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## Brazilian aviation nowcasting system: current stage and some results

Vinícius Almeida<sup>1</sup>, Gutemberg França<sup>1</sup>, Francisco Albuquerque Neto<sup>1</sup>, Haroldo Campos Velho<sup>2</sup>, Manoel Almeida<sup>1</sup>, Wallace Menezes<sup>1</sup>, Caroline Menegussi<sup>1</sup>, and Fabricio Cordeiro<sup>1</sup>

<sup>1</sup>Laboratory for Applied Meteorology, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil

<sup>2</sup>Associated Laboratory for Computing and Applied Mathematics, National Institute for Space Research (INPE), São José dos Campos, Brasil

Emphasizes some aspects of the aviation forecasting system under construction for use by the integrated meteorological center (CIMAER) in Brazil. It consists of a set of hybrid models based on determinism and machine learning that use remote sensing data (such as lighting sensor, SODAR, satellite and soon RADAR), in situ data (from the surface weather station and radiosonde) and aircraft data (such as retransmission of aircraft weather data and vertical acceleration). The idea is to gradually operationalize the system to assist CIMAER's meteorologists in generating their nowcasting, for example, of visibility, ceiling, turbulence, convective weather, ice, etc. with objectivity and precision. Some test results of the developed nowcasting models are highlighted as examples of nowcasting namely: a) visibility and ceiling up to 1h for Santos Dumont airport; b) 6-8h convective weather forecast for the Rio de Janeiro area and the São Paulo-Rio de Janeiro route. Finally, the steps in development and the futures are superficially covered.