Air Line Pilots
Association International

WHITE PAPER:

Recommendations
For Improving

Air Cargo
Security

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ALPA WHITE PAPER

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Recommendations for Improving Air-Cargo Security

Because the Air Line Pilots Association's members fly passengers and cargo for 41 airlines in the United States and Canada, ALPA has a vested interest in the security of the air-cargo supply chain.

The Air Line Pilots Association, International, (ALPA) is the world's largest airline pilot union, representing more than 60,000 pilots who fly passengers and cargo for 41 airlines in the United States and Canada. ALPA has long supported the concept of "One Level of Safety and Security" in regula-tions, policies, and procedures related to all aspects of airline opera-tions, including carrying cargo on both passenger and all-cargo airliners. This document provides historical perspective on recent efforts to secure the air-cargo supply chain and offers recommendations for improving security. To learn more about ALPA, visit the Association's website, www.alpa.org.

Background

After the terrorist attacks of Sept. 11, 2001, the U.S. Congress acted promptly to further protect national security by passing legislation that created the Department of Homeland Security (DHS), the Transportation Security Administration (TSA), and numerous regulations affecting aviation security. Various government-sponsored working groups composed of aviation and security experts were convened to enhance protective measures primarily affecting passenger airline operations. Some of the resulting improvements included dramatic expansion of the Federal Air Marshal Service (FAMS), hardened flightdeck doors, revision of "Common Strategy" guidance for flight crews in dealing with hijackers or terrorists, and creation of the Federal Flight Deck Officer (FFDO) program.

This revitalized focus on airline security revealed that security regulations pertaining to cargo operations are inadequate and that the all-cargo airline industry is often exempted from complying with the stricter policies that are mandated for passenger airlines. As an example, all-cargo airlines are not required to install hardened flightdeck doors, and all-cargo pilots were initially excluded from participating in the FFDO program. Known Shipper (KS) rules are not applied in the all-cargo supply chain. Additionally, Common Strategy training is not required for flight crews of all-cargo airliners. This imbalance in applying regulatory requirements affords all-cargo operations only a fraction of the protections that are mandated for passenger airlines.

To address these and other issues, the TSA in May 2003 created three Air Cargo Working Groups within the Aviation Security Advisory Committee. These Working Groups, which included subject-matter experts from labor and industry, were chartered to examine and recommend improved security protocols related to three topics: shipper acceptance procedures, indirect air carriers, and security of all-cargo airliners. In October 2003, the Working Groups provided the TSA with 43 recommendations, which ultimately served as the foundation for an Air Cargo Strategic Plan that former DHS Secretary Thomas Ridge approved in January 2004.

In November 2004, the TSA published in the Federal Register (Docket No. TSA-2004-19515) a Notice of Proposed Rulemaking (NPRM), Air Cargo Security Requirements, which was based in large measure on the 43 recommendations of the Air Cargo Working Groups. The NPRM was

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adopted as the Final Rule on Air Cargo Security Requirements in May 2006. The Final Rule mandated a number of significant improvements to the security of the air-cargo supply chain by requiring airports, domestic and foreign airllines, and indirect air carriers to implement additional security measures.

Although the Final Rule mandated a number of major improvements to the security of the air-cargo supply chain, it still failed to apply an equal standard to the security of passenger and all-cargo airline operations in critical areas. ALPA voiced its concerns with respect to those issues in comments provided to the Federal Docket Management System in January 2005. Unfortunately, deadlines for a number of facets of the Final Rule have been extended multiple times, and full implementation of the Final Rule has not yet been achieved.

The air-cargo supply chain is a complex, multi-faceted mechanism that begins when a shipper tenders goods for transport. It potentially involves numerous intermediary organizations such as freight forwarders, indirect air carriers (IACs), and other industry personnel who accommodate the movement of goods. The process culminates when a shipment is received by airline personnel, loaded on an airliner, and delivered to its intended destination.

