



Submission No 12

Review of the Defence Annual Report 2010 - 2011

Name: Mr Mike Price

Organisation: REPSIM Pty Ltd

A SUBMISSION TO THE DEFENCE SUB-COMMITTEE OF THE JOINT STANDING
COMMITTEE ON FOREIGN AFFAIRS, DEFENCE AND TRADE

**COMPLAINT REGARDING THE PRESENTATION BY AVM KYM OSLEY,
DEPARTMENT OF DEFENCE AND LOCKHEED MARTIN REGARDING
REPSIM PTY LTD**

REPSIM Pty Ltd (REPSIM) wishes to lodge a formal complaint about evidence presented to the Committee by the Department of Defence and Lockheed Martin.

There are four issues. These are

- a. The Department of Defence, via AVM Kym Osley, made errors of fact in the written statement he presented to the Committee about what the Managing Director of REPSIM Pty Ltd is alleged to have said to the Committee;
- b. The Department of Defence, via AVM Kym Osley, may have misled the Committee about the context of what REPSIM did for the RAND Corporation Project AIR FORCE staff in relation to the simulation of future air combat with the F-22 and F-35A aircraft against a credible future Chinese integrated air defence system environment that incorporated High Frequency Skywave Over The Horizon Radar to defeat aircraft stealth and operating Su-35S aircraft;
- c. The Department of Defence, via AVM Kym Osley and Lockheed Martin, via Mr Graham Bentley, may have misled the Committee about the content of what REPSIM did for the RAND Corporation Project AIR FORCE staff in relation to the simulation of future air combat with the F-22 and F-35A aircraft against a credible future Chinese integrated air defence system environment that incorporated High Frequency Skywave Over The Horizon Radar to defeat aircraft stealth and operating Su-35S aircraft; and
- d. The Department of Defence, via AVM Kym Osley and Lockheed Martin, via Mr Graham Bentley, may have misled the Committee about the current assessment of the capability of the F-35A aircraft. The Deputy Chief of Staff for Operations, Plans and Requirements of the United States Air Force, in March 2012, has publicly assessed the prospect of whether the USAF could employ the F-35A in combat air patrols in scenarios in the South China Seas region against a very capable anti-access, aerial-denial threat, which is what REPSIM produced for the RAND Corporation, as “probably not.”. This information was available prior to the Committee hearings.

REPSIM seeks action from the Committee to redress the situation and to restore REPSIM’s reputation and standing with its international business partners and customers.

**COMPLAINT REGARDING THE PRESENTATION BY AVM KYM OSLEY,
DEPARTMENT OF DEFENCE and MR GRAHAM BENTLEY, LOCKHEED
MARTIN REGARDING EVIDENCE PRESENTED BY REPSIM PTY LTD**

BACKGROUND

Last year REPSIM Pty Ltd provided the Deputy Chairman of this Committee, Dr Jensen, with access to some simulations that REPSIM had developed for the RAND Corporation in 2008 for an activity called Pacific Vision. Dr Jensen had raised this matter previously in Parliament in connection with the JSF aircraft. The intent was to aid the Committee in its investigation of the manner in which Defence was evaluating the potential combat performance of the F-35A JSF aircraft.

REPSIM was subsequently invited to this sub-committee's meeting on 07 February 2012 to discuss those simulations should the sub-committee be interested.

REPSIM, in good faith, participated in that short meeting, and as was evidenced from the questioning by the sub-committee's members and request for additional information, there was interest in the simulation work undertaken.

COMPLAINT

REPSIM was advised that material presented before the sub-committee was to be taken as evidence on oath and that false or misleading evidence to the sub-committee would be treated as contempt of parliament. "... *The giving of false or misleading evidence is a serious matter and may be regarded as contempt of parliament.*" ... Chair of the Subcommittee Senator Furner.

REPSIM understands that the same rules apply to material presented by the Department of Defence and Lockheed Martin.

In that context, Defence, via AVM Kym Osley, on 16 March 2012, has made statements which contain serious errors of fact and may have misled the sub-committee regarding the context and content of the work of REPSIM as well as the assessed performance of the F-35A by the USAF.

This is a serious and potentially damaging matter for REPSIM's public reputation and business interests given the interest in the JSF around the world, as well as REPSIM's standing with this Committee and the Parliament of Australia.

