

August 28, 2014

Ms. Margaret Gilligan  
Associate Administrator for Aviation Safety  
Federal Aviation Administration  
800 Independence Avenue  
Washington, DC 20591

Dear Peggy:

The Performance-based operations Aviation Rulemaking Committee (PARC) is pleased to submit the following recommendations which address two issues that were requested by FAA and Industry. These two items are 1. Design criteria for utilization of the 'Open SID' concept, and 2. A description of how using local winds in design criteria should be approached.

The PARC Navigation Working Group was assigned these tasks, which they completed in July 2014. The WG recommendations were approved by the PARC SG at the August 21, 2014 meeting, and I have attached each recommendation to this letter.

PARC has retained a history of meetings and backup substantiation of conclusions on the PARC website. The PARC appreciates your continued support of its activities and invites you to discuss any aspects of these recommendations at your earliest convenience. The PARC respectfully requests the FAA to provide the PARC with a formal response.

Sincerely,



Mark Bradley  
Chairman, PARC

Cc: R. Dunham  
M. Steinbicker  
B. DeCleene  
M. Cramer

## HISTORICAL WINDS RECOMMENDATION

The PARC SG tasked the Navigation WG with defining how historical local winds and directions could be optionally utilized in lieu of the currently utilized, non-directional wind values computed from the ICAO formula utilized in 8260.58A, Volume 6, calculator 1-3b. Current practice is not documented in the order, it is simply allowed rather than specified. The WG reached consensus on the method in its July F2F meeting in Denver and the PARC Steering Group concurred on August 21, 2014.

Beginning in January 2014, the WG began studying turns and winds in general, but eventually limited its investigation to the definition of a method for finding, interpolating and applying local historical winds and their directions to the calculation of turn radii for both fly-by and RF cases. There was an informal paper method in use by some lead carriers based on tabular data that can be produced by MITRE. It was somewhat more conservative than necessary, particularly in how the directionality was applied, so the WG updated the method. The recommendation assumes the availability of a web-based tool in the future, however, for the interim the method can be applied using the tabular data that MITRE can generate on request from lead carriers or others who want to apply the method.

The method (attached) basically specifies how to derive the wind value from the RUC historical data and nearest grid points, defining the value at the turn location and altitude. It specifies a range of directions relative to the turn start and end from which the highest 99% wind speed must be selected for application to the turn design. We recognize that this may not always be a lower value than the ICAO winds, which in some instances might provide a more robust solution than just applying the “standard” values. The Navigation WG wrote draft criteria that could be incorporated directly into the Order.

The PARC recommends that this methodology and draft criteria be accepted by the FAA for implementation in the coming update to Order 8260.58 in 2015.