



Out in the shed with Ted.

Ted McEvoy

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Disabled Veterans continue to Struggle.

The TPI Federation together with its ADSO partners is underway with a campaign for fair economic loss compensation to be afforded to the most disabled Veterans in our community, namely the Special Rate/Totally & Permanently Incapacitated (SR/TPI) members. What is required is adjusting their compensation payment to reflect today's standard of living. These Veterans, most physically and psychologically disabled from their service to the Nation, can simply not adequately survive and support their families on an ongoing decline in their standard of living.

In effect, what is sought is that those disabled Veterans be allowed to live in dignity and with self esteem by having the SR/TPI Compensation increased to 100% of the average weekly wage. It is currently at a lowly 43%. This has diminished over the past 65 years from 80% to 43%.

Can this continue to be tolerated? Arguably not at all!!

For that reason, the TPI Federation with ADSO support initiated a campaign in August 2015 seeking public and defence community support. Part of the campaign includes a public petition Fair Compensation for our Most Disabled Diggers and releasing an explanatory awareness SR/TPI video.

Readers are cordially asked to access both links and support the cause for redress for our most disabled veteran colleagues.

The lack of redress explains a number of inalienable facts:

- The number of Veterans who are homeless;
- The number of Veterans' whose spouses/partners must work to bring in a sustainable income;
- The number of Veterans who cannot afford the ever increasing cost of living;
- The number of Veteran and civilian organisations asked to provide the very services that are the responsibility of Government;
- The number of Veterans who cannot hold their heads high with the proud knowledge that they have done their country proud and that the Government will look after them;

What should not be forgotten is the outstanding grievance that the families of the disabled would benefit the grant to them of the same structural increase as other pensions received in 2009. This would restore parity with other pensions and replace the \$3,300 pa taken from them by the then ALP Government and not restored since.



Disability Pension.

The Veterans' Disability Pension is compensation for war veterans who become seriously wounded, ill or injured during their Government accepted service to the nation and is

compensation for their foregone ability to work sufficiently and sustainably for an adequate wage or salary. It is not a welfare payment.

Personnel accepted by DVA as disabled, on and under the 100% General Rate, are able to continue in the paid workforce without loss of pension. Totally and Permanently Incapacitated (TPI) or Special Rate disabled have in the main their compensation package for inability to remain in waged employment made up from two components, the TPI rate makes up 60% and the Invalidity Service Pension (ISP) makes up 40%. The ISP component is means tested/reduced by 50 cents in every dollar earned above \$7,000 pa. This means test/reduction is extended to the earnings of a partner, inheritance and pre disability savings and assets. I.e. not all TPIs are compensated for their war cause wounding/injuries at the same level.

The Federal Government says it understands the impact of rising costs of living and the importance of ensuring that entitlements do not erode in value and is committed to ensuring that our Disabled War Veterans have their pensions adjusted to take account of "not just the cost of living but also the standard of living".

It took the Australian TPI Federation almost a decade (1997 - 2007) to gain indexation parity for the DVA Disability Pensions with the Age and Invalidity Service Pension as a formulated 25% of the Male Total Average Weekly Earnings (MTAWE) or CPI whichever was the greater. That parity was lost in 2009 when the Age and Invalidity Service Pension rose as a result of the ALP adopting the recommendation of the Harmer review into pension levels as compared to community increases in wage levels. The review found that pensions to remain relevant to wage levels needed to be increased by a factor of 2.7% of the Average Wage i.e. MTAWE. DVA Disability Pensions were excluded from the increase and remain based upon 25% of MTAWE.



After parity was granted, DVA Disability Pensions were adjusted twice-yearly (in March and September) in accordance with the movement in the; Consumer Price Index (CPI), or the 25% of MTAWE, whichever was the greater.