Similarly Lockheed Martin, via Mr Graham Bentley, on 20 March 2012 made statements which contain serious errors of fact and may have misled the sub-committee regarding the context and content of the work of REPSIM as well as the assessed performance of the F-35A by the USAF.

DETAILS

The details relate to claims about the work of REPSIM made by Defence that are patently false.

When REPSIM attended the 7 February 2012 sub-committee meeting there was insufficient time to present all of the material surrounding the work REPSIM had done for the RAND Corporation and the sophistication of the simulations and their multiple components, connections and processes.

In 2008 REPSIM was invited to produce some constructive simulations for RAND's Project AIR FORCE regarding Future Air Combat. The simulations are a computerised wargame where massive amounts of data are processed in accordance with protocols and constraints associated with everything from the effects of the weather on an aircraft's radar performance to the reliability of a weapon's warhead. The effects of time and distance are reflected in issues as diverse as fuel consumption at particular throttle settings down to the range at which countermeasures are deployed, if an incoming attack is detected.

These simulations involved a future scenario with the USA Pacific Forces (PACOM) opposing Chinese forces in the region of Taiwan. The two US aircraft of interest for RAND were the F-22 and the F-35A pitted against the emerging Su-35S for China, with the assumption that China was equipped with high frequency skywave over the horizon radars (HF OTHR) in a modern integrated air defence system (IADS) environment.



PACOM was conducting an activity in Hawaii, in July 2008 called 'Pacific Vision' with a large number of participants from various nations, including Australia. It had a number of elements within it. One element was a wargame called Pacific Vision. REPSIM had neither interest nor involvement in the Pacific Vision wargame, at all.

Another element was a RAND presentation by Project AIR FORCE staff to selected senior personnel at the Pacific Vision activity of the analysis of Air Combat Past, Present and Future. This was the context for the work undertaken by REPSIM. The Committee will note that the study it is marked For Official Use Only (FOUO) / Sensitive. This was serious work. REPSIM does not breach any agreement in providing this information to the Committee for the clarification of the facts.

The simulations were designed, developed and run by REPSIM to the specification and satisfaction of the senior staff of RAND's Project AIR FORCE team presenting their analysis of air combat. This was evidenced by them being presented at the Pacific Vision activity and the subsequent public controversy. The outcomes of the simulations were in accordance with the expectations of the RAND personnel, both for the F-35A and the F-22.

The RAND Corporation is an internationally acknowledged centre of excellence for analysis and research. Project AIR FORCE and its staff are acknowledged domain experts in their field of work with access to USAF data, information and staff. That was the reason that REPSIM did the work for Project AIR FORCE because we have capabilities that they did not and they are complementary capabilities to their areas of expertise. It was potentially a good business opportunity. In the projected scenario both RAND's Project AIR FORCE staff and REPSIM came to the same conclusion regarding the limited utility of the F-35A in future air combat against modern integrated air defence environments that incorporate means to detect stealth aircraft, and when the adversary is equipped with advanced aircraft such as the Su-35S. For the USAF this issue is about how to develop strategies to enable it to prevail; for other countries such as those in Europe where Russian HF skywave radar coverage is extensive and excellent or Australia it is a totally different matter.

Defence stated that Pacific Vision wargame was about logistics, not future air combat analysis and misled the sub-committee by claiming that the REPSIM work and simulations were not what REPSIM had advised the sub-committee in 7 February, 2012. REPSIM had no involvement in the Pacific Vision wargame, nor did it claim any involvement.

REPSIM's work was definitely about future air combat and the possible implications and ramifications of changes in technology, capabilities and tactics in the rapidly approaching future. This was specifically about the growing Chinese military capabilities and RAND's scenario was prescient in that only recently has China entered into formal and publicly visible negotiations with Russia regarding the purchase of advanced Su-35S aircraft.

It would appear that Defence confected its evidence to call into question the veracity and integrity of REPSIM and to mislead the sub-committee regarding REPSIM's

work and the potential importance of exploring the issue in more detail if the parliament is to have confidence that the F-35A is to be able to give Australia some prospect of regional air superiority into the future. Defence also linked Air Power Australia (APA) to REPSIM repeatedly to appear to imply that they are one and the same entity or organisation. APA has no part in the work of REPSIM and it was never claimed by REPSIM or APA to have performed such.

REPSIM and APA are two separate and distinct entities. REPSIM is a commercial organisation specialising in military research, consultancy and simulations. Air Power Australia is an independent non-profit think tank specialising in military/strategic analysis and governance, which does not perform commercial work, but does publish third party contributions. REPSIM has no shareholding or ownership relationship, or any other commercial relationship with APA, and vice versa.

