la Reunión del Grupo de Tarea pudimos comunicarnos, intercambiar opiniones, expresar preocupaciones e intercambiar experiencias.

ii.5 **Orden del Día**

Cuestión 1 del Orden del Día **Sistemas HBS**

1.1 Equipos convencionales de Rayos X
1.2 Sistemas de tecnologías avanzadas
1.3 Detección de explosivos
1.4 Detección de trazas
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2.4 Nota de estudio

Cuestión 3 del Orden del Día **Instrucción**

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4.2 Pruebas del desempeño
4.3 Pruebas del desempeño de rutina
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6.1 Ubicaciones posibles para la Inspección del Equipaje de Bodega y consideraciones durante la etapa de Planeación de Aeropuertos
6.2 Mejores prácticas actuales por parte de los Estados
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7.2 Consultores
7.3 Conclusión
7.4 Nota de estudio

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8.2 Decisiones para seleccionar e instalar el tipo de tecnología
8.3 Mantenimiento
8.4 Conclusión
8.5 Nota de estudio

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9.1 Procedimientos operacionales normalizados – México
9.2 Procedimientos operacionales normalizados – IATA
9.3 Conclusión
9.4 Nota de estudio

Cuestión 10 del Orden del Día **Cualquier otro asunto**

10.1 Próximas Reuniones del AVSEC/COMM y el Grupo de Expertos AVSEC de la CLAC
10.2 Nota de Estudio

ii.6 **Lista de Notas de Estudio**

NOTAS DE ESTUDIO

Número	Cuestión del Orden del Día	Título	Fecha	Preparada y Presentada por
WP/00	- -	Draft Agenda ***Inglés únicamente***	01/12/05	Rapporteur
WP/01	3	Hold Baggage Screening Technology currently available ***Inglés únicamente***	01/12/05	AVSEC/TRAIN Task Force Rapporteur and IATA

NOTAS DE ESTUDIO

Número	Cuestión del Orden del Día	Título	Fecha	Preparada y Presentada por
WP/02	5.1	General considerations for conveyor systems ***Inglés* ú*nicamente***	01/12/05	Rapporteur
WP/03	6	Best practices by States ***Inglés* ú*nicamente***	01/12/05	Rapporteur
WP/04	7.1	Funding and Technical Assistance ***Inglés* ú*nicamente***	01/12/05	Rapporteur
WP/05	3	Implementation of globally accepted standard operating procedures for the successful implementation of 100 per cent hold baggage screening ***Inglés* ú*nicamente***	01/12/05	IATA
WP/06	1	Hold Baggage Screening – A view of the available technology ***Inglés* ú*nicamente***	01/12/05	Brazil
WP/07	4	Quality Control ***Inglés* ú*nicamente***	01/12/05	Antigua and Barbuda
NE/08	9	Establecimiento de un modelo de los procedimientos estándares de operación para la inspección de equipaje de bodega	02/12/05	México
NE/09	8	La problemática de compra o arriendo	01/12/05	Chile
WP/10	6	Possible locations for Hold Baggage Screening and factors for consideration during the planning stages ***Inglés* ú*nicamente***	02/12/05	IATA
WP/11	2.2	Calibration and Testing ***Inglés* ú*nicamente***	02/12/05	Antigua and Barbuda

ii.7 Lista de Notas de Información

NOTAS DE INFORMACIÓN

Número	Cuestión del Orden del Día	Título	Fecha	Preparada y Presentada por
NI/01	--	Información General	19/09/05	Secretaría

ii.8 Horario y Modalidad de Trabajo

La Reunión acordó llevar a cabo tres sesiones diarias de 90 minutos, con los períodos de intermedio requeridos. Asimismo, se adoptó la modalidad de trabajar como un Grupo Único, quedando abierta la posibilidad de crear grupos Ad-hoc para aprovechar la experiencia de los delegados y para asegurar la finalización de las Cuestiones del Orden del Día.

Debe felicitarse a todos los representantes de los 18 Estados, los representantes de las organizaciones internacionales y los consultores por su interés y participación en las Reuniones del Grupo de Tarea HBS para desarrollar sistemas que sean de beneficio para las Regiones y los Estados de manera individual. Asimismo, debe darse reconocimiento a los Representantes de Estados que presentaron cuestiones del orden del día y quienes ayudaron en la preparación de dichas presentaciones pero no pudieron asistir a las reuniones. Estas personas trabajaron hasta tarde en la noche para finalizar sus notas de las cuestiones del orden del día después de su asistencia diaria al Seminario HBS y su sacrificio es altamente apreciado.

ii.9 **Asistencia**

Asistieron a la Reunión del Grupo de Tarea 35 participantes de 18 Estados localizados o con territorios en las Regiones NAM/CAR/SAM, observadores de 5 organizaciones internacionales y 2 consultores en el campo del AVSEC/HBS. La Lista de Participantes se muestra en las páginas iii-1 a la iii-2 y de la iv-1 a la iv-6.

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Cuestión 1
del Orden del Día **Sistemas HBS**

1.1 Equipos convencionales de Rayos X

1.1.1 En tiempos recientes, los equipos de rayos X han incrementado las capacidades de imágenes y detección y son utilizados más ampliamente. Los equipos de rayos X para la inspección del equipaje de bodega son una manera rápida y conveniente para ver dentro del equipaje sin necesidad de desempacar o dañar los artículos así como sin necesidad de irritar más al, ya de por si ansioso, pasajero.

1.1.2 El equipo puede adquirirse con diversos tamaños de túneles dependiendo en los tipos de inspección de rayos X a ser realizada, como por ejemplo equipaje de mano, equipaje de bodega y carga aérea. Esta capacidad de flexibilidad permite que la mayoría de los objetos que pasan a través del equipo produzcan una imagen de rayos X.

1.1.3 Independientemente de su tamaño, en todo el equipo moderno la imagen es creada utilizando el principio *linescan*. Mientras el equipaje pasa a través del túnel del sistema de rayos X, la banda transportadora se mueve a una velocidad constante y mientras cada porción del equipaje pasa a través del haz de rayos X, su imagen es tomada y almacenada. La imagen es creada y es reproducida en el monitor.

1.1.4 Casi todo el equipo moderno de rayos X tiene la capacidad de mostrar tipos de material en diferentes colores. Normalmente, algunos explosivos, drogas, etc., son expuestos en naranja; los metales como el acero y el cobre son expuestos en azul; las mezclas de materiales orgánicos y metálicos así como el aluminio y el vidrio son expuestos en verde. Otros artículos como metales gruesos absorben gran parte de los rayos X y aparecen de color negro en la imagen. La indicación del tipo de material ayuda al operador del sistema a decidir si ciertos objetos imponen una amenaza o si pudieran ser contrabando potencial.

1.1.5 Casi todo el equipo de rayos X para equipaje y los sistemas de detección de explosivos cuentan con características de imágenes mejoradas en su sistema que ayudan al operador a examinar la imagen con más eficacia. Estas características permiten al operador a modificar el contraste de la imagen permitiendo que sea sintonizada para visualizar las regiones claras u obscura; las mejoras de bordes pueden utilizarse para definir cosas como alambres; es posible ver únicamente el contenido orgánico e inorgánico. Los fabricantes individuales contarán con una variedad de características disponibles y aún más. Esto puede especificarse y establecerse en la consola de control del equipo dependiendo el uso destinado del equipo.

1.1.6 Igual que con cualquier sistema de rayos X, la detección depende de la habilidad del operador para reconocer los componentes de una bomba, por lo tanto, los operadores deberán ser instruidos adecuadamente.

1.2 Sistemas de tecnologías avanzadas

1.2.1 Los avances en la tecnología de inspección de rayos X están mejorando firmemente para que los rayos X convencionales sean reemplazados por sistemas de rayos X de tecnologías avanzadas (AT). Los sistemas de rayos X AT procesan el equipaje a un alto ritmo y toman decisiones de detección de explosivos con la integración de una tomografía computarizada de la imagen de rayos X (CTX). Algunos sistemas AT utilizan vistas de transmisión múltiple y energía dual para ayudar con las decisiones de detección de explosivos.

1.2.2 Los AT son frecuentemente colocados en el Primer Nivel de un sistema automatizado de inspección de equipaje de bodega que sea completamente automatizado. El "Rendimiento de maletas por hora (maletas/h)" varía desde lo más alto de 1,800 maletas/h a lo más bajo de 1,500 maletas/h. La alimentación manual de las maletas para la inspección de rayos X, si se usa como único método en el vestíbulo del aeropuerto o en un sótano, reduce dramáticamente el rendimiento a 160 maletas/h. El equipo por si sólo o los sistemas manuales son laboralmente intensos y propensos a contribuir a que el personal se lesione por tener que cargar maletas pesadas.

1.2.3 El costo de este tipo de equipo puede variar desde los US$800,000 a los 900,000 – 1800 maletas/h con energía dual/múltiples vistas; o un bajo costo de US$400,000 – 160 maletas/h, de operación manual. Un sistema AT de energía dual puede costar entre US$350,000 – 1500 maletas/h a un bajo costo de US$250,000 – 1800 maletas/h.

1.3 Sistemas de detección de explosivos (EDS)

1.3.1 Algunos tipos de equipo de rayos X para equipaje son conocidos como sistemas de detección de explosivos (EDS). Esta categoría del sistema puede discriminar, hasta cierto punto, entre explosivos y otros materiales e indicarlo visualmente, por diversos medios, al operador. Estos sistemas, cuando son utilizados en sistemas automatizados de inspección de equipaje en el aeropuerto, son operados en "modo automático" donde la detección de materiales parecidos a explosivos dentro de una maleta activarán un desviador y permitirán que la imagen sea examinada por un operador.

1.3.2 Estos sistemas son extremadamente pesados y su costo empieza desde los US$1.5 millones con un rendimiento de 600 maletas/h o un bajo costo de US$1 millón con un rendimiento de 300/350 maletas/h, dependiendo el fabricante. Estas máquinas pesan aproximadamente 10,000 libras (4,536 kilogramos) y son grandes, midiendo en promedio 24' x 6' x 6' (7.3 m. x 1.8 m. x 1.8 m.). La ventaja de utilizar un EDS en vez de una máquina de Detección de Trazas de Explosivos (ETD) es que la detección de amenazas son automatizadas y su rendimiento es mucho más alto. Sin embargo, el EDS produce más falsas alarmas y los operadores deben resolver dichas alarmas ya sea utilizando una resolución de alarma en pantalla o utilizando un ETD.

1.3.3 Hasta ahora, hay un fabricante que produjo recientemente y obtuvo la certificación por parte de la TSA para un EDS más pequeño, ligero y de menor costo que utiliza energía dual y tomografías por computadora. Este reciente EDS cuesta entre US$300,000-400,000 con un rendimiento de 100 maletas/h. Las ventajas adicionales incluyen la habilidad de ser utilizados como sistemas automatizados así como unidades independientes, no necesitan reforzamiento estructural de los pisos del aeropuerto y funcionan con energía de una sola fase.

1.4 Detección de trazas

1.4.1 Los equipos de detección de trazas son capaces de detectar explosivos y drogas a partir de los vapores que emiten o de las trazas que son esparcidas durante su uso. Como algunos explosivos y drogas son más volátiles que otros, la detección de vapores es más adecuada para algunos materiales mientras que la detección de trazas es más adecuada para otros. Por ejemplo, los explosivos plásticos son mejor detectados al tomar una muestra de trazas.

1.4.2 Es importante tomar nota que el equipo de detección por medio de vapores, depende de la presencia de vapor de explosivos y no es capaz de detectar explosivos que no emiten vapores o si el vapor está retenido.

1.4.3 Existen tres componentes principales en el proceso cuando se usa un detector de vapor y trazas, los cuales incluyen el muestreo a través de la recolección de vapores o de la búsqueda de trazas al pasar un pedazo pequeño de papel o tela por encima de las superficies; un sistema analítico; y el sistema de proceso de datos el cual es manejado automáticamente por un software de computadora que permite la emisión de una alarma e indica el tipo de droga o explosivo.

1.4.4 Las falsas alarmas pueden ocurrir por una sustancia no objetivo; sin embargo, debe notarse que el efecto de elevar el umbral de detección resulta en reducir la sensibilidad, lo cual reduce tanto las falsas alarmas y el desempeño de la detección.

1.4.5 Cualquiera que sea la técnica de análisis, necesita ser capaz de soportar la tierra y residuos que se colectan junto con cualquier tipo de trazas de explosivos o drogas. Necesita ser lo suficientemente sensible para detectar pequeñas cantidades de cualquier explosivo o droga que estén disponibles en múltiples escenarios operacionales.

1.4.6. Por lo general, las drogas y explosivos son muy diferentes para permitir que el mismo instrumento los detecte al mismo tiempo. Sin embargo, se tomó nota que los instrumentos móviles de iones basados en espectroscopia pueden ser fácilmente intercambiados para detectar explosivos y drogas.

1.4.7 Diversas compañías ofrecen equipos de detección de trazas que son capaces de detectar narcóticos y explosivos. Sus precios varían de los US$60,000 a un bajo costo de US$29,000 y todos tienen un rendimiento de 30-60 maletas/h.

1.5 Mantenimiento del equipo

1.5.1 Un mantenimiento adecuado del equipo de detección de explosivos es esencial si el equipo continuará proporcionando el máximo de sus capacidades de detección para las cuales fue diseñado. El mantenimiento conservará la integridad operacional del equipo y asegurará un nivel de desempeño constante.

1.5.2 Un programa estricto para la gestión de mantenimiento deberá implantarse y cumplirse. El programa deberá incluir la programación de mantenimientos preventivos e inspecciones periódicas y sistemáticas para minimizar las fallas del equipo. El mantenimiento correctivo deberá también llevarse acabo para reparar o remediar cualquier falla, incidente o accidente que afecte negativamente el funcionamiento del equipo.

1.5.3 Deben utilizarse técnicos entrenados y equipados por el fabricante del equipo para realizar el mantenimiento con el fin de que sigan las instrucciones y lineamientos del fabricante. Idealmente, se debería incluir un programa de instrucción para el mantenimiento dentro del contrato de venta del equipo, especificando en el contrato inicial su contenido y duración. Cuando un aeropuerto no tiene los recursos de personal o materiales para organizar un mantenimiento de equipo interno, se debe utilizar un contratista para el mantenimiento, cuyo contrato incluya: un periodo de garantía para el equipo; los componentes, trabajo de reparación y refacciones; un tiempo mínimo de respuesta entre la hora de la llamada y la llegada de los técnicos instruidos al lugar; el tiempo máximo que un equipo puede estar sin funcionar; un programa de inspección de mantenimiento preventivo (naturaleza y descripción de las garantías asociadas); la identificación del personal de mantenimiento del contratista que cuente con la instrucción adecuada; y la certificación del fabricante del equipo emitida al contratista y sus garantías asociadas.

1.5.4 Los registros de servicio del equipo necesitan mantenerse de acuerdo a las prácticas internacionales y las leyes locales. Se requiere un inventario de refacciones del equipo ya que esto reducirá eficazmente el tiempo en que un equipo esté sin funcionar.

1.5.5 Los costos de mantenimiento deben ser tomados en cuenta dentro de la compra de los sistemas de equipo de seguridad. El fabricante y los otros usuarios del equipo deben ser contactados respecto al nivel de inversión necesaria para garantizar que el equipo se mantenga en servicio y eficazmente operacional. Se debe prevenir la depreciación de los costos junto con la vida útil del equipo hasta que el mismo sea retirado de servicio o que sea tecnológicamente obsoleto.

1.5.6 Con el crecimiento rápido de la tecnología, los fabricantes de equipos de seguridad frecuentemente notifican a los explotadores y a las autoridades de aviación civil del Estado acerca de las modificaciones o mejoras que han realizado al equipo.

1.6 Investigación y nuevos desarrollos

1.6.1 Los fabricantes y los Estados que certifiquen los equipos de seguridad para la inspección del equipaje de bodega están constantemente trabajando para mejorar las capacidades del equipo. A través de las investigaciones y desarrollos de la Administración de la Seguridad del Transporte (TSA) de los Estados Unidos, la actualización de un software que mejora la capacitad del EDS de un fabricante, recibió certificación en 2005. La actualización proporciona detección mejorada, un incremento en el rendimiento de la capacidad, confiabilidad mejorada y reducción en las falsas alarmas. Como ya fue mencionado, otro fabricante recibió la certificación por parte de la TSA en una máquina EDS más ligera y pequeña.

1.6.2 Considerando el futuro, tanto los Estados Unidos como Canadá están llevando a cabo investigaciones para mejorar la tecnología en las zonas relacionadas con la seguridad. Actualmente se cumple dentro de la zona del equipo para la inspección, con actualizaciones para mejorar la detección, incremento en el rendimiento de la capacidad del equipaje, confiabilidad mejorada y reducción de falsas alarmas.

1.6.3 Se alienta el surgimiento de nuevas tecnologías revolucionarias para los equipos de “Nueva Generación” y la industria y la academia están siendo desafiadas para aplicar innovación en el desarrollo de los nuevos sistemas de inspección. Esto es un proyecto a largo plazo que no será lanzado en un futuro inmediato.

1.7 Proyectos de conclusión

1.7.1 Se está proponiendo un acercamiento regional para la adquisición de equipo de inspección del equipaje de bodega. Esto puede lograrse bajo la tutela de la Organización de Aviación Civil Internacional (OACI) en la cual nuestros Estados son miembros contratantes. A través de la Dirección de Cooperación Técnica, el equipo puede ser adquirido a un costo más bajo debido al enlace de la Organización con las Naciones Unidas. Se entiende que con la asistencia de la OACI, esta facilidad puede extenderse con la adquisición Regional del equipo de inspección de seguridad. En lo posible, esto significaría una reducción adicional en los costos de adquisición del equipo.

1.7.2 Para lograr esto, se debe considerar el establecimiento de Comités Regionales de Aviación para la Adquisición de Equipo de Inspección de Seguridad en las Regiones correspondientes. Dichos Comités deberían ser formados por, o tener a la disposición del Comité, especialistas AVSEC, técnicos certificados para equipos de inspección, un abogado de aviación internacional, un experto financiero, y, de ser posible, un consultor versado en todos los aspectos de los sistemas de inspección del equipaje de bodega y diseño de aeropuertos.

1.7.3 Deberían considerarse una estrategia para negociar, una ubicación céntrica y de fácil acceso para reuniones y el establecimiento de una Oficina Regional del proveedor del equipo para obtener refacciones con facilidad u obtener asistencia en el servicio.

1.7.4 Se podría formar un subcomité para asistir a los Estados que requieren de experiencia en el uso del equipo para determinar sus necesidades de equipo. También podrían formular las propuestas que irían desde el Comité de Adquisición oficial a la autoridad responsable de aviación civil del Estado ante la OACI.

1.8 **Nota de estudio/06**

1.8.1 El WP/06 y los comentarios de los Estados se adjuntan a esta parte del Informe como **Apéndices A** y **B** (inglés únicamente) respectivamente.

APÉNDICE A

AVSEC/HBS/TF/1-WP/06
01/12/05

International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
First Meeting of the Hold Baggage Screening Task Force of the GREPECAS Aviation Security Committee (AVSEC/HBS/TF/1)
Monterrey, Mexico, 1 to 2 December 2005

Agenda Item 1: Hold Baggage Systems

HOLD BAGGAGE SCREENING – A VIEW OF THE AVAILABLE TECHNOLOGY

(Presented by Rogerio Benevides Carvalho/Christiano Miranda da Silva)

SUMMARY

This paper presents the main hold baggage technology available in order to give States guidance to achieve, at January 1st 2006, 100% hold baggage screening, to comply with Annex 17 Standard 4.4.8. The paper also recommends what equipments can be used at an international airport of the South America and Caribbean Region, based on its average of the top 30 major annual peak-hour passengers. However, the actual choice of systems must be based on a detailed requirements evaluation based on such things as peak baggage volumes, aircraft sizes, baggage characteristics, including possible seasonal variations, etc. which may modify the basic recommendations.

References

- Annex 17, Standard 4.4.8 – Hold Baggage Screening
- Manufacturers of Security Systems

1. Introduction

1.1 The most critical aviation security issues facing States today is the quickly approaching deadline for 100% percent hold baggage screening, which is to be implemented by January 1st 2006. The requirement is a result of Amendment 10 to Annex 17 and the expectation is to meet this requirement by employing realistic, reliable mechanisms for screening every bag that is loaded onto an originating international passenger flight.

1.2 The challenge is to ensure that the most effective means of baggage screening is used to protect the traveling public. States should be encouraged to consider the probability of detection when evaluating the various means available to achieve 100% hold baggage screening.

1.3 Besides that, States from South America and the Caribbean face serious budget constraints that lead them to search for a solution to achieve 100% hold baggage screening that fits with their particular problems. In order to help States choose the best technology available to be implemented, the discussion below presents an overview of each way or technique to best perform this task.

2. Hold Baggage Screening Techniques

2.1 The screening of hold baggage is a challenging process requiring a high commitment of manpower and resources to detect a small quantity of explosives that may be well concealed among the millions of hold bags that are flown daily.

2.2 As defined in Annex 17, the screening process means the use of “technical or other means” to detect prohibited items in hold baggage. This definition is very broad and allows different interpretations. Different types of equipment and methods, such as, Conventional X-ray, canines, Advanced Technology (AT) X-ray, Explosive Detection Systems (EDS), Explosive Trace Detection (ETD), physical searches which depend on high manpower usage, and Computer Tomography (CT) meet the requirements.

2.3. As mentioned before, even with the severe financial limitations of the Regions, it is strongly recommended that the adopted solution can provide the warrantee with its effectiveness. Below is an overview of the various technical options available to States with a discussion of their respective strengths and weaknesses. **Attachments 1**, **2** and **3** show some equipment used in screening, carry-on baggage, hold baggage and people, respectively, and their characteristics.