In 2009, despite assurances by the Labor Government's Veterans' Affairs Minister (Alan Griffin MP), the Treasurer (Wayne Swan MP) and the Minister for Families, Community Services and Indigenous Affairs and Minister for Disability Reform (Jenny Macklin MP) that DVA Disability Pensions were included for [Review by Dr Jeffrey Harmer](#) into the Reform for More Secure and Sustainable Pensions, it was omitted. This was seen as a blatant and intentional act of discrimination by the Rudd Labor Government against Disabled Veterans. I.e. the ALP moved the goal posts for all pensions except for DVA Disability



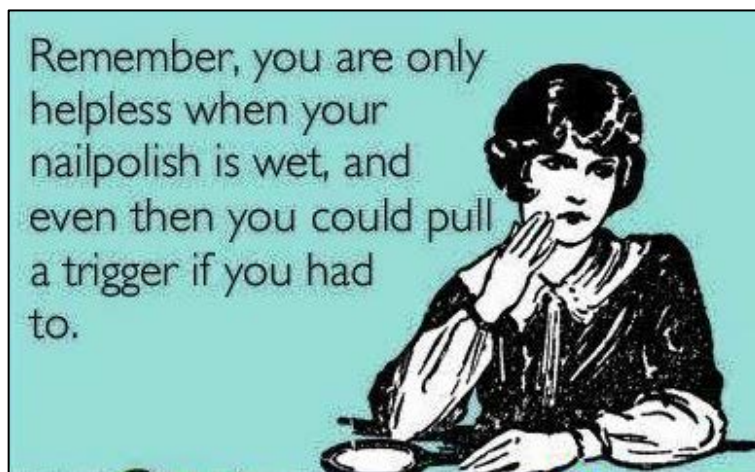
Pension.

To ensure that Veterans' Disability Pensions were excluded from the Harmer Review's increases in the 2009 Budget, the Rudd Government inserted an exclusion clause into the "VEA Amendment Bill 2009." This circumvented the existing parity that had been established in the 2007 legislation thus preventing the increases automatically flowing to DVA Disability Pensions.

The Government also accepted the Harmer Review's recommendation for an additional factor the Pensioner and Beneficiary Living Cost index (PBLCI) to be included in the new indexation method for the Age and Service Pensions but like the MTAWWE increase to 27.7% was not passed on to DVA Disability Pensions. The Review's indexation increase to 27.7% of MTAWWE to the Age and Service Pensions effectively removed the existing parity established in the 2007.

What's been the financial impact on DVA Disability Pensions?

The denied 2.7% increase in MTAWWE amounts to a loss of approximately \$3,300.00 pa to the TPI/Special Rate pension and approximately \$1,200.00 pa of 100% of the General Rate pension. All other DVA Disability Pensions are affected pro-rata by the same 11.4%.



Other benefits going!!

From July 2016, disabled war veterans and war widows will no longer be eligible for concessional travel on Great Southern Rail



journeys. Great Southern Rail operate The Ghan. This joins a shameful list of slashed benefits already implemented or announced:

- The government will reduce the pensions of more than 10,000 Part Service Pensioners and completely cut out the Service Pensions of some 2,800 others.
- The government has withdrawn its \$223million share of an agreement with the States to fund Service pensioners' concessions for travel, electricity, phone and council rates.
- The government intends to axe the three month backdating of Veterans Disability Pension claims; a very long standing concession giving some flexibility for delays in obtaining medical evidence and a recognition of the special nature of military service.
- It has axed the Seniors Supplement (\$876.20 a year) for Gold Card holders not receiving income support.
- It has cancelled the indexation of the Clean Energy Supplement added to Veterans Affairs pensions and payments, causing it to quickly lose real value.
- Military Superannuation not previously counted, now to be counted as income when applying for a Commonwealth Seniors Health Card.
- Some regional DVA offices are closing with clients sent to Centrelink.
- Some regional dedicated VVCS offices will close and staff at others reduced.
- The government tried (unsuccessfully thanks to an unimpressed Senate) to downgrade the indexation of the TPI, General Rate Pensions, Invalidity Service Pension, Age Service Pension, War Widows Pension, Income Support Supplement, wholly dependent partner payment. Whilst the Senate thwarted its attempt this time, will it be able to thwart it next time?
- The government has downgraded the quality of hearing aids available under SRCA.