Lockheed Martin's Australian business development director, Graham Bentley, told the committee evidence it had been given about the F-35's combat performance by REPSIM, was badly flawed.

REPSIM had said that in combat against the Russian Su-35S fighter JSFs would be downed at the rate of five planes to two.

Mr Bentley, a 34-year veteran with the RAAF, said US studies against contemporary threats gave the JSF a kill ratio of six to one.

The Su-35S was not a contemporary threat at that time. The Su-27SK/J-11A was a contemporary threat as was the Su-30MKI/MKK, or the MiG-29, or the Eurofighter or the Rafale, etc.

The RAND Project AIR FORCE Air Combat Past, Present and Future is a US study by the leading, and only, United States Air Force funded research organisation with the charter to do objective analysis on issues of enduring concern to the senior management of the USAF.

Lockheed Martin design and build aircraft.

The RAAF fly aircraft, they are neither expert in building aircraft nor expert in the domain of air combat analysis.

The Defence Material Organisation buys equipment, it is neither expert in the design and building of aircraft nor expert in air combat analysis.

RAND Project AIR FORCE are experts in the domain of Air Combat Analysis.

REPSIM are experts in designing, building and running simulations using H3 MilSim.

These functions are not are not the same and they are not interchangeable.

Attached as an exhibit is Air Combat Past, Present and Future used by REPSIM to meet the objectives requested by Project AIR FORCE staff, less some sensitive material not germane to this issue.

Corroborating this analysis was the statement by Lt. Gen. Herbert Carlisle, U.S. Air Force Deputy Chief of Staff for Operations, Plans and Requirements reported in Aviation Week 08 March 2012.

“Quantity is a factor,” says Carlisle. “You may have incredible capability, but you can only be so many places at once. You have to man combat air patrols in the South China Sea scenarios. As we’re moving into the fifth-generation aircraft, we are doing an assessment of the number of fighters we need.”

Then there is the conundrum of determining how capable a Block 1 or 2 F-35 is against sophisticated enemy air defenses.

“Software is a huge challenge” to provide the needed Block 3 upgrade, says Carlisle. “We’re not making progress as fast as we would like. We’re redoubling our efforts to get better at it. [Not having the upgrades] means less capability. Could you employ it against a very capable anti-access, aerial-denial threat? Probably not.”

This is a current assessment, not a hypothetical future assessment in 2020 or 2030. The deficiencies of the F-35A in the specific context of what RAND Project AIR FORCE specified and what REPSIM constructed in its simulations are reasonable and representative of the likely outcome of air combat against modern, not future, integrated air defence systems.

This was publicly available information from the highest ranking war fighter in the USAF and largest buyer of the F-35A indicating that the F-35A has significant air combat limitations now, let alone in 30 years time, yet Defence failed to mention it to the Committee, as it would have agreed with the simulation outcomes produced by REPSIM. A copy of this material is attached as an exhibit.

As an example of the implications of this assessment for Australia, Indonesia has acquired and will be able to field in the near future a very capable anti-access, aerial denial threat with an effective range of up to 500kms from its coast. It employs different technology to that used in the simulations constructed for RAND but is potentially no less effective.

SUMMARY AND OBSERVATIONS

Defence and Lockheed Martin have made errors of fact and attempted to mislead the sub-committee regarding the context and content of the material REPSIM presented to the sub-committee in February, 2012.

That Defence did this presents as a clear and present example of the toxic culture that exists within the ranks of senior defence personnel, and their hostile behaviour to any

person, group or organisation that may not share their view on any matter. Any tactic available appears open to use to dismiss, silence or denigrate alternative views.

It also is suggestive of the level of arrogance and contempt some in Defence hold for external oversight of defence matters by the Parliament, its processes and members that it would conduct itself thus.

In the legal vernacular it would appear that Defence and Lockheed Martin have 'verballed' REPSIM in an attempt to invalidate its evidence to the sub-committee in the eyes of its members of the committee, and the public more widely through its dissemination in Hansard.

This was particularly stark when contrasted to the statements made earlier on 16 March 2012 before the sub-committee by the Secretary and Chief of the Defence Force regarding the improvements being made now to Defence's culture and the approach of the senior leadership group.