2.4 Conventional and Dual Energy (Colour) X-ray Equipment

2.4.1 The use of Conventional X-ray equipment to screen hold baggage continues and is much improved from its development in the 1970s. Dual-energy X-ray models use dual levels of X-Ray energy to distinguish organic materials (low atomic number) that may be explosives from inorganic materials (higher atomic numbers and display each in a different colour. Thick objects that are not fully penetrated are identified to the screener in third colour (typically black). The specific colours used can vary between equipment manufacturers. Some X-rays add Computed tomography (CT) which provides maximum sensitivity and accuracy for material detection and identification. CT can be used to specifically identify explosives and discriminate them from most other innocuous materials. CT images also have improved density resolution compared to Conventional X-ray images. The disadvantages of present CT system designs are their complexity, very high cost, higher package X-ray dose (current models are not film safe) compared to Conventional X-ray and slower operation.

2.4.2 Although advances in technology make it easier to separate metallic clutter from the subtler image of a bomb, the limitations of Conventional X-ray technology remains significant and its use as the main tool to protect civil aviation is limited.

2.4.3 Unlike weapons, bombs have no pre-determined shape. The challenge facing regulators is that the hold baggage screening process is dependent on the training, motivation, perception, and vigilance of the screeners. Performance of the screening system is difficult to measure, and unannounced, random testing often reveals that the system does not attain a level of effectiveness needed to detect explosives. The use of this option as a stand-alone system is not recommended.

2.5 Explosive Trace Detection (ETD)

2.5.1 In the late 1990s, Canada, the United Kingdom, and the United States conducted tests on the expected contamination levels when a careful terrorist builds a bomb, conceals it in an object designed to evade visual inspection, and places the object in a hold bag.

2.5.2 Based on lessons learned from these tests and situations in which explosive trace detection is used for primary screening, the United States devised a strategy that requires a certain portion (percentage) of bags to be inspected on the exterior only; another portion (percentage) of bags to be inspected on both the exterior and interior; and, another portion requiring a complete screening of all objects large enough to conceal a bomb. High labour costs and slow processing times of explosive trace detection equipment limit this mixed strategy.

2.5.3 The challenge is not the speed of the equipment, which provides detection and the identification of the explosive in ten seconds, but rather in bag handling and sample acquisition by the screener. Experts have found that if the sampling process is not done systematically, detections will be missed.

2.5.4 The major trace detection technology involves detection by the technology Ion Mobility Spectrometry (IMS). The collection and analysis of minute, invisible amounts of organic material, called traces, that are microscopic amounts left through contamination or direct contact with explosives. A sample of interest is heated and vaporized; positive and negative ions are formed. Ions of the corresponding polarity are allowed to move into the drift region. The various ions travel at different, but characteristic, speeds according to the ions weight and size. The time required for ions to drift down the tube is precisely known and pre-programmed. So, target substances are detected and identified.

2.5.5 One example of the explosive trace detection using IMS is the Itemiser 3, from General Electric (GE), with a switching system that delivers simultaneous positive and negative ion detection from a single sample for the most comprehensive explosives and narcotics detection available. It achieves this through a proprietary ion “trap” that increases ionisation efficiency, the main factor determining detection sensitivity.

2.5.6 Traditional IMS instruments operate, in general, in either positive or negative mode, but not both modes simultaneously. While negative mode operation detects the majority of explosives, peroxide explosives (TATP) are among the substances more readily detected in positive mode. Therefore to rule out the presence an expanded list of target explosives, conventional IMS detectors require operators to sample and test in one mode, then switch modes and resample and test again.

2.5.7 Another example of ITMS is the VaporTracer2, from GE, where vapours are drawn through a nozzle directly into the detector for analysis or by a detachable vacuum sample wand draws vapours into a sponge-like sample trap, which is then inserted into the equipment for analysis. (RDX and PETN have very low vapour, and are hard to detect with this equipment).

2.5.8 ETD technology should be considered as a complementary tool and its use may be recommended as a second or third technical means to increase the effectiveness of the hold baggage screening process.

2.5.9 The table below shows some available equipment:

Table 1 - Trace Detection Equipment

Model	Company	Technology	Detection	Estimated Bags/h	Estimated Price US$ x 1,000
Itemiser3	GE	Ion Trap Mobility Spectrometer (ITMS)	Narcotics and Explosives	30-60	45
VaporTracer2	GE	Ion Trap Mobility Spectrometer (ITMS)	Narcotics and Explosives	30-60	29
Ionscan 400B	Smith Detection	Ion Trap Mobility Spectrometer (ITMS)	Narcotics and Explosives	30-60	50
Ionscan 500DT	Smith Detection	Ion Trap Mobility Spectrometer (ITMS)	Narcotics and Explosives	30-60	60
Defender	Thermo Electron	High Speed Gas Chromatography with Differential IMS	Narcotics and Explosives	30-60	60

2.6 **Advanced Technology (AT) Systems**

2.6.1 Equipment manufacturers have developed Advanced Technology (AT) X-ray systems that process bags at a high rate and make explosive detection decisions by the addition of Computer Tomography of the X-Ray (CTX) image. Several equipment manufacturers have attempted to achieve automated detection with AT.

2.6.2 Note that the term Advanced Technology as used in this paper does not infer that the equipment has been purchased or approved by any state and in particular, should not be confused with same term when used to describe equipment purchased several years ago by the US Federal Aviation Administration for use at US airports.

2.6.3 Some of the AT systems employ multiple transmission views and dual energy to help with the explosive detection decisions. Several States have deployed these AT systems as the first level of hold baggage screening followed by on-screen alarm resolution and certified EDS Computed Tomography-based technology.

2.6.4 The United States has repeatedly tested this technology and determined that it does not meet the U.S. detection standards for all threat explosive categories. The vulnerability created by undetected critical threats leaves an exploitable gap in explosive detection. A system relying on AT as the first stage contains this vulnerability.

2.6.5 Generally, X-ray devices operate by passing X-rays through screened items and projecting an image of the contents being examined on a monitor. Potentially explosive materials are identified by their density, average atomic number, and appearance. The detection capabilities of these devices vary in terms of how the X-ray systems function - for example, by providing cross-sectional images or by using "reflected" energies know as backscatter. The devices also vary in terms of whether the presence of potential explosives is signalled by an automatic alarm or is manually identified by an operator.

2.6.6 The use of Advance Technology X-ray as the main resource in the screening process should be considered. The use of AT equipment in conjunction with an ETD, for "small" and "medium" airports, can be a good option that meets Annex 17 requirements. Besides that, airports categorized as "large", with their high volume of passenger/baggage traffic can use AT X-ray at Level 1of the five levels of hold baggage screening.

Table 2 - Advanced Technology Systems

Model	Company	Technology	Detection	Bags/h	Estimated Price (US$ x 1,000)
MVT	L-3	Multi-View (3) Dual energy	Explosives	1,800	800-900
Vivid VIS 108	L-3	Dual energy	Explosives	1,800	250
10080EDS	Smith Detection	Dual energy	Explosives	1,500	300-350
EdtS (Fixed CT – 5 Views)	Smith Detection	Multi-View (5) Dual energy	Explosives	1,800	800-900
10080 EDS-2is	Smith Detection	Multi-View (2) Dual energy	Explosives	1,500	500-600
XRD1000	Rapiscan	Multi-View (2) Dual energy	Explosives	Manual 160	400
MVXR5000	Rapiscan	Multi-View (5) Dual energy	Explosives	1,800	700-800

*Note: Bags per hour (b/hr) is the manufacturers stated maximum when the bags are inserted at an optimal (automatic) rate. Optimal b/hr throughputs depend upon the feed mechanism. (i.e. The AT is integrated into an in-line baggage handling system) The b/hr throughput for bags that are manually fed into AT machine is less than one half of the figures cited.

2.7 Explosive Detection Systems (EDS)

2.7.1 Several States have adopted Computed Tomography (CT) based automated EDS as the primary method of screening hold baggage. EDS provides a high level of detection across the total threat base coupled with an operationally manageable false alarm rate.

2.7.2 The machines are heavy, large, expensive, and generally can be integrated into the baggage handling system to operate most efficiently. Regardless, the deployed systems have been operating reliably and do provide the highest level of protection to the travellers.

2.7.3 Some States include certified EDS technology within their baggage screening systems to resolve un-cleared alarms from AT and screener on screen alarm resolution. The problem with this approach is that the level one technology may have any number of missed detections, which could proceed to the aircraft. This must be a risk-based decision made by States recognizing no system has 100% detection.

2.7.4 Several States are conducting research and testing to identify more effective and efficient approaches to screening hold baggage and to expand the list of threats addressed. They are exploring combinations of innovative and new technologies.

2.7.5 The use of most EDS technology as stand-alone screening equipment in the airport lobby has great financial and operational implications due to the low number of bags that it is possible to screen per hour. This leads to the necessity to have a significant number of EDS units in the airport, which can be extremely expensive and reduce lobby space. The best use of EDS technology is as a supplementary tool, mainly for airports with a high volume of traffic, as a part of a complex and expensive five-level HBS screening system.

2.7.6 For medium airports, the new lighter and less costly EDS equipment should be considered as a viable option.

Table 3 - Explosive Detection Systems (Currently US FAA/TSA Certified)

Model	Company	Technology	Detection	Estimated Bags/h	Estimated Price US$ x 1,000
Examiner 3Dx6500 and 3Dx6000	L-3	CT	Explosives	Up to 600	1,100-1,300
CTX9000 DSI	GE	CT	Explosives	542	1,400
CTX5500 DS	GE	CT	Explosives	-	1,000
CTX2500	GE	CT	Explosives	Manual	Greater than 700
Yxlon 3000	GE	Coherent X-ray Scatter	Explosives	60-80	Greater than 1,500
Yxlon 3500	GE	Coherent X-ray Scatter	Explosives	60-80	Greater than 1,500
Exact 6400	Analogic	Dual Energy CT	Explosives	600	Greater Than 1,000
CT-80	Reveal	Dual Energy CT	Explosives	100	300-400

*Note: Bags per hour (b/hr) is the manufacturers stated maximum when the bags are inserted at an optimal (automatic) rate. Optimal b/hr throughputs depend upon the feed mechanism. (i.e. The EDS is integrated into an in-line baggage handling system) The b/hr throughput for bags that are manually fed into EDS machine is less than one half of the figures cited.

2.8 Research Development

2.8.1 The hold baggage screening equipment technologies already presented are undergoing improvements to provide improved detection, increased throughput capacity, improved reliability and reduced false alarm rates. Other technology being developed by some countries, such as Argentina and Russia, is based on Quadrupole Resonance Analysis (QRA).

2.8.2 QRA is a technique related to magnetic resonance imaging (MRI) used in hospitals. QRA, unlike MRI, uses low intensity tuned radio frequency pulses to probe for the molecular structure of the target materials. Although QRA is a precise technique, it is limited to detecting a small range of explosives and does not produce an image, so it must be used in conjunction with Conventional X-ray imaging systems or manual/physical search. The advantage of QRA is that the configuration of the explosive, whether in bulk, sheet, distributed, etc. is irrelevant to detection and there is no performance degradation when detecting thin explosives. The primary disadvantage of the QRA method is the inability to detect materials enclosed in a metal container or foil. Iron or large amounts of non-ferrous metals in a package cause field distortion and reduce effectiveness.

3. Recommendation

3.1 At last, we recommend that the group should consider for discussion the following proposal:

As described during the paper, many issues should be considered in making a decision regarding the type of HBS screening system that is required and justified for the individual airport. However, one of the most important aspects is related to the effectiveness of the option selected. Considering the Mexico presentation at the HBS Seminar, as a preliminary step we recommend the following options for an international airport with:

- (average of the top 30 annual peak-hour passengers) ≤ 250
  The use of a Conventional X-Ray, ETD and/or pre-established random physical search.
- (average of the top 30 annual peak-hour passengers) > 250
  The use of AT, CTS and ETD automated system and pre-established some random physical search; or
  - The use of CTX and ETD on an automated system and pre-established some random physical search.

3.2 Because of the challenge of screening 100% hold baggage, the actual choice of systems must be based on a detailed airport evaluation, to include: establishment of the peak baggage throughput plus 30, aircraft sizes, baggage characteristics, including possible seasonal variations, etc. which may modify the basic recommendations.

ATTACHMENT 1 – BAGGAGE CARRY-ON

Baggage Carry-on				
TRACE				
Use/Technology	**Type**	**COMPANY**	**Status/Applicability**	**Comments**
IMS	Desktop	GE, Smiths,	most deployed, mature technology	-
	Handheld	GE, Smiths,	less applicable	sensitivity and selectivity
GC	Desktop	Thermal Detection	COTS but limited deployment	-
MS	Desktop	Hitachi	COTS but emerging	-
BULK DETECTION				
Use/Technology	**Type**	**COMPANY**	**Status/Applicability**	**Comments**
X-Ray	B&W	Various	Not applicable	has no materials discrimination
-	Dual Energy	Smiths, L3, Rapiscan, Guilardoni	strong deployment	-
AT DUAL ENERGY				
Use/Technology	**Type**	**COMPANY**	**Status/Applicability**	**Comments**
-	single view	L3	size an issue, not normally deployed for this use	-
-	multi-view	L3, Smiths	size an issue, not normally deployed for this use	-
CT X-Ray	single energy	GE, L3	size an issue, not normally deployed for this use	-
-	dual energy	Analogic, L3, Reveal	size an issue, not normally deployed for this use	-
-	Non-rotating	Securescan	size an issue, not normally deployed for this use	-
QR	-	Rapiscan,GE, Argentina	emerging, limited pilot project deployment	some new models emerging coupled with dual energy X-ray for enhancing carry-on screening

ATTACHMENT 2 – HOLD BAGGAGE

Hold baggage				
TRACE				
Use/Technology	**Type**	**COMPANY**	**Status/Applicability**	**Comments**
IMS	Desktop	GE, Smiths,	deployed to enhance security value of dual energy and AT X-ray	Frequently used at level4/5 of multi-level systems to assist in resolution of uncleared bags
-	Handheld	GE, Smiths,	less applicable	sensitivity and selectivity
GC	Desktop	Thermal Detection	COTS but limited deployment	-
MS	Desktop	Hitachi	emerging but COTS	-
BULK DETECTION				
Use/Technology	**Type**	**COMPANY**	**Status/Applicability**	**Comments**
X-Ray	B&W	various	Not applicable	no materials discrimination
	Dual Energy	Smiths, L3, Rapiscan,Guilardoni …	some deployment for HBS but usually with some additional hand search and trace detection	on its own has limited explosives detection capability
AT DUAL ENERGY				
Use/Technology	**Type**	**COMPANY**	**Status/Applicability**	**Comments**
-	single view	L3, (Smiths?)	deployed quite widely	"older" technology
-	multi-view	L3, Smiths	newer, enhanced performance	
CT X-Ray	single energy	GE, L3		
-	dual energy	Analogic, L3, Reveal	newly COTS, being deployed	better image clarity, lower threat weight detection, better materials selectivity
-	Non-rotating	Securescan	under development	performance specs not known
QR	-	-	emerging, limited pilot project deployment	normally good for detection of RDX and PETN, other explosives can be very problematic. May not provide location data for alram resolution

ATTACHMENT 3 – PEOPLE SCREENING

PEOPLE SCREENING			
PORTALS			
Type	**COMPANY**	**Status/Applicability**	**Comments**
trace	GE, L3	emerging, pilot deployments	limited throughput, so normally selectee screening only, size an issue
X-Ray backscatter	AS&E, Secure 1000	emerging, pilot deployments	limited throughput, so normally selectee screening only, size an issue
millimeter wave	Safe View, Qinetiq	emerging, pilot deployments	limited throughput, so normally selectee screening only, size an issue
terra-herz	? (UK and US)	under development	-
TRACE			
Type	**COMPANY**	**Status/Applicability**	**Comments**
Document scanner	GE, Smiths,	COTS but emerging, pilot deployment	-
"hand, finger" scanner	GE	COTS but emerging, pilot deployment	-

APÉNDICE B

COMMENTS BY STATES & CONSULTANTS

Presentation Paper - Hold Baggage Screening Systems

Brazil – DGCA
- They still needed clarification for sizing airports as airport categorization was mentioned by the presenter, Christiano da Silva (Brazil).

Consultant - Ashcote Consulting Ltd. (ACL)
- Airports are classified by size.
- Consideration is also given to the peak periods when coming up with the airport classification. -- The **recommendation is to use peak hour + 30 to determine equipment needs**.
- Consideration must also be given to food (restaurants), traffic (tourists), etc.

Consultant - Aerospace Services Int'l Inc.
- It was observed that the paper did not mention two screening companies, the old Egis System and Hitachi.

Transport Canada (TC) – Director Security Technology
- Mr. Cartwright offered to work on the table presented in paragraph 2.5.9 of the presentation with the HBS team to come up with recommendations.
- Hand search needed to be mentioned as a part of the trace detection and we should not draw absolute lines but give guidelines.

ICAO – Regional AVSEC Officer
- He clarified that ICAO does not have detection standards for explosives as stated. Concurred with TC statement and informed the Group that it was being consulted.

Consultant -
- Manufacturers equipment was found not to be capable of meeting the published through put rate of 1800 bags per hour (bph).
- The maximum achieved was 1200 bph.
- Advanced Technology (AT) equipment meets TSA detection standards but not on the false alarm rate.

Consultant –
- It was identified that Table 2 – Advanced Technology (AT) Systems had been expanded and we needed to include the revised copy here.

Consultant – Aerospace Services Int'l Inc.
- Mr. Vincent noted that paragraph 2.7.2 regarding weight and expense of explosive detection systems (EDS) does not apply to the latest explosive detection system from "Reveal".
- It was observed that information in paragraph 2.7.3 needed to be clarified with current supplier's equipment, and information gleaned at the seminar was missing.
- He agreed that 1200 bags per hour (bph) was the maximum achieved in baggage screening from experience.
- Information on through put was obtained from USA Government Accountability Office (GAO) study that was published.
- EDS unit installed inline will process approximately 450 bph.

- Table 3 – Explosive Detection Systems, paper was revised and there were typographical errors in the pricing column that needed to be corrected.

Consultant – ACL

- Reveal needed to be added to the list of available EDS models that are currently available on the market.

Transport Canada – Director Security Technology

- Paragraphs 2.8.1/2.8.2/2.8.3 Mr. Cartwright advised that we drop references to nuclear which could be misleading and add technical clarification he could provide.
- Paragraph 2.8.5, Quadruple was not a broad range of items that can be detected.

????

- Report needed to contain a Summary and the Introduction was to reflect what was noted and clarified.

???

- Airports were identified as small, medium and large but the international categorization of these was needed to give guidance to States. That is:
  - (a) Small airports – under 1 million passenger per year;
  - (b) Medium airports – 1-5 million passengers per year; and
  - (c) Large airports – 5 million plus passengers per year.
- Equipment recommendation for each category airport was given in the paper and it was recommended that really small airports with less than 500, 000 passengers should use conventional x-ray and physical search.

Consultant – Aerospace Services Int'l Inc.

- Quadruple Resonance was emerging technology and would not be ready for the next 5 years, therefore he recommended that we omit this reference from the paper.
- In looking at prices for equipment, we should not only consider the capital cost, but also the long-term maintenance costs.
- Where there was more manpower used, this led to more errors and more costs.
- US Invision System L-3600 was found to have high maintenance costs (electrical gantry) in the mechanical systems.
- The new Reveal had no mechanical gantry, and so far only operational costs would need to be looked at.

Brazil - DGCA

- This paper was a starting point for the work of the task force.
- They were aware of the additional costs for the next computer tomography (CT step.

Consultant – (ACL)

- New technology will when alarmed show ????

Peru – Chief AVSEC & Dangerous Goods

- Give options for States for them to make the best decisions when selecting security equipment.
- They need to know how to do screening and what to look for. Dangerous goods was touched on by the UK presentation.
- At level 1 in the in-line hold baggage screening system, dangerous goods are not properly looked on. This is viewed as a risk being faced.

Transport Canada (TC) – Director Security Technology

- Regulators struggle with this. Additional capability to identify prohibited items is needed in the presentation paper.

Consultant – Aerospace Services Int'l Inc.
- Ways are needed to detect gasoline, as contained in Annex 18 but he agreed that we should keep our comments at Annex 17 level.

Brazil - DGCA
- Will make the necessary revisions to the presentation paper before attachment to the report.

_____

Cuestión 2
del Orden del Día **Pruebas y Calibración de equipo**

2.1 Piezas Estandarizadas para Pruebas (STP) & Cuñas escalonadas (stepwedge) ASTM

2.1.1 Al entregar el equipo, los fabricantes/proveedores de los equipos de inspección normalmente proporcionan al comprador una pieza estandarizada para pruebas (STP) o una pieza combinada para pruebas (CTP).

2.1.2 Con la introducción de sistemas de rayos X de nueva generación cada vez más sofisticados, los cuales se han desarrollados a lo largo de los últimos años, también se desarrolló una cuña escalonada (stepwedge) ASTM F792. Este objeto de pruebas ASTM para rayos X fue desarrollado por una compañía de seguridad independiente y cumple estrictamente con los requerimientos de pruebas de la TSA y Transport Canada. La cuña escalonada (stepwedge) ASTM F792 fue desarrollada para valorizar la calidad de la imagen en un sistema de inspección basado en rayos X en 9 áreas distintas.

2.1.3 La estructura del STP y la cuña escalonada (stepwedge) ASTM son muy similares ya que el segundo fue desarrollado a partir del STP original.

2.1.4 En la actualidad se utiliza el STP original en Europa para hacer pruebas del equipo de inspección basado en rayos X.

2.2 Calibración y pruebas

2.2.1 La calibración de equipos de seguridad y diversas normas de pruebas son desarrolladas bajo la Cuestión 4 del Orden del Día – Control del equipo.

2.3 Conclusión

2.3.1 Se concluyó que a pesar de que los Estados son responsables de establecer las normas para las pruebas de equipos de inspección, dichas normas deberían estandarizarse.