From 01 July 2016, the current discounts provided to Commonwealth Seniors, Pensioners and Veterans will no longer be offered, instead, Great Southern Rail will provide a 20 per cent discount for the 2016/17 travel year.

Certain Veterans receiving concessions from the Department of Veterans Affairs are entitled to significant savings in the Red Service Day/Nighter seats and Gold Service. Further to this, their travelling companion is eligible for the same discount when travelling as a carer.



Veterans include:

- Totally and permanently incapacitated veterans;
- Veterans entitled to the extreme disablement adjustment;

- Intermediate rate disability Pensioners;
- 100% general rate Pensioners in South Australia;
- World War 1 Veterans, their spouses or widows;
- Blinded disability Pensioners;
- Veterans receiving the disability pension for pulmonary tuberculosis class B and class C;
- Veterans receiving the special disability amount Items 1-14 (listed under section 27 of the Veterans' Entitlements Act 1986);
- Blinded Service Pensioners.

A carer can be any person travelling with a Special Veteran. Great Southern Rail requires a medical certificate to be required prior to travel confirming the need of a carer for the Veteran travelling.

You can see the costs as they will be from 01 July 2016 [HERE](#). You've only got a few months left at the current rates, if you can, do it now!!!

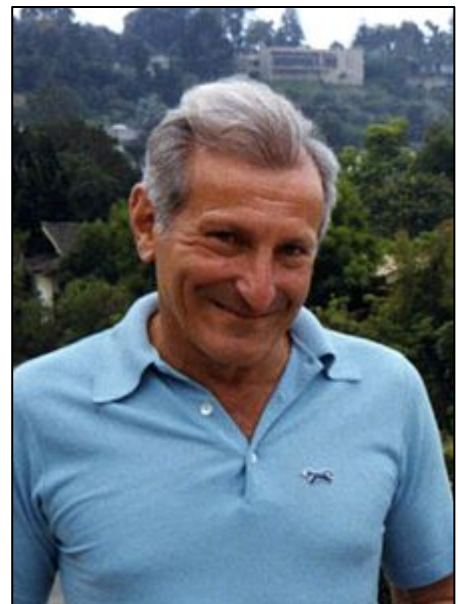
Global warming

The World's "Blue Hills"!!

Although this occurred 5 years ago, the [British Telegraph](#) ran it again on the 2nd October, there must be a reason??

Harold Warren Lewis, (October 1923 - May 2011) a respected physicist who had previously advised both the U.S. Government and the Pentagon on various matters including missile defence and nuclear winter, shocked his peers when he disseminated his letter of resignation from the American Physical Society (APS).

Lewis accused the American Physical Society of supporting "the global warming scam, with the trillions of dollars driving it that has corrupted so many scientists." The physicist's letter contained a number of complaints, including the APS' lack of a response to his endeavours to gather a committee to evaluate evidence for a human link to climate change. Lewis revealed that global warming was "the greatest and most successful pseudoscientific fraud" he has even seen in his career.



The letter, sent via e-mail to Curtis G. Callan Jr, the then-President of the American Physical Society and dated October 8, 2010, was released to the public by Emeritus Professor of

Physics Hal Lewis. The physicist made clear that when he first joined the APS over 65 years ago, it was “much smaller, much gentler, and as yet uncorrupted by the money flood.” Back then being a physicist meant being a “guarantor of a life of poverty and abstinence,” but everything changed after the World War II.

Lewis said that his former pride at being an APS Fellow turned into shame, which is why he decided to resign. According to him, the APS “has accepted the corruption as the norm, and gone along with it.” He revealed that about one year before sending his resignation letter, he joined forces with some of his colleagues and sent an e-mail with regard to this issue. Even though the organisation ignored these problems, the then-President launched a “hostile” investigation of where they got the e-mail addresses.

Another problem was the organisation’s “appallingly tendentious” statement on Climate Change, which is “certainly not representative of the talents of APS members” as he has long known them, the physicist claimed. Because of this, he joined forces again with some colleagues and petitioned the Council to reconsider it. APS appointed a secret committee that “never met, never troubled to speak to any sceptics, yet endorsed the Statement in its entirety.” The Council admitted the existence of some uncertainties, but they were brushed aside “to give blanket approval to the original.” The original statement was eventually kept.

