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HEALTH AND TECHNOLOGY

COMMITTEE ON AGRICULTURE

COMMITTEE ON  
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# Congress of the United States

## House of Representatives

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The Honorable Buck McKeon  
Chairman  
House Armed Services Committee  
2120 Rayburn HOB  
Washington, D.C. 20515

The Honorable Adam Smith  
Ranking Member  
House Armed Services Committee  
2120 Rayburn HOB  
Washington, D.C. 20515

Chairman McKeon and Ranking Member Smith:

I submit this statement for the record in support of Congressman Dan Maffei's FY 15 NDAA Directive Report Language request regarding the LUH Next Generation Health Monitoring System (NGHMS). My staff and I visited the facility where this technology was developed, received a full briefing on NGHMS, and were impressed with the technology and its capability to assist our military servicemen and women.

As stated in the requested DRL, "the commercial variant of the LUH, the EC-145, is currently being outfitted with a Next Generation Health Monitoring System (NGHMS)". The Army LUH platform provides a proven opportunity to demonstrate the military benefits of the NGHMS technology. Additionally, NGHMS has wide application that extends to military ground vehicles and ship platforms.

NGHMS employs a distributed lightweight (<13 pounds) architecture and operates with nonproprietary data communication protocols in a secure cloud based diagnostics and prognostics information management infrastructure. The equipment is highly flexible, able to easily adapt to new requirements and procedures, and also combines both mechanical and electrical diagnostics, utilizing miniature electromechanical system (MEMS) sensors as well as Spread Spectrum Time Domain Reflectometry (SSTD) for electrical wire monitoring.

NGHMS can achieve total platform state of awareness by fusing mechanical and electrical diagnostics, platform usage monitoring, and operational regime recognition. The increased maintenance information, provided through NGHMS's advanced prognostics, enable early warning for failing platform systems. Such advanced intelligence will significantly reduce emergency maintenance and provide predictable platform maintenance schedules, which will reduce maintenance costs and increase readiness.

This state of the art technology holds the capability to cost effectively change military platform maintenance approaches and activities. Therefore, I fully support Congressman Maffei's LUH Next Generation Health Monitoring System (NGHMS) FY 15 NDAA DRL request and ask the Committee to continue to seek further military applications for NGHMS, where cost and readiness benefits can be achieved.

Sincerely,



CHRIS COLLINS  
Member of Congress