2.3.2 La entrega de la propuesta para desarrollar los protocolos estandarizados para la seguridad del equipaje de bodega está siendo retransmitida al AVSEC/COMM del GREPECAS para su revisión y resolución final.

2.4 Nota de estudio/11

2.4.1 El WP/11 del Grupo de Tarea AVSEC/HBS fue presentada por un miembro del Grupo de Tarea, el Sr. Avery Henry, Oficial de Seguridad Operacional/Seguridad de Antigua y Barbuda.

2.4.2 El WP/11 y los comentarios por parte de los Estados se adjuntan a esta parte del Informe como **Apéndices A** y **B** (en inglés únicamente) respectivamente

APÉNDICE A

AVSEC/HBS/TF/1-WP/11
02/12/05

International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
First Meeting of the Hold Baggage Screening Task Force of the GREPECAS Aviation Security Committee (AVSEC/HBS/TF/1)
Monterrey, Mexico, 1 to 2 December 2005

Agenda Item 2: Equipment Testing & Calibration

(Presented by Avery Henry)

SUMMARY

In order for the requirement for 100% HOLD BAGGAGE SCREENING to be fully effective, there must be test and calibration methodologies designed to ensure that performance requirements for X-ray equipment used to support the Civil Aviation security measures are met and maintained.

References:

- Annex 17, Standard 4.4.8 – Hold Baggage Screening
- Manufacturers of Hold baggage screening equipment

1. Introduction

1.1 The routine testing of security equipment is important to ensure that the equipment is functioning correctly and the required standard before being used to screen objects in support of the standards that are laid down. This level of testing should be carried out on a regular basis, by suitably trained personnel who is responsible for the correct operation of the system.

2. Factory Test

2.1 **Explosive Trace Detection (ETD):** This test is normally conducted by the consultants coupled with the built-in test equipment.

2.2 **Conventional X-ray:** This test is normally conducted by the consultants, coupled with the step-wedge (ASTM) in the U.S.A and the STP in the ECAC.

2.3 **Advance Technology (AT):** This equipment is tested by the consultant, the step-wedge (image quality), explosives or stimulant.

2.4 **Computer Tomography (CT):** Testing of this equipment should be conducted by the consultants and a test which is supplied by the manufacturer.

2.5 **PORTALS:** This equipment is still under review, thus testing of this equipment is to be decided.

3. Daily Testing

3.1 **Explosive Detection Trace (EDT)**: Test equipment is supplied by the manufacturer,(e.g. lipstick).

3.2 **Conventional X-ray:** Step-wedge

3.3 **Advanced Technology & Computer Tomography (CT) Equipment**: These are both tested using the test case.

4. Conclusion

(i) It is necessary to have records for the life of the machines.
(ii) Written protocols should be established in the methods of testing procedures.
(iii) Software Control or Configuration Management should be U.S.A/TSA certified version**.**

APÉNDICE B

COMMENTS BY STATES & CONSULTANTS

Presentation Paper – Equipment Testing & Calibration

Factory Test

1. Clarified that factory testing of the equipment is conducted by the manufacturers first.
2. An improved test bag is being developed by Transport Canada (TC) along with the TSA.

Conclusion

1. Add to item (iii) and not change software in the equipment during usage.

New Testing Equipment - Comments

ICAO -Regional AVSEC Officer
- Certification could include other Agencies such as Transport Canada and ECAC.

Consultant – Ashcote Consulting Ltd. (ACL)
- Certified CT equipment has approved software.
- As a part of equipment procurement; need to require manufacturer to upgrade equipment within 5 years.

Presenter - Avery Henry, Safety/Security Oversight Officer
- Confirm spacing of CT equipment.

Consultant (ACL)
- Daily testing is separate to factory testing standards.
- Self verification for machine is needed (power cycle) and for integrated tracking etc. of equipment downstream also has to be tested.

Consultant – Aerospace Services Int'l Inc.
- No expertise is available, he is willing to offer assistance to ICAO through David.

ICAO – David Flores
- Will accept assistance of both consultants on test objects and development of protocols for their use.

Consultant (ACL)
- CT and AT equipment both come with the manufacturers test bag. Equipment will alarm and prove that the machie is doing its job.
- Test objects, tests the operators alertness and cognitive skills.

Presenter – Safety/Security Oversight Officer

- Would like to add that the machines should be checked for safety and health of the operators as this point was omitted from the presentation paper.

Mexico – Deputy Director General Civil Aviation
- He concluded that all these tests needed to be done but standardization was needed.
- Suggested that we add this request to the GREPECAS AVSEC/COMM for review and resolution.

Rapporteur
- Agreed

Cuestión 3
del Orden del Día **Instrucción**

3.1 Programas de Instrucción HBS Estructurados

3.1.1 Se propuso el uso de un marco o plantilla para establecer un Programa estructurado de Instrucción HBS para todas las categorías del personal nacional, aeroportuario, incluyendo los explotadores e instructores que estén involucrados en el proceso de la Inspección del Equipaje de Bodega.

3.2 Factores Humanos

3.2.1 El Programa de Instrucción HBS debe identificar y tratar los factores humanos que optimizarán las habilidades de los inspectores y el desempeño del equipo con el fin de mejorar la eficacia general del sistema HBS. Las normas deberían incorporar el Doc 9808 – *Los factores humanos en las operaciones de seguridad de la aviación civil*.

3.3 Políticas y Gestión de toma de decisiones

3.3.1 Durante las discusiones se identificó que los encargados de tomar las decisiones de la política y de la gestión quienes son responsables de financiar o de los programas de instrucción necesitaban sensibilizarse ante la importancia de los programas de instrucción HBS. Las consecuencias para un Estado en caso de una falla en el sistema de dicho Estado que provoque un acto de interferencia ilícita, especialmente en contra de otro Estado, pueden ser desastrosas.

3.4 Proyecto de Conclusión

3.4.1 Se propuso que el AVSEC/COMM del GREPECAS coordine y convoque a un Taller AVSEC para la Toma de Conciencia/Instrucción HBS para el personal nacional, aeroportuario y explotadores aéreos quienes tengan responsabilidades en la aviación civil.

3.4.2 También debería preparase un paquete para sensibilizar a los encargados de tomar las decisiones de la política y de la gestión.

3.5 Nota de estudio 01

3.5.1 El WP/01 y los comentarios por parte de los Estados y los Consultores se adjuntan a esta parte del Informe como **Apéndices A** y **B** (en inglés únicamente) respectivamente.

APÉNDICE A

AVSEC/HBS/TF/1-WP/01
01/12/05

International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
First Meeting of the Hold Baggage Screening Task Force of the GREPECAS Aviation Security Committee (AVSEC/HBS/TF/1)
Monterrey, Mexico, 1 to 2 December 2005

Agenda Item 3: Training

(Presented by Anthony Frederick, Rapporteur, AVSEC /TRAIN/TF and Yannick Lapchalle, International Air Transport Association (IATA))

SUMMARY

In order for the ICAO requirement for 100% Hold Baggage Screening to be fully effective, structured training Programmes must be used in conjunction with standardized procedures for all personnel directly and indirectly involved in the process of Hold Baggage Screening. This paper provides an analysis conducted by the HBS Task Force on HBS Technology currently available.

References:

- The Fourth meeting of the GREPEGAS Aviation Security Committee (AVSEC/COMM/4) held in Montego Bay Jamaica from 11th till 14th April 2005- establishment of Hold baggage Task Force (AVSEC/HBS/TF).
- (AVSEC/HBS/TF) Terms of Reference of the AVSEC/HBS/TF
- Annex 17 Standards 3.4.2 and 3.4.3.

1. Introduction

1.1 As established at the 4th meeting of the GREPECAS AVSEC/COMM held in Montego Bay Jamaica from 11th - 14th April 2005, the Hold Baggage Task Force (AVSEC/HBS/TF) initially comprised of representatives from 6 AVSEC/COMM member states, which was tasked with;

a. Assessing HBS equipment and their capabilities
b. Developing cost and benefit analysis of HBS equipment.
c. Identifying the applicability for the different types of airports.
d. Identifying two locations for Hold Baggage Seminars to be conducted for English and Spanish speaking countries in 2005.

1.2 The ICAO Hold Baggage Screening Seminar for the NAM/CAR/SAM Regions was held in Monterrey Mexico, from November 28 – 30 2005 at which several presentations were made by HBS and BHS manufactures, International Organizations and Airports highlighting;

a. New and proposed future HBS Technology and their capabilities
b. BHS Technology and Design
c. States' experiences in the implementation of HBS systems to comply with Annex 17 Standard 4.4.8
d. Consultants and Services
e. Financial and Technical Assistance available to member States.

1.3 There was minimal information on awareness, training and certification of personnel directly and indirectly involved in the Hold Baggage Screening process. Manufactures of the HBS Systems provide training to its clients after purchase of equipment. This training varies depending on the clients, and countries. The training provided by these manufactures is normally valid for a period of time determined by the State, after which the State or Operator has to provide the necessary refresher training and recertification of personnel.

2. Analysis

2.1 The HBS Task Force has identified that there is a need for structured HBS Awareness/Training Programmes for personnel directly and indirectly involved in the Hold Baggage Screening Process to address emerging trends and types of Hold Baggage Screening Equipment. There is also a need for increase in a coordinated effort by members States to evaluate these new technologies and recommend a harmonized methodology or framework to assist in the development and delivery of structured Awareness/Training Programmes, particularly to ensure compliance with ICAO Annex 17 Standards 3.4.2 and 3.4.3.

3. Structured HBS Training Programme

3.1 To develop a framework or template for modules that could be used to establish a structured HBS Training Programme for all of the categories of personnel directly and indirectly involved in the process of Hold Baggage Screening including the following:

a) National Authority Auditor/Inspector;
b) Operators Quality Assurance Personnel;
c) Operators Security Management Personnel;
d) Operators Security Supervisors;
e) AVSEC Screeners including Certification and re-Certification;
f) Airport Law Enforcement Officers;
g) Airline Ticket Agents, and
h) Airline Baggage handlers.
i) HBS Equipment Technician

4. Human Factors

4.1 To identify human factors principles to facilitate the optimization of Screeners abilities and equipment performance to enhance the overall effectiveness of the HBS system, making specific reference to the ICAO Human Factors in Civil Aviation Security Operations (Doc 9808). This could include pre-employment screening evaluation processes to ensure candidates have the necessary competences to be able to be trained and ways of monitoring and enhancing screener performance in an on-going program.

5. Draft Conclusion

5.1 That the GREPECAS AVSEC/COMM coordinates and convenes an AVSEC Workshop on HBS Awareness / Training for Airport and Airline Operators and National Authorities with responsibility for Civil Aviation to address structured Training Programmes and Human Factors.

6. Action Required by the Task Force

6.1 The Task Force is invited to review the contents of this Working Paper and to suggest Recommendations for the development of a framework or template that would facilitate structured HBS Familiarization / Training Programmes, consistent levels of performance for training / familiarization and certification of Screeners, taking also into consideration, industry best practices and internationally accepted practices. Part of this framework or template could be a recommended approach or process for each State to use when reviewing HBS requirements and evaluating options for implementation (i.e. a GREPECAS version of ECAC’s Doc 30.)

APÉNDICE B

CONSULTANTS COMMENTS

Billy Vincent
President and CEO
Aerospace International Inc.

ICAO EDS TRAINING ASTP

THE PROBLEM

The EDS technology consists of Computed Tomography (CT), Advanced Technology, X-ray diffraction, etc.; in essence we are faced with panoply of technologies being used in the EDS field. Moreover, this situation is exacerbated by the fact that the leading EDS equipment accomplishes their detection processes differently. There are no standard ICAO ASTP EDS training programs presently in existence.

PROPOSAL

That ICAO convene a panel of experts from the Canadian, UK, U.S and ??? Governments in Montreal to articulate the elements of an ICAO ASTP for EDS HBS. The essential elements/content of this EDS HBS training program should come from these Governments recent experience in their EDS HBS training arena as a result of their respective experience in deploying and using EDS in AVSEC. These EDS HBS experts should be assisted by ICAO's AVSEC technical training experts to ensure that the final EDS HBS ASTP incorporates ICAO ASTP standards.

COMMENTS BY HBS TASK FORCE MEMBERS

Item 1.1 During the introduction, Mr. David Flores, Secretary of the GREPECAS AVSEC/COMM stated that the membership of the HBS Task Force had increased to fifteen (15) members.

Item 5.1 The Presenter Anthony Frederick during the presentation mentioned that Ms. Maureen Katz , Senior Advisor International Relations – Transport Canada, to take note of the Training Needs to which she acknowledge.

Item 6.1 The Presenter Anthony Frederick on conclusion of the presentation invited comments from the members present.

General Comments

1. David Flores, Secretary of GREPECAS AVSEC/COMM commented on the fact that members states have indicated their need for training in the development the National Training Programme, Passenger Screening Programme and National Quality Control Programme and then invited further comments from the Consultants present. (Mr. Paul Bellamy, Operations Director, Aschote Consulting Ltd. & Mr. Billy Vincent President and CEO Aerospace International Inc.) and Mr. Nick Cartwright, Director Security Technology, Transport Canada.

2. Mr. Paul Bellamy commented that he supported coordinated training in large regions. He further added that Screener Training should be not construed with the manufactures specific training.

3. Mr. Roy Vasquez, Inspector, COCESNA / ACSA commented that he was happy to be a part of the HBS Task Force and noted that Training Centres were located in Argentina, Venezuela and El Salvador. He also commented that standardization for Screeners was important and a standard Course for all States was needed for new HBS equipment.

- He was concern as he saw no standardization in Training and gave and example Crisis Management.

- He further commented that Training Cenrtres need to include on –the –Job training.

4. Mr. Marco Ospino, Secretary of LACAC commented that the ICAO has Regional Training Centres across the world that was different from States Training Centres. ICAO Training Centre has Standard Training, Instructor and Student Manuals. He added that the National Training Centres have standards like this.

He further stated that it is important to identify what topics are included in the training Programme and get the ICAO to prepare the training programme.

5. The representative from Venezuela indicated that Venezuela had training standards and that he would make these available to the Training Task Force. Training was divided into theory and practical. On a Regional and world-wide level, training centres comply with the approved training courses. The cetre has seven (7) conventional x-ray machines, used for basic training. They have TIP capability with more than twelve hundred (1200) images.

6. Mr. Yannick Chappelle, Coordinator Security Services – IATA said that there should be standardization of image interpretation as this could be affected by environmental conditions. IATA has assisted States in the development of training and recommends computer-based training. There is difficulty in conducting OJT if there are not enough HBS machines available. He further recommended that AVSEC awareness training be provided when new HBS is introduced.

7. Billy Vincent: In response to comments from IATA, stated that there was need for more information on the subject. In the case of EDS training, he went on to explain the importance of starting with the selection of screeners who had cognitive skills, however, there was a difficulty in determining these skills as there were no proven testing method available.
He further stated that there is a need for ICAO to develop an ASTP for all technology (basic 2-week course), including practical training for instructors to actually use the HBS equipment. He stated that some simulations were available in training courses and ended by saying that specialized training was needed.

8. Nick Cartwright suggested that we look at the solution already proposed by Billy. He expressed that the rapid turn over of the screener population required that more persons be trained and that the criteria be timely. He highlighted the fact that training needed to be available, cheap and that web-based training was available. He went on to say that once web-based training was developed, there would be significant reduction in cost to run the training.

9. Major Aaron Villar, Civil Aviation Security Deputy Director, Mexico: He said that we should divide the knowledge that screeners needed to have and ensure that they had procedures that coordinate with the airport operations.

10. Cesar Matos Díaz, Chief of AVSEC, Lima, Peru: He agreed with the position taken by Mexico, but stated that ICAO should be in charge of developing the training course.

11. Mr. Rogerio Benevides, Chief of Division, Department of Civil Aviation: He said the ICAO has no course related to hold baggage screening. A HBS specific course was need and he identified that TSA and TC have experience and we should obtain information for the Task Force.

12. Mr. John Pierce, UK AVSEC Consultant: Expressed that States should set their own training standards. The Regulator should develop the national training standards and the operator develop training programmes for approval. Included in the national training programme would be the requirement for train-the-trainer course. The trainers should be trained by training consultants. UK was willing to share some training information with the Task Force.

13. Mr. Billy Vincent stated that we needed ICAO involvement along with screener/equipment training experts from TC, TSA and UK.

14. Mr. Nick Cartwright recommended that we educate from the top level, that is, the policy/management levels to get their support. There should be a prepared package available to present to them at their meetings.

15. Cesar Matos Díaz commented that ICAO should centralize everything for all States.

COMMENTS BY STATES & CONSULTANTS

Presentation Paper – Training

Trinidad – Aviation Security Inspector
- Invited participation from the group present to identify training needs.

Secretary, GREPECAS AVSEC/COMM
- Proposed GREPECAS AVSEC/COMM continuation for national training programme, passenger screening programme and national quality assurance programme.
- Would like to hear from the consultants.

Consultant - Ashcote Consulting Ltd.
- Supported coordinated training, as it is a large area. HBS screening raining should not be mixed upwith manual equipment specific training (like buying a car).

COSESNA ACSA – Inspector AVSEC
- Stated that he was happy to be a part of the task force. There were a lot of training centres, located in Ecuador, Argentina, Venezuela and El Salvador.

Costa Rica – Inspector AVSEC-FAL
- Stated that standardization was important for screeners. A standard course was needed for using these HBS machines by all States.
- No standardization was seen in crisis management.
- Training centres need to include on-the-job (OJT) training in their training courses.

Secretary LACAC
- Stated that ICAO had regional training centres that were separate to training centres of respective States.
- ICAO training centres have standardized training, instructors and student manuals.
- National training centres also had standards like ICAO.
- We need to identify what topics need to be trained and get ICAO to provide the standardized training course(s)

Venezuela – Chief AVSEC Project Officer
- Was willing to give Venezuelan training standards to the Task Force.
- He identified that training was divided into theory and practical
- On Regional and worldwide levels, their training centre compies with the approved training courses.
- The training centre has seven (7) conventional x-ray machines for basic training, with more than 1200 images.

IATA – Coordinator Security Services
- IATA had two (2) papers on this but only one (1) was presented.
- Image interpretation, all equipment do not have the some functions.
- From an operational environment, disruption in the in-line system was not included and must be covered.
- IATA is prepared to develop HBS training with States.
- Regarding OJT, difficulty experienced when there are not enough machines available for training.

Cuestión 4
del Orden del Día Control de Calidad del Equipo

4.1 Aceptación de fábrica / Pruebas de aceptación en el sitio

4.1.1 Se requiere que los fabricantes de los equipos de inspección del equipaje de bodega cuenten con valoraciones objetivas de sus especificaciones y alegatos de desempeño a través de las pruebas realizadas por el Estado del fabricante y por la certificación de cada parte del equipo antes de que sean lanzados al mercado. Las dos normas Estatales reconocidas y aceptadas son la Administración de la Seguridad del Transporte (TSA) y el Comité Europeo de Aviación Civil (CEAC).

4.1.2 Una vez que el equipo de inspección ha sido certificado, el fabricante debería confirmar por escrito que la máquina cumple con las normas antes de su compra. La aceptación del equipo por parte del comprador debería depender de que el equipo cumpla con los requerimientos en el momento de su instalación.

4.1.3 Al entregar el equipo a un comprador, el fabricante deberá realizar pruebas en el sitio. Lo anterior incluye la calibración del equipo y pruebas del equipo de inspección utilizando una pieza combinada de pruebas (CTP) proporcionada por el fabricante. El comprador decidirá cuántas “piezas de prueba” requieren y las ordenará al fabricante. Las piezas de pruebas estarán marcadas con el código del fabricante y número de serie.

4.1.4 La instrucción básica de los operadores del comprador respecto a la calibración y pruebas del equipo de inspección es parte del servicio de venta y entrega del equipo.

4.2 Pruebas del desempeño

4.2.1 En la actualidad los equipos convencionales de rayos X siguen siendo utilizados para apoyar la inspección del equipaje de bodega y otros tipos de inspección AVSEC complementados por búsquedas manuales. Con el rápido avance en la tecnología, los Estados y las autoridades aeroportuarias han evolucionado a utilizar equipos de inspección de rayos X que incorporan las mejores características de la tecnología actual, dejando lugar a un desarrollo más profundo en sus diseños de planificación HBS.

4.2.2 Las pruebas de desempeño del equipo de inspección por parte de un Estado, aeropuerto y explotadores aéreos con realizados con un CTP para determinar si una máquina de rayos X cumple con las normas establecidas por el Estado del fabricante y/o en los parámetros de calidad de imagen del Programa de Garantía de Calidad AVSEC de dicho Estado.

4.3 Pruebas del desempeño de rutina

4.3.1 Una pieza combinada de pruebas (CTP) ha sido diseñada para pruebas de rutina de los equipos de rayos X para garantizar que se cumplan y mantengan los requerimientos del desempeño para los equipos de rayos X. Asimismo, se requiere que se realicen pruebas de hardware como de software diario y semanalmente y que se mantenga un registro por parte de los operadores.

4.3.2 El procedimiento de pruebas de rutina no es para los equipos de rayos X que pueden detectar la presencia del material explosivo o de componentes de un dispositivo explosivo cuando la máquina es utilizada en modo automático. Sin embargo, si el equipo es utilizado de manera que se requiera un operador que tome decisiones basándose en una imagen (modo indicativo), la imagen deberá estar al mismo nivel que la imagen en una máquina convencional de rayos X.

4.4 Proyecto de Conclusión

4.4.1 Debería desarrollarse una plantilla para las pruebas de equipos de inspección para ayudar a los Estados.

4.4.2 El AVSEC/COMM debería conducir un taller de control de calidad en conjunto con los Estados Miembros de la OACI en las Regiones NAM/CAR/SAM.

4.5 Nota de estudio 07

4.5.1 El WP/07 y los comentarios de los Estados se adjuntan a esta parte del Informe como **Apéndices A** y **B** (en inglés únicamente) respectivamente.