When the ClimateGate scandal broke into the [news](#), Lewis and along with some of his peers “collected the necessary 200+ signatures to bring to the Council a proposal for a Topical Group on Climate Science.” The group could not use the APS [membership](#) list and the petition was declined. Although the organisation asked its members if they would sign a petition to establish a Topical Group on their “yet-to-be-defined subject,” it offered no petition whatsoever. “The entire purpose of this exercise was to avoid your constitutional responsibility to take our petition to the Council,” Lewis said in the letter.

After the physicist publicly resigned from the APS over issues having to do with climate change, the organisation sent a statement in which it “totally” rejected Lewis’ claims that global warming is a “pseudoscientific fraud” and a “scam.”

Harold Lewis was Emeritus Professor of Physics, University of California, Santa Barbara, former Chairman; Former member Defense Science Board, chmn of Technology panel; Chairman DSB study on Nuclear Winter; Former member Advisory Committee on Reactor Safeguards; Former member, President’s Nuclear Safety Oversight Committee; Chairman APS study on Nuclear Reactor Safety Chairman Risk Assessment Review Group; Co-founder and former Chairman of JASON; Former member USAF Scientific Advisory Board; Served in US Navy in WW II; books: *Technological Risk* (about, surprise, technological risk) and *Why Flip a Coin* (about decision making)

Belief in the cause of global warming/climate change has divided the world like nothing before it, depending on your point of view, you're either a "believer" or a "sceptic". For every argument for it there is an equal and opposite argument against it and the sum of money that is involved is staggering. Depending on which way you lean, it is either money well spent or a complete and utter waste.

TV and radio stations, newspapers, blogs, people in pubs, everyone has taken a side and is vigorously trying to "convert" the opposition. If you're a FOR person you can't (and won't) understand the other side's argument, similarly, if you're an AGAINST person, those on the other side have got it all wrong. Each side trots out stats to prove their point of view, but the true believers rely more on faith than stats – the whole thing has now got a life of its own, but in the end, someone HAS to be wrong!!!

In our opinion, before any more time and money is spent on this 'cause', we should crank up a Royal Commission to have a look at the whole thing because one side is knowingly peddling "duff gen". An un-biased Royal Commission could examine the why question as this is the sticking point in the whole argument, there is no question that the climate is changing (as it has always done) what divides us is whether the change is natural or is it because of what we are doing. tb

A fairly accurate essay about Australia

The following is by Douglas Adams, author of "The Hitchhiker's Guide to the Galaxy".

"Australia is a very confusing place, taking up a large amount of the bottom half of the planet. It is recognisable from orbit because of many unusual features, including what at first looks like an enormous bite taken out of its southern edge; a wall of sheer cliffs which plunge into the girding sea. Geologists assure us that this is simply an accident of geomorphology, but they still call it the "Great Australian Bight", proving that not only are they covering up a more frightening theory but they can't spell either.



The first of the confusing things about Australia is the status of the place. Where other landmasses and sovereign lands are classified as continent, island or country, Australia is considered all three. Typically, it is unique in this. The second confusing thing about Australia is the animals. They can be divided into three categories: Poisonous, Odd, and Sheep. It is true that of the 10 most poisonous arachnids on the planet, Australia has 9 of them. Actually, it would be more accurate to say that of the 9 most poisonous arachnids, Australia has all of them. However, there are few



snakes, possibly because the spiders have killed them all. But even the spiders won't go near the sea. Any visitors should be careful to check inside boots (before putting them on), under toilet seats (before sitting down) and generally everywhere else. A stick is very useful for this task.

