



National Transportation Safety Board

Taxiway Overflight

Air Canada Flight 759, Airbus A320-211, C-FKCK

San Francisco, California

July 7, 2017

Operational Factors

presentation



Overview

- Flight crew requirements to
 - Manually tune instrument landing system (ILS) frequency
 - Verify that navigational aids programmed
- Frequency information in approach guidance

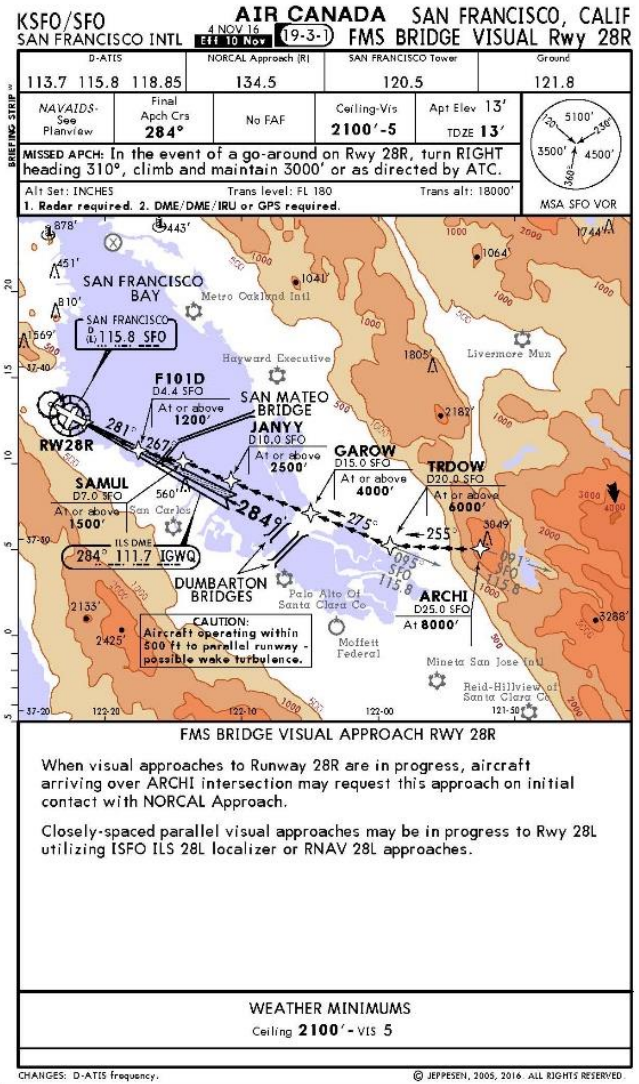
Approach to Runway 28R

- Flight Management System (FMS) Bridge visual approach to 28R required manual tuning
 - First officer did not enter ILS frequency
 - Captain did not verify that frequency was tuned
 - First officer stated he “must have missed” frequency
- Flight crew could not take advantage of lateral guidance to ensure proper alignment

Manual Tuning of ILS Frequency

- FMS Bridge visual approach was only approach in Air Canada's A320 database that required manual tuning
- Related step in approach guidance not conspicuous

Approach Chart



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Approach Chart

KSFO/SFO **AIR CANADA** SAN FRANCISCO, CALIF
4 NOV 16 19-3-1A EST 10 Nov SAN FRANCISCO INTL

FMS BRIDGE VISUAL APPROACH RWY 28R (RNAV 28R)

The FMS Bridge Visual Approach is coded as the RNAV 28R Approach. Selecting this procedure will display the entire approach procedure, including missed approach guidance.

The FMS Bridge Visual Approach must be requested on initial contact with NORCAL Approach.

Embraer
Select the RNAV 28R approach from the database. Manually tune and preview the ILS 28R. Intercept the FMS Bridge Visual in LNAV and descend via the profile.

A319/320/321
Anticipate crossing ARCHI at 8,000'. Select the RNV28R approach from the database. Tune the ILS 28R. Intercept the FMS Bridge Visual track in NAV and descend via the profile. At or before F101D, disengage autopilot and continue as per Visual Approaches (SOP).

The FMS Bridge is responsible for additional restrictions. Follow the FMS clearance for the following phrase: THOUSAND, IN APPROACH CO

A319/320/321
Anticipate crossing ARCHI at 8,000'. Select the RNV28R approach from the database. Tune the ILS 28R. Intercept the FMS Bridge Visual track in NAV and descend via the profile. At or before F101D, disengage autopilot and continue as per Visual Approaches (SOP).

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Summary

- Recommendation proposed to
 - Determine air carrier autotuning capabilities
 - Identify approaches that require manual frequency input
 - Develop solutions to address required manual frequency input



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