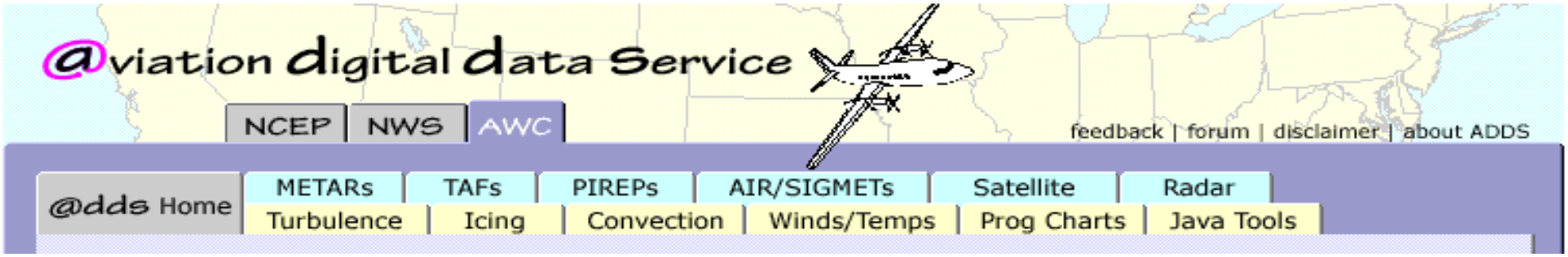


Performance Measures

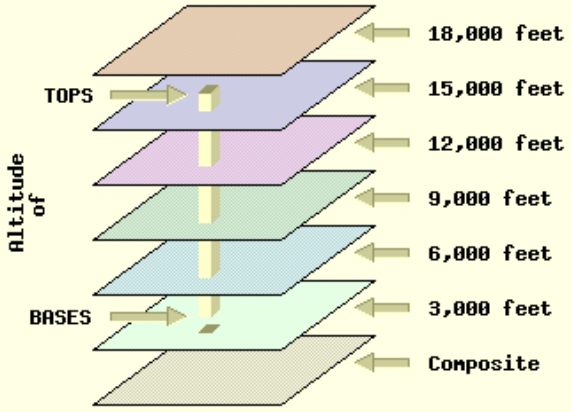
Friends and Partners in Aviation Product Generation Panel

Jennifer Mahoney
Forecast Systems Laboratory
and
Barbara Brown
National Center for Atmospheric Research

23 October 2002

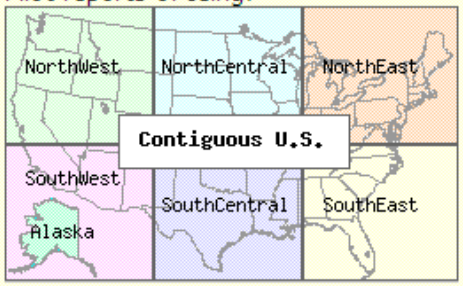
- Current/Forecast Icing Potential (CIP/FIP)

  - (•) All Icing
  - ( ) SLD (Supercooled Large Drops)
    - (•) 00 hour analysis (CIP)
    - ( ) 03 hour forecast (**experimental** FIP)
    - ( ) 06 hour forecast (**experimental** FIP)
    - ( ) 09 hour forecast (**experimental** FIP)
    - ( ) 12 hour forecast (**experimental** FIP)



- Freezing level graphics:
  0-hour 3-hour 6-hour 9-hour 12-hour

- Pilot reports of Icing:



- Current Icing advisories:

- CIP Performance Statistics.
- Method to download CIP/FIP files in **GRIB** format.

