



Allan George's Gems

The F-35.

A lot has been written about the F-35A Lightning II, the aircraft the RAAF has chosen for Australia's future air combat and strike needs. The RAAF has 75 on order (with an option on another 25) and these aircraft will be based at three operational squadrons, two at Williamtown and one at Tindal, including a training squadron at Williamtown. If the option is taken up, those additional 25 will probably go to Amberley.



What I find interesting, and perhaps even amusing, is the way the Press love to rubbish the aircraft and seem to be constantly looking for something (anything) negative to report on it. Reuters, for instance, had this blaring headline 12 months ago "**Pentagon's big budget F-35 fighter 'can't turn, can't climb, can't run'**".

Another "We know stuff" magazine recently reported during mock dogfights over the Pacific Ocean in January this year, that a U.S. Air Force F-35 stealth fighter struggled to get a clean gun or missile shot at a 1980s-vintage F-16D. It went on, "the F-16 easily manoeuvred behind the bulky F-35, even sneaking up on the radar-evading jet when its test pilot found his rearward



view blocked by the plane's poorly-designed canopy". The obvious conclusion—America's brand-new stealth fighter, which is on track to replace almost all of the Pentagon's current fighters, is dead meat in a close air battle.

It probably can't tow a trailer of fire-wood either – but is that what it was designed to do??

The latest evaluation flight test focused on the overall effectiveness of the aircraft in performing various specified manoeuvres in a dynamic environment. This consisted of traditional Basic Fighter manoeuvres in offensive, defensive and neutral setups at altitudes ranging from 10,000 to 30,000 feet up against an "aging" F-16. The flight test pilot reported that the F-35 was "significantly less manoeuvrable" than the opposing F-16 aircraft and that the F-35 was at a "distinct energy disadvantage," especially when it came to a duel involving cannons.



Now armchair critics of the F-35 are using this report as "evidence" that the Joint Strike Fighter (JSF) is inferior to those it is intended to replace and that the trillion dollar program is a failure and that really all those people in the US Military as well as people from Air Forces in the United Kingdom, Italy, the Netherlands, Canada, Turkey, Australia, Norway and Denmark, who have all ordered the aircraft, must be stupid because the F-35 is a complete dud and everyone was suckered in by those snake oil sales people at Lockheed.

But hang on – if you can win the fight from 20 miles away, why get into a dog fight??

One single test is not enough to draw conclusions about the F-35's ability to dogfight, if that's what you want. Yes, pilots will make mistakes and there is a chance of surprise close encounters with hostile aircraft but even if it turns out that the JSF is inferior to some other aircraft in close air battles, the evidence of the past 25 years of air-to-air combat suggests that this will be a rare occurrence.

The use of guns in air combat has declined from a high of more than 60 percent of all engagements in the 1960s to around 5 percent for the last 25 years and around 90 percent of air losses since 1990 have been inflicted by missiles. The reasons for this are simple. There



are continuing improvements in sensors and missiles and aircraft connectivity is growing and there are new tactics that exploit these advances.

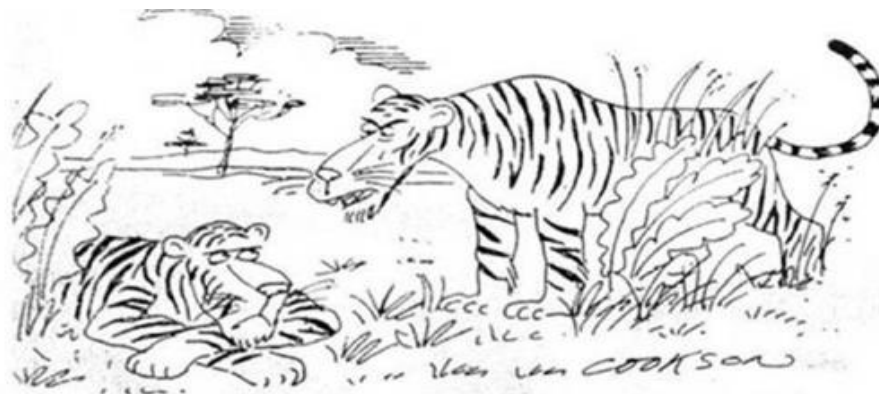
It would be nice if the F-35 was good at everything, but that's not realistic. So instead of dwelling on the slight chance the JSF would ever even get caught in such a close encounter, what you should consider is this.

The existing fleets of fourth-generation fighters (our F-18's) are increasingly obsolete and will be inferior to the F-35 in pretty much all future engagements. And should the F-35 ever find itself in one of these air battles, maybe the JSF wouldn't dominate in that domain but victory in future air-to-air combat will go to the side that can see first and shoot first.

