1145-VF-1177   **Jakob J. Kotas*** (`kotas@up.edu`), 5000 N Willamette Blvd, Portland, OR 97203, and **Andrew Bracken**. *Optimal Airline De-ice Scheduling.*

We present a decision support framework for optimal flight re-scheduling on an airline's day of operations when de-icing suddenly becomes necessary due to snow and ice events. Winter weather, especially in areas where such weather is not commonplace, can cause cascading delays and cancellations throughout the system due to the unforeseen need to add de-ice time to each aircraft's turnaround time. Our model optimally re-schedules remaining flights of the day to minimize system delays and cancellations. The model is formulated as a mixed integer linear program (MILP). Structural properties of the model allow it to be decomposed into a finite set of linear programs (LP) and a computationally tractable algorithm for its solution is described. Finally, numerical simulations are presented for a case study of Horizon Air, a regional airline based in the Pacific Northwest of the United States. (Received September 19, 2018)