APÉNDICE A

AVSEC/HBS/TF/1-WP/07
01/12/05

International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
First Meeting of the Hold Baggage Screening Task Force of the GREPECAS Aviation Security Committee (AVSEC/HBS/TF/1)
Monterrey, Mexico, 1 to 2 December 2005

Agenda Item 4: Quality Control of Equipment

QUALITY CONTROL

(Presented by Avery Henry)

SUMMARY

This paper invites the Meeting to adopt our recommendation of developing and implementing a Quality Control Mechanism for the continued effectiveness for the 100% Hold Baggage Screening System.

References:

- Annex 17 Standards 4.4.8 and 3.4.4

1. Introduction

1.1 States should develop a Quality Control Programme as a key component in the successful application of civil aviation security measures to ensure that controls are continually applied in a manner that provides effective and sustainable security.

1.2 States should ensure that formal written procedures, legislation and regulations are contained in such a programme.

valid for a period of time determined by the State, after which the State or Operator has to provide the necessary refresher training and recertification of personnel.

2. Objective

2.1 States should ensure the effective implementation and administration of aviation security measures. The effectiveness of such a programme should be measured by conducting tests, surveys, audits and inspections.

3. Recruitment

3.1 It is necessary to ascertain that the recruit is a suitable character and has sufficient integrity to carry out aviation security duties.

3.1.1 Background checks:

- Education
- Previous employer
- Community
- Training
- Criminal Record
- Physical and Mental Fitness

4. Training

- Initial training/OJT
- Computer-based training
- Manufacturers training
- Assessment
- Certification – equipment/personnel
- Refresher training
- Re-certification

5. Security Inspection and Audits for Effectiveness of HBS System

- Inspection
- Security Audits/Surveys
- Testing

6. Airport Design

- Planning criteria
- Airport Threat and Risk Assessment
- Layout of Facility
- Position of screening equipment
- Support operation – for threats
- Cargo & Mail handling facilities – monitoring 70% on passenger aircraft
- Power-supply (backup) & temperature

7. Detection Technologies and Equipment

- Health and Safety issues
- Type of explosives and detection sensitivity – privacy issues
- Procurement Consultation
- X-ray detection equipment
- Other forms of detection (dogs) and their certification

8. Baggage Security

- Off airport check in
- Protection of screened baggage
- Passengers baggage reconciliation and authorization
    - Procedures to ensure that only accompanied baggage and unaccompanied baggage which have been subjected to the necessary controls are loaded onto the aircraft.

9. Human Factors

- Human Factors – ICAO Doc 9808
- Working Conditions

10. Conclusion

10.1 A Quality Control template should be developed to assist States.

10.2 The AVSEC/COMM should conduct a quality control workshop in conjunction with ICAO Member States in the NAM/CAR/SAM Regions.

APÉNDICE B

COMMENTS BY STATES & CONSULTANTS

Presentation Paper – Quality Control of Equipment

Consultant – Aerospace Services Int'l Inc.
- ICAO was testing a Quality Assurance course towards development. That may provide States with help.
- TSA through a funding agency was presenting seven (7) three-day seminars around the world. Miami and Buenos Aires were two of the venues in our Region. These would show how to set up a Quality Assurance programme.

ICAO – Regional Officer
- ICAO held a Quality Assurance Workshop in June 2005.
- ICAO would be holding another programme next year also.

Secretary LACAC
- LACAC signed to receive two (2) training programmes with TSA.
- LACAC monitors with ICAO, its an on-going process.
- LACAC chooses company that is known (selected IATA).
- FAA fostered these opportunities for cost-free assistance.
- All information is considered by LACAC.

ICAO – Regional Officer
- For Quality Assurance, ICAO may propose a model programme.

Brazil – DGCA
- Clarification was sought as HBS/TF had 30 days to file the report.

ICAO – Regional Officer
- TC Senior Advisor Int'l Relations, ICAO CAR/SAM Regional Director and AVSEC Regional Officer discussed the possibilities of a workshop in Quality Control for Phase II of the ICAO/Canada Training Programme.

Transport Canada – Director Security Technology
- Stated that HBS performance needs to be high-lighted in the Quality Assurance.
- Security Management System was a more forward looking view, the onus now was on performance (new concept).

ICAO – Regional Officer
- Inquired from the HBS Consultants on who should be the targeted audience and duration of an HBS Workshop.

Transport Canada – Director Security Technology
- Design course so that policy and management get briefed on the needs.
- Supervisors get briefed at the end of the course.
- He could not answer how long or how much time would be needed for the workshop or the required activity before their arrival.

Consultant – Ashcote Consulting Ltd.
- Keep it small and focused, keep it manageable, less than 10 persons.

Consultant – Aerospace Services Int'l Inc.
- Regarding the duration of training, it depends on how much information is to be imparted.
- USA, TC, UK, Singapore are States that data can be obtained from.
- Training day is usually 6-8 hours due to fatigue factor.
- Inform those Executives who need-to-know.
- Management system – they must understand the consequences of failure. Course time, one (1) week or less.

Peru – Chief AVSEC & Dangerous Goods
- Comment not noted.

Secretary LACAC
- All Regulators to sit for one week could be difficult.
- LACAC has specific panels of how to work. There is a short time for this information to be obtained.

ICAO – Regional Officer
- Guidance is necessary to ensure appropriate audience is targeted.

Secretary LACAC
- Ministry participation even more difficult.

ICAO – Director Technical Cooperation Bureau
- Airport authority, privatizations heads would need to be trained.
- So as not to duplicate effort, coordination was needed.

ICAO – Regional Officer
- Comment not noted.

Brazil – DGCA
-Persons responsible for security in the main airports needed to be included.

Venezuela – Chief AVSEC Project Officer
- Based on political structures, QA training was necessary at the national level.

ICAO – Regional Officer
- Used the example of the HBS Seminar, where National AVSEC Officials were targeted to receive OAS Fellowships and ensure their attendance.

Cuestión 5
del Orden del Día **Sistemas de Bandas Transportadoras**

5.1 Consideraciones generales

5.1.1 Al diseñar el sistema automatizado de un aeropuerto, verifique qué tipo de sistema es necesario, manténgalo simple y que el diseño del sistema sea similar para garantizar que todo el equipaje sea inspeccionado al mismo nivel, especialmente cuando hay equipos sin funcionar.

5.1.2 Investigue a los proveedores de sistemas de bandas transportadoras antes de seleccionarlos y revise todas las referencias, ya que hay una gran diversidad de compañías disponibles. Tenga en consideración que los consultores aeroportuarios también pueden diseñar un sistema de bandas transportadoras más accesible basándose en las necesidades de un aeropuerto en particular.

5.1.3 Asegúrese que exista flexibilidad en el sistema para la Detección de Explosivos (EDS) de manera que exista un espacio adecuado entre cada maleta. Esto se basa en un tamaño promedio de maletas y se consideran las maletas de gran tamaño y las maletas largas, como por ejemplo, las maletas de golf.

5.1.4 El sistema de bandas transportadoras deberá ser capaz de integrar todos los tipos de equipos para inspección utilizados en los cinco niveles del sistema automatizado de inspección del equipaje de bodega.

5.1.5 Debe asignarse a una persona para que sea responsable de resolver todos los problemas que surjan con el equipo de inspección y el manejo de equipaje en el sistema HBS.

5.2 Nota de estudio 02

5.2.1 El WP/02 y los comentarios por parte de los Estados y los Consultores se adjuntan a esta parte del Informe como **Apéndices A** y **B** (en inglés únicamente) respectivamente.

APÉNDICE A

AVSEC/HBS/TF/1-WP/02
29/11/05

International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
First Meeting of the Hold Baggage Screening Task Force of the GREPECAS Aviation Security Committee (AVSEC/HBS/TF/1)
Monterrey, Mexico, 1 to 2 December 2005

Agenda Item 05: Conveyor Systems
5.1 **General Considerations**

(Presented by Judith Goodison)

SUMMARY
This paper provides the meeting with factors that States need to consider when purchasing conveyor systems for in-line hold baggage screening.

References:

- Annex 17, Standard 4.4.8 – Hold Baggage Screening
- Manufacturers of Conveyor Systems

1. Introduction

1.1 During the Regional ICAO CAR/SAM Hold Baggage Screening Seminar conducted in Monterey, Mexico from November 28-30, 2005 presentations were given by companies that provide conveyor systems that are currently in use at airports around the world as a part of the in-line hold baggage screening system.

2 Conveyor Companies

2.1 The conveyor companies that made presentations included Siemens Conveyor Systems and Glidepath, both providing international services of their conveyor systems. They can assist airports in planning and conceptualizing integration of screening equipment and implementation of hold baggage screening system.

3 Services

3.1 The companies offer a wide range of services including baggage management, from check-in to delivery, and connections of the bags. They will assist airports in new terminal development to minimize the impact of baggage screening on the overall airport operations. In the case of existing terminals that tend not to have enough space for the screening equipment and levels of screening required, they will assist the airport in coming up with the solutions to their problems.

3.2 The conveyor companies provide and stock spare parts for simple conveyors, to more complex systems, such as, carousels used for baggage delivery. High speed conveyor delivery is possible and provided at large airports where bags are moved from one terminal to another in less than 20 minutes so that bags can connect. One of the company's that presented indicated its capability to integrate the passenger and bags at all times through their baggage handling system.

3.3 Maintenance services are offered and ranges from specialists assistance, software, preventative maintenance and 24-hour emergency assistance. Maintenance response times are, however, dependent on the contract, and the type of maintenance – hardware or software. Conveyor systems are being enhanced with touch screen and graphics to assist the operator who is watching the baggage screening process. These companies have successfully merged the various baggage screening equipment that are used at the different levels during the in-line screening process; systems, such as, L-3, Smiths and G.E. In-vision. They are able to track the bags, in keeping with IATA requirements and provide multiplexing (*different layers of conveyor and tracking systems)*.

3.4 New products, such as a high speed diverter for bags to move from one lane to another along the in-line conveyor system has been introduced by one company. This replaces the use of the "pusher" which was used before and caused damage to a high number of bags. Damage resulted in dis-satisfaction to the traveler and replacement costs to the airport/airline operators involved.

4 Financing & Costs

4.1 The conveyor companies have the capability to offer its clients financing for all phases of the project.

4.2 It must be borne in mind that costs are dependent on several factors, such as, the size of the conveyor system, the passenger through put at the airport, the levels of screening, the mix of equipment being used to screen the bags, and the width of the conveyor.

4.3 When designing a system it is important to note that the IATA standard from check-in to delivery of the bags to the aircraft is 9 minutes. This time can increase from 10-15 minutes, depending on the layout of the baggage screening system.

5. Factors to Consider

5.1 When designing an integrated in-line hold baggage screening system, it is important to consider internationally accepted standards for baggage screening time, such as, those established by the Transportation Security Administration and European Civil Aviation Conference.

APÉNDICE B

COMMENTS BY STATES & CONSULTANTS

Presentation Paper – Conveyor Systems

Consultant – Ashcote Consulting Ltd. – Operations Director
- Suppliers will promise anything, and there are several suppliers out there.
- Look at the in-line system that is needed, keep it simple, and include redundancy in the design as this is paramount to ensure that all bags are screened to the same standard when there is any equipment down-time.

Transport Canada – Director Security Technology
- Guiding principle to use is to keep it simple.
- One (1) person must be responsible for equipment and baggage handling to resolve problems.
- Must check all references received and due diligence is vital.
- Flexibility at Explosive Detection Systems (EDS), that is, spacing between bags, is critical as the fourth bag will shut down the system if this is not factored in.

Brazil – DGCA
- Directed to the Consultant from ACL, not easy to follow the general guideline for airport dependent on size, through put of bags, and passengers. Advance Technology (AT) included in an in-line system will screen 1200 bags per hour (bph), but as stand-alone equipment, only 450 bph.

Transport Canada – Director Security Technology
- Restated that there was the need to keep it simple.
- In developing a baggage handling system (BHS), there must be a clear definition of what the airport wants to do.

Consultant – Aerospace Services Int'l Inc. – President & CEO
- Agreed with what was said and stated that at larger airports, 2 systems were needed so that no down time would affect the screening process. The systems should be independent for screening but also reliable for on-time departure of aircraft.
- EDS capabilities and the delivery of bags also had to be looked at.
- Conveyor suppliers, Ashcote and BNP were also excellent designers and they not sell the product.

Consultant – ACL, Operations Director
- There was also the need to establish the number of screening points and the associated costs.

Cuestión 6 del Orden del Día **Mejores prácticas por parte de los Estados – Investigación, Desarrollo e Instrucción**

6.1 Ubicaciones posibles para la Inspección del Equipaje de Bodega y consideraciones durante la etapa de Planeación de Aeropuertos

6.1.1 Esta nota fue presentada por la IATA y adjunta a la misma se encuentra la Sección 5 “Ubicaciones posibles para la Inspección del Equipaje de Bodega” y la Sección 6 “Planificación de instalaciones HBS”. Las secciones anteriores son extractos de la Nota de la Postura de la IATA ante la Inspección del Equipaje de Bodega al cien por ciento.

6.1.2 El WP/10 y los comentarios realizados por los Estados y Consultores se adjuntan a esta parte del Informe como **Apéndices A** y **B** (en inglés únicamente) respectivamente.

6.2 Mejores prácticas actuales por parte de los Estados

6.2.1 Esta fue una segunda nota que dio una visión general de las “Mejores Prácticas” de los Estados que fueron presentadas durante el Seminario e incluyó información preparada por México y Chile. Asimismo, se presentaron los desarrollos de Transport Canada para mejorar la carga aérea y la seguridad del correo, así como la propuesta para el desempeño de la IATA la cual incluye el Sistema de Gestión para la Seguridad (SEMS).

6.2.2 Las lecciones aprendidas por Estados como México y España, quienes ya han instalado sistemas automatizados de equipaje de bodega fueron de gran ayuda y asistirán a otros Estados en no repetir los mismos errores. Las siguientes consideraciones fueron incluidas:

- el diseño y planificación de aeropuertos para un sistema HBS debe tomar en cuenta todas las consideraciones para la seguridad;
- la selección del equipo, los climas extremos (frío/calor) tienen que ser considerados ya que estas temperaturas afectan el desempeño del equipo;
- la integración de diversas máquinas de modo que todas funcionen como es debido;
- las consideraciones de instalación a fin de que incluyan: ubicación, otros sistemas, iluminación, aire acondicionado para el equipo, fuego, elementos para el mantenimiento, refuerzo de la estructura para respaldar al equipo;
- los motores, etc., no fueron relacionados con los otros sistemas debido a que podrían prevenir el desempeño óptimo del equipo;
- la selección de bandejas para el equipaje es importante, deben ser de plástico para que el material no active alarmas y el fabricante deberá validar el material de estas bandejas;
- la planificación para la ubicación de equipos similares; y
- el mantenimiento preventivo y programado debe disponerse en las noches para prevenir la interrupción a las operaciones del aeropuerto y la facilitación de pasajeros.

6.3 Desarrollos en la investigación

6.3.1 Las preocupaciones del transporte de carga aérea fueron mencionadas y se discutió la investigación tecnológica que está realizando Transport Canada. La inspección de la carga y la tecnología para rastrear la carga durante su viaje es parte del desarrollo. Las nuevas investigaciones de tecnologías para una mega Tomografía por Computadora (CT) para la carga no estarán listas en por lo menos cinco años.

6.3.2 Transport Canada también realizó investigaciones para los sistemas de seguridad que podrían incluir controles de acceso/seguridad física utilizando biométrica para el persona. El sistema sería capaz de operar los controles de acceso mecánicos en las puertas.

6.3.3 Durante el Seminario y la Reunión del Grupo de Tarea, también se mencionó que los Estados Unidos están conduciendo una investigación avanzada en diversas áreas de la tecnología, como por ejemplo actualizaciones de equipo de inspección de seguridad para mejorar la detección, aumento en la capacidad del rendimiento del equipaje; confiabilidad mejorada y reducción en la tasa de alarmas en falso. También están conduciendo investigación y desarrollo para las soluciones de la tecnología de la nueva generación para expandir las habilidades de detección de armas y explosivos.

6.4 La categorización de la IATA de los tamaños de aeropuertos

6.4.1 Tomando en cuenta las presentaciones, se determinó que durante la planificación de aeropuertos para un sistema HBS, los tamaños de aeropuertos necesitaban revisarse. La IATA ha establecido una categorización para los aeropuertos de la siguiente manera:

- **Aeropuertos pequeños (menos de un millón de pasajeros p.a)**
- **Aeropuertos medianos (1-5 millones de pasajeros p.a)**
- **Aeropuertos grandes (5 ≥ millones de pasajeros p.a)**

6.4.2 Se reiteró que el rendimiento a su máximo más 30, sin embargo, este es el factor principal que se usa para determinar y justificar los tipos de equipos para la inspección del equipaje de bodega que necesitan los aeropuertos individuales. *(Para más detalles, referirse al Informe sobre la Cuestión 8 del Orden del Día "Ventajas y Desventajas de la Tecnología")*

6.5 Proyecto de Conclusión

6.5.1 El apoyo para una propuesta regional para la adquisición de equipo está próxima a ser enviada por parte de los Consultores y los Estados. Esta propuesta para los Estados para tener orientación sobre el cómo cumplir con las normas a través de un enfoque regional está siendo enviada al AVSEC/COMM para su revisión y resolución.

6.5.2 El WP/03 y los comentarios realizados por los Estados y Consultores se adjuntan a esta parte del Informe como **Apéndices A** y **B** (en inglés únicamente) respectivamente.

APÉNDICE A

AVSEC/HBS/TF/1-WP/10
International Civil Aviation Organization 01/12/05
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
First Meeting of the Hold Baggage Screening Task Force of the GREPECAS Aviation Security Committee (AVSEC/HBS/TF/1)
Monterrey, Mexico, 1 to 2 December 2005

Agenda Item 6: Best Practices by States

(Presented by Avery Henry)

SUMMARY

In order for the ICAO requirement for 100% Hold Baggage Screening to be fully effective, a best practices approach must be implemented by all the stake holders involved in the process of Hold Baggage Screening. This paper provides an evaluation by the HBS Task Force on the best practices approach methodology.

References:

- (AVSEC/HBS/TF) Terms of Reference of the AVSEC/HBS/TF.
- ICAO Hold Baggage Screening Seminar for the NAM/CAR/SAM regions at Monterrey, Mexico, 28 to 30 November 2005.

1. Introduction

1.1 During the period November 28 till the 30, 2005 the ICAO Hold Baggages Screening Seminar was held in Monterrey, Mexico. Presentations were made by government agencies, international organizations, manufactures and experts highlighting various concepts of "best practices" approach.

2. Best Practice Approach

2.1 It is important to note that in the process of formulating a Best Parctice approach, this will vary from Territory to Territory since it is dependent on :

- Threat levels;
- Airport size (Small, Medium and Large);
- Economic impact;
- Passenger flow (P/Hr and P/Yr);
- High risk Flights;
- Technical and Human support;
- Training demands;
- Oversight mechanism; and
- Management system.

3. Best Practice by Mexico

3.1 Mexico's Best practice principles included a review of:

Costs, effectiveness, efficiency, transformation, expansions, type of airports (*General aviation – International airports*), threat and risk assessments; training and equipment needs; and costs, facilitation, passenger profiling, contingency planning and quality control.

4. Best Practice by Chile

4.1 Chile's Best practice principles consist of:

Development of a total system for Aviation Security and Facilitation. Prevent queuing of passengers, aircraft or/and vehicles. Life cycle cost for equipment. Training costs for all security and airport personnel, inspectors and instructors. Preventative maintenance costs.

5. Best Practice for Air Cargo and Mail

5.1 Best Practice principles on Air Cargo and Mail was presented by Transport Canada
The presenter highlighted the increase demand in Air Cargo and the economic impact it has on the industry.

6. Performance Based Approach – IATA

6.1 The IATA presenter emphasized on the Performance based Approach which includes the Security Management Systems (SEMS). The SEMS is the equivalent of the quality control concept.

7. **Conclusion**

7.1 The AVSEC/HBS/Taskforce likes to entertain discussion on the above captioned topic so as to develop a way forward in guiding the ICAO NAM/CAR/SAM region member States to be able to implement Best Practice principles and philosophy.

APÉNDICE B

COMMENTS BY STATES & CONSULTANTS

Presentation Paper – Best Practices by States

Antigua & Barbuda – Presentation
- Wanted us to look on the best practices for our Regions

Consultant – Ashcote Consulting Ltd (ACL) – Director Operations
- Suggested Regional equipment procurement as costs would be lower.
- Elect one (1) State to negotiate with supplier on behalf of the Region and include maintenance and spare parts in negotiations.

Jamaica - Raporteur
- Agreed with the Regional approach to equipment acquisition.

Trinidad & Tobago – AVSEC Inspector
- Supported Regional approach for HBS and the possible benefits from this as supplier could have a Regional office making them more accessible to individual States.

APÉNDICE C

AVSEC/HBS/TF/1-WP/03
01/12/05

International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
First Meeting of the Hold Baggage Screening Task Force of the GREPECAS Aviation Security Committee (AVSEC/HBS/TF/1)
Monterrey, Mexico, 1 to 2 December 2005

Agenda Item 6: Best practices by States

POSSIBLE LOCATIONS FOR HOLD BAGGAGE SCREENING AND FACTORS FOR CONSIDERATION DURING THE PLANNING STAGES

(Presented by International Air Transport Association (IATA)

SUMMARY

One of the most important decision a State or Airport Authority must make when implementing a Hold Baggage Screening System is determining which is the best location for that system. The various options are presented in this paper with a list of advantages and disadvantages. The selection of a location and equipment type must be made following considerations of a number of factors which are included. IATA hopes that the excerpts of it's Position Paper on 100% HBS included here can facilitate the States or Airport Authority's decision making process.