It may be of interest to the sub-committee to note that the Managing Director of REPSIM gave General Hurley on 27 September 2011 the courtesy of a copy of the material given to Dr Jensen so that he and the Minister would be aware of it should any issues arise. Therefore, there should be no excuse for the errors made in the evidence given by Defence. The Committee might be also interested to know that I worked for General Hurley in the Defence Capability Development Group, where my work and that of my staff in this area of expertise resulted in an award in late 2005. A copy is attached as an exhibit.

REPSIM has not, and does not hold any position on any equipment or capability whatsoever. REPSIM is in the business of military analysis, consultancy and simulations. It is not a lobby or advocacy group or in any way part of any other activity. It prides itself on the three virtues of knowledge, skill and integrity. It does not stooge, confect nor distort its work to suit customers.

The potential impact on REPSIM of these claims by Defence is significant and substantial. The subject matter of the sub-committee's deliberations is topical world-wide and the ready availability of Defence'

s testimony and that of Lockheed Martin in Hansard online as well as the already transmitted video of proceedings which may have already been captured on digital recording systems may impact on potential customers of REPSIM adversely.

REPSIM has international business partners and customers that could be damaged by these false claims made against the work of REPSIM. REPSIM is marketed as a professional service provider by international companies. Attempting to destroy a company's business reputation by false imputation before this Committee should not be tolerated.

One of the Directors of REPSIM, in an incidental and private capacity, has published some works with APA, as APA is the only independent publisher in Australia

providing a platform for publishing such military analysis work. This has no impact on the work of REPSIM in any way.

The USAF Deputy Chief of Operations has stated publicly of the F-35A **“Could you employ it against a very capable anti-access, aerial-denial threat? Probably not.”**

REPSIM suggests that one can create thousands of scenarios where the F-35A would prevail; a campaign against the Papua New Guinea military that has no effective air combat or air defence capability, or interdicting ‘terrorists’ in Africa, the Middle East or Asia Minor that similarly have no air combat or air defence capabilities. Doing something useless thousands of times is doing nothing. Do not confuse meaningless activity with building confidence in a capability.

Apart from the evidence presented to this Committee by REPSIM there appears little, if any, quantitative evidence that is credible, relevant and objective to the question of how does the performance of the F-35A contribute to the Government’s objective of Australia maintaining regional air superiority over the next 30 years.

The final observation would be that there now appears to be sufficient independent expert assessment and analyses of the air combat challenges likely to face the F-35A over the next 30 years to warrant Parliament taking decisive steps to fully investigate the value of the F-35A to replace the F-111 capability and the F/A-18 capability in its own right, rather than relying solely upon selective and evidently self-interested, biased advice from Defence.

What is at risk is more than just a large slice of this country’s treasure but also Australia’s ability to maintain its sovereignty without becoming beholden to another nation.

REPSIM has developed proprietary metrics for what constitutes good air supremacy investments.

And it is supported by the ability to evaluate all options against the baseline scenario used for the F-22 and F-35A simulations. As information on the PAK-FA, J-20, and possibly the J-21, becomes available REPSIM can also update the threat capabilities.

CONSIDERATIONS

This is a serious matter for REPSIM and it seeks the sub-committee’s assistance in attempting to redress as much of the situation as possible through some, or all, of the following items.

REPSIM asks the sub-committee to consider whether Defence and Lockheed Martin should face scrutiny and possible sanction over these matters unless they can produce specific quantitative material that is credible, relevant and objectively assessed by reputable third party experts (and not buyers of JSF).

REPSIM seeks to have the Hansard record of Defence regarding REPSIM corrected or caveated in some way before it is published.

REPSIM asks that the sub-committee seek from Defence and Lockheed Martin a full and unreserved public apology for the errors of fact and false claims made by Defence and Lockheed Martin regarding REPSIM before your sub-committee and that this apology be incorporated into the Hansard record.

REPSIM asks that the sub-committee ask the Minister of Defence to investigate some form of compensation for the damage REPSIM has suffered and may suffer from participating in the parliamentary process in good faith, as REPSIM understands that material presented before the sub-committee is subject to the privilege of parliament.

Finally, REPSIM asks that the sub-committee consider, in due course, whether there is a need for establishing some form of independent verification and validation process for evidence presented by Defence to the Parliament, lest the same outcome of errors of fact and confected claims be presented to the sub-committee in the future regarding this or other projects and capabilities.