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CIP Performance statistics

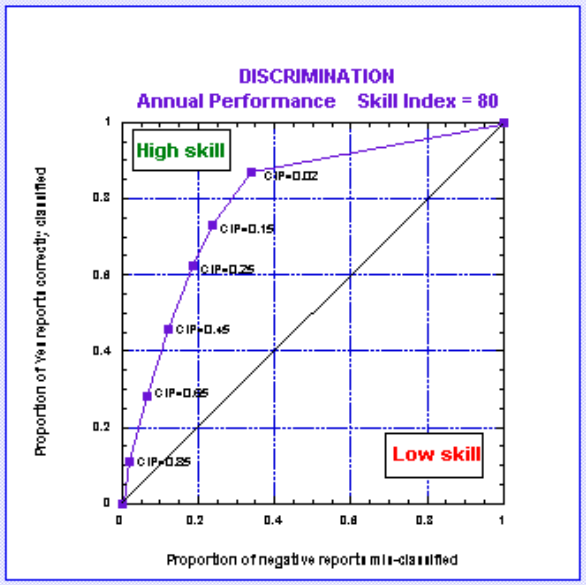
Back to Icing Page

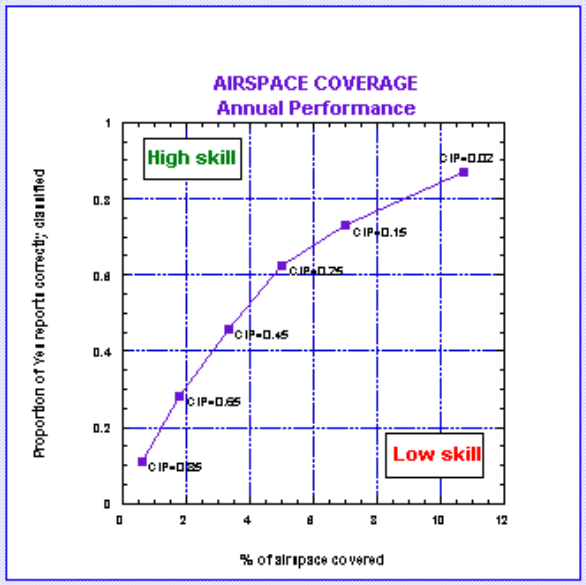
Current Icing Potential (CIP) performance statistics

This page shows statistical performance of CIP for the past 12 months and is updated quarterly. Two types of plots are included: 1) a discrimination plot that measures the trade-offs between correctly classifying positive pilot reports of icing versus mis-classifying pilot reports of "negative icing;" 2) an airspace coverage plot that measures the trade-offs between correctly classifying positive pilot reports of icing versus the amount of airspace impacted by the forecasts. The skill index (SI) is related to the area under the curve and ranges from 0 to 100. The forecasts have positive skill if SI is greater than 50. Note that airspace is defined as the total volume, from the surface to 30,000 ft, covered by the CIP domain.

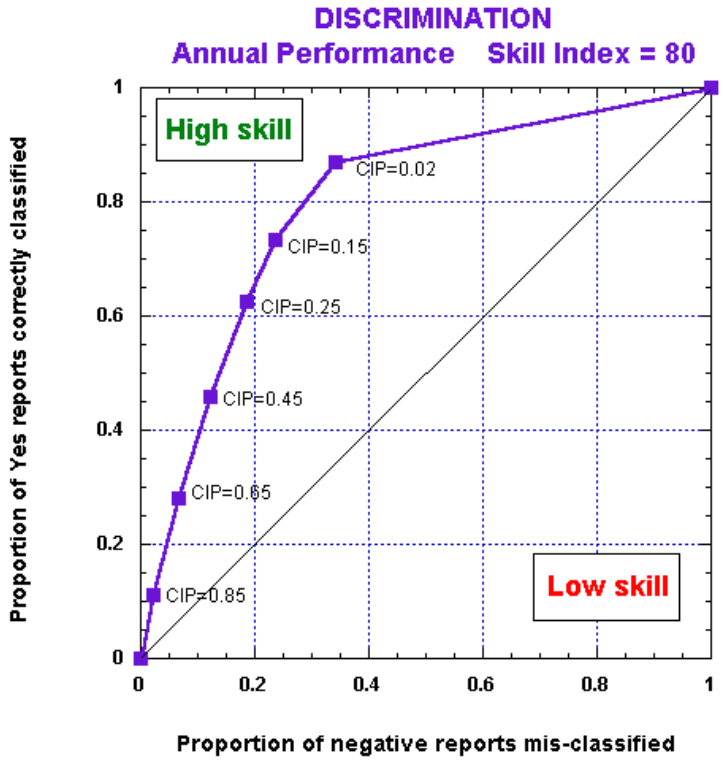
In both cases, lines located further toward the upper-left corner represent better forecasts because better forecasts capture a larger proportion of the positive icing reports while simultaneously covering a smaller proportion of airspace and fewer mis-diagnoses of the "negative icing" reports. The graphics below show the overall annual performance statistics, then the four seasons individually, followed by the winter statistics for particular regions within the contiguous U.S. Additional details of the statistical procedures used to create these graphics are available.