References:

- Possible Locations for Hold Baggage Screening (excerpt from IATA Position Paper on 100% Hold Baggage Screening) Appendix 1.
- Planning HBS Facilities (excerpt from IATA Position Paper on 100% Hold Baggage Screening.) Appendix 2.

1. Introduction

1.1 Every airport operates under a unique operational environment. Each will have specific characteristics regarding passenger volumes, terminal layout, space available, cultural issues, etc.

1.2 The screening method and layout applied should be a system that suits local conditions. Each airport needs to consider the impact of cost, capacity and local operating conditions when developing appropriate solutions for both the location of screening and the methods/technologies to be used.

1.3 IATA encourages States to meet the ICAO deadline of 1 January 2006 as some States have indicated that they would not allow air carrier to service Stations within their State if they are departing from States where there is no 100% HBS system in place.

1.4 IATA wishes to reiterate that implementation of 200% HBS should be a State responsibility and whilst air carrier could potentially be most directly affected by non-compliance to this Standard, all stakeholders would ultimately be penalized.

2. Key Considerations

2.1 IATA strongly believes that each airport should be looked at individually and that a solution for one airport is probably good for one airport. However, there are some key elements that we believe should be included when an HBS system is designed.

2.2 A multi-layered system is referred because it provides the possibility to screen a large amount of bags with high throughput machines and then concentrate on those that cannot be cleared with the use of more advance technology or adding a human element.

2.3 The system must provide screening solutions for all types of hold baggage. (originating, transfer, crew and oversize, etc.)

2.4 The impact on valuable airport and terminal capacity should be minimized, while maintaining acceptable security and customer service standards.

2.5 There is a need to balance all elements of the Baggage Handling System with the HBS process to ensure sufficient capacity to meet forecasted peak hour demand at the time the system will go live. This should be confirmed with the help of simulation.

2.6 Investment in buildings, equipment and personnel should be minimized, while maintaining acceptable security and customer service standards.

2.7 There should be minimal inconvenience to the airport operation and the traveling public, both during construction and installation and day-to-day operation.

2.8 Preference should be given to implementing a system that would enable the passenger and their bag to be reunited before any threat item is permitted into the baggage handling system (BHS). If this cannot be done, the reconciliation of the bag and the passenger, should there be an alert, should be facilitated in order to avoid delays. However, care must be taken to ensure the security status of the bag is ascertained before loading and that bags whose status remain unresolved are handled and stored such that they do not pose a hazard to passengers, employees or the facility itself.

2.9 There is a need to strive for implementation of systems which incorporate screening systems using equipment which meet internationally recognized standards (e.g. ECAC, TSA, etc.) and processes such as those to deal with alarms involving airport operators, air carriers and screening authorities.

3. Location of Hold Baggage Screening System

3.1 There are many locations within an airport and in some cases, outside of the airport environment where Hold Baggage screening systems can be located. These include:

- Off airport check-in (city centre, hotels, etc.)
- Sterile terminal complexes
- Sterile security area before check-in
- Screening in front of check-in
- Screening devices at or behind check-in
- Screening downstream in the baggage system

3.2 Section 5 of the IATA Position Paper on 100% Hold Baggage Screening goes in great details describing the advantages and disadvantages of each location.

4. **Factors for consideration when planning and developing HBS Facilities**

4.1 It is essential that hold baggage security facilities and procedures are able to operate effectively within the overall airport environment. In order to implement the most effective HBS system, many factors need to be taken into considerations as mentioned below.

4.2 When these factors are being discussed and addressed, it is important to involve all the relevant organizations in the development and discussion of the options with a view to identifying all the issues and establishing an agreed, practical solution.

4.3 The following factors also need to be taken into consideration when planning an HBS facility:

- Testing Phase
- Traffic Characteristics
- Passenger Traffic Flows – including peak demand
- Baggage Types
- Demand Forecast
- General Constraints
- Space Requirement and Location
- Airport Structures
- Check-in Islands and Zones
- Existing Handling Facilities and Modes of Operation
- Operational Issues
- HBS Issues
- Detection Performance
- Throughput Reject Rates
- “False Alarm” Rates
- Consistency with Passenger and Cabin Baggage Screening
- Space Requirements
- Integration with Layered Security Architectures
- Passenger Reconciliation
- Transfer and Transit Baggage

- Pre-Screening Prior to Check-in
- Size and Weight of Security Equipment
- Operation Environment of Equipment
- Redundancy of Equipment
- Operational Specifications of Equipment (including Staff Issues)
- Legislative Changes

4.4 Section 6 of the IATA Position Paper on 100% Hold Baggage Screening goes in great details describing the various factors to be considered during the decision making process.

5. IATA Position Paper

5.1 The industry has developed a policy position/guidance document on 100% HBS. A summary of this document is presented as an attachment to this paper. The position paper itself was originally developed by the Airports Council International (ACI) and slightly modified by IATA to account for additional air carrier issues. IATA fully supports the ACI position and for that reason used their document as the basis for the air carrier industry position. This document fully accounts for recent changes to civil aviation regulations introduced since 11 September 2001.

5.2 This document builds on other industry papers on HBS as well as the work carried out by the European Civil Aviation Conference (ECAC) Security Working Group in its guidance paper to Member States, in which IATA and ACI played a significant contributory role offering essential operational experience in baggage screening processes already in daily operation at many airports around the world.

5.3 IATA hopes that the work it has done in highlighting the advantages, minor disadvantages and major disadvantages for different locations for Hold Baggage Screening systems, which is found in Section 5 of the IATA Position Paper on 100% Hold Baggage Screening can help States in determining which locations is most suitable for HBS screening at the airports within their territory. The IATA Position Paper should serve as one of many guidance documents to be used by a State or Airport Authority. Other factors to be considered when planning and implementing HBS systems are included in Section 6 of the 100% Hold Baggage Screening.

5.4 The HBS Task Force is invited to note the IATA position paper on 100% HBS as guidance material to facilitate the implementation of 100% HBS system at airports as required. The complete position paper is available by contacting Mr. Yannick Lachapelle, IATA Security Services (lachapelly@iata.org)

APÉNDICE D

COMMENTS BY STATES & CONSULTANTS

Presentation Paper by IATA – Best Practices by States (HBS Screening Locations & Planning Factors

Consultant – Ashcote Consulting Ltd (ACL) – Operations Director
- Good coverage by IATA.
- Off-line screening in the baggage hall.

Jamaica – Rapporteur
- Requested clarification on departing bags in hall that needed screening.

Consultant – Ashcote Consulting Ltd (ACL)
- Response not recorded.

Jamaica – Rapporteur
- Note air/sea off airport check in.

Chile – Chief, National AVSEC
- Comment not recorded.

Consultant – ACL
- Clarify security of bag after screening process.

IATA – Coordinator Security Services
- Raise some point as Consultant said
- Off airport, different to screening all bags.

Jamaica – Rapporteur
- Facilitation… (not recorded)

Belize – Operations Officer AVSEC
- Directed question to Consultant – ACL, For screening to be done in the front of the building, the airport would have to be made security or re-locate the check in.
- TSA mandates to airlines require continuous search during check in.

Consultant – Aerospace Services Int'l Inc. – President & CEO
- Experience around the world shows that cabin baggage is not inspected prior to check in.
- Extensive testing has been carried out around the world, could move that cabin baggage be checked.
- Off airport check in – the concern is for the chain of custody for the hold baggage.
- Agreed with response.
- More check-in from terminals, who pays for it?
- IATA concern, new thoughts for check-in, new facility designed to minimize wait.

ICAO – Regional AVSEC Officer
- Once 100% HBS is introduced, inquired if it will it be necessary to continue hand searches?

Consultant – Aerospace Services Int'l Inc.
- 3 stations for hand search ????

United Kingdom (UK) – Regional AVSEC Advisor

- Follow up with experience, not withdrawn in London, England.
- Anguilla, where States need to press for removal of this TSA measure. For example, Bermuda, every bag is searched. TSA standard is lower than that done, as operators say the bag was already hand searched.
- TSA standards is a visible deterrent to terrorists.

Peru – Chief AVSEC & Dangerous Goods
- TSA requirements for flights into the USA, what is the standard for other flights to other States in the Region?

Honduras – Chief AVSEC Department
- Original comment from Belize, screening is done at check in. TSA screeners are an additional TSA demand.

IATA – Coordinator Security Services
- 2 comments. TSA requires random hand search, where 100% HBS is a burden on States and carriers will try to change.
- Terminal screening causes large congregation of persons and facilitation is to move passengers through the airport.

United Kingdom (UK) – Regional AVSEC Advisor
- Reduce 3 random searches to 2 or 1 depending on the airport. This can be done through the airlines US Primary Security Inspector (PSI). If using less than required, they will not reduce.

COCESNA/ACSA - AVSEC Inspector
- He believes that TSA will consider this proposal to some extent.
- TSA also requires another check point before boarding to check passengers and their cabin baggage.

Consultant - Aerospace Services Int'l Inc
- In magazine USA Today article, he suggested we read. This regarded TSA relaxation of prohibited items. Scissors, etc. would be allowed back in the aircraft cabin. Political constraints and TSA was not an individual entity.

Mexico – Deputy Director General Civil Aviation
- Lighters were forbidden but we as independent States do not have to follow. Airports do not have to suffer, only carriers going to the USA.

Peru – Chief AVSEC & Dangerous Goods
- This Task Force must guide us on how to comply with the Standards.
- Standard 2.3.1 requires us to abide by what a State requires for 100% screening. What is the Regional acceptance?

Mexico – Deputy Director General Civil Aviation
- Ask Task Force to add task as to what States are doing to solve this problem.

Jamaica - Rapporteur
- Request will be added to the Report and proposed to AVSEC/COMM for review and resolution.

Cuestión 7
del Orden del Día Recursos

7.1 Financiamiento, Alternativas para el financiamiento y asistencia técnica

7.1.1 El financiamiento de proyectos y la experiencia técnica están disponibles para los Estados que requieran de asistencia por parte de la Dirección de Cooperación Técnica de la Organización de Aviación Civil Internacional (OACI). Tanto el financiamiento como la experiencia técnica son proporcionados por otros Estados contratantes de la OACI. Diez por ciento del financiamiento del proyecto es retenido por la Dirección de Cooperación Técnica para costear sus servicios.

7.1.2 El mecanismo de Cooperación Técnica de la OACI apoya iniciativas Regionales en todas las áreas, incluyendo la compra de equipo. El mecanismo de Cooperación Técnica está extendido a la adquisición de equipos de seguridad en renta o para adquirirlos. Las ventajas de utilizar este mecanismo es que la OACI puede controlar los precios, existe transparencia, imparcialidad y la OACI se compromete a pagar la compra del equipo. También se ahorra dinero en los costos debido al enlace de la OACI con las Naciones Unidas.

7.1.3 Por otro lado, el Comité Interamericano Contra el Terrorismo de la Organización de los Estados Americanos proporciona instrucción, asistencia técnica y cooperación en conjunto con otras organizaciones internacionales, como lo es la OACI. Ellos brindan financiamiento para la instrucción proporcionando becas para asistir a los Seminarios y Talleres y también proporcionan financiamiento para ciertas valorizaciones y asistencia técnica para los Estados.

7.1.4 La Asociación Internacional de Transporte Aéreo (IATA) asiste a los aeropuertos, ya sea directa o indirectamente a través de ofertas para el diseño de sistemas de inspección del equipaje de bodega (HBS), proporciona apoyo técnico, obtiene sistemas HBS nuevos y modificados y proporciona gestión de proyectos con un costo para el Estado o el explotador de aeropuerto.

7.1.5 Los fabricantes/proveedores de sistemas HBS y de bandas transportadoras tienen la capacidad de proporcionar financiamiento para proyectos, financiamiento para equipos y renta para sus clientes tomando cada caso de cada cliente a la vez..

7.1.6 Los Estados y los explotadores de aeropuertos también cuentan con la asistencia a través del Banco Interamericano de Desarrollo (BID) y el Fondo de Inversiones Multilaterales (FIM) para el fortalecimiento de la seguridad de la aviación a nivel nacional y aeroportuario. El proyecto está para ofertas y otorgamientos internacionales. La desventaja es que como parte de este acuerdo, los documentos relacionados con la Seguridad son requeridos por el banco como prueba de que el trabajo está realizándose.

7.2 Consultores

7.2.1 Existen consultores reconocidos internacionalmente para el manejo de sistemas de inspección del equipaje de bodega y de manejo de equipaje que pueden funcionar con los Estados y/o los explotadores de aeropuertos. Estos consultores pueden proporcionar una gran experiencia en la selección y adquisición de sistemas de detección de explosivos, tomografía por computadora, tecnologías avanzadas y sistemas de detección de explosivos por trazas, sistemas de bandas transportadoras, así como, proporcionar vigilancia durante la instalación del proyecto.

7.3 Conclusión

7.3.1 Los Estados en vías de desarrollo deben apoyar el enfoque regional para el financiamiento y la adquisición de equipos de inspección del equipaje de bodega. Los Estados deberían aprovechar las opciones disponibles y estar al corriente de las necesidades para realizar las diligencias adecuadas y obtener financiamiento y adquirir servicios antes de comprometerse.

7.4 Nota de Estudio 04

7.4.1 El WP/04 y los comentarios por parte de los Estados y los Consultores se adjuntan a esta parte del informe como **Apéndices A** y **B** respectivamente.

APÉNDICE A

AVSEC/HBS/TF/1-WP/04
01/12/05

International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
First Meeting of the Hold Baggage Screening Task Force of the GREPECAS Aviation Security Committee (AVSEC/HBS/TF/1)
Monterrey, Mexico, 1 to 2 December 2005

Agenda Item 07: Resources
7.1 Funding & Technical Assistance

(Presented by Judith Goodison)

SUMMARY
This paper provides the meeting with possible resource options that are available to States to assist with the acquisition of hold baggage screening systems through funding and technical assistance.

References:

- Annex 17, Standard 4.4.8 – Hold Baggage Screening
- ICAO Technical Cooperation Bureau
- Manufacturers of HBS Systems

1. Introduction

1.1 During the Regional ICAO CAR/SAM Hold Baggage Screening Seminar conducted in Monterey, Mexico from November 28-30, 2005 presentations were made by the ICAO Technical Corporation Bureau for the Americas and the Inter-American Committee against Terrorism (CICTE), highlighting the financial and technical assistance available to member States for training, scholarships, assessments, technical assistance missions, acquisition of security equipment, technical corporation, project management and financing.

2. ICAO Technical Corporation Bureau

2.1 The ICAO Technical Corporation Bureau provides a wide range of technical and financial assistance to member States through its seven regional offices across the globe. These Offices are independent and autonomous in each State and provides staff and equipment to train at local and international levels, human resource development and procurement services to hire or purchase for best conditions.

2.2 More specifically, the mechanism is pursuant to the Standards and Recommended Practices of Annex 17. It includes help to member States to solve corrective actions identified in the ICAO Universal Audit Security Programme, such as, Annex 17 Standard 4.4.8 – Screening of Hold Baggage, regional and national financing and funding for ICAO ASTP training.

2.3 The mechanism extends to international procurement for leasing or purchasing Security equipment. Privatized airports within States may benefit from the mechanism with the knowledge of the national authority with responsibility for civil aviation.

2.4 Technical Cooperation Bureau of ICAO will undertake projects in member States, including total financing from which a percentage is retained for services. Several advantages can be obtained through the use of this mechanism. These include: ICAO controlling prices, transparency, impartiality, and commitment by ICAO to pay for equipment. Also, through the United Nations, money can be saved in costs.

3. Inter-American Committee on Terrorism / Organization of American States

3.1 The Inter-American Committee on Terrorism (CICTE) work in collaboration with the Organization of American States and coordinate training and technical assistance through a single point of contact within the State. Primarily, they provide training and technical assistance and international cooperation working with International Organizations such as the ICAO. It noted that these Organizations cannot fund equipment and salaries, but can fund training, fellowships and funding for certain assessments and technical assistance missions.

4. International Air Transport Association (IATA)

4.1 International Air Transport Association (IATA) is willing to assist Airports to design HBS Systems and can provide expert technical support, procurement of new and modified HBS Systems, project management and technical oversight of the project and can also develop and implement HBS.

5. Manufactures of HBS and Conveyor Systems

5.1 Some manufactures of HBS and Conveyor Systems have the capabilities to provide to their respective clients for project financing, financing and equipment leasing. This facility is made on a client by client basis.

6. Consultants for Hold Baggage Screening and Baggage Handling Systems

6.1 States need to be aware of the availability of Consultants who are internationally recognized in the field of Hold Baggage Screening and Baggage Handling Systems. These Consultants can work with States Airport design team to provide a range of expertise in the selection and procurement of EDS/CT, AT and ETD, including installation oversight of the project.

APÉNDICE B

COMMENTS BY STATES & CONSULTANTS

Presentation Paper – Resources – Funding & Technical Assistance

ICAO – Regional AVSEC Officer
- Directed to the Consultants. What should States ask when considering obtaining the services of consultants.

ICAO – Director of the Technical Cooperation Bureau
- All support will be given to States.
- Other States are willing to support a State that is in need through the Technical Cooperation Bureau.
- Regional projects are very beneficial for equipment purchase. Support from OAS, EU and TC.
- Will give information to us. Any State can get assistance, funds are received from entities to fund projects, such as that for the Eastern Caribbean.

Consultant – Aerospace Services Int'l Ins. – President & CEO
- Three (3) areas to look at:
  (1) To Regional AVSEC Officer, honesty and integrity; Technical competence is key, get several references and talk to companies that have received their services.
  (2) Most important item on an agenda after item (1) is how to buy and maintain the equipment; and
  (3) Cost of the equipment over 3-7 year period and creating new employment base at a small fee will pay for these items.
- Through ICAO Mechanisms, any funding for AVSEC for 189 States go to a fund dedicated for States.

United Kingdom (UK) – Regional AVSEC Advisor
- Problem they have in all UK Territories is that funds go to a central fund. The funds are collected for AVSEC but all the fund does not go for the designated use. Governments would be embarrassed if major incident occurred.

ICAO – Director Technical Cooperation Bureau
- States are aware of the international requirement for security fund investments. We need to make Governments aware, outside of this.

Brazil – DGCA
- There is a list of equipment being selected in Brazil, ICAO input is important before buying equipment.
- Perspective of long term planning.

———————

Cuestión 8
del Orden del Día Ventajas y Desventajas de la Tecnología para Equipos HBS

8.1 Adquisición vs. Renta

8.1.1 La compra y renta del equipo de inspección del equipaje de bodega está disponible para los Estados y las opciones relevantes deberán ejercerse una vez que se han realizado las diligencias adecuadas. Las opciones para comprar o rentar equipo están disponibles a través de organizaciones internacionales, como la OACI y los proveedores del equipo de inspección del equipaje de bodega, tomando cada caso de cada cliente a la vez.

8.1.2 Debe considerarse que en caso de elegir un enfoque regional para la adquisición de equipos para el equipaje de bodega u otro tipo de inspección existen ventajas para reducir los costos de compra y mantenimiento, que hay más disponibilidad de refacciones a través de la posible ubicación de un servicio de proveedores de equipo dentro de la Región para reparaciones oportunas. Las actualizaciones de equipo y la adquisición de equipos de nuevas tecnologías deberían ser incluidas en los contratos Regionales para los Estados que elijan esta opción.

8.2 Decisiones para seleccionar e instalar el tipo de tecnología

8.2.1 Los Estados y los explotadores de aeropuertos necesitan revisar sus aeropuertos de manera individual para determinar qué tipo de tecnología debe instalarse. Estas decisiones están basadas en el rendimiento de equipaje de pasajeros más 30 *(la norma establecida en la industria)*.

8.2.2 La decisión para la tecnología de equipos debe basarse en la categorización del rendimiento de maletas por hora (b/hr) de la Asociación Internacional de Transporte Aéreo (IATA).

Categoría “A” <999b/hr	Orden manual, poco técnico, semiautomático;
Categoría “B” >=1000<4999b/hr	Mediano/Alto, Automático;
Categoría “C” >=5000b/hr	Alta tecnología, completamente automático

8.2.1 Un árbol de decisiones para las Soluciones de la inspección del equipaje de bodega preparado por Ashcote Consulting se adjunta como **Apéndice A** (en inglés únicamente) para orientar a los Estados en el establecimiento de los tipos de tecnología que se necesitan para su aeropuerto.

8.2.4 La decisión debe basarse en: el tamaño del aeropuerto, el plan a largo plazo, debe incluir las instalaciones actuales de la terminal del aeropuerto y los posibles planes de expansión, el rendimiento de equipaje, el crecimiento proyectado del aeropuerto en un lapso de diez años a futuro, los contenidos posibles del equipaje de pasajeros basados en su ubicación geográfica y su experiencia, el número y los tipos de equipo necesarios incluyendo los costos financieros iniciales y de mantenimiento y las necesidades de instrucción.

- Categoría C: un sistema automatizado de equipaje de bodega con cinco (5) niveles de inspección de equipaje de bodega las cuales integren distintas tecnologías en equipos de inspección (AT rayos X, EDS CT) utilizados en diferentes niveles,, estaciones de observación para los operadores, sistemas de bandas transportadoras y redundancia (equipo extra) para cuando los equipos estén fuera de servicio (adecuado para aeropuertos grandes de >=5000b/hr);

- Categoría A-B-C: un sistema de detección de explosivos (EDS) independiente, tomografía por computadora (CT) o rayos X de tecnologías avanzadas (AT) que pueden instalarse en la sala de mostradores de presentación o en el sistema de presentación equipaje (*downstream*); o

- Categoría A: otras medidas bajas en costos tal y como una búsqueda física a mano y/o rayos X convencionales y detección de explosivos por trazas (ETD). (Apto para ubicaciones de bajo volumen – aeropuertos pequeños <999b/hr).

8.3 Mantenimiento

8.3.1 Es importante asegurar que la necesidad de programas de mantenimiento programados para equipos de inspección de los Estados esté basada en las recomendaciones del proveedor. Asimismo, debe considerarse los tiempos en los que una maquina está fuera de servicio para su mantenimiento, y, como ya ha sido mencionado, debe considerarse también la necesidad de tener disponibles equipos similares de inspección para que todas las maletas sean inspeccionadas en consistencia con las normas establecidas.