Michael Price
Managing Director
REPSIM Pty Ltd

10 April 2012

SUBMISSION TO THE DEFENCE SUB-COMMITTEE
REVIEW OF THE 2010-2011 DEFENCE ANNUAL REPORT - ISSUES RAISED
BY AIR POWER AUSTRALIA
16 March 2012

1. On 7 February 2012, the Defence Sub-Committee of the Joint Standing Committee on Foreign Affairs, Defence and Trade ('the Committee') received submissions from Air Power Australia (APA) and REPSIM principals asserting the 'catastrophic technical failure' of the F-35 Joint Strike Fighter (JSF) Program—and inferring that the Government is being misled by the Defence Materiel Organisation (DMO) and Lockheed Martin with 'significantly optimistic cost and schedule estimates'.

Response: REPSIM did not make any such assertion.

2. On 27 February 2012, the Committee—on tabling its report on its Review of the 2009-10 Defence Annual Report—identified cost, schedule and capability, as its main concerns with the JSF Program.

3. APA (represented by Messrs Goon and Mr Kopp) and REPSIM (represented by Mr Mike Price) are mainly critical of F-35 cost estimates and capabilities, and in their testimony, made several errors of fact and misrepresentations about F-35 capability.

4. In response to APA and REPSIM's claims that AIR 6000 is a failed project, AIR 6000 Phase 2A/B Stage 1 (14 aircraft) has not triggered any DMO 'failed project' criteria.

Specifically:

- a. Cost is currently within the approved cost envelope.
- b. Capability is expected to meet RAAF's planned Initial Operational Capability requirements as advised to Government in 2009.
- c. Schedule remains on schedule to deliver our first two aircraft in 2014 for US-based training.

Response: REPSIM did not make any such claim.

5. In regard to F-35 costs, and despite APA's assertions to the contrary, the Department of Defence has always made considerable effort to be clear on what is included in AIR 6000 project cost estimates. The U.S. decision to defer 179 U.S. aircraft over the next six years will increase the cost of Australia's 14 aircraft but the AIR 6000 project remains within the cost envelope approved by the Government in 2009.

6. APA's criticisms of the F-35's aerodynamic performance and stealth capabilities, and their claim that the F-35 will not be competitive in 2020, is inconsistent with years of detailed analysis undertaken by Defence, the JSF Program Office, Lockheed Martin and the eight other F-35 partner nations.

7. To comprehensively rebut many of APA's assertions in regard to F-35 performance would require release of highly sensitive U.S. data. As neither APA nor REPSIM have access to the detailed classified F-35 data, their analysis is basically flawed through

incorrect assumptions and lack of knowledge of classified F-35 performance information. Without this knowledge, APA and REPSIM can only speculate on the F-35's capabilities and its ability to counter extant and evolving threats.

Response: REPSIM produced reasonable and representative simulations of possible future air combat interactions of F-22 and F-35A aircraft against a projected Chinese military capability set to the specification and satisfaction of the RAND Corporation Project AIR FORCE staff. The status and knowledge, as well as the oversight of Project AIR FORCE research staff and its access to information and data is attached.

It is logically not possible to dismiss the simulations produced by REPSIM without dismissing the RAND study into Air Combat Past, Present and Future which was a major study sponsored by the senior management of the United States Air Force without also dismissing the competence of the senior management of the RAND Corporation and of the United States Air Force. The United States Air Force is the prime customer for the F-35A. It is indisputable that the United States Air Force has more knowledge of the strengths and weaknesses of, and resources allocated to, the F-35A than the Australian Department of Defence.

If the Committee accepts the claim by Defence that the simulations are wrong then it accepts that the senior management of the United States Air Force and the RAND Corporation are ignorant and incompetent.

If the Committee accepts that the senior management of the United States Air Force and the RAND Corporation are neither ignorant nor incompetent then the Committee accepts that the simulations are reasonable and representative.

It is interesting to note that the F-22 simulation results were not subject to the same attacks. Why would it be that REPSIM could get the F-22 correct but not the F-35A?

One cannot have it both ways.

REPSIM's work was subject to the scrutiny of world acknowledged experts in air combat analysis and RAND have been doing it continuously for nearly sixty years.

If Defence has access to classified F-35 data and information and did not bring to the attention of the Committee that there were some reservations regarding its potential in future air combat against advanced fighters in emerging integrated air defence system environments then Defence would be guilty of attempting to mislead Parliament, however if Defence did not know of the USAF senior management sponsored RAND work on Air Combat Past, Present and Future then the Defence claim to have access to all the information regarding the strengths and weaknesses of the F-35A is false.

