



Federal Aviation Administration

Memorandum

Date: **MAR 20 2019**

To: Rick Domingo, Executive Director, Flight Standards Service, AFX-1
Earl Lawrence, Executive Director, Aircraft Certification Service, AIR-1

From: Regulatory Consistency Communication Board (RCCB)

Subject: Western Global Airlines Calendar Time Gear Overhaul Interval Extension Requests

Action Required

Concur on the resolutions facilitated by the Regulatory Consistency Communication Board (RCCB).

This memo will serve as documentation of the resolution of the issues described below.

Summary of Submission

In October 2018, the RCCB received a submission from National Air Carrier Association (NACA) on behalf of Western Global Airlines (WGA). The submission reported that WGA is not allowed to use their continuous airworthiness maintenance program (CAMP) as outlined under § 121.367 and that a paragraph in FAA Order 8900.1 contains statements that prevent the certificate management office (CMO) from granting a calendar time extension on landing gear overhaul intervals. Additionally, the submission stated, "WGA added five MD-11 to their OpSpec and restored storage time on all the gears prior to September 2017. The restoration of storage time per the approved Boeing maintenance program was allowed by the ACO not the local CMT. In September of 2017 that responsibility shifted at the FAA from the ACO to the CMT and based on the CMT's handbook guidance the CMT would not allow the restoration of storage time."

Background

Request History

WGA made multiple requests for the FAA to allow a calendar extension to the overhaul interval for MD-11 aircraft landing gear. Requests for these calendar extensions were made on September 26, 2013 and September 24, 2014 (for MD-11 S/N 48435), February 16, 2015 (for MD-11 S/N 48412), September 30, 2015 (for MD-11 S/N 48411), March 28, 2016 (for MD-11 S/N 48523), and July 20, 2017 (for MD-11 S/N 48788).

WGA stated the aircraft were in storage and preserved per the Boeing MD-11 Maintenance Planning Document (MPD) requirements and the landing gear had low utilization with more than half of the cyclic overhaul limit of 7500 cycles remaining. The aircraft were owned and placed in storage by certificate holders other than WGA.

The initial request was forwarded by the CMO to the Aircraft Evaluation Group (AEG). Subsequent requests by WGA were forwarded by the CMO to the Los Angeles Aircraft Certification Office (LAACO) and did not include the AEG. In response to the first four requests, the LAACO provided an engineering evaluation to the CMO, which concurred with the request to extend calendar time for the restoration tasks. The CMO thought this concurrence was an approval and sent communication to WGA.

In response to the latest request received by the LAACO dated July 20, 2017, the LAACO concurred with the extended calendar time request, but also advised the CMO that the previous evaluations concurring with the extensions were each considered one off and were not intended as a fleet maintenance plan. The LAACO further requested that the CMO have the operator work within their authorized CAMP, which should include sufficient data to substantiate any calendar time escalations within their program.

Currently, WGA has additional requests to extend the calendar overhaul interval with the CMO.

Maintenance Review Board Report

The MD-11 landing gear time restoration task (main, center, and nose) is a Maintenance Steering Group 3 (MSG-3) Failure Effect Category 5 task (Evident Safety), with an interval of 7500 flight cycles or calendar time of eight years, whichever occurs first. The restoration task must reduce the risk of failure to assure safe operation. These restoration task intervals were established and supported by engineering analysis and world-wide operational data. The task intervals are then published in the Maintenance Review Board Report (MRBR), and approved by the Industry Steering Committee (ISC) Chair and Regulatory Maintenance Review Board (MRB) Chairs.

MRBR calendar intervals established under MSG-3 are based on an expected measure of exposure to elements having a direct effect on the identified failure effect. The assignment of a calendar (time-based) interval is based on the expected exposure over time, without respect to aircraft utilization (flight hours and cycles). Calendar-based tasks are designed and assigned because the effects of time and environment do not change or otherwise differentiate between periods when an aircraft is not flying versus the time the aircraft is in maintenance, storage, or any other non-flying status.

If WGA or other members of the industry believe that "clock stoppage" as described in this memo should be adopted as an industry norm within MSG-3 and MRBR calendar intervals, they can pursue the issue with the Maintenance Program Industry Group (MPIG), which is chartered by Airlines For America. If accepted, the MPIG will forward the matter to the International Maintenance Review Board Policy Board (IMRBPB) for consideration and resolution.