8.3.2 El explotador de aeropuerto debe tener un inventario de las partes del equipo que se gastan y que requieren reemplazo, la disponibilidad de refacciones, incluyendo el lapso de tiempo para la entrega de dichas refacciones una vez que estén defectuosas, lo cual debe confirmarse durante las negociaciones del contrato.

8.3.3 Además de los técnicos del proveedor, que podrían ser llamados para un servicio completo del equipo, como parte de su contrato, los Estados deben asegurarse que los explotadores de aeropuertos cuenten con personal de mantenimiento instruido y certificado para que sean responsables de realizar servicios programados y no programados al equipo de inspección. La necesidad de actualización de la instrucción a los técnicos para estar al día con los cambios de la tecnología debe tomarse en cuenta durante las negociaciones.

8.3.5 Toda la programación y los registros de servicio del mantenimiento del equipo de inspección del equipaje de bodega, incluyendo los registros de instrucción del personal de servicio necesitan mantenerse y estar disponibles para su inspección.

8.4 Conclusión

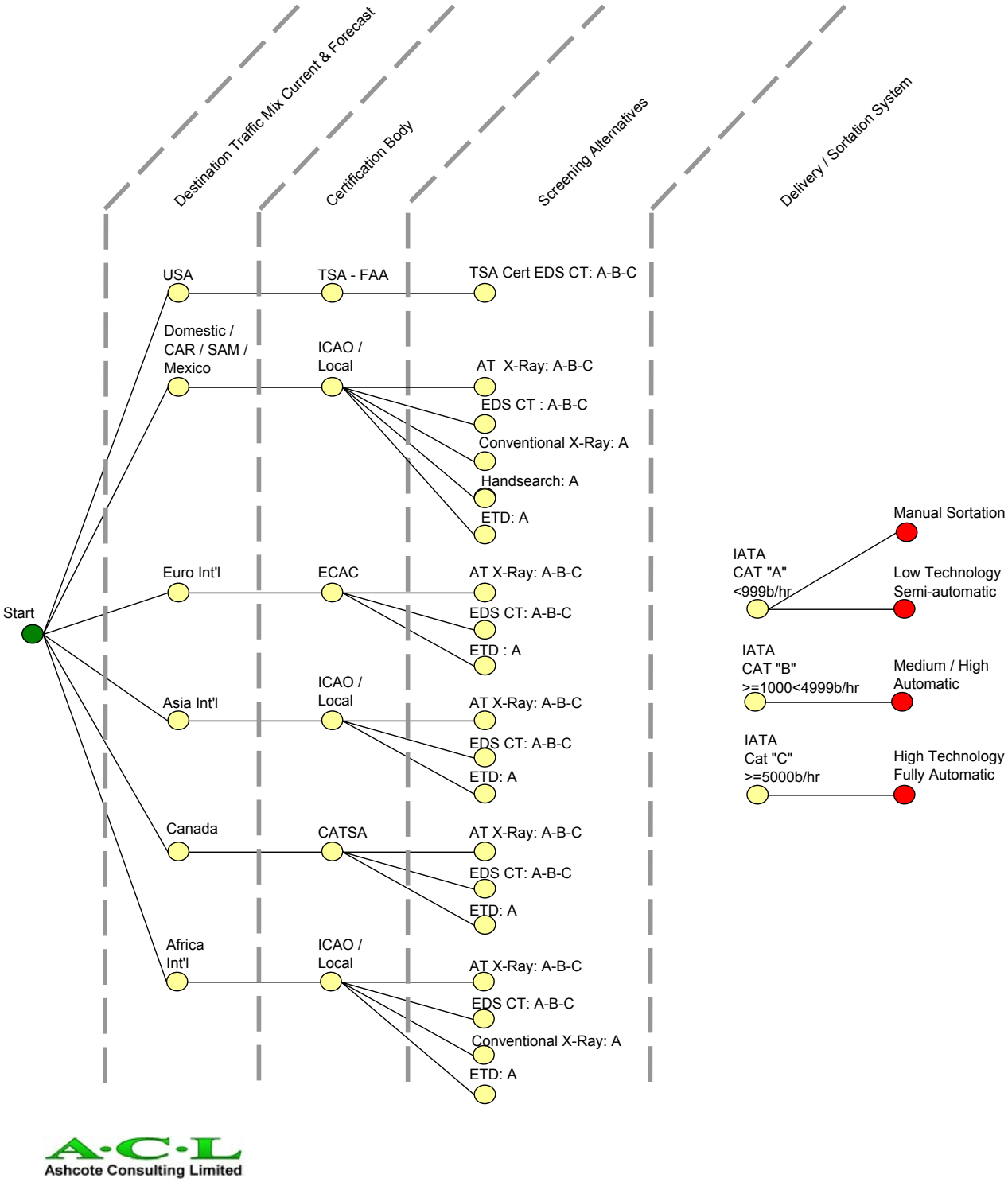
8.4.1 Durante las discusiones de esta nota de estudio se propuso que deberían enviarse cartas a los Estados en la Región para asegurar cuáles Estados estarían interesados en crean una entidad regional e identificar a los Estados que serían parte de la entidad para negociar las adquisiciones de equipo por parte de la Región.

8.5 Nota de estudio 09

8.5.1 El WP/09 y los comentarios por parte de los Estados y los Consultores se adjuntan a esta parte del informe como **Apéndices B** y **C** (en inglés únicamente) respectivamente.

APÉNDICE A

Hold Bagagge Screening Solutions - Decision Tree



A·C·L
Ashcote Consulting Limited

APÉNDICE B

AVSEC/HBS/TF/1-NE/09

Organización de Aviación Civil Internacional 01/12/05

GRUPO REGIONAL DE PLANIFICACIÓN Y EJECUCIÓN CAR/SAM (GREPECAS)

Primera Reunión del Grupo de Tarea sobre Inspección del Equipaje de Bodega del Comité AVSEC del GREPECAS (AVSEC/HBS/TF/1)

Monterrey, México, del 1 al 2 de diciembre de 2005

Agenda Item 8 Ventajas y desventajas del equipamiento tecnológico del HBS

LA PROBLEMÁTICA DE COMPRA O ARRIENDO

(Presentado por un miembro del grupo de trabajo)

RESUMEN

La inspección del 100% del HBS y la problemática de equipamiento, el financiamiento, el soporte y mantenimiento

Referencias:

- Anexo 17, norma 4.4.8
- Grupo de tarea HBS

1. Introducción

1.1 El cumplimiento de la norma 4.4.8 del anexo 17 por parte de los Estados y que entra en vigencia el 01 enero del 2006, pone a estos ante un nuevo escenario con mas interrogantes y dudas que soluciones, por ejemplo: que equipo va utilizar, quien lo va operar (Estado, concesionario o el explotador aéreo) y lo más importante como el financiamiento de los sistemas a utilizarse.

2. Análisis

2.1 La norma establece que es responsabilidad de cada Estado y esto significa que lo primero que hay que hacer es un análisis de las realidades operacionales de cada aeropuerto (itinerarios, cantidad de pasajeros por hora en horas pico, tipos de aeronaves etc.). Posteriormente se podría establecer que tipo de sistema de inspección vamos a instalar (AT, EDS, ETD) y finalmente como lo vamos a financiar, el Estado, concesionario, explotador aéreo o los pasajeros.

3. Adquisición vs. arriendo

3.1 Si la autoridad aeronáutica es la que tiene que instalar el equipo, se debe considerar los siguientes factores:

- La ubicación geográfica en la región.
- Empresa conocida en el mercado con representación en el país.
- Referencias en otros aeropuertos.
- La modalidad de implementación.
- Los niveles de mantenimiento.
- El entrenamiento requerido.

3.2 Si la implementación considera, la adquisición por parte del Estado o los operadores, esta modalidad presenta mas desventajas que ventajas, en este aspecto hay que destacar el alto costo, la desactualización de los software, tiene que considerarse alternativas por las fallas, necesariamente debe considerar todos los niveles de mantenimiento y finalmente el reemplazo del equipo.

3.3 Una de las alternativas más viables siempre y cuando se cuente con mecanismo de financiamiento seguro, es el arriendo del equipo y esta presenta como única desventaja el no haber elegido una empresa responsable, en cuanto las ventajas estas serian mas, como por ejemplo la inversión no seria nuestra, se puede actualizar el software como el equipo acorde a la nueva tecnología, se puede exigir que el respaldo sea de iguales características y finalmente remplazar el equipo que haya aparecido en el mercado con una mejor tecnología, esta modalidad si requiere considerar la inspección, supervisión y evaluación constante por parte del Estado para verificar que se cumplan las especificaciones técnica del contrato.

4. Mantenimiento y repuestos

4.1 Se debe tener presente que en este tipo de equipos necesariamente requiere tener un mantenimiento permanente en virtud a que son vitales y no pueden fallar, por lo tanto debe estar asociado a la compra de servicios a la misma empresa ya que nos aseguraría un mejor tiempo de repuesta, por parte de la autoridad aeronáutica requiere tener claro cual es el nivel de falla mas común que tipo de piezas o dispositivo que más falla, de tal manera se evalúa las debilidades y las fortalezas del sistema.

4.2 En lo referido a los repuestos si se tiene el análisis de cual es el repuesto que mas falla es ese el que hay que tener en stock, si el equipo es único en la región el tiempo de respuesta es más largo, afectando la operatividad del sistema. De la misma manera si se dispone de los mismos equipos en la región es más factible que la empresa cuente con un stock de repuestos, beneficiando en forma significativa la continuidad del servicio.

5. Conclusión

5.1 Para cumplir esta norma se debe buscar la compatibilidad de los conceptos de la eficiencia y eficacia, por tal motivo debemos analizar y estudiar todos la alternativas, buscando las soluciones que sean mas acorde a nuestras realidades y lo mas importante tratar de cumplir las normas porque esta forma estaremos cumpliendo con lo establecido con la seguridad de la aviación civil.

APÉNDICE C

COMMENTS BY STATES & CONSULTANTS

Presentation Paper – Advantages & Disadvantages of HBS Equipment Technology

Presented by: Chile in Spanish

Notes from Presentation

- Looking at how to fund HBS in-line system through State responsibility, air operator and passengers.
- Looking at types of system available and how to implement.

Factors

1. Geographical location in the region, difficult if only one State is using the particular equipment;
2. Co- in the market; and
3. Ask other airport authorities about the equipment and its suitability in the screening process, including maintenance levels, training, and how easy was the equipment to use.

High Cost

- Can be accrued from lack of updating of screening equipment;
- Need to consider maintenance levels as well as, the need for replacement of equipment; and
- Funding mechanism.
-Constant evaluation by the State was needed.

Maintenance & Spare Parts

- This is the most common area of failure, evaluation on assessment and advantages;
- Identification of spare parts that fail the most was needed;
- Equipment delivery of repair parts take longer time to receive.
- Regional approach, would make parts more readily available
- Need to do a study to get best solutions and ensure that these comply with AVSEC Standards.

COMMENTS

Consultant Ashcote Consulting Ltd. (ACL) – Director Operations

- Good summary of issues.
- Procurement negotiation was recommended, and negotiations should be from one place (State) for the Region.

Mexico – Deputy Director General Civil Aviation

- From their experiences with various airports, they got purchases with different payments, prices fluctuate, closed communication and they not disclose these.
- Maintenance and software in monthly price (1.4 million – equipment).
- US$100,000 yearly for maintenance and preventive maintenance.
- Demand Regional representation for largest airport

ACL – Director Operations

- Agreed

Chile – Chief National AVSEC
- Product for screening used in prisons, train stations, etc.
- In some States, they are just hearing of these machines.
- They have Computer Tomography (CT) equipment – it takes 2 days for equipment to arrive.

Mexico – Deputy Director General Civil Aviation
- Another experience, a increase in price up to US$80,000 because of distance, part of the negotiations and they not tell where the spare parts would come from.

Peru – Chief AVSEC & Dangerous Goods
- Suggestion that the group should send letters to member States and determine which States are interested.

Jamaica – Rapporteur
- Will route the suggestion through AVSEC/COMM.

Mexico – Deputy Director General Civil Aviation
- He is not convinced of equipment performance till manufacturer installs the equipment at your airport to show you how it operates.
- No charge, free to see how machine works for another operator.

ACL – Director Operations
- Excellent suggestion. Manufacturer will do this to sell the machines. Invite all to give free samples and collect data.

Aerospace Services Int'l Inc. – President & CEO
- He was being more cautious than ACL in that the L-3 6500 dual energy/CT was not readily available. The logistics of setting up the machine could be difficult. Problem was prevent a proper analysis. Bag sets were different depending on where the passenger was traveling to, e.g. plum pudding, etc.
- He suggested that the group visit San Francisco and look at the In-Vision 9000, In-Vision 5500 etc. and get practical data.

Mexico – Deputy Director General Civil Aviation
- Invited us to the airport group Azur January 2006 solutions for medium and small airports in Mexico.

Costa Rica – Inspector AVSEC-FAL
- Has had a concern for several years.
- We are acquiring HBS to take away items from passengers.
- Companies were selling items to make a profit. Items were available in sterile areas of the airport, such as: large wooden knives, matches for smoking, metal knives in First Class and bottles. We have not addressed this.

Mexico – Deputy Director General Civil Aviation
- Regarding that comment, Mexico has developed their prohibited items list from ICAO, USA and Mexico. We have not followed from books.

ICAO – Regional AVSEC Officer
- Thank Walter from ICAO Technical Cooperation Bureau.

Aerospace Services Int'l Inc. – President & CEO

- Agree with ACL Director Operations. The reason airports get into trouble – usually suppliers come in and the airport operator picks equipment based on the sales pitch.
- The equipment is not able to do our procedures. The manufacturer/supplier will tell you and competition will not be able to do, but will not tell you what their equipment is incapable of doing.
- Our lack of knowledge, based on airport financial and long term plan is needed. If we go for cheap, good and fast – we are vulnerable.

Peru – Chief AVSEC & Dangerous Goods
- He had 3 questions.
(1) What is the main difference between approval and certified?
(2) Parameters, what is the minimum amount of equipment testing for quality assurance? Manufacturer told him that was restricted.
(3) Integrated Level 1 was not able to detect weapons.

Aerospace Services Int'l Inc. – President & CEO
- HBS was not designed for weapon detection plus (comment not recorded).

Jamaica – Rapporteur
- Supported the point, as weapons have been found in bags into our State. This is a concern of other control authorities.

Aerospace Services Int'l Inc. – President & CEO
- Advance Technology (AT) has been approved by ECAC. Trace Detection System (TDS) has been tested and is satisfactory but there is no scientific standard.
- TSA has certified Computer Tomography (CT) which measures the density of materials and is based on through put and false alarm rates.
- TSA data is classified and is only shared if it is protected.

ACL – Operations Director
- Screening machines are only used for explosive or drug detection and they only do one of these at a time.

Mexico – Deputy Director General Civil Aviation
- Regarding certification, the screening machine is certified from the factory. It is a document that verifies that the machine is working.

Aerospace Services Int'l Inc. – President & CEO
- TSA certification applies to manufacturer for a specific unit.
- There are 6 categories but the EU only has 4 categories for certification.
- No equipment is 100% perfect.

ACL – Operations Director
- Agreed. No equipment is 100% perfect.

Chile – Chief National AVSEC
- Made a query about explosive detection for mining, etc.

ACL – Operations Director
- Individual States were responsible to determine threat levels and detection procedures, not….

Aerospace Services Int'l Inc. – President & CEO
- TAPT – home made explosive used in the Middle East, was extremely volatile.
- Has not been tested on Explosive Detection Systems (EDS), Trace Detection Systems (TDS) can screen for these.
- Black powder and sheet explosives – there was a problem in detecting these. In Computer Tomography (CT) it was difficult to detect, but they are working on improving this.

ICAO – Regional AVSEC Officer
- Mostly national AVSEC level persons are responsible for ensuring proficient screening and these areas are evaluated during audits.

ACL – Operations Director
- Human factors needed to be looked at.
- HBS relied on the operator, if there was no operator or the operator got bored after not seeing anything then this could lead to deficiencies in the system.
- Suggest that the baggage screening room be designed so that screeners are placed in the middle where they can see each other and not have to take their eyes off the screen to talk and miss a bag.

Aerospace Services Int'l Inc. – President & CEO
- As with air traffic controllers, who have filled time by playing pranks, errors tend to occur during the period of low activity.
- Audits and inspections mostly will take care of this during the national level system.

COCESNA/ACSA – Inspector AVSEC
- 800 passengers at some airports, using conventional x-ray and only 1 ETD in one airport
- With HBS do we need EDS now? Are airlines and airports responsible?

ACL – Operations Director
- Individual States are to decide on this, based on the needs and the routes they are serving.

Aerospace Services Int'l Inc. – President & CEO
- Agreed. You do not need EDS, it may be more efficient with physical and ETD depending on how many bags are opened.
- There have been a lot of injuries from lifting heavy bags, this is a liability that has to be considered.

ACL – Operations Director
- Consideration for using ETD – through put is laour intensive, also persons involved in military or mining will be contaminated.

ICAO – Regional AVSEC Officer
- Queried the group's thoughts on "Reveal", new technology which was working well although it had not had the full scope of field testing.
- Reveal CT80 is certified state of the art CT. Has dual energy added should reduce false positive levels.
- No extensive operation.
- Long term maintenance.

ACL – Operations Director
- Systems integration engineering.
- CT-80 is light weight and would not have to cause re-building of airport for installation.

- a benefit is that power only needs local distribution 220v outlet, others need…(not recorded)

Mexico – Deputy Director General Civil Aviation
- Reveal has been installed at American Airlines in Mexico City, operators…
- Throughput is 80 bags per hour (bph), will take 110-120 bph once operators … (not recorded)
- Can identify drugs, detect all persons using drugs.

Cuestión 9 del Orden del Día **Establecimiento del Modelo para los procedimientos operacionales normalizados (SOP)**

9.1 Procedimientos operacionales normalizados – México

9.1.1 México presentó una nota relacionada con sus protocolos operacionales actuales. Parte de la inspección del equipaje de bodega que ellos llevan a cabo se hace en conjunto con otras instituciones para el control en su Estado basándose en el análisis de amenazas/riesgos del Estado de origen de la aerolínea que entra a México y los problemas de seguridad que enfrenta el Estado.

9.1.2 México cuenta con diversos tamaños de aeropuertos y por lo tanto ha comenzado el proceso de actualizar el equipo de inspección del equipaje de bodega, esto en cumplimiento de los nuevos requerimientos de la tecnología.

9.2 Implantación de los procedimientos operacionales normalizados – IATA

9.2.1 En representación de sus líneas aéreas miembro, la Asociación Internacional de Transporte Aéreo (IATA) ha adoptado y mejorado una nota con su postura ante el HBS al 100 por ciento, la cual fue desarrollada a partir del Consejo Internacional de Aeropuertos (ACI). La nota con la postura de la IATA también tomó en cuenta las orientaciones del Grupo de Trabajo de Seguridad del CEAC para sus Estados miembro.

9.2.2 La IATA está de acuerdo que deben existir normas mundiales armonizadas para los procedimientos de inspección del equipaje de bodega y la Sección 7 de si nota se enfoca en las mejores prácticas en todos los aspectos del proceso de inspección del equipaje de bodega. Este documento proporciona las políticas de la IATA así como orientación para la industria.

9.2.3 La IATA también apoya el punto de vista de que una autoridad debe ser responsable de todos los elementos del sistema de inspección del equipaje de bodega.

9.3 Conclusión

9.3.1 Se acuerda que se deben desarrollar procedimientos estandarizados de operación para el sistema de inspección del equipaje de bodega. Las normas mínimas para la operación del sistema de inspección del equipaje de bodega, incluyendo el equipo y los requerimientos de personal, etc., deben establecerse por parte de la Organización de Aviación Civil Internacional (OACI).

9.3.2 Esta propuesta se está retransmitiendo al AVSEC/COMM del GREPECAS para su revisión y resolución final.

9.3 Notas de estudio 08 y 05

9.4.1 El WP/08 y los comentarios por parte de los Estados y Consultores se adjuntan a esta parte del informe como **Apéndices A** y **B** respectivamente; el WP/05 y los comentarios por parte de los Estados y Consultores se adjuntan a esta parte del informe como **Apéndices C** y **D** respectivamente.

APÉNDICE A

AVSEC/HBS/TF/1-NE/08
02/12/05

International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
First Meeting of the Hold Baggage Screening Task Force of the GREPECAS Aviation Security Committee (AVSEC/HBS/TF/1)
Monterrey, Mexico, 1 to 2 December 2005

Agenda Item 9 Establishment of HBS Standard Operating Procedure (SOP) Model

ESTABLECIMIENTO DE UN MODELO DE LOS PROCEDIMIENTOS ESTÁNDARES DE OPERACIÓN PARA LA INSPECCIÓN DE EQUIPAJE DE BODEGA

(Presentado por Aarón Villar Bernal DGAC [México])

RESUMEN

Proponer las líneas generales para obtener un modelo de procedimientos estándares de operación para la inspección de equipaje de bodega, observando los diversos preceptos legislativos de los Estados, pero unificando los tópicos genéricos que sirvan como guía para fundamentar los niveles mínimos de seguridad que mediante la inspección se proporcionen a tal equipaje.

Referencias:

- Norma 4.4.8 del Anexo 17 "Seguridad" al Convenio sobre aviación civil internacional.
- Procedimientos para la inspección en proceso de implementación por México.
- Otras referencias internacionales.