If this is the case then Defence is in the situation, oft cited by Donald Rumsfeld, where it does not know what it does not know about all the possible air combat weaknesses of the F-35A because it is not getting all the information, even though the revelation of 08 March 2012 by the USAF Deputy Chief for Operations, Plans and Requirements that the F-35A would probably not prevail in the scenario that REPSIM simulated was in the public domain.

Therefore, how can Australia's Parliament be expected to believe what Defence says and rely solely upon Defence for advice concerning such an important decision for Australia?

One cannot have that both ways either

REPSIM rejects the statement that its analysis is flawed on the basis that REPSIM produced work to the specification and satisfaction of RAND, and the USAF Chief of Operations has publicly confirmed that the USAF has come to a similar assessment in that particular scenario.

8. Defence maintains that the F-35's ability to meet Defence's requirements has been carefully considered. In accordance with the endorsed processes and using the endorsed Defence Intelligence Organisation (DIO) threat assessments, detailed requirements were developed by a team of air combat professionals with those requirements independently scrutinised by DSTO analysts.

9. Over the past decade, the AIR 6000 project team has assessed how well the F-35 will meet those requirements. The analysis has utilised classified information, sophisticated analysis tools, professional analysts and air combat professionals in the form of our highly skilled fighter pilots, to determine the ability of the F-35 to meet Australia's air combat needs now and into the foreseeable future.

10. We remain confident that the F-35 in RAAF service will meet those requirements, noting that the F-35 will undergo technology refresh and block upgrades over the life of the Program to ensure the aircraft retains its capability edge (i.e. including software updated every two years and hardware every four years).

11. The answer from this work is that the F-35 is the right aircraft for Australia.

12. The JSF Program continues, however, to be closely monitored by Defence. The Minister for Defence has clearly stated our commitment to acquiring 14 F-35 A aircraft and that the schedule for delivery of the next 12 aircraft is under consideration.

13. The Minister has explained that Defence will conduct an exhaustive review of the risks of a capability gap and will recommend options for Government consideration later in 2012. The Minister has also stated that any decision on the next tranche of F-35A aircraft is unlikely to be a priority for 2012.

Kym Osley
Air Vice-Marshal
Program Manager New Air Combat Capability
9 March 2012

Overview of RAND Project AIR FORCE (PAF)

Our Mission

PAF's mission is to conduct an integrated program of **objective** analysis on issues of enduring concern to Air Force leaders. PAF addresses far-reaching and interrelated questions: What will be the role of air and space power in the future security environment? How should the force be modernized to meet changing operational demands? What should be the size and characteristics of the USAF work force, and how can that work force be most effectively recruited, trained, and retained? How should sustainment, acquisition, and infrastructure be streamlined to control costs?

Our Beginnings

Project AIR FORCE (PAF) is the product of visionary thinking that led to a RAND-Air Force partnership now approaching its sixth decade. Originally known as Project RAND (an acronym for research and development), PAF was established in 1946 by General H. H. "Hap" Arnold as a way of retaining for the United States Air Force (USAF) the considerable benefits of civilian scientific thinking that had been demonstrated during World War II. Since its founding, PAF has remained **the only** Air Force federally funded research and development center (FFRDC) concerned entirely with studies and analyses rather than systems engineering or scientific laboratories. **The special FFRDC status facilitates stable USAF support over an extended period of years as well as in-the-family access by the research staff to relevant Air Force information and management personnel.**

Oversight

The United States Air Force is the overall sponsor for PAF activities. As the sponsor, the Air Force oversees and monitors PAF's research and is ultimately responsible for public accountability. The Air Force Steering Group (AFSG) for PAF—which is chaired by the Vice Chief of Staff and includes senior representatives from the Air Force Secretariat and the Air Staff—establishes overall objectives for PAF, provides broad supervision and policy guidance, and periodically evaluates the entire research program.

The simulations developed by REPSIM for Project AIR FORCE staff in support of the Air Combat Past, Present and Future work were part of this process.

Air Combat Past, Present and Future was a major study addressing far-reaching concerns about the risks and options of the USAF in maintaining air superiority into the future against credible and relevant challenges.

