

Submission to the Senate Committee investigating the purchase of the JSF (F-35A)

During the period I was employed by a company who contracted me out to the Defence Science and Technology Organisation, Air Operations division, I worked as a software engineer on defence simulations.

While not directly involved with the project to select a replacement for Australia's existing fleet of F/A-18A's, I did work with the team and the people who were working on the project. Following normal DSTO naming conventions, the project was called Air 6000.

I feel that the normal and correct procedures for the selection of a new weapons system were not followed in the case of the selection of the F-35A (JSF), noting that this was in no way the fault of the DSTO.

The DSTO has a standard simulation-based methodology for assessing potential weapons systems. A typical selection study would be:

1. Create a short-list of candidate aircraft – six to ten contenders
2. Create a list of likely adversary aircraft which would be encountered in combat
3. Create a list of likely missions for the aircraft, such as ground attack, escort, interception etc.
4. Select which weapons systems the aircraft would be required to carry, current and future
5. Acquire performance data for the contender aircraft and weapon systems
6. Acquire or infer performance data for potential adversary aircraft
7. Acquire or infer performance data for potential adversary anti-aircraft weapons such as surface-to-air missiles
8. Create a series of simulated scenario missions based on the above and previous experience from the RAAF
9. Run hundreds of simulations of each potential mission with each candidate aircraft
10. Produce detailed statics from the simulations
11. See which of the contender aircraft performed best on average in the simulated missions
12. Based on the above, create a short list of recommend aircraft, no more than three, and write up a detailed report for the DSTO, DMO (Defence Materials Organisation), Department of Defence etc.

The list of contender aircraft included most of the available fourth generation fighter aircraft, produced by ally or friendly nations. I was not privy to the complete list, but it would have included the SAAB Gripen, Eurofighter Typhoon, Dassault Rafale and Boeing F/A-18 Super Hornet. Notably, all these aircraft were, and still are, readily available and have been in service with various air forces. This is especially relevant in Australia's case, because we are a small buying of aircraft fleets – at most one hundred airframes, compared to the USAF

which buys aircraft by the thousand. The JSF had not flown at all in 2002, except for a few prototypes.

The project attracted much interest inside the organisation because it was a major, high profile project. Informally I was told that the Eurofighter Typhoon was favoured by the RAAF.

The selection process had just barely begun, having reached about step seven above, no simulations actually having been run, when word reached the DSTO in June of 2002 that the F-35A Joint Strike Fighter had been chosen.

The DSTO, not having had the time to run simulations, let alone submit reports and recommendations, was therefore taken by surprise by the decision. The Air 6000 project was put on hold, and eventually re-emerged as a project to model the F-35A's capabilities.

The senate committee should ask the DSTO, the DMO and the Department of Defence:

- Was a report with recommendations ever produced by the DSTO?
- Why was the usual procurement process ignored?
- Was the advice of the department's scientists requested?
- Was it unusual to select a yet-to-be produced aircraft to fulfil Australia's needs?
- Was the F-35A on the original short list of aircraft being considered?
- What data was available on the performance F-35A during the selection (given that the other aircraft considered were already in production)?
- How was the decision made to choose this aircraft?
- How transparent was the selection process and how was it justified?

I feel that the correct procedures were not followed, the usual processes to justify a new purchase were not done, and consequently we committed to an untested platform which has gone on to be exceptionally late, over-budget and not fit for purpose.

Footnote: Reasons for anonymous submission.

As mentioned, I've been employed in the Defence sector in the past and may be again. While this submission doesn't include sensitive information or actual details of day-to-day operations, it might jeopardise my chances of employment in the sector. But I felt this information was too important not to share, the decisions made were not made correctly, and as a citizen I felt it important this was known.