Air Cargo:
Cargo Focus Team Review & Update

Presented to: Cargo Safety Symposium
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Topics

- Why - Background
- What - Mission & Vision
- Who - Team Structure
- Accomplishments
- In Progress
- Impact on Safety
- Resources
Background

Afghanistan accident led to formation of a team to determine whether systemic problems exist in handling special air cargo loads

• Established via FAA Notice 8900.262
Background

NTSB final report on from B-747 accident published July 29, 2015

Six safety recommendations

- **A-15-13**: Revise guidance to specify use of (FAA)-approved data for methods for restraining special cargo. Remove FAA accepted data.

- **A-15-14**: Create a loadmaster certification.

- **A-15-15**: Review manuals to ensure cargo operations is based on relevant FAA-approved data (special emphasis on special cargo restraint).

- **A-15-16**: Define responsibilities for principal inspectors for the loading, restraint, and documentation.

- **A-15-17**: Initial and recurrent training for principal inspectors

- **A-15-18**: Surveillance deferrals.
Background: Part 121 WBCP Review Findings

• Source documents
  • Programs are not derived from approved sources (TC/STC WBM)
  • Operating limitations exceeded
  • WBM - Not provided or cannot be found

• Cargo Restraint Methods
  • Use of procedures not defined by TC/STC WBM
  • Computer W+B Systems – not validated, not controlled
Background: Three Classifications of Cargo

Bulk Cargo

- Individual pieces loaded and not restrained
  - (Lo-Lo = lift on–lift off)
- Aircraft structure provides necessary restraint for flight loads.
- Requires some loading skills.
Background: Three Classifications of Cargo

Unit Load Device (ULD)

• Rolled on - rolled off. (Ro-Ro)

• Grouped within a device.

• Restraint provided by system of locks restraining the device.

• Certain skills are needed, but restraint calculations not required
Background: Three Classifications of Cargo

Special cargo

- Requires advanced skills to determine how much restraint is needed based on calculations and unique methods defined in the airplane’s weight & balance manuals.

- NOTE: Some airplanes do not have structural provisions for special cargo

- More common on freighter conversions.
What is “Special Cargo”

All of this is special cargo!

Cargo placed on top of an airplane 463L pallet and restrained using straps instead of the required nets. The cargo is not a ULD.
Background: Special Cargo

Past practices:

- All outboard tiedowns are in passenger seat tracks.
  - This is not permitted due to low strength of track.
- Side of vehicle tiedown locations not permitted.
CFT Mission & Vision

• Enhance the safety of air cargo operations.
• Directly support FAA field personnel
• Act as a focal point for the integrity of air cargo operations
• Serve as the FAA’s technical experts in air cargo operations
Team Structure

- Cargo Focus Team (CFT) includes cargo subject matter experts from both Aircraft Certification Service (AIR) and Flight Standards Service (AFS)
  - Transport Airplane Directorate (ANM-100)
  - Air Transport Operations (AFS-200)
  - Aircraft Maintenance Division (AFS-300)
  - Field Inspectors (CMO- Detailee)
  - National Field Office
Accomplishments

- **Safety Alerts for Operators (SAFO)/Information for Operators (InFO)**
  - SAFO 13005 Part 121 Air Carriers Transporting Heavy Vehicle Special Cargo Loads
  - SAFO 13008 Part 121 Air Carriers Performing Special Cargo Loads Operations
  - SAFO 17003 Non-compliance with a Manufacturer’s Federal Aviation Administration (FAA)-approved Aircraft Weight and Balance Manual (WBM)
  - SAFO 17004 Cargo Retention Methods Using Pallets Straps
  - InFO 13012 FAA-approved Boeing 747 Sample Weight and Balance Manual (WBM)
  - InFO 15010 Approved WBM Supplements for Certain Boeing Aircraft

- **Notices:**
  - N8900.317 Accepting/Revising Manuals for All Parts 91K, 121, 125, and 135 Certificate Holders/Operators Transporting Cargo on Transport Category Aircraft
  - N8900.262 Review of Weight and Balance Control Programs Including Special Cargo Operations

- **Advisory Circular (AC) 120-85A, Air Cargo Operations**
  - Dated 6/25/15
  - Provides guidance for developing a cargo operations program as part of the weight and balance control program (WBCPs).
In Progress: Evaluations & Notices

• CFT is using Safety Assurance System (SAS) Certificate Holder Evaluation Process (CHEP) to evaluate WBPs