This was demonstrated quite clearly in the Falklands when the slow old Harrier, so often rubbished for its poor performance, took on and defeated many modern aircraft thanks to its advance weapon technology and highly trained pilots. The critics of the F35 focus on its allegedly "inferior" performance, but as has been proven many times before, it's the weapons and sensors that tip the balance, not the airframe. The old Harrier, despite its limited airframe was an outstanding weapon during the 90's, due to its excellent radar/missile combination.



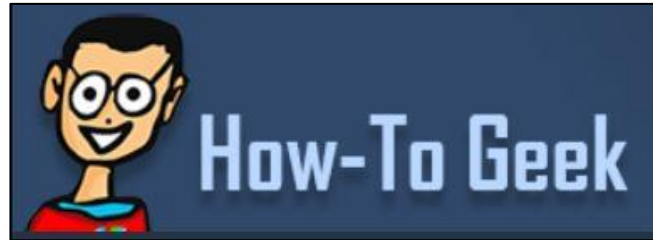
Make no mistake, the F-35A will provide Australia with a fifth generation aircraft at the forefront of air combat technology. Its low profile design, internal weapons and fuel carriage, advanced radar, electro-optical and infrared sensors with advanced voice and data link communications and the ability to employ a wide range of air-to-surface and air-to-air weapons will make it an aircraft to be reckoned with.



'We're on the brink of extinction and you have a headache?'



12 of the Biggest PC Myths that just won't Die



Computers are like anything else. Myths and urban legends have built up over time, passed from person to person. Some myths once had a grain of truth, but are no longer true thanks to technological progress.

A few myths are simple misunderstandings, while others exist to help people make money from you.

1. Hackers are Trying to Hack your PC.

Yes, it's a dangerous Internet full of malware and social engineering schemes out there, but the Hollywood fantasy of a "hacker" actively trying to compromise your PC just isn't accurate at all. Attacks are automated. Your computer could get malware that attempts to log your keystrokes and steal your personal information and you probably will get the occasional phishing email trying to get your credit card number, bank details, or social security number. But there's no "hacker" out there typing at a terminal screen, probing for holes in your PC. If something is probing for holes in your PC, it's probably a botnet probing for open security holes on unpatched computers.



Unless you're a high-value target, at a big business or government agency, there are no hackers out there attempting targeted hacks on your computer. Attackers take the shotgun approach.

2. There are "Clean" Windows Freeware Download Websites.

The Windows freeware download scene is bad and getting worse. Remember when uTorrent was a great program well-respected by geeks? Well, they've bundled software that maxes out your PC's CPU to mine BitCoin. All freeware download sites are bad these days. Big download sites like Download.com, Softpedia, FileHippo, and SourceForge often add their own garbage to the freeware they offer for download. These sites would have nothing to offer if they refused to offer programs bundled with junk





software. If you're downloading from a program's official website, you'll often have junkware pushed onto you in the installer too.

3. You have to Turn Your Computer Off at night.

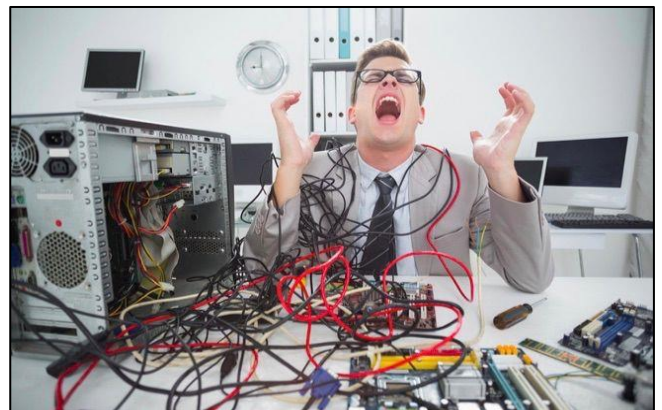
Shutting down your computer isn't something you should regularly have to do, assuming you're using a computer made at any point in the last decade. No, you don't want your computer running at full-tilt all night but putting it to sleep makes it use almost no power and it'll be ready to go immediately when you turn it on. On a typical laptop, just closing the lid should make it sleep. Even powerful desktop PCs can use low-power sleep and hibernate modes.



Computers can be set to automatically hibernate after a while and they'll use no power in this mode, but all your open applications and work will be ready when you sit down at your computer again. Going through a full shutdown every night and restart the next day isn't necessary at all and just wastes your time. You might want to reboot occasionally, but you don't need to shut down every day.