Because a cargo shipment is exposed to multiple security-related circumstances from the time it is tendered until it is delivered, an effective air-cargo protective system must focus on the entire supply chain and discover opportunities for, and provide reasonable measures to prevent or interrupt, malicious acts. Such a system must certify the integrity of the goods that are offered and the reliability of the shipper, properly educate and verify the trustworthiness of all personnel who maintain access to shipments, and ensure a secure operating environment. Because the movement of goods is often time-critical, this process presents a daunting challenge and complete success has not yet been achieved.

This paper focuses on all-cargo security measures that have been adopted by, or advocated to, the TSA. Because most developed countries face the same types of threats realized in the U.S., and because many of them ultimately adopt cargo security enhancements which mirror those of the TSA, the conclusions and recommendations put forward in this document are germane to Canada and other countries around the globe.

Recommendations

Since Sept. 11, 2001, a few significant changes have been implemented in passenger and all-cargo airline operations relative to the movement of goods. Being mindful that enhancements must accommodate the flow of commerce and be cost-justified, ALPA recommends the following:

• *Make Greater Use of Technology*

The air-cargo strategic plan must continue to incorporate effective, strategically located screening and inspection technology. This includes the technical means to detect improvised explosive devices, and chemical, biological, and radiological weapons or contaminants. ALPA urges the

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TSA to continue research and development of equipment that will accomplish this task. New technology must accommodate standardized industry practices relative to the expeditious movement of goods.

• Use Known Shipper Concept for All-Cargo Operations

Measures have been taken via the Known Shipper (KS) program to minimize threats that cargo shipments present to passenger airliners. However, the same protective standards are not applied to goods shipped via all-cargo airlines. Cargo and passenger airliners should be viewed equally in terms of susceptibility to exposure to risks associated with improvised explosive devices and chemical, biological, and radiological hazards.

The KS system must include an effective methodology for maintaining its integrity, accuracy, and reliability. Any decision-making process designed to evaluate a person or organization seeking inclusion in the KS database should incorporate sufficient criteria, beyond a link to terrorism, that will indicate the character, reliability, and susceptibility to compromise of the persons involved, or the potential for disruption of the air transportation system for political or economic purposes.

• *Implement Risk-Based Assessment of Cargo*

A Government Accountability Office (GAO) investigative report entitled *Federal Action Needed to Strengthen Domestic Air Cargo Security* (October 2005), plus risk assessments offered by air-cargo stakeholders and security experts, suggest that the effectiveness of the Known Shipper (KS) program is limited at best and that the program should not be relied upon as the primary method of securing the passenger air-cargo supply chain.

To supplement the protections offered by the KS program, the TSA is developing a computerized Freight Assessment System (FAS) for assigning risk metrics to cargo shipped on passenger airliners. The Aviation Security Advisory Committee, through its Air Cargo Working Group, is helping the TSA in this effort. The Working Group, composed of subject-matter experts representing various disciplines associated with the air-cargo supply chain, was chartered to develop an information-based, threat-management system that evaluates specific information about shippers and the goods they tender so that the TSA can assign a corresponding risk score to identify cargo considered to be of elevated risk. Any suspicious cargo that is detected by this risk-assessment engine will be subjected to additional inspection.

The KS program, coupled with an effective FAS, would significantly enhance aviation safety and security. ALPA believes that these cargo security initiatives should not be limited to use solely in the passenger domain, but that they should be expanded to incorporate goods transported by all-cargo airliners. We urge the TSA to expedite the deployment of FAS.

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ALPA recommends that the TSA ensure, through strict compliance enforcement, that airports and airlines adequately address the potential security vulnerabilities posed by non-SIDA operations areas, including maintaining proper staffing, selection, and training of persons who will be charged with the responsibility of performing the requisite security functions.

PHOTO: UNITED AIRLINES

A secondary flightdeck barrier in position as viewed from the galley.