The last confusing thing about Australia is the inhabitants. A short history: Sometime around 40,000 years ago some people arrived in boats from the north. They ate all the available food, and a lot of them died. The ones who survived learned respect for the balance of nature, man's proper place in the scheme of things, and spiders. They settled in and spent a lot of the intervening time making up strange stories. Then, around 200 years ago, Europeans arrived in



boats from the north. More accurately, European convicts were sent, with a few deranged people in charge. They tried to plant their crops in autumn (failing to take account of the reversal of the seasons), ate all their food, and a lot of them died. About then the sheep arrived, and have been treasured ever since. It is interesting to note here that the Europeans always consider themselves vastly superior to any other race they encounter, since they can lie, cheat, steal and litigate (marks of a civilised culture they say), whereas all the

Aboriginals can do is happily survive being left in the middle of a vast red-hot desert, equipped with a stick.

Eventually, the new lot of people stopped being Europeans on 'extended holiday' and became Australians. The changes are subtle, but deep, caused by the mind-stretching expanses of nothingness and eerie quiet, where a person can sit perfectly still and look deep inside themselves to the core of their essence, their reasons for being, and the necessity of checking inside their boots every morning for fatal surprises. They also picked up the most finely tuned sense of irony in the world, and the Aboriginal gift for making up stories. Be warned.

There is also the matter of the beaches. Australian beaches are simply the nicest and best in the world, although anyone actually venturing into the sea will have to contend with sharks,



stinging jellyfish, stonefish (a fish which sits on the bottom of the sea, pretends to be a rock and has venomous barbs sticking out of its back that will kill just from the pain) and surfboarders. However, watching a beach sunset is worth the risk. As a result of all this hardship, dirt, thirst and wombats, you would expect Australians to be a dour lot. Instead, they are genial, jolly, cheerful and always willing to share a kind

word with a stranger. Faced with insurmountable odds and impossible problems, they smile disarmingly and look for a stick.

Major engineering feats have been performed with sheets of corrugated iron, string and mud. Alone of all the races on earth, they seem to be free from the 'Grass is greener on the other

side of the fence' syndrome, and roundly proclaim that Australia is, in fact, the other side of that fence. They call the land "Oz" or "Godzone" (a verbal contraction of "God's Own Country"). The irritating thing about this is they may be right.

TIPS TO SURVIVING AUSTRALIA

Don't ever put your hand down a hole for any reason WHATSOEVER. The beer is stronger than you think, regardless of how strong you think it is. Always carry a stick.



Air-conditioning is imperative. Do not attempt to use Australian slang unless you are a trained linguist and extremely good in a fist fight. Wear thick socks. Take good maps. Stopping to ask directions only works when there are people nearby. If you leave the urban areas, carry several litres of water with you at all times, or you will die.

And don't forget a stick.

Even in the most embellished stories told by Australians, there is always a core of truth that it is unwise to ignore.

HOW TO IDENTIFY AUSTRALIANS

They waddle when they walk due to the 53 expired petrol discount vouchers stuffed in their wallet or purse. They pronounce Melbourne as "Mel-bin". They think it makes perfect sense to decorate highways with large fibreglass bananas, prawns and sheep. They think "Woolloomooloo" is a perfectly reasonable name for a place, that "Wagga Wagga" can be abbreviated to "Wogga", but "Woy Woy" can't be called "Woy". Their hamburgers will contain beetroot. Apparently it's a must-have. They don't think

it's summer until the steering wheel is too hot to handle. They believe that all train timetables are works of fiction.

And they all carry a stick.

Kedron Wavell Services Club.

The modern, three-level, multi-million dollar Club features two restaurants, four social bars, 300 gaming machines and TAB facilities. The Club is open 7 days a week, from 9.30am until late. Renowned for its unique dining, Kedron-Wavell Services Club offers two distinctly different dining experiences offering both indoor and alfresco dining. [Restaurant Thr3e](#) is a family friendly buffet restaurant with a twist while the popular [HQ Cafe](#) is a favourite meeting place with its modern Australian cuisine and covered alfresco dining deck.

The Gallipoli Bar, situated at the rear of the downstairs section, has something for everyone. You can catch all your favourite sports action live in this new sports lounge and should you wish, have a punt in the TAB area. You can also enjoy the FREE live and local music acts or just enjoy a relaxing drink after work.

From 8.30pm every Friday and Saturday night, the Gallipoli Bar provides free live music acts to entertain you while you enjoy a drink and relax in one of our many seating areas.

