In October of 2007 the U.S. Marines first took its MV-22B into combat. How this rotorcraft industry milestone was reached is a fascinating story. The story, which began over 50 years earlier with Transcendental’s Model 1, is the subject of this presentation. It took design and testing of several intermediate, smaller tiltrotors before this new rotorcraft technology was firmly in place. These aircraft steps were supported by the U.S. military branches and NASA. Along the way, industry competed for several Government contracts and these business opportunities created very interesting situations that are brought out in the presentation. The discussion also highlights key aerodynamics, dynamics and structural understandings acquired. This technology progress gave high level decision makers the confidence to begin production of this new class of rotorcraft. The presentation concludes with comparisons between several rotorcraft classes in performance and weights. Then, several thoughts about the future are offered. 

Frank Harris has had a career approaching 60 years in the aerospace industry. This has included 21 years with the Boeing Vertol Company and 14 years with Bell Helicopter Textron with whom he retired from in January 1992. He has also spent 24 years as a consultant to NASA Ames and other members of aerospace industry. Mr. Harris graduated with a Bachelor of Aeronautical Engineering degree from Rensselaer Polytechnic Institute in 1956. He has been a member of The American Helicopter Society since 1960, and has served on various technical committees and leadership roles, including Technical Director of 30th AHS Annual Forum, member of the Technical Council of the AHS in 1975-1976, and Technical Director of AHS, 1976-1977. Mr. Harris was elected an Honorary Fellow of the AHS in May 1980. He is a recipient of the Grover E. Bell Award in 1986, the Alexander A. Nikolsky Lectureship in 2006, and the John J. Schneider Historical Achievement Award in May 2013. Mr Harris has written over 35 major papers and lectures, plus one 3 volume book, called Autogyros, Helicopters, and Other V/STOL Aircraft.

When: 2pm, Wednesday, November 5th, 2014
Where: NASA Ames Research Center, Building N258, Auditorium Room 127
Light refreshments will be served

*Off-center personnel will require a visitor's badge. If needed, provide request to:
Robert Scott: 650-604-3919 or email at Robert.c.scott154.civ@mail.mil