1. Introducción

1.1 Contar con procedimientos genéricos mínimos para la inspección del equipaje de bodega, asegura la eficacia, la eficiencia de la medida de seguridad, y la coordinación de esfuerzos entre los Estados para obtener niveles de seguridad similares en ella, lo cual a su vez conlleva a la facilitación del tránsito de los usuarios por los aeropuertos y su abordaje en las aeronaves, estandariza en lo posible los tiempos de las transferencias, unifica los criterios de tratamiento de los artículos prohibidos y peligrosos, y los aplicados a los pasajeros que los transportan en su equipaje de bodega.

1.2 Concordar el contenido mínimo de los procedimientos de inspección proporciona una base firme para crear cooperación, entendimiento y equivalencias entre la seguridad de la aviación civil de diversos Estados.

2. Propuesta de contenido mínimo de los Procedimientos de Operación para la Inspección.

2.1 Objetivos y alcances de los procedimientos.

2.2 Definiciones y abreviaturas.

2.3 Disponibilidad y actualización del documento.

2.4 Métodos de inspección.

2.5 Estructura organizacional para la inspección.

2.6 Responsabilidades en la inspección (inspectores, inspectores en jefe, supervisores, medios de comunicación y coordinación, controles de contaminación de equipos ETD, filmación y/o fotografía de la inspección, operación, calibración, prueba y mantenimiento de los equipos, bitácoras de los equipos y de eventos en la inspección; equipo y herramientas para seguridad industrial; requisitos para la seguridad operacional).

2.7 De la apertura de las facilidades para la inspección y cierre (antes y después de una jornada de trabajo, después de un mantenimiento, después de una contingencia o emergencia, etc.).

2.8 Procedimientos de inspección (incluyéndolos en el documento por cada tipo de equipo, definición de situaciones específicas durante la inspección como su rechazo, y procedimientos especiales tales como los dedicados a valijas diplomáticas, animales vivos, objetos religiosos, evidencia judicial, órganos humanos para donación, etc.).

2.9 Procedimientos de inspección física de equipajes y artículos específicos.

2.10 Procedimientos de inspección alternos con definición de circunstancias de aplicación.

2.11 Materiales peligrosos, sus procedimientos de inspección y excepciones.

2.12 Control de calidad de la inspección de equipaje de bodega: Evaluaciones, Auditorias y Pruebas (dirigidas al recurso humano y al recurso material).

2.13 Procedimientos para resolución de alarmas y coordinación en su caso con las autoridades policiales y de manejo de explosivos.

2.14 Coordinación con otras medidas de seguridad al equipaje de bodega, antes y después del proceso de inspección.

3. Recomendación.

3.1 Se recomienda al grupo de trabajo que analice el contenido de la propuesta y tome la resolución necesaria para presentarla como propuesta de Contenido Mínimo de los Procedimientos de Inspección de Equipaje de Bodega al Comité AVSEC/COMM del GREPECAS, con el fin de que se apruebe y se haga llegar a los Estados para su opinión.

APÉNDICE B

COMMENTS BY STATES & CONSULTANTS

Presentation Paper – Establishment of HBS Standard Operating Procedure (SOP) Model by Mexico

ICAO – Regional AVSEC Officer
- Based on Mexico's current procedures, details were not included. Only minimum requirements and general points were there.

Mexico – Deputy Director General Civil Aviation
- How long it took to complete the document and the lessons learnt? Four (4) months to write the procedures for Mexico and 18 months to get approved. There was lack of industry cooperation and resistance to implementation.
- HBS screening is based on threat/risk based on origin of aircraft operating into Mexico. 4 out of 10 bags are inspected outside.

Consultant – Aerospace Services Int'l Inc.
- Explosive Detection System (EDS) operator sees what may be explosive, but no wires etc. has been seen. Has this been considered?

Mexico – Deputy Director General Civil Aviation
- Money laundering, dangerous goods, drugs were all considered. Federal police also look at images.

Consultant - Aerospace Services Int'l Inc.
- Suggestion, review of operating protocols.

Jamaica - Rapporteur
- Comment not recorded

Peru – Chief AVSEC & Dangerous Goods
- HBS or more global view, when passenger considered to be in flight. Annex 13 (Aerodrome) consideration given to Annex 17 (Security) which starts at check in.

COCESNA/ACSA – AVSEC Inspector
- Change of risk, he not agree with the comment.

Costa Rica – Inspector AVSEC-FAL
- Role of the company that manages the airport with illegal interference
- External, armed support needed.

Chile – Chief National AVSEC
- Most recommend equipment be placed before the counter
- 50 passengers or less screened before the counter.

APÉNDICE C

AVSEC/HBS/TF/1-WP/05
02/12/05

International Civil Aviation Organization
CAR/SAM REGIONAL PLANNING IMPLEMENTATION GROUP (GREPECAS)
First Meeting of the Hold Baggage Screening Task Force of the GREPECAS Aviation Security Committee (AVSEC/HBS/TF/1)
Monterrey, Mexico, 1 to 2 December 2005

Agenda Item 9: Establishment of HBS Standard Operating Procedure (SOP) Model

IMPLEMENTATION OF GLOBABALLY ACCEPTED STANDARD OPERATING PROCEDURES FOR THE SUCCESFUL IMPLEMENTATION OF 100 PER CENT HOLD BAGGAGE SCREENING

(Presented by the International Air Transport Association (IATA))

SUMMARY

In order for the ICAO requirement for 100% Hold Baggage Screening to be fully effective, technical screening methods must be used in conjunction with standardized procedures for all directly and indirectly involved in the process of Hold Baggage Screening. This paper present the IATA view on how best to implement 100% HBS and ensure that screening procedures are formalized in order to ensure that screening standards meet globally accepted standards.

References:

- IATA Position Paper on 100% Hold Baggage Screening – Executive Summary (**Attachment 1**)
- Key Factors in Screening Process (Excerpt from IATA Position Paper on 100% Hold Baggage Screening) (**Attachment 2**)

1. Introduction

1.1 The air transport industry operates in an extremely complex environment. In order to properly service their customers, air carriers must operate a multiplicity of routes, through numerous transfer and transit points involving numerous States, airports and often air carriers.

1.2 Superimposed on this already complex network are decisions made by individual States regarding the security and facilitation standards that they require within their territories as well as security and facilitation measures to be adopted by their registered air carriers when they operate in another State. This regulatory/operational environment has been made even more complex and difficult since the tragic events of 11 September, 2001.

1.3 This makes it essential for industry to participate with the regulatory and border control agencies and other security related organizations in their States at an early stage in the planning process so as to ensure that hold baggage screening (HBS) is introduced in the most cost-effective way and to avoid unnecessary costs which may otherwise be imposed upon them.

2. STATES WITH 100% HBS ALREADY IMPLEMENTED

2.1 ICAO Annex 17 - Security Standard 4.4.8 states: "From 1 January 2006, each Contracting State shall establish measures to ensure that originating hold baggage intended to be carried in an aircraft engaged in international civil aviation operations is screened prior to being loaded into the aircraft." This is currently a Recommended Practice in Annex 17. IATA full supports implementation of 100% HBS as a critical element of the aviation security system.

2.2 Numerous States have already implemented 100% HBS, however the efficiency and effectiveness of these systems varies substantially from State to State and often from airport to airport within a State.

2.3 The efficiency and effectiveness of the HBS system in a particular airport can have a major impact on facilitation of passengers. As an example, the speed with which hold baggage is processed has a direct impact on originating passenger processing time as well as the Minimum Connect Time (MCT) for those passengers transiting or transferring through a particular airport.

2.4 The impact of HBS systems on passenger processing not only directly impacts on the efficiency with which passengers can be handled and therefore the customer service that they receive, but also on the operational efficiency of the air carriers. Longer processing times place restrictions on the number of flights that an air carrier can operate out of a certain airport in a given period of time, which in turn has a direct financial impact on that air carrier.

2.5 Additionally the efficiency of an HBS system often has a direct impact on the screening effectiveness of the system. The industry has learned through years of experience that there is often a direct correlation between the efficiency of a particular HBS system and its effectiveness in screening out potential threat items.

2.6 The implementation of an efficient and effective 100% HBS system will also facilitate the implementation of the so-called "one-stop security" concept not only on a regional basis but globally. Key to implementation of such a concept, from industries point of view, is the exemption from the need to screen transfer and transit bags. This not only provides tremendous benefits to industry in the form of shorter MCTs but also to States and their designated screening authorities who are able to free up resources for other tasks.

2.7 The screening authority (be it airport operator or other specified screening authority) should be responsible for all elements of the HBS system. This would include the baggage reconciliation system (BRS), as appropriate, which preferably should be automated and run concurrent with the technical screening systems.

3. STATES IN THE PROCESS OF IMPLEMENTING 100% HBS

3.1 The deadline for ICAO Annex 17 Security Standard 4.4.8 to come into effect is fast approaching and some States have yet to completely implement 100% HBS. However, in many cases States have reported that they have implementation plans that will be competed by 1 January 2006.

3.2 IATA encourages States to implement an HBS system that is suitable to the configuration of the airport as well as to the operational requirements (baggage throughput, etc.). States should also consider projected increased capacity when determining the most suitable HBS option. Implementing 100% HBS, may result in temporary disturbances of normal airport operations, frequent refurbishment should, as far as practicable, be avoided.

3.3 IATA hopes that States and Airport authority will consider implementing permanent solutions immediately rather than utilize temporary measures to meet the ICAO proposed deadline date of 1 January 2006 and then develop permanent solutions later on. Whilst installation of temporary 100% HBS would probably only cause slight disturbance to airport operations, it would nonetheless cause a duplication of operational disturbance and resources allocated to this project. Also, temporary HBS system may not be as effective as permanent solutions as they may not be perfectly suited to their environment.

3.4 IATA encourages States to meet the ICAO deadline of 1 January 2006 as some States have indicated that they would not allow air carrier to service Stations within their State if they are departing from States where the is no 100% HBS system in place.

3.4 IATA wishes to reiterate that implementation of 100% HBS should be a State responsibility and whilst air carrier could potentially be most directly affected by non-compliance to this Standard, all stakeholders would ultimately be penalized.

4. HBS STANDARD OPERATING PROCEDURES

4.1 The most important factor when determining what procedures should be developed to facilitate the Hold Baggage Screening process is that they assist all involved in meeting the screening standards determined by the State

4.2 Standard Operating Procedures, whilst always designed to meet globally harmonized and accepted screening standards, should be developed according to the operational environment of the particular airport.

4.3 As such, whilst the Appropriate Authority for Aviation Security should have oversight and quality assurance roles in the establishment of screening procedures, the procedures themselves should be developed by the entity responsible for performing the screening (often known as Screening Authority) at the particular airport, in co-operation with all other stakeholders affected by the introduction of Hold Baggage Screening which includes but is not limited to air carriers, airport authority and the Appropriate Authority for Aviation Security.

4.4 All Standard Operating Procedures should have a common goal of providing screening personnel tools and methods to ensure that no un-cleared baggage are loaded on an aircraft, and provide the screening personnel with the procedures to inspect and clear all types of hold baggage in an efficient and effective manner.

4.5 Standard Operating Procedures also need to be developed for all stakeholders with an indirect role in the Hold Baggage Screening Process, to ensure that their daily activities and duties do not interfere negatively with the screening of hold baggage.

4.6 Screening Procedures should be developed in a manner that does not negatively impede on the safety, inherent speed of civil aviation and the service level provided to air carriers and other airport tenants.

5. IATA POSITION PAPER

5.1 The industry has developed a policy position/guidance document on 100% HBS. A summary of this document is presented as an attachment to this paper. The position paper itself was originally developed by the Airports Council International (ACI) and slightly modified by IATA to account for additional air carrier issues. IATA fully supports the ACI position and for that reason used their document as the basis for the air carrier industry position. This document fully accounts for recent changes to civil aviation regulations introduced since 11 September 2001.

5.2 This document all builds on other industry papers on HBS as well as the work carried out by the European Civil Aviation Conference (ECAC) Security Working Group in its guidance paper to Member States, in which IATA and ACI played a significant contributory role offering essential operational experience and advice. In addition, the document also takes into account recent technological advances and experience in baggage screening processes already in daily operation at many airports around the world.

5.3 IATA recognises the benefits of having mutually accepted Hold Baggage Screening procedures that meet globally harmonized standards. As such section 7 of the IATA Position Papers focuses on best practices concerning all aspects of the Hold Baggage Screening process.

5.4 The AVSECP is invited to note the IATA position paper on 100% HBS as guidance material to facilitate the implementation of 100% at airports as required. The complete position paper is available by contacting Mr. Yannick Lachapelle, IATA Security Services (lachapelly@iata.org)

Attachment 1

IATA 100% Hold Baggage Screening (HBS) Industry Position Paper Executive Summary

1. Introduction

The IATA 100% Hold Baggage Screening (HBS) Industry Position Paper was drafted by the IATA Security Committee. The paper is based on the Airports Council International (ACI) position paper and builds on other industry documents and the work carried out by the European Civil Aviation Conference (ECAC) Security Working Group. The position paper also takes into account recent changes to international civil aviation security regulations and the measures introduced as a direct consequence of the tragic events of 11 September 2001.

The screening authority (be it airport operator or other specified screening authority) should be responsible for all elements of the hold baggage screening (HBS) system. This would include the baggage reconciliation system (BRS), as appropriate, which preferably should be automated and run concurrent with the technical screening system.

Ground Security:
IATA supports development of effective, efficient and operationally manageable ground security measures which meet or exceed the provisions of ICAO Annex 17, to be applied using a globally agreed Risk Management Matrix, on the basis of the level of risk as assessed by the appropriate national authority.

Passenger and Baggage Security Controls:
IATA supports the development of long term solutions to screen and reconcile passengers and their hold baggage through effective application of new technology and procedures, which do not impede the flow of traffic.

IATA believes that governments must combine resources in a co-operative manner to share information and research and development costs for explosive detection technology and other technologies to enhance the current systems of screening passengers and baggage.

IATA believes that airports, airlines and regulatory authorities should jointly develop measures that would improve the flow of passengers and their hand baggage through security checkpoints.

2. Methods Available for Screening Hold Baggage

Advantages and limitations of different screening methods are addressed. The screening methods discussed are:

- Manual Search
- Trace Detection
- Explosive Detection Dogs (K-9)
- Conventional X-ray
- Computer Assisted (Smart) X-ray Systems
- Passenger Risk Assessment Techniques

3. Possible Locations for Screening Hold Baggage

Each airport differs in its design and traffic characteristics, the screening method applied should be a system that suits local conditions. Each airport needs to consider the impact of cost, capacity and local operating conditions when developing appropriate solutions for both the location of screening and the methods/technologies to be used. For each possible HBS location the paper highlights the advantages, moderate disadvantages and major disadvantages.

The section is designed to be a guide to assist stakeholders determine which solution is best suited for their environment keeping in mind that each airport is very unique. The locations for HBS discussed are:

- Off-Airport Screening
- Sterile Terminal
- Sterile Security Area Before Check-in
- Screening in Front of Check-in
- Screening During Check-in
- Manual Screening
- Screening Downstream in the Baggage System (Conventional X-ray Equipment)
- Certified EDS Lobby Installations
- Combined Technologies: Three models are discussed in details:
    i. Certified EDS – Profile Filter (C'EDS-PF)
    ii. Certified EDS Automated Filter (C'EDS-AF)
    iii. German Option (Developed by the German Ministry of the Interior – Civil Aviation Security and tested at Nuremberg Airport)

4. Planning HBS Facilities

As each airport has its own characteristics, there is no single solution that is suitable for all airports. The fundamental aim is to ensure that the system that is developed can deal with current baggage throughput (including peak demand) and future forecasts (i.e. the planning has to be demand-led) and delivers an effective and efficient screening process that meets the required standards at a viable cost.

Key considerations in the successful management of HBS systems with the introduction of an in-line integrated baggage handling system include:

- The requirement to synchronise the belt speed of conveying equipment to the processing speed and capacity of the explosive detection system (EDS) technology employed
- The elimination of any potential 'bottle-necks' from hindering facilitation and the baggage transfer process by minimising inclines on the baggage sortation system and baggage handling systems
- The minimisation of inclines on the baggage sortation system, where any alterations are made to integrate with or accommodate the HBS solution in operation.

The following factors also need to be taken into consideration when planning an HBS facility:

- Testing Phase
- Traffic Characteristics
- Passenger Traffic Flows – including peak demand
- Baggage Types
- Demand Forecast
- General Constraints
- Space Requirement and Location
- Airport Structures
- Check-in Islands and Zones
- Existing Handling Facilities and Modes of Operation

- Operational Issues
- HBS Issues
- Detection Performance
- Troughput Reject Rates
- 'False Alarm' Rates
- Consistency with Passenger and Cabin Baggage Screening
- Space Requirements
- Integration with Layered Security Architectures
- Passenger Reconciliation
- Transfer and Transit Baggage
- Pre-Screening Prior to Check-in
- Size and Weight of Security Equipment
- Operation Environment of Equipment
- Redundancy of Equipment
- Operational Specifications of Equipment (including Staff Issues)
- Legislative Changes

5. Key Factors in the Screening Process

All relevant baggage must be searched/screened by a means acceptable to the relevant regulatory body. It is recommended that security staff should adopt the principle that, before security controls are carried out, the status of each bag presented for examination is assumed to be "uncleared". A bag can be designated as "clear" only when it is determined that the bag and its contents do not contain any prohibited articles. Where a bag screened by X-ray has not been "cleared", further examination procedures must be applied in an attempt to resolve the cause of the concern. The bag cannot be allowed to proceed for carriage until such concerns are resolved fully and effectively.

Where a multi-level search process is adopted, the following general principles should be applied:

- The number of search levels must be kept to a minimum.
- Relevant information must be passed on from one level to the next.
- Each successive search level must provide added security value.
- The search process should always be "fail safe".

Each successive screening level should provide clear additional security value derived from increased depth, quality and or detail of the examination.

Where the status of a bag is ambiguous, the bag should be treated as "uncleared" and subjected to the appropriate screening procedures. It is essential to ensure that no assumptions about the clearance status of a bag are allowed. X-ray operators must not clear a bag unless they are satisfied that no prohibited article is present, or in other words they must reject any bag about which they have any reservations or doubts. The system should reject automatically when:

- The operator fails to make a decision
- The bag mistracks within the HBS system
- The screening equipment fails to make a decision because insufficient information was obtained

Also, operational issues are discussed and guidelines are provided for the following topics:

- General Screening Principles (including screening of dense/opaque materials)
- Hand Searches
- Process for Out-of-Gauge (OOG)/Super-Out-of-Gauge (SOOG) Baggage
- Explosive Trace Detection Equipment

- Time on Task for X-ray Operators
- Minimum/Preferred Time for Viewing Images
- Operator Proficiency Testing
- Procedures for Dealing with Firearms, other Non-IED Prohibited Articles, Contraband and Dangerous Goods
- Communication
- Record and System Information
- Control and Management of the System (Software and Hardware Management and Operating Protocols)

6. Contingencies

Effective contingency plans have to be in place to assure that, in the event of a breakdown or failure of the HBS system, all relevant bags can continue to be screened to required standards. Examples of contingency options include:

- Diverting bags to other available HBS facilities that are in operation
- Moving passengers to other check-in desks that are linked to operational HBS facilities
- Asking some passengers to take their baggage to central search facilities
- Setting up additional hand search facilities
- Bringing in mobile X-ray equipment, etc.
- Utilizing State approved emergency baggage screening mitigation techniques

A copy of the complete IATA Position Paper on Implementation of 100% HBS can be obtained by contacting the IATA Security Section at: lachapelly@iata.org.

Attachment 2

Key Factors in the Screening Process
(IATA Position Paper on 100% Hold Baggage Screening (Excerpt) (Section 7)

7.1 General Principles

All relevant baggage must be searched/screened by a means accepted by the relevant regulatory body. For most airports this may mean one or more host States, such as the United Kingdom, the United States and the ECAC States.

It is recommended that security staff should adopt the principle that, before security controls are carried out, the status of each bag presented for examination is assumed to be “uncleared”. Each bag must be subjected to critical examination, whether by technical means, hand search or a combination of both, to determine whether the bag is clear of prohibited articles. A bag can be designated as “clear” only when it is determined that the bag and its contents do not contain any prohibited articles.

Where a bag screened by X-ray has not been “cleared”, further examination procedures must be applied in an attempt to resolve the cause of the concern. The bag cannot be allowed to proceed for carriage until such concerns are resolved fully and effectively. Where X-ray equipment is deployed (whether conventional, EDS or “certified technology”), this may require a variable number of levels or stages of examination (a multi-level search process).

Where a multi-level search process is adopted, the following general principles should be applied:

- the number of search levels should be kept to a minimum
- relevant information must be passed from one level to the next
- each successive search level must provide added security value
- the search process should always be “fail safe”.

Each search level is also a decision level which inherently involves some risk. Minimizing the number of levels in turn minimizes the risk of an incorrect decision.

Any screening process should be based on the principle of developing a more informed evaluation at each stage, building on the information obtained from previous levels.

If each stage in the process does not provide better and more complete information about the bag and its contents, the process will be inefficient and ineffective.

Information that is important for the evaluation of a bag and its contents must not be lost in the system. If the reasons for concerns identified at one level are not carried forward, additional time may be required while the operator fully reassesses the image, with the risk that the original reasons for the referral may then be overlooked. Where EDS equipment is used and the bag is rejected purely on the basis of threat or density alerts, these will be obvious to the operator at the next level. However, where concerns are not immediately obvious, they should be passed on to the operator at the next level for consideration.

Each successive level in the screening process should provide clear additional security value to enable the operator to make a more informed and reliable decision, which means that the amount and quality of information about the bag and its contents should be significantly better than at the preceding stage. The additional security value is derived from the increased depth, quality and/or detail of the examination.

This can, for example, be achieved by:

- examining the bag using screening technology with more powerful/accurate detection and diagnostic capabilities
- presenting an improved image of the bag
- using all appropriate enhancement facilities offered by the equipment where these were not used at the earlier stage in the process
- subjecting the bag and its contents to a different and more effective search technique, such as a hand search supported by trace detection analysis

However, despite the obvious advantages of such a system, there is also a danger that the operator will merely look at the potential threat item(s) highlighted and miss out on other threat items which may have been missed at the previous level(s). Perhaps technology will eventually be developed to match up highlighted areas by the two different levels of screening.