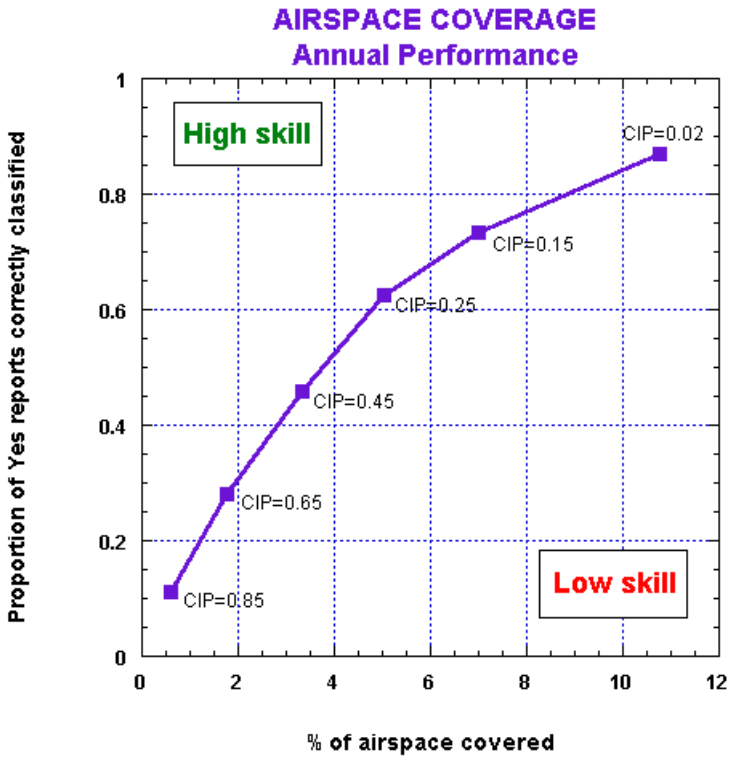
Annual performance statistics



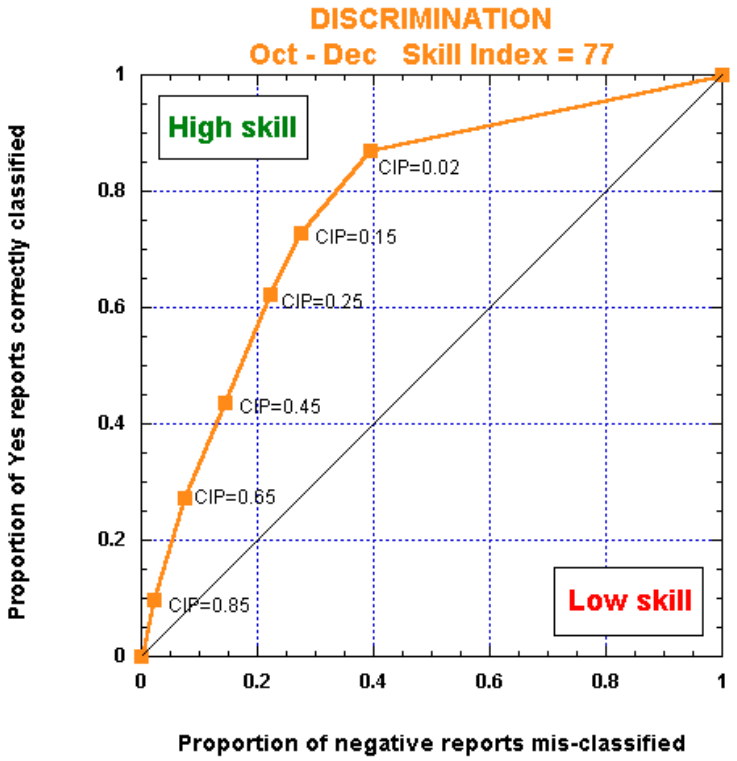


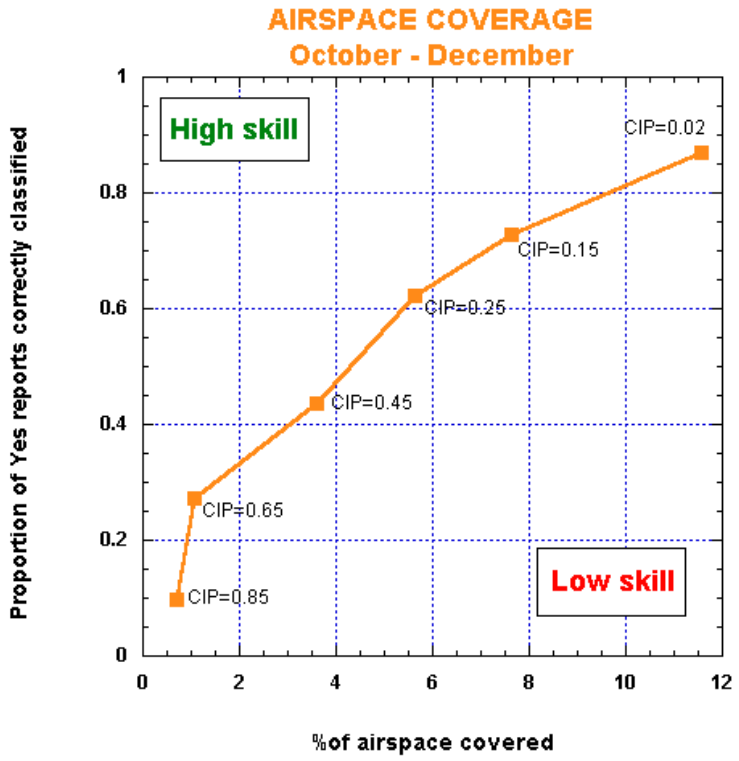
