Improving Maintenance Decision-Making in the Finnish Air Force through Simulation

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We use discrete-event simulation to model the maintenance of fighter aircraft and improve maintenance-related decision making within the Finnish Air Force. The model supports maintenance designers in studying the impact of maintenance resources, policies, and operating conditions on aircraft availability. Thus, it advances the operational capability of the aircraft fleet. The main challenge of this simulation study was the scarcity and confidentiality of data needed in model construction.