4. Automatic Updates will always Break Your PC.

Automatic updates aren't as scary as they seem. Some people go out of their way to disable Windows updates and even browser updates because they're worried about things "breaking." Yes, sometimes Windows updates do break things but, overall, automatic updates are good. They close security holes and keep your computer working properly. Breakages are rare. Security holes are a bigger concern, it's usually best to just enable automatic updates for your operating system, web browser, plug-ins, and other software and have them stay up-to-date automatically.



If you don't trust a company to responsibly install automatic updates, you probably shouldn't be running their software in the first place. On Windows 8 and 10, automatic updates no longer force reboots of your PC and are generally less obnoxious. You can also prevent Windows 7 from automatically rebooting to install automatic updates with a quick registry hack.

If you know your way around the Registry and you want to do that, see Sam's story in this Volume [HERE](#).



5. Internet Explorer is Slow, Vulnerable, Non-Standard, and Bad.

Among geeks in the know, Internet Explorer is a joke. Microsoft is even replacing Internet Explorer with a new browser named Edge in Windows 10 to get away from Internet Explorer's reputation but recent versions of Internet Explorer are actually pretty good. Internet Explorer 9 improved things dramatically, and IE 10 and 11 are even better. Modern versions of Internet Explorer support a lot of the modern HTML standards found in other browsers and have speedy JavaScript engines. Internet Explorer also has a "protected mode" sandbox and a multi-process design, two important features Mozilla Firefox still doesn't offer. Some tests have even found that Internet Explorer is easier on a Windows laptop's battery than Chrome, Firefox, and Opera.



We're not saying you necessarily need to use Internet Explorer but it isn't the laughing stock it used to be.

6. In-Use Memory is Bad.

Modern operating systems try to use as much of your computer's RAM as possible. This is true for everything from Windows, Linux, and Mac OS X to Android and Apple's iOS. Modern web browsers also use quite a bit of memory. This is a good thing! When data is in RAM, your computer can access it more quickly. It makes sense to leave applications, data, temporary files, and everything else in RAM where it can speed up access times in the future. Crucially, empty RAM is entirely useless. If your computer does need more RAM for something, it can instantly purge some of that cached data from your RAM to free up space. If you look at your resource usage and see high RAM usage, that's probably a good thing, as long as your computer or device is performing well.



You certainly don't want to use a "memory optimizer" or "RAM booster" on Windows, or a "task killer" on Android. These applications purge cached data your RAM, making it look more empty but slowing down your computer.

7. Manual Defragmentation and Expensive Defragmentation Utilities Help.

Here's what you need to know about defragmenting a modern computer - Don't worry about it. Windows contains a built-in defragmentation utility that it automatically runs on a schedule. You



shouldn't need to open it and run it — it'll all happen automatically. Maybe, if you install a very large PC game and need maximum performance, you might want to run a manual defragmentation right after the installation but that's a rare occurrence and you don't need to run manual defragmentation processes regularly. For example, Steam has a feature that will defragment a single PC game's files only, you could just use that.



Third-party defragmentation utilities just aren't worth paying for.

8. Codecs are required to Watch Videos Online.

There was a time when you needed codecs to watch videos online. RealPlayer, QuickTime, Windows Media Player, and DivX were all often necessary. Sometimes Java was used for videos and later came Microsoft's Silverlight. Nowadays, most videos should play with either the HTML5 video feature in your browser or the Adobe Flash plug-in. A few websites may still be using Microsoft Silverlight but you don't need to install codecs to watch videos on the web.



If you do click a link on social media or another website and are asked to install codecs, don't, it's a trick to get you to install junk you don't want on your computer. If you're told you need to download codecs to watch a downloaded file, don't do that either, just get VLC, possibly the best video player available today, and it's free. Be sure you get VLC from the official site at videolan.org, not other websites that bundle it with garbage.

9. Viruses and Malware are why Your Computer is Broken.

Is your computer not performing well? "It must have a virus," some people think but this isn't really true. In fact, modern malware is so profit-driven that you might not even notice a performance change if you have a keylogger running in the background. Sure, it's possible that your computer is infected by malware and is using its resources on behalf of a botnet, mining BitCoin and participating in DDoS attacks against legitimate websites but viruses aren't usually what slows down a computer. Perhaps you have too many programs running at startup or your browser is loaded down with unnecessary add-ons, or there may be an actual hardware problem, it's not just a mysterious "virus" that makes your computer slow and sick.

Did you hear about the Buddhist who refused Novocain during a root canal?
His goal: Transcendental medication.