Annual Performance Statistics



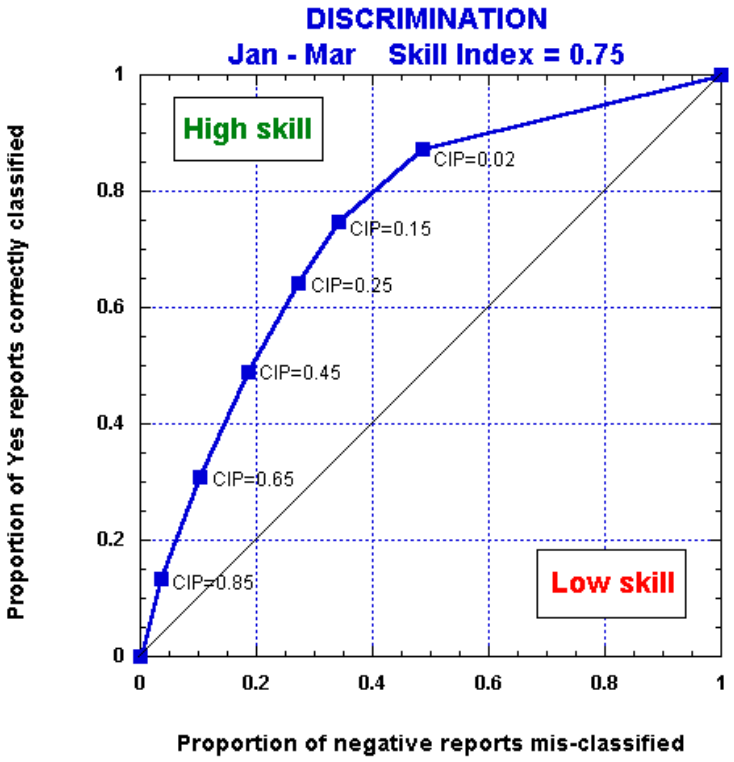


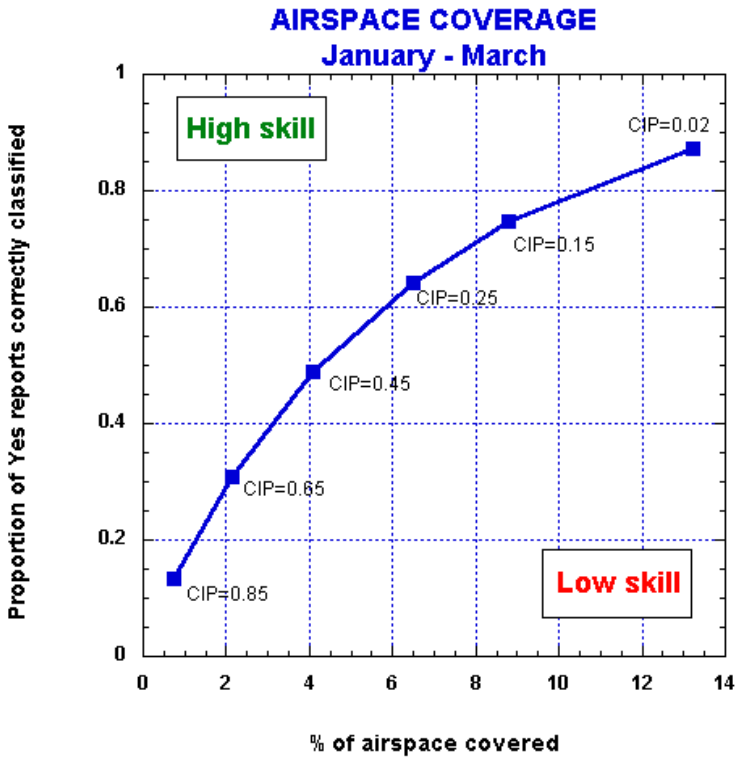
Autumn (October – December)