• Require a SIDA for All-Cargo Operations

As a result of the Final Rule on Air Cargo Security Requirements, Secure Identification Display Area (SIDA) protocols have been implemented in some areas of all-cargo operations that are conducted at airports supporting passenger airline service. However, current regulations fail to require this important safeguard at airports that serve only all-cargo operations. This lack of SIDA standards dramatically reduces the security provided to air-cargo operations conducted at these facilities.

SIDA requirements detail perimeter security protocols, clearly define entry and exit procedures, dictate specific identification display and ramp security procedures, and are predicated on a mandatory 10-year, fingerprint-based criminal history record check for all employees who maintain unescorted-access privileges within the SIDA. Consistent application of these standards throughout the all-cargo domain would significantly enhance the protection of shipments, flight crews, and parked all-cargo airliners, and would greatly improve the background screening standards needed to properly identify and vet ramp and warehouse personnel.

ALPA proposes that any airport that serves regularly scheduled, all-cargo operations that involve transport-category airliners be required to maintain a full security plan and designated SIDA for such operations. Further, ALPA recommends that the TSA ensure, through strict compliance enforcement, that airports and airlines adequately address the potential security vulnerabilities posed by non-SIDA operations areas, including maintaining proper staffing, selection, and training of persons who will be charged with the responsibility of performing the requisite security functions.

• Install Hardened Flightdeck Doors and Secondary Barriers on All-Cargo Airliners

A significant number of all-cargo airliners lack bulkheads and flightdeck doors, leaving them without partitions that separate the flight deck from the airplane's interior. This lapse in security is highlighted by the fact that all-cargo airliners frequently carry additional, noncrew personnel, such as couriers and animal handlers. To deter persons who possess malicious intent and impede their ability to attack flightcrew members, gain access to aircraft controls, or otherwise execute a hostile takeover of an airliner, physical barriers must be designed and installed to separate the all-cargo airliner's flight deck from accessible passenger and cargo areas.

All-cargo flight decks must be clearly delineated and protected in the same fashion as the flight decks of passenger airliners, including the provision of reinforced flightdeck doors, secondary flightdeck barriers, and training for crewmembers in appropriate flightdeck access procedures.

• Vet Persons Who Have Unescorted Access to Cargo and All-Cargo Airliners

ALPA has consistently advocated a policy of "One Level of Safety and Security" for passenger and all-cargo airline operations. To best protect the integrity of the air-cargo supply chain, persons with unescorted access to

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ALPA further recommends that all persons transported on all-cargo airliners be subjected to the same pre-travel screening (checking them against current terrorist watch lists) as is applied to persons carried on passenger airliners.

shipments destined to be transported on passenger or all-cargo airliners (i.e., persons who receive, inspect, transport, and load air cargo, and those who are granted the privilege of unescorted access to all-cargo airliners) must be vetted using a thorough threat matrix that measures significantly more than a potential link to terrorism.

All persons who are granted unescorted access to cargo destined for shipment by air must be vetted by means of a fingerprint-based criminal history records check (CHRC) and threat matrix as are applied to applicants for unescorted SIDA access. This CHRC-based assessment tool should be applied equally to all persons who receive, inspect, transport, or load air cargo, or who have unescorted access to all-cargo airliners.

• Vet Persons Transported on All-Cargo Airliners

All-cargo flights often transport couriers, animal handlers, and company employees, many of whom are foreign nationals and who frequently sit immediately outside the flight deck, unsupervised and possessing items normally not allowed to be carried on passenger airliners. While the Final Rule on Air Cargo Security Requirements specifies physical screening measures for these non-crewmembers (supernumeraries) before boarding, it fails to subject them to a security threat assessment (STA) background investigation. As such, supernumeraries are allowed to board all-cargo airliners with less screening than is required for persons traveling on passenger airliners. This practice is particularly troubling in view of the fact that many all-cargo airliners lack hardened flightdeck doors, Federal Air Marshals, flight attendants, and able-bodied passengers to help protect the flight deck and crew from attack.

