EXHIBIT F

UTC Project Information	
Project Title	Discrete Dynamics and Epidemiological Multi-Physics Models for Transportation Applications
University	Embry-Riddle Aeronautical University
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Funding Source(s) and Amounts Provided (by each agency or organization)	Total - $149828 =DOT-CATM- $99885 + ERAU (cost share) $49943
Total Project Cost	$149,828
Agency ID or Contract Number	69A3551747125
Start and End Dates	02/01/2020-05/15/2021
Brief Description of Research Project	Air transportation is central to the global mobility of goods and people. Elimination or reduction of air travel during epidemic emergencies, such as during the 2014 Ebola outbreak in West Africa, carry considerable economic and human costs. Mathematical modeling can help in devising strategies to reduce the impact of the problem and transportation disruptions. We have used social force pedestrian movement models in combination with stochastic epidemic models to study the spread of Ebola aboard Airplanes, however, extending such models to a larger scale has certain problems. Human movement is often guided by discretionary behaviors with respect to route and destination choices, intrinsic variability in pedestrian speed and inter-pedestrian interactions, which results in a high level of uncertainty and requires assumptions regarding input. We propose an innovative approach to deal with this problem using agent based modeling and epidemic modeling.
Describe Implementation of Research Outcomes (or why	The project outcome will be a novel data backed multiphysi pedestrian movement and infectious disease spread. The m

Not implemented) Place Any Photos Here	evaluated on air transportation infrastructure to address tra disruptions due to epidemic emergencies.
Impacts/Benefits of Implementation (actual, not anticipated)	Using the multiphysics models we will simulate movement of people through two international airports and analyze the following: • What are the hotspots in airports with respect to infectious disease spread? • Can the changes to layouts and policies alter pedestrian movement and contacts patterns and reduce disease spread?
Web Links • Reports • Project Website	Reports and slides will be submitted on project completion