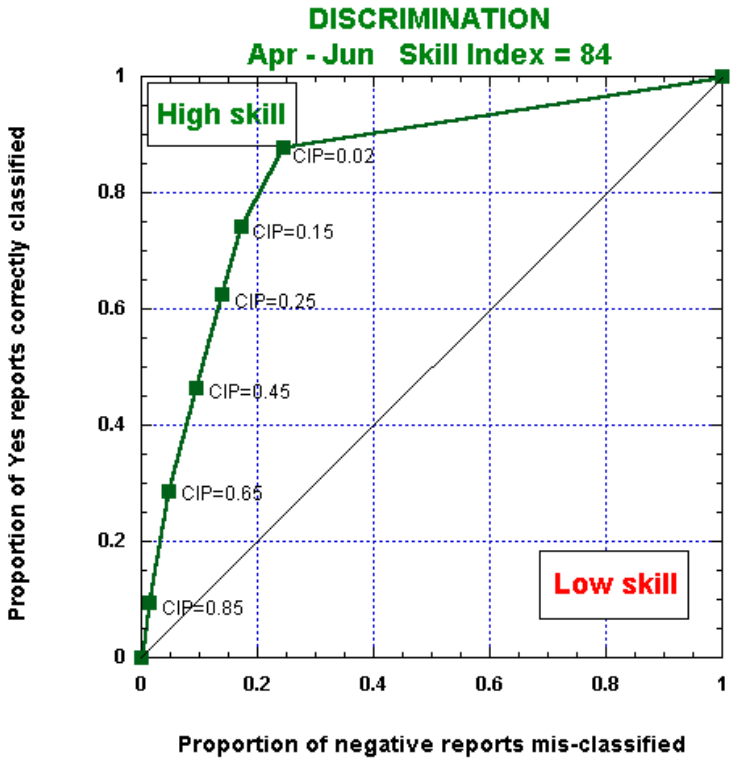


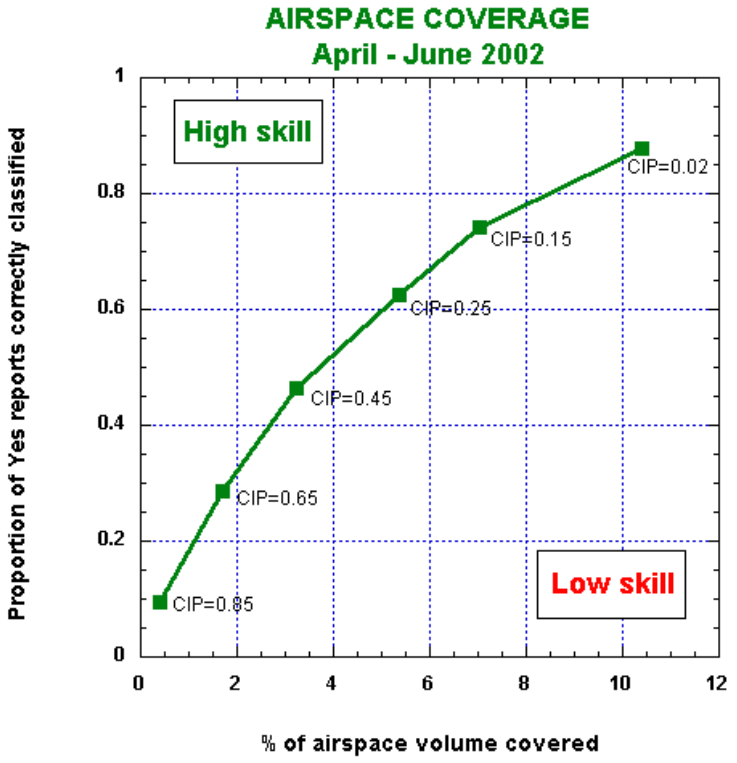
Winter (January – March)



