

(NOTE some "links" in this document "download PDF documents" from govt. aviation sites and some are "embedded videos")

Why die by driver fatigue in a driver-less car ?!

"Road vehicle "is" the wrong way" to travel large distances in Australia for personal and business! (PPL Private pilot license and **STOL** kit light aircraft "VH" registered (<-should) or "Uncontrolled air space unregistered (requires map and landmark reading skills)")

More also requires to be done to standardise smaller communities and remote AKA-"locations" with having landing take-off strips (that also allow light twins) nearby without serious requirement for public transport to pass them, this all over Australia!

Too, public distance commute strips and parking en mass area for near city size towns! *

** This requires the possibility of philanthropic effort since governments do not get moved easily to action and particularly for a location such as small town with public transport (e.g. train station and regular intercity service) on the edge of controlled air space skirting a city to extend usefulness of uncontrolled air space.*

While large companies such as Piper produce super STOL aircraft that can "land and takeoff at 10ft length (3 meters (300cm))", there are many "KIT" made STOL aircraft can takeoff and land over no more than 60 meters (196 ft) with around 100 hp engine.

<https://www.youtube.com/watch?v=QdNBa9v671I>

<https://www.youtube.com/watch?v=IsQwAcvUAj0>

The ones above are less than 80 - 100K AUD and a kit type, "the following takeoff example so you know it for landing takeoff measurement" is a top line aircraft manufacturer and around 200K AUD.

<https://www.youtube.com/watch?v=VQq2oYAWNqY>

- **The benefits for Business and Liesure of "PPL Private Pilot License" and owning a light aircraft**
- Extreme reduction of risk of death by fatigue or accident
 - Only 1/2 to 1/3 of travel time by road (road vehicle is only 120Kmh max speed – 95 Knots with a STOL is 176 Kmh)
 - Increased business productivity and liesure quality and efficiency all round including as unemployed
 - More secure and flexible lifestyle by range of travel scope (less theft, lost property e.g. secure documents and less interference)
- **Extra info**
- National rail has a network system for freight all over Australia in various remote places and your car and caravan can be transported to a siding nearby locality to your destination airstrip and back!
- It is possible to have your own runway quite easily and simply on a small land size property (e.g. Hobby farm sized land) *

** Research shows that many "ordinary aerodynamic" light aircraft require around 250 meters take-off and landing roll that roughly equates to 20 acres of land as the "whole home property" to fit the strip into the acreage (not simply the strip and surrounding obstacle clearance requirements). HOWEVER, because Australia has neglected the first world responsibility of sensible transit method of light aircraft, 150m roll for a cheap STOL and heavy duty rough terrain wheels on 10 acres can be used to improve BOTH home strip and public destination landing area compatibility although with 4 seat they are often not made in STOL though some Australian light aircraft manufacturers do make STOL variant in 4 seat . (NOTE: 10 or 20 acre rural properties are subject to allowance with housing and building and use zoning requirements granted permits that generally are never changeable!)*

[BOM Wind Roses \(General\)](#)

[Wind Rose chart map Interpretation](#)

(runway direction layout)

- There are types of light aircraft variant can be found that may make it more possible to utilize the activity sensibly such as "STOL" and "Amphibian"
- It is possible to register your own home built kit aircraft as a "VH" registered light aircraft for PPL flight (NOTE: It may be a better scenario to have your factory built aircraft as a pressurized craft to be able to fly above 10,000 feet for VH)

- *It is possible to gain **add on accreditation** with a PPL for “bad weather” and “visual night flying” “gas turbine with changeable pitch propeller” “STOL technique” “tail dragger” “retractable undercarriage”*
- *Fuel costs approximately the same as a car “per destination to destination” (although aircraft fuel costs more).*

Because of the way wages are locked up in reticulating debt on "house" and "vehicle" loan repayment based on 10 to 20 year credit risk capacity, it is more sensible to understand a light aircraft and PPL and hangar as being part of the whole capacity by down-marketing the vehicle and house to balance the loan repayment capacity system with the required costs for a PPL and aircraft and its requirements..

Flying is also much better on the environment and wildlife!

[Note: Interesting "aberration of real world calculation examples show"... "Average wage" in Australia of 2017 is around "\$1100" p/week
oddly too, "bank loan repayment" of "\$600,000 principal" through "15 years" at "4.5% interest" is around "\$1200" approx. p/week]

ARTICLE 1

These two following articles are about speed and fatigue and the **12,000 total approx. a year hospitalised from road accidents** and the way out into the light !