To view upcoming free live music acts [click here](#).



On Thursdays, from 7pm in the Gallipoli Bar, you can grab a group of friends and test your wits in our free trivia challenge. There are lots of great prizes to be won! First prize is \$100 Kedron-Wavell Kash. Second prize is \$50 Kash plus there are plenty more giveaways throughout the night.



On Saturdays, from 4.30pm, there is a free sausage sizzle and the Club's 12 HD TV's will cover all the live sporting action from venues in Australia, as well as some overseas sports.

There is a free live band on stage from 8.30pm.

It's easy to see why Kedron Wavell is considered Queensland's premier club.



Husband store!

A store that sells husbands has opened in Perth, where a woman may go to choose a husband. Among the instructions at the entrance is a description of how the store operates:

- You may visit this store ONLY ONCE!
- There are six floors and the value of the products increase as the shopper ascends the flights.
- The shopper may choose any item from a particular floor, or may choose to go up to the next floor, but you cannot go back down except to exit the building!

So, a woman goes to the Husband Store to find a husband. On the first floor the sign on the door reads:

- **Floor 1** - These men Have Jobs . She is intrigued, but continues to the second floor, where the sign reads: .
- **Floor 2** - These men Have Jobs and Love Kids. 'That's nice,' she thinks, 'but I want more.' So she continues upward. The third floor sign reads:
- **Floor 3** - These men Have Jobs, Love Kids, and are Extremely Good Looking. 'Wow,' she thinks, but feels compelled to keep going. She goes to the fourth floor and the sign reads:
- **Floor 4** - These men Have Jobs, Love Kids, are Drop-dead Good Looking and Help With Housework. 'Oh, mercy me!' she exclaims, 'I can hardly stand it!' Still, she goes to the fifth floor and the sign reads:
- **Floor 5** - These men Have Jobs, Love Kids, are Drop-dead Gorgeous, Help with Housework, and Have a Strong Romantic Streak. She is so tempted to stay, but she goes to the sixth floor , where the sign reads:
- **Floor 6** - You are visitor 31,456,012 to this floor. There are no men on this floor. This floor exists solely as proof that women are impossible to please. Thank you for shopping at the Husband Store.

To avoid gender bias charges, the store's owner opened a New Wives store just across the street.

- The first floor has wives that love sex.
- The second floor has wives that love sex, have money and like beer
- The third, fourth, fifth and sixth floors have never been visited.

**BEING A MAN MEANS DOING
WHAT I WANT WHEN I WANT
AND NOT HAVING TO ANSWER
TO...**

**SHIT SHE'S COMING!!!
TO BE CONTINUED...**

The Power behind Unmanned Aerial Vehicles.



“Smart” weapons, like Unmanned Aerial Vehicles (UAVs) and Precision Guided Missiles (PGMs), have become a major area of development in the American military, reducing costs and the need for human personnel in dangerous or inaccessible areas. The growth of UAV technology in recent years is astounding; indeed, unmanned systems have been essential in U.S. operations in Afghanistan, where adversaries employed unconventional, dangerous methods of combat on the densely populated, urban battlefield. For this reason, continuing to invest in this developing technology is critical to modern warfare.

The United States Department of Defense (DoD) defines unmanned aircraft as “an aircraft or balloon that does not carry a human operator and is capable of flight under remote control or autonomous programming.” The U.S. military currently employs over 7,000 unmanned systems, which are used in a wide range of applications, including security, search and rescue, disaster management, and telecommunications, though they are most effective as ISR (intelligence, surveillance, and reconnaissance) tools and munitions.

Depending on their function, unmanned systems fall into military branch-specific tier systems, such as the ones utilized by the United States Air Force (USAF) and United States Marine Corps (USMC). Tiers designate the role an aircraft must fill and assist military planners in the overall usage plan for integrated operations. In the USAF, for example, aircraft size and function range from the Wasp III (Tier N/A), a miniature UAV that provides real-time intelligence to its operators, to the MQ-9 Reaper (Tier II), a high altitude, long endurance UAV that provides high-altitude surveillance and can search for and engage enemy targets.