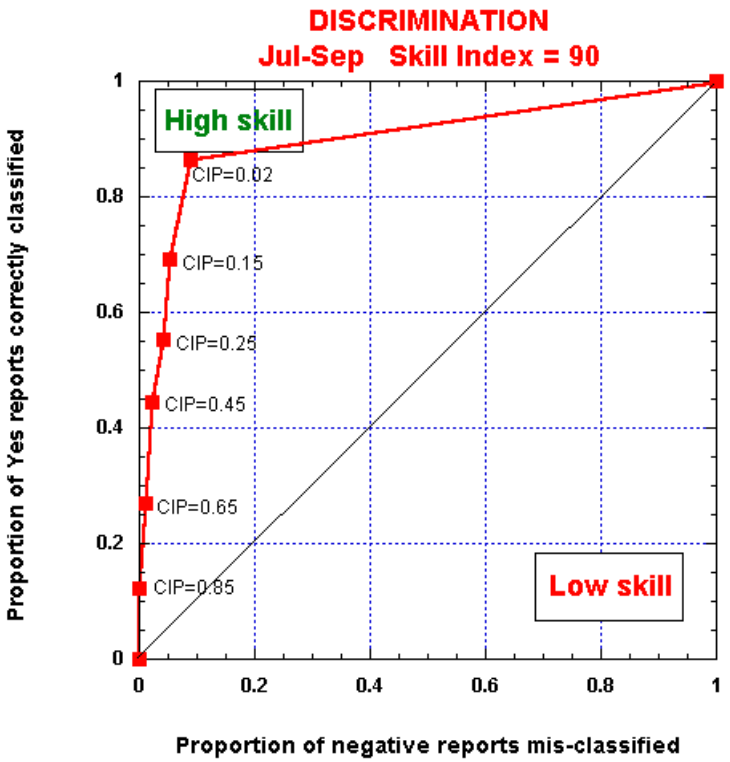


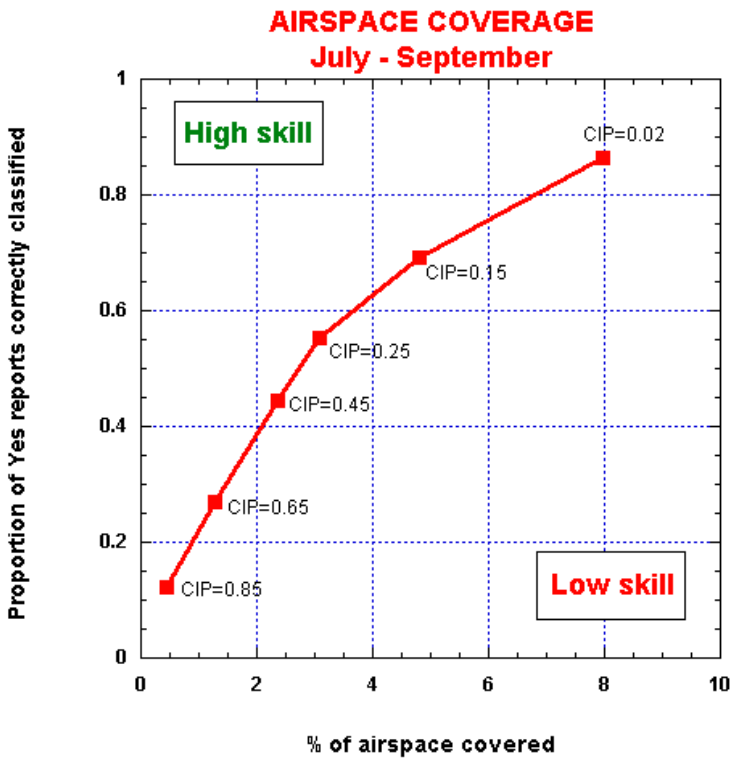
Spring (April - June)

