Seasprite
• In 1997 Australia signed a $A 667 million contract with Kaman.
• Kaman would deliver 11 upgraded SH-2G(A) or “Super Seap rites” by 2001
  – Litton Guidance & Control would provide the software
• The helicopters would have state of the art avionics (ITAS:Integrated Tactical Avionics System ) and would be embarked in the Royal Australian Navy’s ANZAC class frigates
• Instead of being flied by a three man crew, it would would fly with only two men.
  – For this it would include a new sensor suite.
• Include anti-ship missile
First Problems

- Initial due date came and nothing was delivered
- First recognized problems came clear at a hearing of the Senates Foreign Affairs, Defense and Trade Committee in February 2002
  - Head of DMO (Defense Materiel Organisation) told the committee that software integration problems would delay service entry until December 2004
  - Kaman had subcontracted two companies to finish development:
    - CSC Australia Pty Ltd
    - Northrop Grumman Integrated Technology
Delivery

• By 2005 more than 40 deficiencies had been discovered
  – Inability to operate in bad weather
  – Inability to operate low light condition
  – Inability to meet Australian airworthiness certification standards
• May 2006 minister of defense declares the helicopters as grounded indefinitely
  – Analysis by software engineers concluded that 3 incidents after 1800 hours was unacceptably high failure rate
• Progress was slow, but Kaman claimed the software was finished by 2006
• By 2007
  – Project was 6 years behind
  – Costs had risen over 50% ($A 1.1 billion, about 11 brand new helicopters with all the required equipment)
  – Estimated that at least $A 45 million and 29 months would be necessary
  – Helicopters still “liked” to make unpredictable “hard over” movements while in “no hands mode”
Decisions

• In 2007 although crashworthiness was below standards, government decides to continue with project
  – Too late to cancel
• But in March 2008 new due date 2011
  – New Labor Party Government Cancels the program
  – Kaman keeps the helicopters
  – If Kaman sells the helicopters Australia would receive max (50%, $A39.5 million)
• In addition Australia will keep $A 30 million in spare parts for other machines
• In 2011 Australia decides to buy 24 MH-60R’s to replace both the Seasprite and other of Ran's helicopters
Reasons For Failure

• Most Sources agree there were 4 decisions that generated the problem
  – The pursuit of joint program with Malaysia to design and build a new class of Offshore Patrol Combatants (OPC)
  – Procure helicopters that would be embarked both on the OPC and ANZAC-class frigates
  – Make the helicopters be equipped with HI-Tech anti ship systems
  – Helicopter should have all new avionics system
Reasons For Failure

• Brand new avionics in a 1960 airframe was challenging.
  – Basically RAN wanted all the sensors fused and the helicopter to fly itself.
• The two other giants of the industry (Rockwell Collins & IBM Federal Systems) did not want to offer compliant systems
• Kaman had never had responsibility for managing the development of an entire new digital avionics suit for one of its aircraft
• Litton was doing everything wrong
  – Underestimated the magnitude of the task
  – Lost most of its best programmers to the dot com boom
  – Changed management structure, and so lost focus on many of its programs
• Change of Australian airworthiness certification after SeaKings tragedy (2005), 9 casualties, that was unable to deliver
  – Was not in the original contract either
• Lack of a clear test plan
Possible fixes

• Less complicated option
  – Buy brand new helicopters that meet the requirements
• Upgrade a more recent airframe instead of one from the 60’s
• Signed a contract that contemplated sanctions for Kaman if it failed to deliver or in case of a late delivery
• Signed a contract with a company with more, or some, experience
• If two of the giants don’t want to work on it…
  – Maybe it is not a good idea?
• An early cancellation of the program after 2005 with the failed delivery, would have saved a lot of money
• Many of the problems came from the two man crew requirement
  – Eliminate requirement
Was there any hope for the project?

• Without changing any of the requirements, no there would not be
  – Unless some other company with more experience had been hired instead of Kaman
  – Or Litton hadn’t have lost their best programmers, who might have been able to do a better job
  – But these are only hypothesis
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