Seasprite

Summary

- In 1997 Australia signed a $A 667 million contract with Kaman.
- Kaman would deliver 11 upgraded SH-2G(A) or "Super Seaprites" 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 of the Senates Foreign Affaires, 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 defencies 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
  - To 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 where 4 decisions that generated the problem
  - The pursue 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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