

**JOHN WAYNE  
AIRPORT**

Orange County, California

**Alan L. Murphy**  
Airport Director

July 12, 2010

Mr. William C. Withycombe  
Regional Administrator, Western-Pacific Region  
Federal Aviation Administration  
15000 Aviation Boulevard  
Hawthorne, CA 90250

Dear Bill,

The development and implementation of a new RNAV/RNP procedure at John Wayne Airport (JWA) has proven to be lengthy and complex. The Airport and the City of Newport Beach appreciate the time and energy that you and your staff have dedicated to ensuring that the new RNAV meets FAA's operational and safety standards as well as the community's desire for a procedure that mirrors the traditional departure path.

The first two RNAV departures defined for use at JWA, the DUUKE ONE and the DUUKE TWO, resulted in a shift of aircraft to the east side of the Newport Back Bay. FAA is currently developing a new RNAV departure for use at JWA, the "STREL ONE," that is intended to more closely follow the center of the Bay. To ensure that we have a clear understanding of the new RNAV and its likely consequences, JWA has asked Mr. Vince Mestre of Mestre Greve Associates Division of Landrum & Brown and Dr. John-Paul Clarke of the Georgia Institute of Technology to assist us. Both gentlemen are eminently qualified to review and provide input on the proposed procedure.

Mr. Mestre and Dr. Clarke have reviewed the materials provided to participants in the June 9, 2010 conference call regarding the STREL ONE. They have also reviewed flight track data and measured noise levels associated with the DUUKE ONE and DUUKE TWO. Based on Mr. Mestre's and Dr. Clarke's review, and our discussions with the City of Newport Beach, we would like to provide you with a few comments and suggestions regarding the STREL ONE and any future RNAV departure.

Flight tracks, noise data and comments received from residents indicate that the DUUKE ONE and DUUKE TWO procedures have resulted in an initial turn (to 175°) that is too early and in aircraft flying approximately 500 feet east of the center of the Bay. It is important to note that the DUUKE procedures have produced a highly repeatable flight path, albeit one further east than desired.

3160 Airway Avenue  
Costa Mesa, CA  
92626-4608  
949.252.5171  
949.252.5178 fax  
www.ocair.com



William C. Withycombe

July 12, 2010

Page 2

We believe that the aircraft systems anticipate this early turn and, based on high resolution ADS-B tracking, it appears the aircraft are making a slight right turn to get back on the proper track. By the time aircraft reach the Airport's Noise Monitoring Station #7 (NMS7S) at Newport Dunes, they have returned to the desired track.

FAA has advised that, to correct the eastward shift in flight tracks, the STREL ONE includes a shift in the existing DUUKE waypoint west to a new location which would, theoretically, result in a delay in the turn and movement of aircraft operations more to the center of the Bay. However, it appears that STREL ONE maintains the same heading as DUUKE ONE and DUUKE TWO, but on a parallel course west of the original course. We are concerned that this combination of a new waypoint to the west and the use of the same course will result in a shift of aircraft toward the center of the *upper* Bay (between NMS4S and NMS5S), but will also move aircraft west of the traditional SID in the *lower* Bay (near NMS6S) and adversely impact communities in that location.

Dr. Clarke and Mr. Mestre have recommended, and we concur, that FAA consider: (1) retaining the turn location proposed in the STREL ONE; (2) establishing a new waypoint at NMS7S; and (3) moving the DUUKE waypoint to the east. Based on their preliminary analysis, it appears that a 173° heading, based on a waypoint at NMS7S, would create a turn point where the STREL ONE turn point is currently planned. Assuming aircraft would continue to turn early, as they have with the DUUKE procedures, the track should follow the middle of the Bay and cross over NMS7S. From this point, aircraft would make a slight right turn to continue on to the existing DUUKE. We are aware, however, that some carrier representatives have expressed concern about unnecessary turns that result in both discomfort to passengers and additional expense to the air carriers due to fuel burn. The creation of a second new waypoint about 300 feet east of DUUKE could keep aircraft on a straight line from the turn over NMS7S and out to the new waypoint and would allow carriers to fly a more direct route to the east.

Based on our experience with the DUUKE procedures, we recognize that the RNAV design and simulation process does not always provide an accurate picture of where aircraft will fly once a new procedure is used in day-to-day operations. As a result, we recommend that FAA work with JWA's existing carriers to conduct test flights with the new STREL ONE before the procedure is published. In order to provide the best tracking data, it would be advantageous to have ADS-B equipped aircraft perform the test flights. These flights would allow FAA, JWA, the carriers and the Newport Beach community to better understand whether the STREL ONE will, in fact, perform as intended.

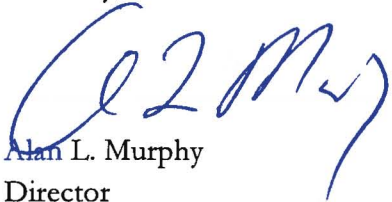
William C. Withycombe

July 12, 2010

Page 3

Again, thank you for your time and attention to this important matter. Please do not hesitate to contact me if you have questions or would like to discuss this matter further.

Sincerely,

A handwritten signature in blue ink, appearing to read "Alan L. Murphy". The signature is stylized and cursive.

Alan L. Murphy

Director

Attachment

cc: Supervisor John Moorlach, Second District  
Mr. Dave Kiff, City Manager, City of Newport Beach  
Mr. Vince Mestre  
Dr. John-Paul Clarke