<https://www.youtube.com/watch?v=eURrjDZgqm8>

Video remind you of your spine and pelvis from potholes in the roads off major highways after hours of driving?

*The Australian governments of past and present are a greedy SHAME to understand at no time historically or present did they promote PPL Private Pilots License to as many people as possible to prevent road deaths and to raise efficiency of business and private life in a country that is **NOT rivaled by Siberia , Russia , Africa or USA for distances** business people or families must travel in a single journeys direction each year regularly and often many times and often simply is not catered by airlines ! (Australia is the most dangerous and harshest environment on earth “habituated”*

*... "According to CASA, out of **36,000** Australian pilots, about 400 have colour vision deficiency and of those, 140 flew commercial operations" ...*

<http://www.abc.net.au/news/2014-06-18/colour-blind-pilots-licences-reviewed-by-casa/5531906>

*... "Australia now has **1.16m** millionaires, according to Credit Suisse's Global Wealth Report" ...*

<http://www.smh.com.au/business/australia-now-has-116m-millionaires-according-to-credit-suisse-global-wealth-report-20171126-gztc7u.html>

There are now 25 million population in Australia, and **around 8-12 million adults of around 6**

million at very least are able medically and mentally to become a Private Pilot, SADLY, only around 10,000 aircraft of "suitable type" exist in Australia for private use, but some are only used recreationally (**there should be somewhere near 1/2 a million to 1 million light aircraft !!!!**)

Australian designed light aircraft are smaller compared to USA systems (part of the shame -cost for supply and demand of something hidden from view), but a third to a half the time for the same distances by road travel makes them as good an idea as any light aircraft brand.

I drove the Hume Hwy in the 70's and 80's when it was a two way lane system and "violently dangerous" and extremely deadly, i believe i saw a fatal crash being AKA "cleaned" with multiple ambulances every 100 miles on average.

I have always known since a child that driving a car is more dangerous in Australia than faulty light aircraft will ever be!

On the Hume Hwy on average every 20 seconds a truck tray bed corner would pass within three inches of the driver side cabin structure uprights of the vehicle every 20 seconds at a collective combined collision speed of around 160 Mph (250Kph) for hundreds of miles (unlimited speed), there are scratches on the vehicles used that were the difference between continuing and "instant disintegration" in every direction for hundreds of meters !!!

(Day after day, year after year)!

It was my intention to fly as a private pilot when i left school because i came from a remote inland city, but never did because the government did not support that tax collection scheme scenario and there were few aircraft because of the recession and drought that followed over 15 years to around 2000 !

While major highways finally became better after the mid 90's other roads can never nor will all be multi lane p/direction and shows this feature of danger against light aircraft safety has relevance because of time by ground transport.

In the past few years (since 2013) cheaper light aircraft and aviation systems have become better and more affordable, "almost" down to single average wage earner level (a 'tis to) !

As you would expect, it is not dissimilar to cost of an expensive car (less - not the prestige cars - more around dedicated 4WD - low end "token named" prestige) and a required legal competency level of "PPL(CASA - Private Pilot License) ["NOT" Recreational PL]" to "obtain the benefit edge in life-style from it", and what price your life !!!

<https://www.casa.gov.au/sites/g/files/net351/f/assets/main/lib100191/getting-your-private-licence.pdf>

[just a point about PPL capability in Australia for journey or commute -

<http://www.airborne-aviation.com.au/courses/night-vfr-rating.php>]

An interesting foreign ultra-light STOL example:

<https://www.youtube.com/watch?v=8wIe0ROnJVk>

<https://www.youtube.com/watch?v=YKSH2E5INV8>

Do for a soundtrack with it https://www.youtube.com/watch?v=8Akd_hAEeFE

Walk around:

<https://www.youtube.com/watch?v=ZIPrShenak8>

<https://www.facebook.com/zenithair/posts/1796513887030971>

This article is aimed more at "more stable settled down persons" whom simply suffer driving 10 times or more a year more than 200-300Km a stretch at the least, and never thought they could replace their system for what lighter weights of luggage they carry!

<https://www.casa.gov.au/file/139186/download?token=XtXcIPy9>

<https://www.casa.gov.au/standard-page/your-asic-questions-answered>

(Almost ALL the base information you need is in these two articles!

if you ever wanted a shortened way to understand an economically sustainable way to "not be killed on Australian roads", UNFORTUNATELY (while not actually complicated) IT IS around as short as can be explained with these two articles.