• Notice on delineation of WBP responsibilities:
  • Guidance to principal inspectors on certificate management responsibilities
  • Overview of the responsibilities between the ASI disciplines and aircraft certification. (NTSB A-15-16)
  • Display the overlap, and specific areas of discipline responsibility in relation to elements of weight and balance, airplane limitations, and cargo operations
In Progress: OpSpecs

• E096 – Title Change
  • Revised from Weight and Balance Control Procedures to Aircraft Weighing

• A002 Definitions
  • Updated with definitions for Bulk cargo, Special Cargo and Certified ULD Cargo

• Cargo OpSpecs
  • A196 – Bulk and Certified ULDs
  • A396 – 300 series OpSpec for Special Cargo
In Progress:
Loadmaster – Industry Tasking

- Aviation Rulemaking Advisory Committee (ARAC)
  - Accepted the task on March 23, 2016.
  - ARAC Loadmaster Certification Working Group (LCWG) has been formed
  - Report & recommendations due for FAA review and acceptance no later than 24 months from the publication date of this notice in the Federal Register, FY2018.
In Progress: Air Cargo Course

- Two part course:
  - FAA27100256 – Air Cargo Operations web-based training (WBT)
  - FAA21000056 – Air Cargo Operations Practical Applications Workshop (PAW) that will be held at the FAA Academy in Oklahoma City, OK.

- First FAA Class to ASIs 4/6/2017
- FAA will make these courses available for industry participation FY18.
  - Please direct all questions to Ms. Connie Stone at (405)-954-6346
In Progress: SAS CHEP

- SAS CHEP provides standard policies and procedures to evaluate Title 14 of the Code of Federal Regulations (14 CFR) parts 121, 135, and 145 certificate holders.
  - CHEP evaluation used at the national, regional, and office levels and is conducted at the national level by the Flight Standards National Field Office (AFS-900).
  - CHEP verifies compliance with applicable regulations.
  - CHEP selection process is data-driven, random and/or by request.
In Progress: SAS CHEP

• CFT is using SAS CHEP to evaluate certificate holder’s weight and balance programs (WBP).
  • CFT Evaluation team will use the same SAS data collection tools (DCT) that a certificate management team uses as part of normal oversight.
  • CFT CHEP is a custom data collection tool (CDCT) created from several of the design assessment DCTs available in SAS that focus on topics such as Flight/Load Manifests/W & B Procedures, Carriage of Cargo, Aircraft Requirements, WBP, and Cargo Handling Equipment, Systems, and Appliances.

Note: Certificate Management Team retains responsibility for day-to-day certificate management; CFT CHEP is only working to evaluate the Weight & Balance Program.
In Progress: WBCP Reviews

• 29 Cargo operations / 49 Passenger operations
  • 25 of 78 initial reviews complete
• 86% of Cargo Operators
  • 19 of 78 reviews concurred/closed
• 66% of Cargo Operators
  • Estimate completion of part 121 in 2020
• Passenger Operations and Cargo
  • 57% of cargo between the Americas and Europe is on a passenger airplane (Boeing)
  • U.S. passenger service flew 7.95 billion revenue ton miles of cargo last year. (FAA)
NOTE:
Location of Part 121 Cargo Operator CMOs

Number shown in box is the number of certificates at office
In Progress: CFT Outreach

CFT Outreach not completed

Cargo Workshop 23 CMOs

IATA

DoD

SAE

SAE/IATA April 2017

ALPA A4A

Number shown in box is the number of certificates at office at the time of CFT Outreach seminar.
Impact on Safety

CFT has enhanced safety through:

• Reducing non-compliant practices through CFT reviews

• Guidance:
  • AC 12-85A, SAFOs, InFOs

• Enhancing cargo knowledge within the FAA:
  • Outreach
  • Enhanced FAA cargo course
  • Custom cargo workshop for PIs
  • Interdependence with CMOs
Impact on Safety

Working with industry partners to create expanded methods for cargo restraint

- Atlas, Boeing, Cargolux, GE, Kalitta, National, Rolls, UPS, and VRR

Working with SAE and IATA for compliant cargo practices

Consistency

- Level playing field with U.S. carriers
- Outreach to FCAAs
Resources - Cargo Focus Team

• Cargo Focus Team (CFT) exists as a permanent technical resource for cargo operations

• For cargo operations questions or suggestions contact CFT @ 9-NATL-Cargo-CFT@faa.gov

• FAA Air Cargo Operations site: https://avsssp.faa.gov/avs/afs300/SharedInfo/CargoInfo/Pages/Air%20Cargo%20Operations.aspx