

From: [REDACTED]
To: [Hodges Michael](#)
Cc: [REDACTED]
Subject: NTSB Request 17-089
Date: Tuesday, March 28, 2017 03:55:42

Good Morning Mike,

Here is the response to NTSB Request 17-089.

FAA does not require Original Equipment Manufacturers (OEMs) to publish information regarding cargo loading. The certification assumption is that the helicopter will be used to carry *people*, unless indicated otherwise by the applicant. In the case of the AS350, Airbus did not indicate that anything other than passengers will be carried.

If the applicant wants the FAA to certify a cargo configuration, we certify the configuration in accordance with the applicable regulations. For transport category helicopters, the applicable rule is 14 CFR Part **29.855(e)** – (this denotes such cabin areas as “cargo compartments”) and **29.787**.

Part 27 does not have the 29.855(e) wording to permit cabin spaces to be used for cargo-only. However, 27.787 does provide rules for cargo compartments. The 27.787 regulation requires cargo compartment contents to not cause injury to occupants when subjected to loads during an emergency landing (27.561). This can be accomplished by showing that the structure provides protection or by using retention provisions.

Any “approved” cargo installation will be explained in the Rotorcraft Flight Manual (RFM) limitation or supplement section – (*what tie-downs are used, what straps are used, etc.*); loading instructions (*what areas in the cabin get loaded first, second, etc.*); and procedures (*walk around procedures will mention to verify cargo secured*). Operators do not have certification approval to install cargo in the cabin unless it is mentioned in the RFM or RFMS (part of the TC or an STC) – installation instructions are provided in the flight manual. It is possible that there may be some operators that have been using existing tie-downs/seat rails to tie down cargo in the cabin, and incorrectly assuming that this is a “certified” installation when in fact it is not. If a rotorcraft manufacturer or STC applicant desires to certify a configuration for the installation of cargo in the cabin, the requirements are contained in Part 27 (somewhat) and Part 29. Getting certificated for such an installation is optional. The RFM or RFM Supplement will be clear as to what is approved regarding internal cargo (if it does not mention how and where to install cargo, then it’s not certified).

Regards,

Anne

Anne Torgerson
Program Analyst

FAA

Accident Investigation Division (AVP-100)



From: [REDACTED]
To: [Hodges Michael](#)
Cc: [REDACTED]
Subject: NTSB Request 17-221
Date: Friday, August 25, 2017 09:48:48

Hi Mike,

This is in response to NTSB Request 17-221.

The AS350B2 Flight Manual presents the following:

4.2.2 INTERIOR CHECK

- Cabin..... Clean.
- Fire extinguisher Secured - Check.
- Fuses or breakers All set.
- Loads and objects carried Stowed and secured.
- Front doors jettison system Check - Plastic guard condition.

Referring to Section 6, specifically Figure 6-3 “Longitudinal location of Loads”, the area in front of the yaw pedals is not presented with a weight limit nor CG location. Additionally, there are no approved procedures to secure the load, or to remove the pedals to prevent interference and jamming. This is not intended to be a storage area (no means to secure the load). Our position is the same as in the other queries from NTSB regarding cabin cargo - operators should not be securing cargo in areas unless doing so has been FAA approved (basic design, design change, field approval, etc.).

Regards,

Anne

Anne Torgerson
Program Analyst
FAA
Accident Investigation Division (AVP-100)
[REDACTED]

From: [REDACTED]
Sent: Thursday, January 25, 2018 8:27 AM
To: McKenny Van [REDACTED]
Cc: [REDACTED]
Subject: RE: NTSB FAA Request 18-040

Hi Van,

This is in response to NTSB Request 18-040.

From a regulatory aspect: If an aircraft is not certified for a particular task, does it mean that the task is prohibited? The specific example that is being investigated is the carriage of cargo in the main cabin of helicopters certified under Part 27. Most rotorcraft operating manuals don't address the carriage of cargo. Most Part 27 helicopters do not have certification for the carriage of cargo. Does that mean the carriage of cargo in these helicopters is prohibited?

