



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

Aviation Safety

Southwest Airlines Certificate  
Management Office  
Freeport Office Center III  
8700 Freeport Parkway, Suite 250  
Irving, Texas 75063  
Telephone: 214-277-0200  
Fax: 214-277-0290

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Southwest Airlines Co  
Michael G. Van de Ven  
Chief Operating Officer  
2702 Love Field Drive  
Dallas, Texas 75235-1611

Mr. Van de Ven:

The Federal Aviation Administration (FAA) has concerns regarding the status of 88 airplanes—referred to by Southwest Airlines (SWA) as the Skyline Aircraft—that were operated by foreign air carriers prior to being purchased by SWA for use in its fleet. This letter, which is prompted in large part by SWA's recent Quarterly Report for the Skyline Aircraft Repair Assessment Program (RAP), describes the FAA's concerns and outlines actions that the FAA expects SWA to undertake expeditiously in order to ensure safety.

As a threshold matter, I want to emphasize that SWA is responsible for the conformity of its aircraft with airworthiness requirements. The RAP is a tool that SWA proposed to satisfy its responsibility for the 88 aircraft in question. The FAA reserves the full scope of its authority to hold SWA accountable for meeting this responsibility. Within this context, and with safety as the top priority, the FAA is concerned by SWA's slow pace in completing the evaluation of aircraft under the RAP. SWA's recent quarterly report shows that SWA has assessed just 39 airplanes (or 44 percent) of the 88 airplanes that are the subject of its Skyline Aircraft RAP, even though just over eight months remain of the 24-month program that is scheduled for completion by July 1, 2020. Given the slow pace of SWA's evaluations of the affected airplanes, the FAA has concerns about SWA's commitment to meeting the July 1, 2020, deadline for completing its RAP and resolving the important safety issues the RAP was intended to address.

The October 4 report included the following data on the first 39 airplanes evaluated under the Skyline Aircraft RAP:

- Aircraft Reviewed: 39
- Repairs Evaluated: 488
- Total Findings: 72 on 24 Aircraft
  - Undocumented repairs – Substantiated via Equivalency: 18
  - Undocumented repairs – Did not meet Equivalency: 12
  - Documented repairs – Did not Conform: 42

We understand that SWA has corrected the non-conforming or undocumented repairs, and all 39 of these aircraft are now in conformance with FAA airworthiness requirements.

The FAA is concerned that the findings of non-conforming and undocumented repairs in the first 39 airplanes to go through the Skyline Aircraft RAP may establish a trend that will be repeated in remaining 49 Skyline Aircraft to be assessed. More importantly, the FAA is concerned about the safety risk posed by any undocumented or non-conforming repairs in the airplanes yet to be evaluated under the Skyline Aircraft RAP. If undocumented or non-conforming repairs affect major or critical structures on any of the remaining 49 Skyline Aircraft, a safety risk requiring immediate action could exist. The FAA does not know whether SWA has developed, and is not satisfied that SWA has proffered, enough information to fully understand the risks presented by the potential for latent undocumented or non-conforming repairs in the remaining 49 aircraft.

In light of these circumstances, the FAA expects SWA to conduct an immediate Safety Risk Analysis (SRA) under its Safety Management System to determine whether the issues identified in the evaluation of the first 39 aircraft establish a trend that will be repeated in the remaining 49 aircraft, and whether that trend requires an acceleration of the July 1, 2020, deadline for completing its RAP. In doing this analysis, SWA should specifically consider how to complete its assessment of the remaining aircraft faster than the remaining eight months under the RAP. The SRA also should specifically consider the 42 non-conforming major repairs identified during the evaluation of the first 39 airplanes and how to apply the lessons learned from the evaluation of those 39 airplanes. The FAA expects that SWA will be able to provide the FAA with that SRA within two business days or sooner of the receipt of this letter.

The FAA further expects SWA to conduct an SRA for each of the remaining 49 aircraft to identify the specific issues that may affect the condition of a particular aircraft. In support of its SRA, SWA should consider (at a minimum) the following critical information as part of the review:

- Whether any of the 49 remaining Skyline Aircraft have experienced any accidents or incidents, including, but not limited to, any of the following:
  - Hard Landings
  - Tail Strikes
  - Lightning Strikes
  - Bird Strikes
  - Ground Vehicle Strikes
  - Aircraft Damage (e.g., wing strikes, primary structure damage, flap or slat damage, etc.)
  - Uncontained Engine Failures
- Whether any of the 49 remaining Skyline Aircraft have experienced the following maintenance issues during their service life:
  - Repairs to Fatigue Critical Baseline Structure (FCBS)
  - Subsequent ADs/Maintenance Instructions released since July 2018 that may impact the RAP inspection areas or impact uninspected Major Repairs
- An evaluation of all FOQA data to assess:
  - Unstabilized Approaches
  - Slat Misalignments

- Overspeeds
- An analysis of DFDR Downloads for negative trending and/or anomalies or exceedances that may be indicative of primary structural areas or fatigue critical areas.
- Whether the RAP entry schedule for a particular aircraft must be adjusted in light of:
  - The foreign air carrier that previously operated the aircraft or the country from where the aircraft was imported, including whether previously evaluated aircraft from a particular carrier or country required more repairs, or more significant repairs, after undergoing an evaluation under the RAP.
  - The number of cycles experienced by a particular aircraft.

The FAA expects that SWA will be able to provide the FAA with the aircraft-specific SRA within seven business days or sooner of the receipt of this letter.

Based upon the information that SWA reports back, the FAA will consider further appropriate action in the interest of safety. In the event that SWA is unable to provide the requested SRAs within the time periods specified, the FAA will determine the appropriate next steps with regard to the remaining 49 aircraft with the information the FAA currently has in its possession. If the FAA's concerns about the aircraft are not adequately addressed, the FAA may exercise remedies up to and including grounding the aircraft until SWA completes its evaluation of those aircraft under the Skyline Aircraft RAP, or significantly accelerating completion of the RAP.

We look forward to SWA's prompt response regarding the important safety issues presented.



John Posey  
Manager, Southwest Airlines CMO

ecc: Barry S. Brown, Agent for Service;