OTHER MAIN CONJUNCT ARTICLE - fatigue speed - light aircraft

https://www.facebook.com/permalink.php?story_fbid=1899689726985461&id=100008333560946
)

https://www.youtube.com/watch?v=3F8-steHs_k

<https://www.youtube.com/watch?v=5E22BzhMmuA>

https://www.youtube.com/watch?v=XWq_piXgD0

<https://www.youtube.com/watch?v=UH3diaRX5B8>

https://www.youtube.com/watch?v=jKQYRen_MIA

note: *proper light aircraft are around 100hp or more, NOT smaller!!!

(speed and fatigue are the uncancellable factors in road death

- **SUMMARY it isn't done that way - you keep and fly a registered light aircraft (with PPL Private Pilot License for "controlled air space" AND must have "VH-****" civil registration type + X-sponder) to "move distances beyond 3 hours ground road time" (pilot license-less aircraft must fly in uncontrolled airspace and cannot fly over (cross) a public road below - neither a RPL Recreational Pilot License go any more than 50 miles radius from where it took off)**

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<https://www.youtube.com/watch?v=3Y7TCu0cMEs>

- **DID YOU KNOW (many light aircraft crashes are machines 30 to 50 years old)**
there are only around 9000 piston single light aircraft in Australia (in a population of 9 million adults and 6-7 million adults eligible (class 2 medical CASA) to be a licensed private pilot)?! - So its no wonder the high road toll, and waste of time Australian businesses are from lost secure information or wallet or purse not being at the meeting but at a police station - if they drive to keep it all in one place they around walk in as though they are drunk from fatigue the next day and under perform, as to being ..."you crumb you asshole godamit i never !!!!!"...))

Too with young people, they are assumed at 17 to step into a car to learn, but Australian environment and risk really means step them into a light aircraft to learn to get their PPL. ALSO if you want them alive! :

("CASA - LEGAL LANDING AREAS" Link or google "92_1.pdf" - private e.g. a hobby farm)

<https://www.casa.gov.au/file/105066/download?token=aMdVb6EO>

CASA INFO

https://www.legislation.gov.au/Details/F2016C00540/Html/Volume_3

(note: Although basic small light aircraft fuel is 2 doll AUD a litre, the cost to fly a light aircraft Sydney to Melbourne is similar to car - though it only takes around 3 1/2 hours - with a 4 seater for children that's much nicer!)

The single Australian "AVERAGE WAGE EARNER" can handle cost of a factory built Australian light Aircraft on borrowing capacity "potentially"

(see **ARTICLE 2**)!

The cost of learning to fly "varies" between 14K to 25K but is mostly because of aircraft value in use for hire , landing and takeoff fees for particular airport and the insurance. Best done over a year by budgeting (or ASAP if you travel long distance frequently).

[The following PDF document LINK (although a private company info) has a good breakdown of "Australian Air space" classification (succinct)]

http://www.airservicesaustralia.com/wp-content/uploads/12-058BKT_Guide-to-our-operations_WEB.pdf

And here's some logistic safety for wind and parking check weather for a few days ahead if tie down is needed (and use a hangar for most!)

https://www.aagsc.org/members/aagsc_adm/UploadFiles/AAGSC%20RIP%20No%204%20Safety%20Considerations%20for%20Strong%20Wind_%20Incl_.pdf

"Australia makes a few light aircraft" two seat generally (and a couple of 4 seat) and are around 0.1 mill aud - 0.2 mill AUD (note: kits are often around just over half price of factory completed fly-away aircraft)

IT REMAINS UNCLEAR BECAUSE OF THE IMMENSE SWATHES OF CASA INFO (CASA - kits and "VH" rego (for PPL use - NOT recreational) and amateur built -

<https://www.casa.gov.au/aircraft/standard-page/amateur-built-and-experimental-aircraft>
<https://www.casa.gov.au/files/021c04pdf>)

A FACTORY BUILT AIRCRAFT IS SUITABLE FOR (PPL) Private Pilot License LONG DISTANCE FLIGHT RANGE(ASK THE VENDOR).

<http://flysafe.raa.asn.au/constructors/buyandsell.htm>

Next link is a "Jabiru kit construction manual (PDF)", it happens to miss two crucial point on "page 20" for "industrial OHS",

A. when cutting "fiber glass" and alike "dangerous dust" you should have a cheap "industrial vacuum cleaner nozzle operating" near the cutting activity to help take away that type of dust (its only mentioned with an angle grinder) apart wearing an "anti-dust ventilator mask".