Gary Clayton, Chairman of the Unmanned Aerial Vehicle Systems Association (UAVS), explains, “Unmanned Aerial Vehicles can maintain long operational periods and therefore maintain persistence over an area of interest. It is also possible to use an unmanned vehicle where you may not want to risk a manned flight.” In its Unmanned Systems Integrated Roadmap, the DoD also acknowledges the fact that unmanned systems dramatically reduce the risk to human life and are the preferred alternatives for missions that are characterized as “dull, dirty, or dangerous.” Examples of these include long surveillance missions (dull), missions involving potential exposure to chemical, biological or nuclear elements (dirty), and high risk operations (dangerous). Because UAVs function in a stand-off manner, operators maintain a greater distance between themselves and the theatre, removing them from harm’s way.

Critics can be quick to discredit UAV technology for leaving life and death decisions to the whims of a robot—bringing the implications of a lack of human oversight into legal and ethical territory. But as Clayton explains, “Unmanned systems can operate automatically but not autonomously. Although the [autonomous] technology exists, this is one step too far with respect to the regulations.” Indeed, while most of the unmanned aircrafts in the DoD’s arsenal require very limited human interaction, they still operate under the pilot’s control, performing their function with greater accuracy and fewer incidents.

Military-qualified UAV design components are rugged and cost-effective. Typically, creativity can be exercised in payload design, yielding high-level performance and minimal size, weight, and power (SWaP) of design elements, which result in greater UAV endurance. Gregory Powers, Business Development Manager of Aerospace, Defence & Marine for TE Connectivity, says that depending on the mission, unmanned systems are designed to employ a variety of technologies—always with minimal SWaP in mind.

“UAVs fulfill two roles today, ISR and potentially ISR with strike capability,” Powers says. “As a result, payload systems like EO/IR imaging/targeting, radar, and signals intelligence sensors are predominant in larger UAVs. They must also have vehicle management avionics, where items like datalinks and GPS play multiple roles in vehicle and mission management. Larger UAVs also will carry significant computing power in an effort to sort the ‘needle from the haystack’ and relay the most important information to the operator.”



The UAV's wireless function is to transmit and receive information to and from the operator across large air gaps where neither the weight savings nor distance can be duplicated by a wire plant. Additionally, many unmanned systems are equipped with M2M capabilities, as they rely on the sharing of information via GPS technology for safe navigation. Therefore, advancements in wireless capacities increase a UAV's operational effectiveness and inter-relationships with other military assets.

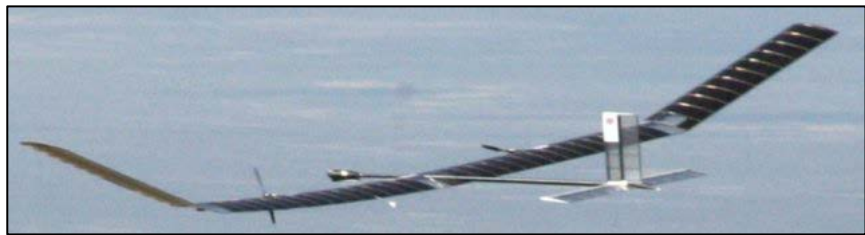
Prioritizing minimal SWaP is most critical in smaller UAVs, as heavy and often power-hungry subsystems must be sacrificed in the design. Larger UAVs typically have more room and power generation capability to carry a more complex payload. As a result, they not only can be equipped with more sophisticated payload and connectivity, they also need to have it ruggedized against temperature, altitude and long duration vibration. In small UAVs the payload is a much smaller, compact design with a minimum of production break connectors and a preference for direct attach technology.” Similarly, PGMs are very SWaP-sensitive, as small-framed munitions allow for maximum payload and stealth of the host vehicle. Again, this can prove challenging in terms of design. PGMs typically rely on GPS, datalinks, and seekers for laser guidance or infrared



targeting, and incorporate power, vehicle, and payload management subsystems involving a variety of electrical and optical technologies. Each device also includes compact antennas, various analog, digital, and power components, and sensors ranging from EO/IR to accelerometers—a lot to pack into a small frame.