REPSIM response to:

Evidence by AVM Kym Osley to DEFENCE SUB-COMMITTEE
 REVIEW OF THE 2010-2011 DEFENCE ANNUAL
 16 March 2012

Air Vice Marshal Osley: Air Power Australia and REPSIM principals offer a summary of the Pacific Vision exercise conducted in 2008 where they assert that it proves the vulnerability of the F35. The war game in question was not focused on air combat capability analysis at the required classification and level of detail necessary to draw valid conclusions on the relative merits of the F35 in force-on-force applications. The Pacific Vision 2008 exercise was not intended to test air-to-air capabilities and the analysis done by Air Power Australia and REPSIM at the time was not accepted as valid by either Rand, the USAF or the RAAF.

Response: REPSIM did not offer a summary of the Pacific Vision exercise at all. The simulations were designed, developed and run by REPSIM to the specification and satisfaction of the senior staff of RAND's Project AIR FORCE team presenting their analysis of future air combat. This was evidenced by them being presented at the Pacific Vision activity and the subsequent public controversy. The outcomes of the simulations were in accordance with the expectations of the RAND personnel, both for the F-22 and F-35A.

AVM Osley again confects the story that the simulations were not intended to test future air to air combat capabilities because the Pacific Vision war game was not focused on air combat. REPSIM never claimed to have been connected to the Pacific Vision wargame in anyway.

If RAND Project AIR FORCE senior staff did not accept the simulations as valid then why were they presented, both F-22 and F-35A at the Pacific Vision activity?

That, subsequent to the disclosure of the results of the simulations, action was taken to minimise the potential damage to the JSF project that might result from such a disclosure, and the leaks did not come from REPSIM, should be no surprise to anyone. For more examples of such practices I would refer you to the Wikileaks site.

RAND released a statement on September 25th 2008, a copy of which is attached as an exhibit. It simply states 'Recently, articles have appeared in the Australian press with assertions regarding a war game in which the analysts from the RAND Corporation were involved. Those reports are not accurate. RAND did not present any analysis at the war game relating to the performance of the F-35 Joint Strike Fighter, nor did the game attempt detailed adjudication of air to air combat. Neither the game nor the assessments by RAND in support of the game undertook any comparison of the fighting qualities of particular aircraft.'

That statement is accurate. REPSIM's work was not connected to the Pacific Vision wargame at all.

And finally, corroborating this analysis was the statement by Lt. Gen. Herbert Carlisle, U.S. Air Force Deputy Chief of Staff for Operations, Plans and Requirements reported in Aviation Week 08 March 2012.

“Quantity is a factor,” says Carlisle. “You may have incredible capability, but you can only be so many places at once. **You have to man combat air patrols in the South China Sea scenarios.** As we’re moving into the fifth-generation aircraft, we are doing an assessment of the number of fighters we need.”

Then there is the conundrum of determining how capable a Block 1 or 2 F-35 is against sophisticated enemy air defenses.

“Software is a huge challenge” to provide the needed Block 3 upgrade, says Carlisle. “We’re not making progress as fast as we would like. We’re redoubling our efforts to get better at it. [Not having the upgrades] means less capability. **Could you employ it against a very capable anti-access, aerial-denial threat? Probably not.**”

If AVM Osley does not think that Lt Gen Carlisle represents the USAF, as he is its current chief warfighter and responsible for its plans and requirements, then who does he think knows the situation?

Air Vice Marshal Osley: In essence, yes. To make a valid assessment of F35 versus opposing aircraft you need access to the classified capabilities of the aeroplane itself. Also, the structure of the scenario needs to be a realistic one. The aim behind the Pacific Vision exercise was actually for Pacific air forces to look at the vulnerability of their bases. Essentially, they wanted a scenario where their bases were being threatened so they could then look at how they might respond and see what risks they had. The scenario was structured around that.

If you wanted to assess the effectiveness of an F35 versus other air combat capabilities then you would need to have a scenario that enabled you to take into account all the support aircraft and other capabilities that would be in the area. You would need to take into account the transfer of information using datalinks, the situational awareness that you would have and the tactics that you would use in flying those aeroplanes. The tactics for using a fifth generation fighter are significantly different from the tactics used for a fourth generation fighter. Also, you would need to take into account detailed analysis of weapons and other things, including electronic attack.