B. With epoxy, wear a "fluid proof(water proof) synthetic leather industrial workshop apron" over your front whether you have overalls or not! The epoxy can be spilled or drip while you are in some positions.

Of either epoxy or dangerous dust types particularly if dust is from a power tool , eyes can be sensitive to epoxy fumes at close range so proper sealed wrap around eye protection goggles should also be worn not merely safety glasses!

C. Some of the following kits use pop-rivets, they can easily be mis-installed. Always "hold the two surfaces together perfectly" at the rivet hole, and always press the head of the rivet-gun firmly to hold the rivet in the hole "while" squeezing the gun handle. Not doing this altogether at the one moment often causes a loose rivet and loose flapping surfaces and eventually failure of the binding. With a fiberglass surface , the opposite side "should have a metal washer for the other end of the rivet too distribute pressure on the fiberglass without shattering or sinking in it!".

<http://jabiru.net.au/Manuals/Airframe%20Construction/Jabiru%20J160%20Constructors%20Manual.pdf>

http://www.jabiru.net.au/Manuals/Pilot%20Operating%20Handbooks/JP-FM-09_J230-D_POH_Rev5.pdf

LIST: --- (ALWAYS ASK IF IT CAN BE BUILT and" VH-****" + transponder (24 bit)

registered for long distance cross country flight with a PPL)

Jabiru 230-D can be fitted for Visual Night Flying

<http://jabiru.net.au/aircraft/j230-d>

Australian Lightwing Hughes 2 seater SP2000

<http://www.lightwing.com.au/light-sport-aircraft/>

SP-4000 (pdf)

<http://www.lightwing.com.au/pdfs/SP2000SP4000.pdf>

ALW Hughes six seater (kit aircraft) 6000

<https://www.northernstar.com.au/news/ballina-ultralights-not-ultra-expensive/751916/>

Brumby Aircraft

<http://brumbyaircraft.com.au/brumby-610/>

<https://www.youtube.com/watch?v=S1DRPj38gGk>

<https://www.youtube.com/watch?v=WAJ-ofkyfEI>

<https://www.youtube.com/watch?v=Bst5bFSqXkA>

<https://www.youtube.com/watch?v=aReYq1cAPzM>

<https://www.youtube.com/watch?v=bmiFFT--wkI>

<https://www.recreationalflying.com/tutorials/navigation/wind.html>

Foxcon Aviation Terrier 200

<http://www.foxcon.com/>

Morgan aircraft

<http://www.morganaeroworks.com.au/Cougar%20Mk1.html>

Aircraft kits Aust.ralia

<http://aircraftkits.com.au/about/>

<http://www.aeropup.com/>

safety: ATSB info https://www.atsb.gov.au/publications/investigation_reports/2013/aair/ar-2013-107/

Other

<http://www.zeniraustralia.com.au/ch-750-stol.html>

<http://cubcrafters.com/carboncub>

<http://www.gap.aero/>

http://www.planeandpilotmag.com/article/2016-light-sport-aircraft-1sa-choices-galore/#.WWbf_et95Hc

<http://www.australianflying.com.au/videos/friday-flying-video-sling-4>

<http://www.aerotrek.aero/>

US light aircraft

This is a four seat Cessna around 0.3 - 0.4 mill AUD

<https://www.aircraftcompare.com/helicopter-airplane/Cessna-172-Skyhawk/142>

Maule air has a four seater <http://mauleairinc.com/>

<http://www.maule.com.au/taildragger>

Fatigue Speed – PPL and light aircraft (ARTICLE 2)

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This article is about Road speed fatigue fatality (harsh environment - excess distances - overtime), 12,000 hospitalised p/year by road accidents....

https://www.atsb.gov.au/media/625511/AR2007043_1.pdf

note: *proper light aircraft are around 100hp or more , NOT smaller!!!