Whether a large or small system, battery capacity remains to be an issue for UAV design engineers. One example is High Altitude Pseudo Satellites (HAPS), which fly and operate on harvested energy and are therefore limited in their power.

The smaller, electric-powered systems, are also constrained by their battery capacity. The issue of power (as with overall UAV design) depends on a number of



factors. In order to specify the ideal power supply for a guided munitions application, various parameters may need to be considered including voltage, capacity, energy density, size and weight restrictions, special packaging requirements, required shelf life, temperature range and other environmental requirements, the need for instant activation, and the need to conduct routine testing.

Design engineers currently have several power options available to them:

- reserve and thermal batteries,
- silver zinc batteries,
- spin-activated batteries, and
- lithium metal oxide batteries, which, in particular, reap several benefits since they employ commercial off-the-shelf (COTS) technology, delivering cost savings, high current pulses, and high rate energy with up to 20 years of shelf life. Further, they feature a wide temperature range (-40°C to 85°C), but do not generate high internal temperatures themselves, eliminating the need (and therefore cost and equipment) for insulation.

Recently, high-power lithium metal oxide batteries were used in the Defence Advanced Research Projects Agency (DARPA)'s Optically Directed Attach Munitions (ODAM) project, powering the laser-guided, optical seekers in the system's 60 mm mortar rounds. They are also frequently utilized in the guidance systems of air-to-ground missiles; upgrading to the lithium batteries from silver zinc cells has resulted in a 30 percent size reduction, 75 percent weight reduction, and 3.5 greater energy density.

Recent trends in military UAV development is the creation of even smaller airframes that mimic the navigational and automatic skills of birds or insects. These "mini-drones" are intended to overwhelm enemy radar systems and/or blanket high-threat areas with multiple, simultaneous intelligence sensors. Though deployment of these mini-drone "swarms" has already been

tested, engineers are still limited by the power, sensing, and computing components that can be integrated in such small airframes.

Unmanned systems have also taken a more commercial turn. Previously, only specialists could field UAVs successfully, however, many countries and private companies are now developing their own unmanned systems. We are seeing some cross-over of commercial and military in the lower cost area, where commercial designs are being evaluated for expanded use in tactical roles, ranging from ISR to rescue. This upward trend will result in higher performance military Unmanned Carrier-Launched Airborne Surveillance and Strike (UCLASS) and Unmanned Combat Aerial Vehicles (UCAV), though commercial development of UAVs will likely progress slower due to increased regulations in the civilian airspace.



Islam – is there a solution??

The Sunni and the Shiite people have been at each other's throats for more than a thousand years. A lot of people in Australia are now of the opinion that the western nations should not be in the Middle East trying to stop the fighting, the west should just let them fight it out. Likewise, many feel that any Australian who wants fight there should be allowed to go, just do not let them back.

Perhaps if Muhammad had left a will and a succession plan, we might not have the problems of today.

There is an interesting short video that explains the problems – unfortunately we can't see an early fix to this problem at all. You can see the video [HERE](#).

Possibly the greatest quote ever?? Nope!!!

This quote is flying around the internet, reportedly a word for word response to a question posed to her by an unknown person. "My accomplishments as Secretary of State? Well, I'm glad you asked! My proudest accomplishment, in which I take the most pride, mostly because of the opposition it faced early on, you know... the remnants of prior situations and mindsets that were too narrowly focused in a manner whereby they may have overlooked the bigger picture and we didn't do that and I'm proud of that. Very proud. I would say that's a major accomplishment."

Hillary Clinton 11 March 2014



Like a lot of these things, it's all garbage. (See [HERE](#)). It possibly originated from the desk of one of her Presidential hopeful opponents.

THE RAM

THE MAGAZINE BY & FOR SERVING
& EX-RAAF PEOPLE & OTHERS



Vol 52

Page 6

Blessed are those who are cracked,
for they are the ones who let in the light!



Ok, Ok!! – I'm going back to my room now!!

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THE MAGAZINE BY & FOR SERVING
& EX-RAAF PEOPLE & OTHERS



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