Response: The FAA's Aircraft Certification Service (AIR) certifies designs that are compliant with the applicable airworthiness standards. AIR does not approve operations (i.e. particular tasks); operational approvals are issued by the FAA's Flight Standards Service (AFS). When AIR certifies a design for a certain operation, the certification only ensures the design meets the design requirements set forth by the FAA. Approved cabin cargo designs include pertinent safety information such as maximum weight of the cargo, location of the cargo in the cabin, and how the cargo is secured to the airframe. To reiterate, a design approval of an aircraft by the FAA is not an approval to perform specific operations in that aircraft type; Approval for specific aircraft operations is granted by the local AFS office.

The FAA has now provided responses to five NTSB requests (17-173, 17-207, 17-221, 18-023 and 18-040) related to this topic. Our understanding is that the NTSB is concerned about operators flying with cargo in the cabin compartment of helicopters without an FAA-approved cabin cargo configuration. As previously stated by FAA, if an FAA-approved cargo configuration has been published for a specific aircraft, the flight manual for that aircraft is where the information will be found.

Regards,

Anne

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U.S. Department
of Transportation

**Federal Aviation
Administration**

Office of Accident Investigation & Prevention

800 Independence Ave., SW.,
Washington, DC 20591

August 29, 2017

Mr. Michael Hodges
National Transportation Safety Board
Office of Aviation Safety, Alaska Regional Office
222 West 7th Avenue Room 216, Box 11
Anchorage, AK 99513

Dear Mr. Hodges:

This letter is in response to request no. 17-173 regarding helicopter internal cargo compartment certification. This request is one of several from you to support your investigations into two separate AS350 helicopter accidents that occurred in Alaska (*NTSB case nos. ANC16LA022 and ANC16FA023*). In your most recent email regarding the status of this request, you indicated that if you do not receive an update by September 25, you will “*note that after multiple inquiries, the Rotorcraft Directorate failed to respond...*”

As you know, we have expended a significant amount of time and research in providing you with information and formal answers regarding your previous requests related to this issue (nos. 17-089 and 17-221). This most recent request now would require that we perform a significant amount of research for *43 additional helicopter models*, none of which were involved in the two accidents that you are investigating.

Certification to carry cabin cargo for each specific helicopter cited in your spreadsheet could have been granted through a Type Certificate (TC), Amended Type Certificate (ATC), Supplemental Type Certificate (STC), TC design change, or STC design change. Approved cabin cargo designs include pertinent safety information such as maximum weight of the cargo, location of the cargo in the cabin, and how the cargo is secured to the airframe. NTSB request 17-173 would require coordination and data reviews with the various entities that provide certificate management over these 43 helicopter models, including the various FAA Aircraft Certification Offices, rotorcraft design holders, STC holders, and foreign aviation authorities for imported rotorcraft. Moreover, if an effort of this magnitude were to be undertaken, some of the data may no longer provide an accurate reflection because information may have become outdated and/or individual aircraft may or may not have been modified by kits.

Because of the significant resource and time commitment that would be required for this research effort, and due to the lack of any accident/incident or risk assessment data justifying such an effort, I have advised the Rotorcraft Directorate to not initiate the work needed to fulfill this request. The FAA currently has a significant amount of higher priority Continuing Operational Safety (COS) work.

I recognize that you are concerned about helicopter operators flying with cargo in the cabin compartment without an FAA-approved cabin cargo configuration. However, the determination regarding FAA approvals can be made more accurately, and with significantly less resource investment, by examining the individual aircraft flight manual of the specific helicopter involved in the accident. Also, while a definition for a cargo/baggage compartment in rotorcraft does not exist, the FAA has interpreted this as a compartment (enclosed area) that is separated from the cabin (passenger area). The cargo/baggage compartment may be accessible or inaccessible while the aircraft is in flight – there are requirements for each configuration. Additionally, be advised that we are not aware of any documentation that would prohibit Part 27 rotorcraft from carrying cargo in the cabin, even if a certification does not exist for that helicopter.

Please accept this letter as our final answer to your request, and feel free to utilize it in your final report in any manner you wish. Please contact me by email at [REDACTED], or telephone at [REDACTED] should you have any further questions regarding this matter.

Sincerely,

[REDACTED]

Jeffrey Guzzetti
Director, Accident Investigation Division (AVP-100)