Actions Taken

Between October 2018 and March 2019, multiple telecons were held with Flight Standards (FS) and Aircraft Certification Service (AIR) personnel to discuss these issues. Stakeholders represented included the AEG, Aircraft Maintenance Division; FS Office of Safety Standards; Policy and Innovation Division, AIR-600; and the LAACO.

The RCCB addressed the following questions as a result of this submission.

Question 1: What is the role of a CAMP and how does it relate to the OEM's landing gear storage program?

The FAA understands that WGA has included as part of their CAMP, aircraft storage procedures recommended by the original equipment manufacturer (OEM). This aligns with the basic intent of AC 120-16G, Air Carrier Maintenance Programs, Chapter 3, Air Carrier Maintenance Manual, which states "[Air Carriers can derive their] maintenance manual contents from the manufacturer's publications." The FAA is not aware of any OEM-approved aircraft storage procedures that allow credit toward a time limitation for the period in storage.

The FAA is not aware of any WGA effort to revise their current CAMP to include an aircraft storage program that allows for "clock stoppage" or similar "credit" toward an established calendar time limit based on the period of time the aircraft are in storage. In accordance with current FAA policy, clock stoppage procedures based solely on the aircraft storage procedures recommended by the OEM would not be acceptable to the FAA, even if it were proposed.

WGA correctly cites FAA guidance in their submission. FAA Order 8900.1, Volume 6, Chapter 2, Section 38, Evaluate a Part 121/135.411(a)(2) Operator Aircraft Storage Program, does not allow for "clock stoppage" or any other credit for storage time towards calendar-based time limitations (see paragraphs 6-1047 and 6-1051 D.). This policy is based on technical considerations of the effects of time and environment on systems and components identified during the MSG-3 maintenance development process.

The OEM's recommended storage procedures in the aircraft maintenance manual (AMM) are not intended to be "preservation" that results in credit toward any interval specified in the certificate holder's time limitations. OEM storage procedures do not pause or otherwise negate the effects of time and environment on the failure mode for which the calendar-based task was initially established.

WGA's authority under their current CAMP - D089, Maintenance Time Limitations Section, (§ 119.49(a)(8) and § 121.135(b)(18)) - is to propose to the FAA time limitation changes for the continuing success of their maintenance program. Even though WGA's previous proposals were submitted and handled as one-off requests to change the time limitation of a specific gear set/serial number, WGA has in fact, regularly exercised the authority granted them under their current CAMP.

CAMPs apply to aircraft that are listed on an operator's Operation Specification (OpSpec). The gear in question did not come off aircraft listed on WGA's OpSpec. Therefore, these gear sets should be viewed no differently than any other aircraft part purchased from another operator or supplier.

Question 2: Why is the LAACO no longer issuing engineering evaluation memos for calendar interval gear overhaul extensions?

Communication history indicates that the first request related to S/N 48435 was routed through the AEG, but the response back to the CMO indicating concurrence came directly from the ACO. Subsequent requests were sent directly from the CMO to the ACO. There is no indication these subsequent requests were coordinated with the AEG. Per current guidance in FAA Order 8900.1, Volume 3, Chapter 64, Section 1, requests for adjustments to the task intervals and/or time limitations for failure effect category 5 tasks are coordinated through the AEG.

ACO engineers are not typically familiar with the maintenance time limitation procedures in Order 8900.1, since this is guidance for FS and not directed to the ACO. The ACO engineer responded to requests from the CMO in the manner the ACO was accustomed to responding to other FS requests for engineering assistance. When the ACO received the last request from the CMO, dated July 20, 2017, they realized that the requests sent by the CMO were not going through the appropriate channels. The ACO will review requests for engineering evaluation only if they are submitted from the CMO through the AEG in accordance with existing procedures.

The FAA acknowledges that the initial request related to S/N 48435 was coordinated through the AEG. The basis of the AEG's concurrence is unknown.

However, had all of WGA's requests been coordinated through the AEG, they may not have received concurrence, as the AEG would evaluate the proposal against the principles of MSG-3. Both MSG-3 and FS policy do not recognize the concept of "clock

stoppage". Additionally, the MSG-3 process is for aircraft that are on the operator's OpSpecs and are for maintenance program escalations substantiated by data.

Concur: Full C. Anty

Concur: Stephen D. Chandler

Date: 3.20.19

Date: 3/26/19

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