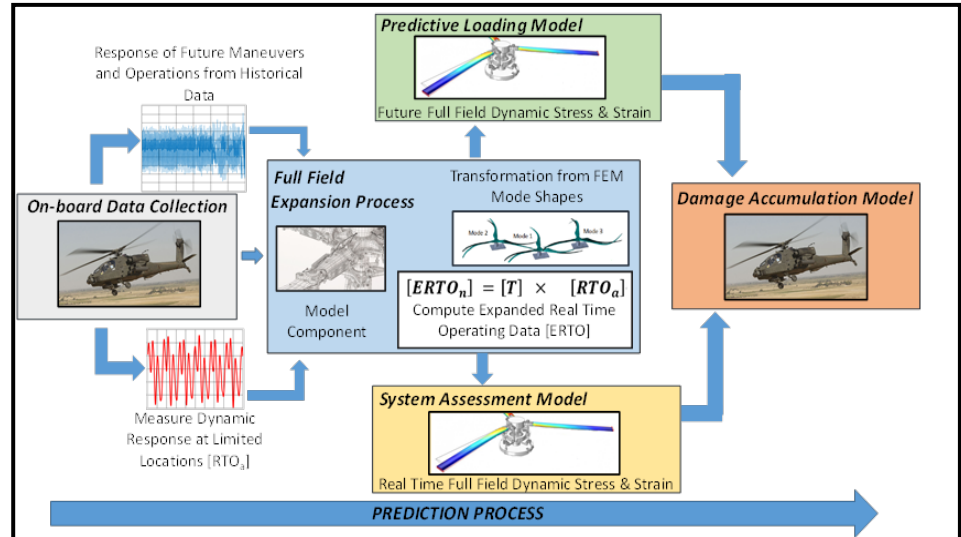




MASTER'S RESEARCH – TAYLOR REGAN

**Distributed Sensing for Condition-Based Prognosis
of Fuselage Structures**



The development of a high fidelity analytical system for on-board prediction of the remaining useful life (RUL) of rotary and fixed wing aircraft/rotorcraft components will serve to strengthen the Army's structural health monitoring and prognostics capabilities. Objectives of this research include enhancing military structural health monitoring and prognostics capability, optimizing fatigue life of critical components, minimizing operational costs, and improved mission readiness by using a blend of computational modeling and data from a limited number of sensors relaying real-time system monitoring