10. Your Antivirus will always Protect You.

Most people understand that antivirus software isn't perfect, nothing can function perfectly 100 percent of the time, but many people seem to think that antivirus software is pretty effective. The truth is scarier. Antivirus software is a helpful last line of defence but it's nothing you should rely on completely. Even Symantec, makes of Norton Antivirus, have said that antivirus software fails to stop most cyberattacks.



Worse yet, most antivirus software doesn't even protect you against obnoxious software you don't want. Antivirus software allows obnoxious adware and spyware that inserts itself into your web browser, forcing you to use worse search engines and pushing additional advertisements onto you. And to make things worse, some free antivirus programs usually bundle this junkware. This doesn't mean the sky is falling, and it doesn't mean you should abandon antivirus completely but antivirus should be your last line of defence behind other security precautions.

11. Clearing your Cache will Speed-up your PC.

Some applications store cache files, which are offline copies of files they've already downloaded. They hold onto these files in case they need them again, so they can be accessed from your hard drive instead of re-downloaded. This saves time and bandwidth. Your web browser has its own cache full of bits of downloaded web pages, scripts, images, and more. Tools like CCleaner will wipe this cache to free up space, but that's not necessarily a good idea. Regularly clearing away this cache means your browser has to re-download everything every time you use it, it will actually slow down your web browsing. You do save a bit of disk space, but that space fills right back up again with more cache files.



are offline copies of files they've already

12. PC Cleaners, Registry Cleaners, Driver Updaters and Paid Uninstallers are Helpful.

All those Windows system tools you see advertised around the web just aren't necessary. PC cleaners are usually scammy, promising to dramatically improve your computer and finding all sorts of "issues" with your PC if you run them in free mode. PC cleaners might be able to delete some temporary files and free up space, but you can just do that with CCleaner or Windows



Disk Cleanup. Registry cleaners are similarly useless. Your registry just doesn't need to be cleaned, those extra entries in the registry are tiny and won't slow down your PC.

Never Download a Driver-Updating Utility, like PC-cleaning programs, they try to charge you money for a service you don't need. You don't always need the latest versions of drivers, except for graphics drivers, but graphics drivers usually have their own built-in updaters and you'll regularly get driver updates via Windows Update, anyway.

Paid uninstallers won't help you uninstall programs much more cleanly, either. A third-party uninstaller might help you delete a few extra tiny files or registry entries when you uninstall an application, but that has no effect at all on your computer's performance. You may rarely need an uninstaller to clean up a program that refuses to uninstall properly, but that's different.



These are all just types of fiddly system tools that exist only to take your money. Take all the money you'd put toward these utilities and buy an SSD or another real hardware upgrade for your computer, you'll get an actual performance boost. Sure, you can find free versions of many of these tools, but they'll just waste your time, with the exception of a tool that helps delete temporary files to free up space. But that's all you might need, not even a full "PC cleaner."

Of course, there are more PC myths out there. It's not just about PCs either, everything technology-related, from smartphones to other types of hardware have their own myths. We may not be throwing salt over our shoulders, but most of us probably believe at least a few myths that just aren't accurate.

Wind turbines.

Wind turbines seem to have popped up everywhere yet the debate still rages whether they are a clean and efficient source of electrical power or an expensive useless eyesore cluttering up the landscape. The NSW Government has released [a report](#) which shows that they are 35% efficient, that is, in every hundred days they produce energy on average for 35 days. A coal fired power station is about 85% efficient, that is, in any hundred days they generate power for 85 of those days. In Australia the average wind turbine can generate from 2.0 to 3.0 MW and would cost from \$4M to \$6M of which the tax payer contributes about \$500K in subsidies. In December 2013, Australia had about 1640 turbines in operation – these attracted subsidies of about \$820M.



