NAVAL AIR SYSTEMS COMMAND, PATUXENT RIVER, Md. – The Logistics and Industrial Operations Advanced Analytics and Innovation (AA&I) Branch (AIR 6.8.2.2) was recognized at a ceremony March 14 as Naval Air System Command (NAVAIR) Commander’s Award winner in the Improving Fleet Readiness category for developing the Aircraft Management Dashboard (AMDB) Tool. AMDB, one of 84 projects nominated, displays near real time naval aviation maintenance data, enabling fleet operators, program teams and the logistics community to make data-driven decisions on readiness and cost.

NAVAIR Commander Vice Adm. Paul Grosklags said the breadth and depth of nominations reflect how the command is fulfilling its role in the nation’s defense. “You are providing the tools and capabilities NAVAIR has been asked for,” he said. “The depth and breadth of what’s represented is eye-watering.”

“You apply creativity with a sense of urgency,” Grosklags said. “This is about meeting our imperative to make our processes more predictable and provide better capabilities to the fleet quicker.”
AMDB was created in response to aircraft and weapon system program teams’ need for an inclusive approach that would increase readiness by integrating and analyzing real time data from multiple sources. The AMDB provides material condition status of aircraft, as well as every open supply requisition, maintenance work order, inventory status and out-of-reporting information for each aircraft.

Developing AMDB was a collaborative effort that focused on outcomes rather than output, according to AA&I Branch Head Calvin Farmer. Instrumental to its success, he said, was a select team of subject matter experts—mathematicians, operations research analysts, and computer scientists—with diverse skillsets: continuous process improvement, training development, programming, operations research, mathematics and program management. Also key was a partnership with the H-53 Heavy lift Helicopter Program Office (PMA 261) Fleet Common Operating Environment.

“We knew that we had the data available to find potential root causes of readiness degradation. We just had to structure it and use business intelligence tools to unlock it,” he explained. Together, with input from the fleet, they developed and implemented a methodical process to identify required sources, input them into the server and analyze that data.

Because AMDB was developed organically and leadership decisions could be made by middle- and junior-level employees, AMDB was designed, developed and deployed to the fleet in less than a year. AA&I’s workforce also cross-trains in the domains of data science and naval aviation acquisition and sustainment. “Our team members understand how their work impacts readiness,” he said. “Team members must be empowered to make decisions and interface with teams outside of their organizations.”

As one of AMDB’s more than 820 users across Naval Aviation, Meghan Wagner, U.S. Marine Corps Light/Attack Helicopter Program Office (PMA-276) In-Service deputy assistant program manager and Logistics and Operations research analyst, said she recently used AMDB to answer inquiries from leadership about a platform’s increasing non-mission capable supply (NMCS) rate. “We first isolated the issue by drilling down into the specific requisitions that drove the numbers, and then collaborated with the fleet to validate the findings,” she said. “AMDB generated the charts we used to brief leadership. We had the answer within minutes instead of days. This one data call highlights the usability of AMDB.”

Wagner especially appreciates the ability for users to post comments and recommendations within AMDB’s modules. “This feature increases cross-collaboration with other users across the fleet,” she said.

The next few months will see updates to AMDB, including dashboards on maintenance and
quality assurance and by each individual program executive office and Aircraft Controlling Custodian. Training for all users on the suite of dashboards will be available at the College of Logistics and Industrial Operations web site before the summer of 2018.

AMDB will continue to evolve, said Farmer. “As the right mix of entry-level personnel with data science skills are paired with leaders that have more domain expertise, they will share knowledge, perspectives and insights, elevating our team as a common unit to provide the product the fleet requires.”