It should be noted that the provision of additional time for the operator to make an assessment does not in itself result in additional security value unless the time is used for a positive purpose. Typically, this may involve making significant additional use of the analytical and image enhancement functions of the equipment (for example, if screening at the previous level was time-limited and these facilities were not used fully).

To ensure a reliable and effective approach, it is important that equipment and procedures always “fail safe”. Where there is an equipment malfunction or failure, the system must ensure that the relevant baggage is not allowed to proceed for loading until the full screening process has been applied.

Where the status of a bag is ambiguous, the bag should be treated as “uncleared” and subjected to the appropriate screening procedures. It is essential to ensure that no assumptions about the clearance status of a bag are allowed, as these seriously undermine the integrity of the system. For example:

X-ray operators must not clear a bag unless they are satisfied that no prohibited article is present, or in other words they must reject any bag about which they have any reservations or doubts.

The system should automatically reject bags where:

- the operator fails to make a decision
- the bag mistracks within the HBS system
- the screening equipment fails to make a decision, for example because
- insufficient information was obtained

(Note: the system at the next level should ideally provide an automatic indication of the reasons for the rejection of the bag).

Where the operator is presented with an incomplete or flawed image, the bag
should in all cases be referred for further screening/examination.

The process should ensure that all bags which have not been positively cleared are identified and referred to the next level of screening or examination accurately and reliably. Where cleared and uncleared bags are separated and diverted onto different tracks, the process should be checked regularly for accuracy.

Where a bag remains “uncleared”, the final stage in the resolution process may involve a “threat assessment” of the bag to determine whether it is to be treated as suspect. Even if the assessment is that the bag is not suspect and that no escalation in action or response is required, the bag must not be passed for carriage on a flight until the specific concerns about the bag and its contents which caused its referral are fully resolved by the accepted screening/searching procedures.

It is recommended that the procedures for the process of reuniting bags and passengers and hand searching bags are practised on a regular basis, where possible so that each security operative who exercises this responsibility can practise the procedure at least once a month.

It is also recommended that the procedures for the next level of screening are practised at least once every six months. This should help to familiarize all relevant personnel with the procedures and enable any necessary improvements to be identified and implemented

Upgrades in hardware or software should be adopted as soon as practicable.

7.2 Screening Principles

7.2.1 General

When items of hold baggage are screened by X-ray, the X-ray operator must:

- examine the entire X-ray image for prohibited articles, or components of prohibited articles, where appropriate making full and effective use of the equipment's image enhancement features. In particular (but not exclusively), the operator should look for components of improvised explosive devices, including detonators, wires, batteries and electronic or mechanical timing devices. The operator should pay particular attention where the image shows dense or opaque areas that might conceal prohibited articles and areas which are highlighted as containing a potential threat item;
- check that the shading of the bag's image is consistent throughout, since lighter edges may indicate the presence of a sheet explosive that does not completely line the top or bottom of the case;
- pay as much attention to the framework and appendages as to the contents;
- examine any metallic or channelled part of a case for apparent bulges or protrusions which could partially conceal a component of an explosive device.

Where an operator cannot fully satisfy her or himself that the bag and its contents do not contain any prohibited articles or components of prohibited articles, she or he must refer the bag for further examination. The operator should not feel under pressure to "clear" the bag, or in other words where the operator has any doubts or reservations, the bag must be referred for further investigation at the next level.

7.2.2 Dense / Opaque Objects

Where the degree of absorption of an X-ray beam is significant, the relevant area of the X-ray image will indicate this, either by allocating a specific colour to the area in the case of a conventional X-ray machine, or by generating an automatic alarm and highlighting the area(s) in question (a 'density alert').

A density alert displays areas within a bag that are too dense to be penetrated sufficiently for accurate analysis. In particular, the equipment cannot complete the analysis of the areas highlighted with sufficient accuracy to be able to determine whether explosive material is present. The areas are not necessarily X-ray opaque (although they may be) but, due to the degree of absorption of the dual energy X-rays, for example with the low energy beam being completely blocked, the information provided to the X-ray operator is limited, and often significantly so.

X-ray operators should therefore note that, although there may be occasions when the use of certain image enhancement functions may elicit more information, for example by using contrast adjustment, such information cannot be relied on to provide sufficiently meaningful information about the area(s) under examination. Operators must clearly understand the value and limitations of the enhancement functions of the equipment they are using in respect of dense areas and opaque objects. As such, X-ray operators must

exercise caution when forming a judgement about areas highlighted by a density alert. The following considerations should be noted in this respect:

- The X-ray operator should assess the size of the area/item highlighted by the alert and then consider whether it could house/shield a prohibited article, in particular an improvised explosive device. (N.B. it must be understood that an opaque area not only prevents information on articles behind the area from being presented to the operator, but also information about articles in front of it. This is because the absorption of the X-ray beam is such that the information on the bag's contents for the entire line of the beam is affected). Where small areas of alert overlap an organic mass, the X-ray operator should consider whether such dense areas might shield the components of an improvised explosive device.
- The item can be examined from different angles (e.g. at 90 degrees from the angle of the original presentation of the bag), which may enable the X-ray operator to establish the size and shape of the item more clearly. In certain circumstances, a different orientation may improve the penetration of X-rays through some or all of the item and allow an effective assessment of the item. If the area or item is considered insufficient to house/shield a prohibited article, the area may be deemed to be cleared. However, it is important that the entire image is fully and carefully assessed before a decision is reached.
- X-ray operators should adopt a cautious approach to assessing areas covered by a density alert. Where *any* doubt exists, the bag should be referred to an examination level that is capable of reliably resolving the doubt, which usually means by hand search.

In most cases, the best practice to resolve concerns about a dense area or opaque object effectively is to subject the bag to further X-ray examination using higher penetration X-rays, or to search the bag and its contents by hand (supplemented by explosive trace detection analysis where available).

7.3 The Hand Search Process

Wherever possible, hand searchers should have ready access to X-ray facilities and explosive trace detection equipment to support the hand search of individual items. The aircraft operator should ensure that hand searches of hold baggage are carried out at the location specified in the approved Hold Baggage Searching Operating Protocol and that each hand search is conducted as follows:

- items of hold baggage should normally be searched in the presence of the relevant passenger;
- baggage should be opened by the passenger (when present);
- baggage should be examined to ensure that there is no false bottom, using a straight-edge gauge-rule, rod or other device where necessary to establish whether there is a significant discrepancy between external and internal measurements;
- particular attention should be paid to linings, trim, seams, rims, studs, zip fasteners, locks, hinges, wheels and handles to identify signs of tampering or repair which may indicate the concealment of a prohibited article, and where suspicion is aroused, the area(s) should be subjected to explosive trace detection equipment;
- the contents should be removed layer by layer, each being examined until the bag is empty. The empty bag should be lifted by hand and assessed for balance and empty weight. If either give rise to suspicion that the bag is not of uniform weight, or of a weight consistent with being empty, the bag itself should be examined for concealment. If necessary, it should be screened by X-ray (ensuring that an X-ray image of the bag is presented to an operator for assessment and decision);
- electrical items which might conceal a weapon or explosive device (e.g. shavers, calculators, radios, clocks, cameras, personal stereos and their cassettes, etc.) should be examined to ensure they have not been tampered with, are of the expected weight, are balanced and have no additional batteries. If necessary, an item should be screened by X-ray to ensure that it has no additional power source or that there is no organic material within what should be an inorganic shell (ensuring that an X-ray image of the item is presented to an operator for assessment and decision) and subjected to explosive trace detection equipment;

- articles such as vacuum flasks, books, umbrellas, crutches, etc., should be examined in sufficient depth, by X-ray if necessary, to establish their bona fides;
- attention should be given to the contents of containers and bottles capable of holding volatile liquids;
- liquids must be rejected when there are grounds for suspecting that they may be used to commit an unlawful act;
- searchers should look for greasy stains and small holes in the exterior of the case and for the smell of almonds, nail polish, glue, perfume or other masking vapours which might indicate the presence of explosives; and
- bags should be closed and fastened on completion of the search.

Upon completion of the search, hold baggage should not under normal circumstances be returned to the passenger.

7.4 Process for Out-of-Gauge (OOG) and Super-Out-of Gauge (SOOG) Baggage

OOG and SOOG items are those which cannot be processed through the standard baggage system because of their size, shape or weight. Many of these items can be subjected to X-ray screening using an X-ray with a larger tunnel aperture. Items which cannot be X-rayed should be searched by hand, in accordance with the principles set out above.

Some items do not readily lend themselves to a conventional hand search (such as bicycles and skis). Such items should be subjected to a thorough physical and visual examination. Items which can be detached or removed (such as bicycle panniers) should be subjected to X-ray examination, where possible. It is useful to support this process with analysis using explosive trace detection equipment applied particularly to areas where explosives may be concealed or inserted.

7.5 Explosive Trace Detection Equipment (ETD)

Trials and tests of explosive trace detection (ETD) equipment confirm that it is highly effective in detecting minute traces of explosive material where they are present.

As with all advanced technology, it is essential that operators follow the correct and appropriate procedures for the application of ETD to ensure that the equipment is used effectively. It has been clearly established that precautions taken by bomb-makers affect the likelihood of traces of explosive material being present on the outside of a bag containing an improvised explosive device and an item of hold baggage *cannot* therefore be cleared for carriage on an aircraft on the basis of ETD indicating that there is no trace of explosives on the outside of the baggage. ETD can provide significant added value to the searching process, particularly for the examination of specific items and areas within a bag in support of the hand search process, including for:

- individual items *in* bags that are difficult to search effectively by hand and those that are difficult to screen effectively using X-rays, such as laptop computers, electrical/battery-operated items;
- items specifically referred for hand search (by the X-ray screen operator or highlighted by an automatic alarm), including most items which appear opaque to X-ray operators;
- the inner lining of bags, paying special attention to the seams, joins and closure points;
- appropriate areas or parts of OOG and SOOG items.

7.6 Time on Task for X-ray Operators

The issue of how long a security agent should undertake hold baggage X-ray assessment duties without having a break is a complex issue. There is no simple answer, as a person’s performance over a period of time is strongly dependent on factors such as:

- the time of day
- the time in the shift
- the level of cumulative sleep loss
- the shifts worked previously
- the type of task and
- the workload.

X-ray assessment is a complex task and can therefore be mentally demanding. In one study, it has been observed that security staff reject more items in their first 15 minutes of monitoring. It is therefore a key principle that X-ray operators should have regular breaks.

X-ray operators should not undertake X-ray assessment duties for periods exceeding 45 minutes (Optimal assignment time being 20 minutes). A period of at least 15 minutes should then elapse before a security agent is required to resume responsibility for an X-ray monitor. (A period of duty in this context is defined as a continuous period of time during which a person has formal responsibility for X-ray assessment).

7.7 Minimum/Preferred Time for the Viewing of Images

An X-ray operator should be allowed sufficient time to make a reliable assessment of the image. The time allocated for this task is influenced by the nature and depth of the examination required at that stage of the process. For example, a key element in the added value of a specific screening level may be that no limit is placed on the time available to the operator to examine the X-ray image of a bag. This is often the case, for example, for a free-standing X-ray machine at Level 3. However, where the X-ray process is an integrated part of a continuous flow of bags (for example, at Level 2), the time available may be more limited if the baggage system is not to be disrupted significantly. In this context, the volume of bags running through a screening line may also influence the time available. The size of the bag and the complexity of its contents also affect the time required by the operator to assess the image effectively.

Nevertheless, current information suggests that operators should ideally have an average of between 10 and 15 seconds to make a reasoned and reliable decision. As a minimum, the image of every part of the item being searched should be capable of being displayed on the screen for no more than 5 seconds. Where the examination of the image takes place while the bag is continuing to move along the baggage system, the time available to an operator to make a decision is determined primarily by the distance between the X-ray machine and the divert/reject point and the speed of the conveyor system.

It is also important to take into account the time that the X-ray equipment takes firstly to analyse the data and then, where a bag is rejected, to present an image while the bag continues to travel along the conveyor. In addition, where one or more further bags are rejected in quick succession, this can reduce the time available for the presentation to the operator of the image of the second and subsequent bags.

An X-ray operator must not be made responsible for controlling more than one monitor in cases where the X-ray images presented on the monitors are time-limited. Even where the images are not time-limited, the general principle is that operators should only ever have responsibility for one monitor at any one time.

7.8 Operator Proficiency Testing

There is a need for ongoing proficiency testing of operators to ensure that they are performing their tasks at an appropriate level of competence. This testing can be undertaken in various ways including technological methods such as Threat Image Projection Systems (TIPS) which test operators by inserting images of threat items into the images of actual bags that are being processed and measure the ability of operators to spot these items automatically. Other non-technological methods such as the actual insertion of tests pieces simulating threat items inserted into actual passenger bags (with passenger permissions) or test bags again assessing the operators ability to spot such items can also be used.

No matter which method is chosen the test results must be used as a performance enhancement tool and must be shared with the operators and should also be shared with the air carriers serving the airport.

7.9 Procedures for Dealing with Firearms, Other Non-IED Prohibited Articles, Contraband and Dangerous Goods

Operators should ensure that clear procedures are published for dealing with firearms, other prohibited articles, contraband and dangerous goods identified in hold baggage, and that all relevant staff are familiar with them. These procedures should identify the organization/person to be contacted initially, the contact procedures and the relevant contact numbers. This information should be readily available at the points at which baggage is examined. Where such items are not encountered regularly, it is recommended that the procedures are practised as contingency exercises to ensure that staff are familiar with them and can act promptly and correctly when required to do so.

7.10 Communication

As noted above, information that is important for the evaluation of the bag and its contents should be carried forward through the security process until the bag is cleared. Appropriate arrangements should be made to ensure that the reasons for the concerns identified at one level are communicated effectively to succeeding levels of the process.

It is essential for the communication process to support efficient and effective responses to a range of urgent situations which may arise. These may include, for example, the detection of firearms, dangerous goods or contraband, cases in which an operator believes that she or he has positively identified an improvised explosive device at any stage in the process, or a breakdown or failure affecting the HBS system.

Relevant staff should be familiar with the required procedures for dealing with such incidents and should have immediate access to the appropriate communication system. The relevant telephone numbers, radio channel call signs, etc., should be immediately and conveniently available. These procedures should be practiced on a regular basis.

7.11 Record and System Information

Records should be maintained for the following:

- routine equipment checks and maintenance operations
- routine compliance test results
- daily bag volumes processed at each level
- specific individual records of each bag referred for a hand search, including:
    - date, time and location of search
    - name of searcher
    - name and flight number of passenger
    - reason for referral
    - details of items found and results of the search

7.12 Control and Management of the System (Software and Hardware Management and Operating Protocols)

After the initial installation has been completed successfully, there should be strict controls to ensure that no unauthorized changes are made to the security equipment, both for hardware and software (including settings). The procedures should ensure that control and approval of any changes are confined to specific

persons who are authorized to do so and any changes are formally cleared with the appropriate authority before implementation.

Staff should be fully familiar with the role and responsibilities to which they are assigned. Detailed procedures should be developed and provided to all relevant staff. Before commencing duties, staff must have effective training and familiarization for their specific role and responsibilities, together with an overview of the whole system, to ensure that they are familiar with the context in which they are operating. There should be strict controls in place to ensure that no changes are made to the established procedures unless approved by specific persons authorized to do so.

Operators may wish to consider whether the controls indicated above are to be applied through an operating protocol for each location. Such a protocol could include the equipment (software settings, etc.), maintenance and breakdown arrangements, training requirements, detailed screening/searching and resolution procedures at each level, the records to be kept, contingency plans, etc. Once established, there should be a defined process for approving changes to any element of the protocol.

APÉNDICE D

COMMENTS BY STATES & CONSULTANTS

Presentation Paper – Establishment of HBS Standard Operating Procedure (SOP) Model by IATA

ICAO – Regional AVSEC Officer
- Inquired on IATA position of States who were compliant by January 1, 2006.

IATA – Coordinator Security Services
- IATA wanted to know the status on States for compliance with screening hold baggage. ICAO had requested response from States regarding this matter.
- IATA was focusing on international flights, informing airlines and advising of contingency plans for 100% HBS.

Peru – Chief AVSEC & Dangerous Goods
- Objection in Appendix 1 of the IATA presentation regarding the in-line screening proposed at Level 1 and Level 3. Information received was on five levels, is proposal accepted by ACI also?

IATA
- Described levels in their document in the absence of ICAO Standards. IATA work was based on ECAC guidance.
- Regarding ACI, yes, it is also their view.

Brazil – DGCA
- Sub-paragraph 3.5 Requirement for State responsibility for implementation of HBS and not air carriers.
- It was stated that the State works closely with the airlines who had the responsibility for screening and that the State does not have all the resources that the airlines have to put this in place.
- Other responsibilities belong to the State.
- He proposed that the Task Force change this paragraph.

IATA
- States responsibility to set Standards, provide oversight and do all processes.
- Screening equipment add value to airport, and there are liability issues, airlines should not be held responsible for.
- Additional staffing.

Brazil – DGCA
- Does not agree with this view. IATA representative works with Brazil who has 50 international airports, airlines and with Government oversight.

IATA
- There is a general policy for airlines and a special policy for small airports at locals.

United Kingdom (UK) – Regional AVSEC Advisor
- Agreed with Brazil, UK has split the function between airport equipment and airline screening responsibility.
- Airline passenger/baggage reconciliation is the responsibility of the airline to ensure that no unauthorized bags are added.
- Airline problem, lack of responsibility for Quality Assurance.

- Airlines must take responsibility.

Jamaica – Rapporteur
- Agreed with the UK on that point.

Consultant – Aerospace Services Int'l Inc. – President & CEO
- He has had a working history with IATA from Brian Wall and 1978 (Manpads) when Rodney forced carriers to do things.
- There is a basic difference with security versus facilitation.
- We must be mindful of the USA situation, and placing interest in bottom line over proper screening.
- Mindful of need for self and airlines to make profit.
- World class security and service can't have both at the same time. National Authorities decide based on their threat what they want before meeting with stakeholders. What they need to do and work out with stakeholders.

- Sub-paragraph 4.1, HBS SOPs must not assist but "procedures must do the job".
- The President Aerospace also did a paper with David English.
- Airline systems add ??????, PANAM failed.

IATA
- What States need to do, a good point made; threat-based implementation, then apply security measures.
- Threat levels, evaluate and establish base, medium and high levels.

Honduras – Chief AVSEC Department
- Want the State totally responsible for getting equipment and say they should be part of the State's responsibility.
- In their National AVSEC programme, airlines are responsible for HBS equipment and issue procedures whilst the State will provide oversight and supervise these.
- The present economic impact the State could not bear. Airline tickets include an increase in price of US$2.50 so airlines can recover money.
- The State does not have the resources for this.

IATA
- They are aware of the situation in Honduras.
- All impacted, understand the limited resources in Honduras other States.
- They are against imposition by States without any agreement with stakeholders. In the case of Honduras, the stakeholders were involved.
- There is a danger of regulations that require airlines to be responsible.

Cuestión 10
del Orden del Día Cualquier otro asunto

10.1 **Próximas Reuniones del AVSEC/COMM y el Grupo de Expertos AVSEC de la CLAC**

10.1.1 El Secretario de la CLAC se dirigió a los miembros del Grupo de Tarea, los cuales incluyeron 15 Estados de Centroamérica, Sudamérica y el Caribe.

10.1.2 Se presentó una visión general del trabajo de la CLAC en lo relacionado a la seguridad de la aviación la cual incluyó las ubicaciones de los Centros de Instrucción AVSEC de la OACI en Sudamérica, el enfoque regional a la adquisición de equipo y las auditorías de seguridad, y se notificó respecto a los sistemas regionales que se estaban desarrollando a través de Cooperación Técnica para un sistema de vigilancia regional.

10.1.3 Las fechas para las siguientes Reuniones del AVSEC/COMM y del Grupo de Expertos AVSEC de la CLAC fueron establecidas del 29 de mayo al 2 de junio y se realizarán en Argentina.

10.2 CLAC

10.2.1 Es una Organización Regional con 21 Estados Miembro de Centroamérica, Sudamérica y del Caribe la isla de Jamaica y México.

10.2.2 La CLAC tiene ocho (8) representaciones en el Consejo.

10.2.3 México y Brasil manejan el flujo de tránsito más alto.

10.2.4 El Artículo 38 del Convenio de Chicago establece que […] ya que no cumple con la norma 4.4.8 del Anexo 17

10.2.5 La CLAC contaba con un grupo de trabajo AVSEC antes de los sucesos de septiembre de 2001.

10.2.6 La CLAC y la Sección AVSEC de la OACI trabajan en conjunto como un grupo armonizado.

10.2.7 La resolución de las políticas de la CLAC es reunirse cada tres (3) años en calidad de observadores.

10.3 Implantación de asuntos AVSEC

10.3.1 Los centros de instrucción regional reconocidos por la OACI están establecidos en Quito y Argentina.

10.3.2 Los cursos de aviación civil se realizan en Panamá.

10.4 Acercamiento Regional

10.4.1 Se han llegado a acuerdos de equipo de seguridad para su adquisición a bajos costos.

10.4.2 Se está estableciendo un mecanismo regional para llevar a cabo auditorías en la Región.

10.4.3 Vigilancia: Se están desarrollando sistemas regionales. Cooperación Técnica para los sistemas de vigilancia regional.

10.5 Conferencia 2006

10.5.1 Postura de la CLAC

10.5.1.1 La OACI estará realizando Auditorias de la seguridad operacional incluyendo todos los Anexos con la excepción del 17 – Seguridad y el 9 – Facilitación.

10.5.1.2 Directores de la CLAC (no registrados)

10.5.1.3 La siguiente Reunión está programada del 29 de mayo al 2 de junio en Argentina.