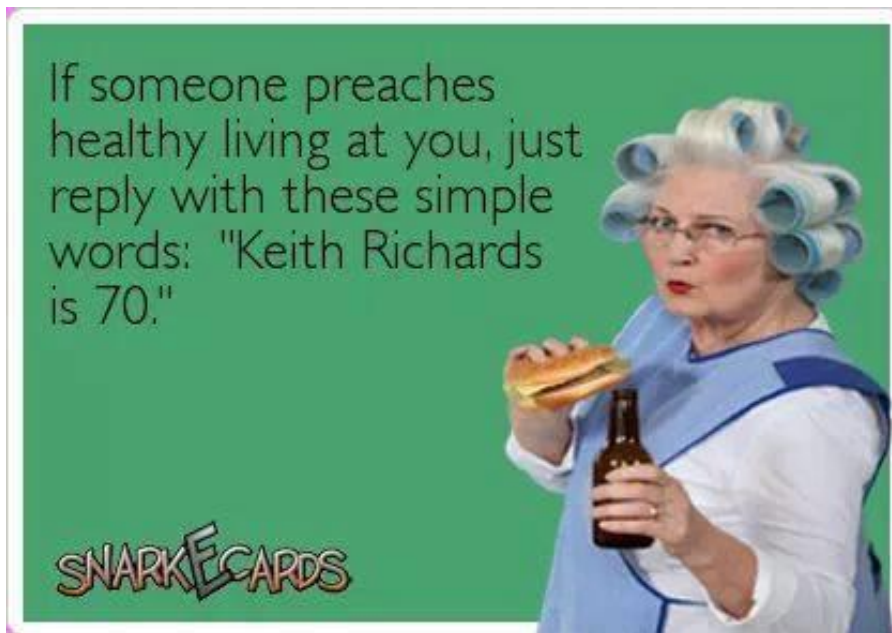


The trend in the debate these days is starting to lean towards the eyesore group. The anti-windfarm lobby is gearing up their anti-health, anti-efficient and safety campaign to combat the green and clean campaigns of the pro-windfarm group and with the [withdrawal](#) of Federal subsidies, we can see the number of new windfarms diminishing. The pro-lobby has for ages said their generators are as cost-efficient as coal or gas fired stations – without those subsidies, we shall see.

No matter on which side of the fence you sit, you have to admit those huge turbines are a mechanical marvel. Building and commissioning one is not a job for “sissies” and those without a head for heights need not apply.

Click [HERE](#) to see how it's done.

And you can click [HERE](#) to see their evolution and a description on how they operate.



USS George Washington.

On Friday the 19th June, the nuclear powered, 88,000 metric tonne, USA aircraft carrier, USS George Washington, arrived in Brisbane for a 5 day tour. The Washington, which is 333 metres from front to back, carries a crew of 5,500 persons and has a top speed of 56 klms per hour. She is driven from 2 nuclear reactors which power 4 steam turbines, each one driving a propeller shaft. If she had the food and a crew who were willing to switch off for a while, she could stay at sea for 20-25 years without refuelling.

She was here for Exercise Talisman Saber which took place in the Coral Sea. This exercise included 21 surface ships, 3 submarines and more than 200 aircraft.



While in Brisbane, the Washington tied up on the southern side of the river, down near the mouth and unfortunately was not open for public inspection. People wishing to get a look at the ship were forced to drive down to Cabbage Point, on the northern side of the river, park their cars then walk a mile or so along (in some areas) muddy roads to get opposite her. And they turned out in their thousands, at 11.00am on the Sunday morning, the line of cars stretched as far as you could see.



USS George Washington facts:

- Commissioned: 4th July, 1992.
- Propulsion: Two nuclear reactors that permit the ship to steam for almost 18 years before refuelling.
- Meals served daily: 18,000.
- Number of compartments and spaces: 3,360.
- Number of telephones: 2,000.
- Capacity of air conditioning system: 3,267 tonnes.
- Daily capacity of fresh water distilling plants: 1.5 million litres, enough to supply 2,000 homes.
- Aircraft carried: 90 fixed wing and helicopters.





F35 Tailor Made Helmets .

Marking a milestone for the joint strike fighter program, Rockwell Collins recently delivered the first Generation 3 helmet for the F-35. The Generation 3 Helmet-Mounted Display System (HMDS), which was handed over to the Joint Program Office in a ceremony at the company's headquarters in Cedar Rapids, Iowa, is crucial to the F-35's advanced suite of technologies. It provides a 360-degree digital view of what's going on around the aircraft, essentially letting the pilot "look through" the cockpit floor and walls. All the information pilots need to complete their missions is projected on the helmet's visor.

Developed and built by the Rockwell Collins ESA Vision Systems joint venture, the new helmet includes an improved night vision camera, improved liquid-crystal displays and automated alignment and software upgrades, according to a company statement. The Gen 3 helmet will be introduced to the fleet in 2016.



News of the delivery marks a victory for the futuristic helmet program, which has faced challenges over the years. After a series of technical failures on the original system, the Pentagon requested that BAE Systems develop a back-up, lower-tech helmet, in case the kinks could never be worked out with the primary system. The helmet, like the aircraft itself, is also enormously expensive. The cost of each helmet, which is custom-made to fit the individual pilot, is more than \$400,000.

Rockwell Collins ESA Vision Systems also developed the Generation 2 helmet F-35 pilots currently use. The Marine Corps recently used the Gen 2 helmet to declare initial operational capability for the F-35B variant at the end of July.



Velly Inteesting – but stupid!!!!