

Sikorsky

A United Technologies Company

**The Department of Aerospace Engineering
Proudly Presents the**



Sikorsky Aircraft Colloquium Series

Tuesday, May 1, 2012

5:00 pm

1110 Kim Lecture Hall

**Autonomy in the Unique Helicopter Operating
Environment**

Presented by

Teresa Carleton

Vice President, Mission System Integration

Helicopters present a unique set of challenges to unpiloted flight. The value of the helicopter comes from its ability to operate safely and precisely in cluttered, confined environments; to take off and land at unprepared sites rather than runways; to function near the ground where line-of-sight communications have very short range, and to fly in high winds, rain and darkness. To be most effective, an autonomous helicopter must be able to perform the same types of missions.

These applications translate to demanding requirements for autonomous helicopters in the areas of sensing, control, human-machine interaction, and intelligence. This talk will discuss some of those challenges and how our industry is addressing them.

We Pioneer Flight Solutions that Bring People Home Everywhere...Every Time



Teresa Carleton is Vice President of Mission Systems Integration for Sikorsky. In this role, Teresa is responsible for the design, development and integration of avionics and mission systems across the Sikorsky product line as well as definition and implementation of strategic product and process initiatives. Technology focus areas include flight management, vehicle management systems, mission management, armament, and cockpit display systems to include embedded software development as well as crew station design and simulation. The Vehicle Management Systems (VMS) encompasses flight controls, diagnostic systems and electrical power systems.

Teresa joined Sikorsky in February 2003 with 22 years of experience in the aviation industry. Prior to joining Sikorsky, Teresa was Chief Engineer of 737/757 Aircraft Systems for Boeing Commercial Airplane. Prior assignments included leadership roles on other commercial airplane and military weapon system programs.