Northrop Grumman offers a fully integrated, digital cockpit and flight controls upgrade solution for the Republic of Korea (ROK) UH-60P fleet that is proven, safe and affordable. We value establishing long-term partnerships with our customers that will deliver modernized capabilities to the war-fighter and allow them to freely perform upgrades and modifications in country, independently, without having to involve the original equipment manufacturer.

Partnering with the Northrop Grumman team for your UH-60P digital cockpit upgrade, ensures you will have a modernized integrated mission equipment package that brings the best from our rich and unique demonstrated history in developing advanced state of the art cockpits for fixed-wing and rotary-wing platforms, with or without weapons. Northrop Grumman is on contract to develop an advanced cockpit to modernize the U.S. Army’s UH-60L platforms. Leveraging the U.S. Army’s UH-60V digital avionics upgrade solution to upgrade the ROK UH-60P fleet, will extend the life of the UH-60P fleet, preserve your investment in the platform, while enabling future growth in mission capabilities as well as localization and customization.

The result is standardization across ROK’s military aircraft fleet that provides an affordable avionics solution over a program’s life cycle, as well as improved situational awareness, mission safety, and reduced pilot workload. This cockpit upgrade standardization offers interoperability with the U.S. Army, enabling reduced maintenance costs in the areas of logistics, training, and obsolescence that are required over the life of the program.

Our Offering

We offer a qualified integrated mission equipment package (iMEP) B-Kit solution:

- An all-glass digital cockpit, including our dual redundant FlightPro Gen III™ mission computers with a single Operational Flight Program (OFP) software
- Coupled Flight Director integrated with Flight Management System
- Integrated navigation systems
- Integrated communications systems
- Integrated Aircraft Survivability Equipment (ASE)
- Integrated Forward-Looking Infrared (FLIR)
- Federated, dual redundant Directional Infrared Countermeasure (DIRCM) capability
- Open architecture that enables rapid insertion of future capability upgrades

Our Architecture

Northrop Grumman bases its scalable, fully integrated, digital mission equipment package upon a modular, open architecture that is partitioned to ensure
compliance with system safety design assurance levels to enable rapid re-qualification of any software capability modifications. Our iMEP takes advantage of an integrated centralized processing arrangement, instead of a federated approach, to simplify isolation of any system operation faults and configuration maintenance during the program life cycle. Our flexible, open architecture approach enables the addition of capabilities through software-only (rather than hardware) upgrades mitigating obsolescence impacts and simplifies mission growth now and far into the future.

Our qualified iMEP embodies the true spirit of openness allowing the integration of software developed by third parties around the world to be included into our iMEP. Developed in alignment with the Future Airborne Capability Environment (FACE™) Technical Standard, our system enables rapid deployment of advanced capabilities to meet the evolving opposition threats. Additionally, leveraging a very agile friendly software modeling design process increases the speed to deploy capabilities to counter emerging threats and reduces the cost of development, while delivering safe and reliable software.

We also offer a software development kit (SDK) to support rapid development of capabilities to our open system architecture, which facilitates any third party software developer to efficiently develop new capabilities, protect their investment, and puts the future into the hands of the customer. The SDK promotes innovation and technology transfer to assist in developing exportable capability upgrades for future capabilities developed by any ROK industry partner.

**Advancing Guidance Coupled Flight Director Capability**

Our open systems approach can easily integrate the existing, federated UH-60P coupled Flight Director (FD) solution, or we can deliver an alternate, higher-performance FD Autopilot to reduce pilot workload and allow focus on mission objectives and evolving threats. Our coupled FD Autopilot software will provide advanced guidance capabilities such as a pilot adjustable approach to a point en route, low-altitude and low-speed modes for search and rescue missions like automatic approach to hover at a selectable point (Mark-On-Target), automatic departure from hover, and navigation modes for cruise and vertical guidance. This high performance coupled FD software solution has already been integrated with the Flight Management System (FMS) software and is certified on Part 27/29 platforms.

**Our Experience**

Northrop Grumman has already been awarded contracts to perform digital cockpit avionics upgrades for the U.S. Marine Corps through the H-1 Upgrade program (AH-1Z and UH-1Y), the U.S. Navy through the E-2D Advanced Hawkeye program, and the U.S. Army through the UH-60V Black Hawk program. In January 2018, the U.S. Marine Corps selected Northrop Grumman as the Lead Technology Integrator (LTI) for H-1 helicopters. By choosing Northrop Grumman, you will have a mature solution that is based upon the latest, advanced technology provided for the U.S. military avionics upgrade. Since our fully integrated, digital mission equipment package is highly scalable, our solution can be applied to a variety of platforms, including future UH-60 international upgrade programs.

**Our Localization Support**

Our overall, long-term avionics upgrade solution is exportable, and will enable you to expand the capabilities in ROK to support the local economy and labor market. We will provide the resources, training, and technical support required for ROK industries to perform the upgrades and life cycle support that will enable long-term capability enhancements in-country, without needing to involve the original equipment manufacturer. By breaking this "vendor lock" with the original equipment manufacturer, the ROK government will benefit from cost and time savings. By performing avionics upgrades in ROK, the country will be well-positioned to expand its aircraft upgrade business across the global market and to positively impact the local economy.

**Our Safety and Global Access**

Since global access for the warfighter is a top priority, our iMEP cockpit functionality already meets the International Civil Aviation Organization’s 2020 Global Air Traffic Management (GATM) requirements. Our system has the only commercial avionics Flight Management System for the military that is certified by the Federal Aviation Association for rotary-wing applications. To ensure full system safety, Northrop Grumman develops the iMEP to DO-178C standards, using flight-tested, U.S. Military Standards and Airworthiness qualified hardware and software components.