Subject: Review of Flight Data Recorder Data from Non-revenue Flights

Purpose: This SAFO is issued to encourage all airlines operating under Title 14 of the Code of Federal Regulations (14 CFR) part 121, that have the capability to review flight data recorder (FDR) data, including in particular regional airlines, to review FDR data from non-revenue flights for safety analysis purposes.

Background: Approximately 25% of accidents involving turbine powered aircraft during the past decade have occurred during non-revenue flights (e.g., ferry flights for maintenance purposes or re-positioning flights to pick-up passengers). During this same period, the technology needed for an airline to download and analyze FDR data has become significantly more accessible, either through the airline's acquisition of more affordable FDR data acquisition and analysis technology, or through the use of readily available vendor services.

Discussion: Two common factors found by the National Transportation Safety Board to have been contributory in non-revenue flight accidents are:

1. the flightcrew's failure to adhere to standard operating procedures (SOPs) and,
2. the flightcrew's failure to operate the airplane within its performance limitations.

Flight Operational Quality Assurance (FOQA) programs presently in operation by most major U.S. airlines have clearly established the capability of FDR data analysis to objectively identify the occurrence of both such factors.

Recommended Action: All air carriers operating under part 121 that have the capability to review FDR data, including in particular regional airlines, should place special emphasis on reviewing FDR data from non-revenue flights in order to verify that the flights are being conducted according to standard operating procedures (SOP). If FDR analysis indicates a potential trend of SOP non-compliance during such flights, that information should be communicated to appropriate airline management personnel for action to mitigate associated risks. If FDR data indicates noncompliance on the part of an individual crew, it is recommended that the information be communicated to the Chief Pilot and, if applicable, to Professional Standards group in the labor association, for the purposes of crew contact discussion, counseling and safety education.