The Final Rule requires airlines to ensure that the direct employers of these supernumeraries have completed background checks on them and have maintained the records of same. Unfortunately, this process has not been error-free. ALPA recommends that the practice of allowing an airline and/or the direct employer to be responsible for completing these investigations be eliminated. The TSA must assume responsibility for ensuring the completion of fingerprint-based criminal history records checks for supernumeraries flying on all-cargo airliners.

ALPA further recommends that all persons transported on all-cargo airliners be subjected to the same pre-travel screening (i.e., checking them against current terrorist watch lists) as is applied to persons carried on passenger airliners.

• Provide Security Training for All-Cargo Flightcrew Members and Staff

Government-approved security training, equivalent to that required in the passenger domain, must be mandated for flight crews and ground personnel supporting all-cargo flight operations. Basic and recurrent crew training must include instruction on the All-Cargo Common Strategy and all-cargo flight crews should be provided access to TSA-issued Security Directives (SDs) and Information Circulars (ICs) that pertain to their role as In-Flight Security Coordinators (ISCs). Additionally, security training for all-cargo flight crews and ground personnel should include instruction in identifying, countering, and mitigating threats presented

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by explosive devices; chemical, biological, and radiological weapons; and other contaminants and dangerous goods.

• *Expand TSA Compliance Enforcement*

ALPA encourages the TSA to continue expanding its field inspection staff; to create a nonpunitive, voluntary self-disclosure program; and to develop and distribute security training materials to educate cargo industry employees and agents. The TSA's current Cargo Watch initiative stands as a positive example in this regard. These efforts, coupled with appropriate regulations, strict compliance enforcement, and enhanced electronic communications capabilities will significantly enhance the security of passenger and all-cargo operations.

The TSA continues to strengthen the requirements for businesses holding, or attempting to acquire, Known Shipper and Indirect Air Carrier (IAC) status and continues to bolster the security requirements relating to the acceptance, processing, and movement of air cargo. ALPA agrees that confirmation of background information supplied by IACs and Known Shippers and strict enforcement of pertinent regulations these businesses must follow is paramount to the success of cargo security efforts. All participants in the air-cargo system must qualify to participate, and they must understand the regulations and the critical need to comply with security mandates.

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• *Address Security Deficiencies at Private Airports Serving All-Cargo Operations*

Major all-cargo airlines use a number of privately owned airports as sorting facilities. These airports support significant cargo operations and a variety of transport-category airplane types, including large, widebody airliners. Unfortunately, these airports are not held to the same government-mandated security standards applied to airports operating in the public domain and are not subject to the same scrutiny in compliance efforts. As such, significant security deficiencies exist at a number of these locations.

ALPA urges government regulators to take notice of these vulnerabilities and to respond with appropriate regulations and enforcement actions. For security reasons, specific information related to this topic will not be provided within the framework of this document. However, ALPA is prepared to meet with appropriate government and industry representatives to provide them with more-detailed information and to help in remediation efforts.

• *Conduct Vulnerability Assessments and Threat Mitigation*

The success of any government-sponsored efforts to assess vulnerabilities within air-cargo supply-chain operations hinges upon meaningful consultation with associated industry subject matter experts (SMEs). Because SMEs best understand the strengths and weaknesses of

their respective operational environments, they are well-positioned to provide critical insight in any attempt to find vulnerabilities contained therein and to establish effective and efficient countermeasures to potential threat vectors.

To facilitate this process, government representatives must engage SMEs in meaningful dialogue that incorporates current intelligence related to potential threats to the air-cargo supply chain. ALPA urges all appropriate government entities to find industry SMEs from critical disciplines within the air-cargo supply chain, solicit their input regarding the strengths and vulnerabilities within their respective operational environments, and share with them current intelligence related to threats to cargo. This consultative process is necessary for government and industry partners to determine and characterize threat scenarios and develop and implement appropriate threat mitigation practices.

• *Improve Cargo Security Rule*

While ALPA did not agree with all of the requirements of the U.S. Final Rule announced in May 2006, the Rule signaled great potential for significant improvement in the security of the air-cargo supply chain. Unfortunately, implemtation of several facets of the Rule has not gone smoothly.

