DO&IT Seminar Series
http://www.rhsmith.umd.edu/doit/events/seminars.aspx

Speaker:    David Marlow, Naval Postgraduate School
Date:       Friday, June 5, 2015
Time:       10:30 – 11:30 AM
Location:   VMH 2511

Military aircraft fleet management operations research

Abstract: The Australian Defence Force has agreed to acquire many aerospace platforms over the last decade. These include the F-35 Joint Strike Fighter, F/A-18 Super Hornets, P-8 Poseidon maritime patrol aircraft, and MH-60R Seahawk naval combat helicopters. The question for the ADF is how to best manage these aircraft fleets over their lives. This talk will describe the aircraft fleet management problem, with the focus on the incoming MH-60R fleet. The primary fleet aims are to ensure all ongoing requirements are met: for a minimum number of aircraft embarked on ships at all times, and to achieve required annual fleet flying hours for ashore and embarked aircraft. We would also a) like to manage the distribution of fleet flying hours to allow a phased withdrawal at end of life, b) have a certain number of aircraft always available in case of emergencies and c) account for all types of flying and maintenance, including unscheduled maintenance. I will describe how this work has built on an earlier simulation model which represents the movement of aircraft between various states over their lives. I will also summarise some of the approaches I have been considering and pursuing to various aspects of this problem while at NPS

Bio: Dr David Marlow has a Bachelor of Science in Mathematical Sciences with Honours from the University of Adelaide and a PhD in Applied Mathematics from the University of Wollongong. Since 1996, David has worked as an operations analysts for the Defence Science and Technology Organisation in Australia, part of Australia’s Department of Defence. He is currently posted to the Naval Postgraduate School in Monterey, California to pursue his current research interest in military aircraft fleet management problems.