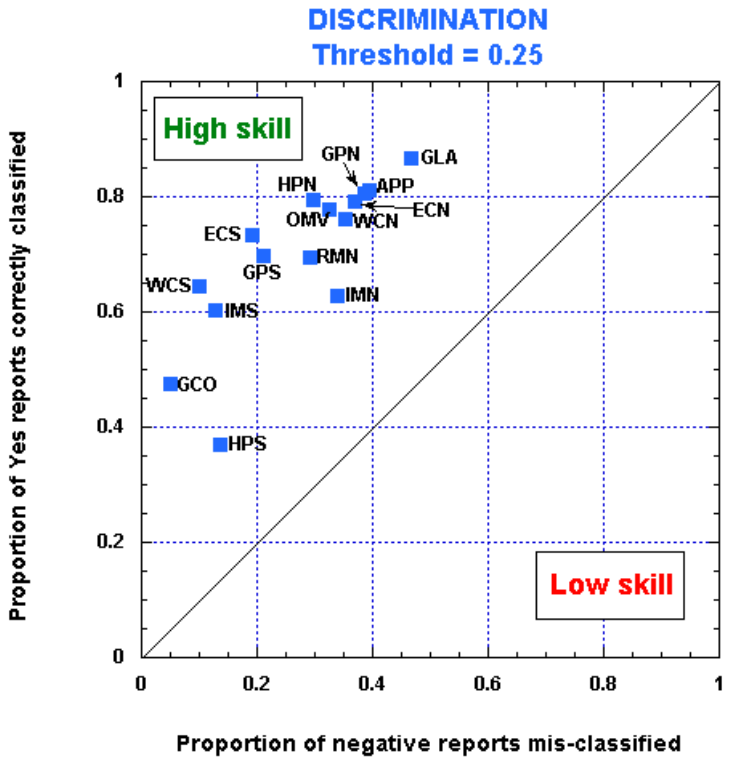
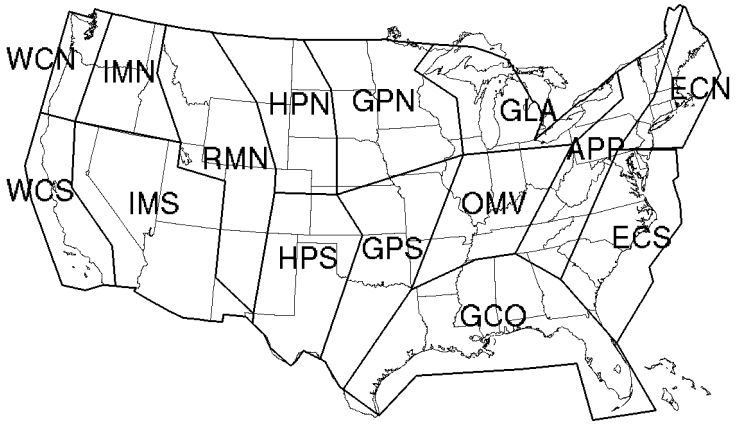




Summer (July - September)





Regional (Winter)

The regional plot shows the trade-off between the proportion of Yes pilot reports that are correctly classified and the proportion of negative reports that are mis-classified (i.e., it measures discrimination). The regions are defined on the map to the right. A CIP threshold of 0.25 was used to create this diagram.