Response: Again AVM Osley confects the story that the work done by REPSIM relates to the Pacific Vision wargame. It never did, and REPSIM never claimed it did. The future air combat simulations designed, developed and run by REPSIM incorporated all the aspects of modern air combat with the addition of High Frequency Skywave Over The Horizon Radar to illustrate the significant and substantial change the deployment of that type of capability, by the Chinese, might have on the current US reliance on stealth as a qualitative advantage over aircraft such as the Su-35S equipped with excellent communications, capable of

coordinated tactical actions and possessing longer range weapons and mixed seeker head missiles, that when coupled with the Su-35S's superior aerodynamic performance and countermeasures against active radar guided missiles minimises, if not eliminates entirely, the necessity of the Su-35S to enter the F-35A / AIM-120 missile no escape zone. It applies equally to questions of F-35A utility in air to air combat against other countries such as Russia or Iran.

As the scenario was to the specification of RAND Project AIR FORCE, REPSIM doubts that Defence can credibly dispute its utility to explore future air to air combat challenges.

REPSIM took a corporate decision following the aggressive attempts by the United States Office of the Secretary of Defense to mislead the public and the Congress of the United States of America in relation to the weaknesses of the F-35A and damage the integrity of the RAND personnel.

REPSIM decided that it would not raise this matter in public until then Secretary of Defense Robert M. Gates had left office. Gates knew, as did RAND Project AIR FORCE staff, that the USAF had, and could use, alternative and complementary capabilities to prevail now and into the future.

For other countries solely reliant on the F-35A for air to air combat survival the situation is likely to be dire when faced with emerging very capable anti-access, aerial denial capabilities. For Australia facing the emergence of very capable anti-access, aerial denial threats in the region, the F-35A would appear to be inconsistent with the Government's expectation of maintaining regional air superiority into the future.

It would appear Gates' view of the USA national interest focused wholly and solely on making sure that the potential F-35A weaknesses were hidden as best possible from public scrutiny. His interest was in the pursuit of the almighty dollar – not honesty or integrity.

More than three and a half years ago USAF's own independent expert analysts were seriously questioning the F-35A's air combat ability in the face of credible and relevant future challenges.

Corroborating this analysis is the statement by Lt. Gen. Herbert Carlisle, U.S. Air Force Deputy Chief of Staff for Operations reported in Aviation Week 08 March 2012.

“Quantity is a factor,” says Carlisle. “You may have incredible capability, but you can only be so many places at once. **You have to man combat air patrols in the South China Sea scenarios.** As we're moving into the fifth-generation aircraft, we are doing an assessment of the number of fighters we need.”

Then there is the conundrum of determining how capable a Block 1 or 2 F-35 is against sophisticated enemy air defenses.

“Software is a huge challenge” to provide the needed Block 3 upgrade, says Carlisle. “We’re not making progress as fast as we would like. We’re redoubling our efforts to get better at it. [Not having the upgrades] means less capability. **Could you employ it against a very capable anti-access, aerial-denial threat? Probably not.**”

A very capable anti-access, aerial denial threat can be mobile and more easily developed now with advanced systems than the previous fixed IADS of the NATO days in the 1970s, 1980s and 1990s.

Does Defence now claim that the USAF Deputy Chief of Staff for Operations, Plans and Requirements does not know, in detail, the likely assessments of F-35A weaknesses that REPSIM simulated?

The Committee might not be aware that Lt. Gen. Carlisle is more personally across this issue in a professional sense than most personnel in the USAF because as part of his career progression he is not only a qualified fighter pilot on USAF combat aircraft but is also qualified on both the current USAF’s Sukhoi (Su-27SK) and Mikoyan (MiG-29) combat aircraft that are used in the USAF Aggressor Unit. He is better informed than most, especially anybody in the RAAF, about capabilities as he is also responsible for all USAF operational plans and requirements.

It might be of interest to the Committee to inquire of Defence how many of its RAAF pilots engaged in man-in-the-loop F-35A simulation work are qualified combat pilots on current Sukhoi-27/30 or MiG-29 combat aircraft. There is nothing like a content free simulation to get you the result you require.

And finally, no amount of software upgrades can overcome the design and performance deficiencies in the F-35A against very capable anti-access aerial denial threats. Software upgrade claims are colloquially referred to as ‘vapourware’ – one can never quite get one’s hands on it.

If the F-35A cannot prevail in an air to air combat role, then what chance does it have to survive in a strike role when it has to relinquish some, or all, of its air to air capability to carry strike ordnance?

REPSIM did not make errors of fact over what it said to the Committee and did not mislead the Committee.