Confusion regarding the security threat assessment (STA) requirements led to a number of delays in implementing them. This uncertainty had an adverse effect on domestic and foreign airlines, indirect air carriers (IACs), freight forwarders, and their employees and agents. ALPA urges the TSA to clarify the rules relating to the STA process.

The Final Rule provides that *SIDA Security measures must be extended to secured areas and air operations areas that are regularly used to load cargo on, or unload cargo from, an aircraft operated under a full program or a full all-cargo program*. It goes on to say: *Each airport security program will specify the limits of the cargo operations area to be included in a SIDA, subject to review and approval by TSA.*

ALPA was disappointed to learn that at some airports where the Final Rule requires that SIDA requirements be extended to cargo areas, certain air operations areas used by all-cargo airliners have not been made part of the SIDA. ALPA urges the TSA to apply a strict interpretation and enforcement policy related to the SIDA requirements specified in the Final Rule.

ALPA commends the TSA for a number of its cargo security efforts, including increased field inspection staff and use of canine resources, research on screening technology, research on the use of container seals to certify the integrity of cargo shipments, and the continued effort to develop and deploy the Freight Assessment System (FAS).

• *Screen 100 Percent of Cargo*

Public debate has occurred over the meaning of the terms *inspection* and *screening* when applied to goods shipped in the air-cargo supply chain. Generally, *inspection* means to open and inspect the contents of a package. *Screening* signifies that some measure of security evaluation—

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Until affordable and efficient technology exists and is capable of inspecting all commodities moved via air without disrupting the normal flow of commerce, ALPA supports the layered approach to cargo security based upon a philosophy of 100 percent *screening*.

ALPA will continue to work in a collaborative spirit with its government and industry partners to discover weaknesses in the air-cargo supply chain and to encourage development and implementation of reasonable, cost-effective solutions to those challenges.

not necessarily a physical inspection—has been applied to a shipment. The *screening* system employs a layered approach, using a combination of the Known Shipper program, government inspections and enforcement, facility security requirements, vetting of supply-chain personnel, standard security programs for airlines and indirect air carriers, and in the near future, the Freight Assessment System (FAS).

Coupled with this issue of terminology has been debate related to the need for 100 percent *inspection* versus *screening* of goods moved through the air-cargo supply chain. ALPA supports the TSA's current position that all goods moved through the air cargo supply chain must be subjected to 100 percent screening, as opposed to 100 percent inspection. Current screening technology will not support the free movement of goods if inspection of every shipment is required. Additionally, in view of the layered approach to the security of the air-cargo supply chain, no need has been demonstrated to justify inspecting 100 percent of goods offered for shipment. Until affordable and efficient technology exists and is capable of inspecting all commodities moved via air without disrupting the normal flow of commerce, ALPA supports the layered approach to cargo security based upon a philosophy of 100 percent *screening*.

Conclusion

The Transportation Security Administration, in conjunction with industry stakeholders, has done significant work to improve the security of the air-cargo supply chain. But the costs associated with needed cargo-security enhancements are minimal when viewed in terms of the potential price to be paid for failing to properly protect the air-cargo industry from viable threats. Since the events of Sept. 11, 2001, cash-strapped and bankrupt passenger airlines have added multiple layers of security enhancements at their own expense, while many all-cargo airlines, currently enjoying robust growth and sustained record profits, have failed to keep pace in making such improvements.

Protecting flight crews, industry personnel, passengers, and airliners engaged in or affected by air-cargo operations requires that government and industry stakeholders cooperate in achieving effective layers of security. A threat-driven, risk-based approach must be used to find and counter existing and future vulnerabilities. ALPA will continue to work in a collaborative spirit with its government and industry partners to discover weaknesses in the air-cargo supply chain and to encourage development and implementation of reasonable, cost-effective solutions to those challenges. Failure to do so will expose the airline industry and national security to significant risk. ●