(with PPL Private Pilot License for "controlled air space" AND must have "VH-*" civil registration type)**

https://www.atsb.gov.au/media/625511/AR2007043_1.pdf

(CASA – kits built light aircraft and "VH" rego (for PPL use - NOT recreational) and amateur built - <https://www.casa.gov.au/aircraft/standard-page/amateur-built-and-experimental-aircraft>

<https://www.casa.gov.au/files/021c04pdf>

)

(pilot license-less aircraft must fly in "uncontrolled airspace" and cannot fly over (cross) a public road below - neither a RPL Recreational Pilot License go any more than 50 miles radius from where it took off)

<https://www.youtube.com/watch?v=3Y7TCu0cMEs>

[This is a long comment article: In summary the only method of beating driver fatigue (and not speeding in one of the only harsh countries on earth (**FACT: "Australia is the most extreme harsh environment" on this planet !!!**) in extreme conditions - Only USA-Canada and some countries of Africa and Russia compare for STANDARD vast excessive ground travel distances) is flying a private light aircraft at 110 Knots speed with a PPL Private pilots license (with PPL Private Pilot License for "controlled air space") and a set of post license accreditation for craft-types and flight situations !!! The mentioned economics may be reasonably sensibly handle-able by borrowing capacity for an average wage earner at the bottom end of its market with an Australian four seat kit - but what price your life (It may be safer to DIY than driving on the road)!?]

https://www.aagsc.org/members/aagsc_adm/UploadFiles/AAGSC%20RIP%20No%204%20Safety%20Considerations%20for%20Strong%20Wind_%20Incl_.pdf

Having a PPL Private Pilots License and plane eliminates many travel problems.

Govt. budgets or not, in the past 40 years nothing has cared to realize this continent is no different to Canada for expanse and its safe operation IS NOT by roadways, Australian trucking on these new modern upgrades are no different finally to the "Ice road truckers" of Canada.

To not subsidize PPL and aircraft to ordinary people and promote it is murder by a selfish government bent only on thieving tax sums.

The only sensible method for Australian travel distances to beat "DEATH BY DRIVER FATIGUE"(and for easier child handling) is a PPL private pilot license , it allows you to fly aircraft with six people up to **80Knots/h (150Kmh) (100Knots is minimum to seriously beat fatigue** driving over long distance e.g. 5 hour car drive is around vaguely two hour flight) speed and can be extended with training to Visual night flying and aircraft faster than 80 Knots.

The Australian government are immense creeps for not subsidizing and helping all able bodied (class 2 medical CASA) people to obtain a PPL with these extra license credits, because "it is the only way of beating fatigue", truthfully it requires private light aircraft for personal passengers in this country of at least 100Knots/h or more (nominally 110 knots cruise speed specification) to traverse the required business and personal distances in Australia. Driving not flying with your own private license and light plane people will continue to be killed in vast numbers of which half were not responsible for any of the problem !

Moreover, people need to use these things to cause the price to go down in swapping to supply and demand to common offer to make pricing affordable. Its too locked up in snobbery and restrictions and cost.

Of cost, if you are starting a home and getting a home loan and can afford a 600,000 dollar house ,

you can probably drop your housing aspiration back by 100,000(or 250,000 for a new light aircraft plus its keeping reserves) with a 600,000 dollar loan then after talking to the bank manager use and keep 100,000 to use 20, 000 to visual night flying and over 100knot license , you have 80,000 to but a second hand aircraft for travel and job-business canvas geographically.

But it flogs the whoop from dying various complex ways by road vehicle travel that are often not there to a light aircraft continuously !!!

No dangerous unknown passengers, no crippling cramping, no lost property, no stolen property, reasonably available on time dependent weather (there is a "bad weather accreditation license add-on").

New light aircraft at the bottom of the range (USA e.g. skyhawk standard , warrior) are around 0.2 mill but many 10 to 20 year old that have passed SIDs can be gained for 0.1 mill

In the past 10 years, ordinary light aircraft at the bottom of the cost range as 2 or 4 seat can cruise at around 110 Knots (200 Kmh) (126 mph)

Meaning, If you left in a car from "Sydney to go to Melbourne" at 8:00am you would be at Yass NSW(faster aircraft - e.g. 120 Knot cruise) 300Km or Gundagai NSW(slower aircraft - e.g. 110 Knot cruise) by 11:30am progress going into the truck stop to get a brunch coffee and stretch your legs, and the light aircraft would be about to call to join the queue to land (11:30am) at Melbourne.

As too from Melbourne at 8:00am by 11:30 is Albury on the NSW VIC border, and the light aircraft would be ready to queue to land at Sydney.

--- This section is a little contentious to add to a post elsewhere....

An Australian "single wage earner loan" BORROWING CAPACITY "EXAMPLE ONLY"

of 400,000 dollars ,

can have

ongoing fee pa. \$400

repayment over 15 years

of \$2900 p/month (\$725 p/week)

THE GOOD NEWS

A modern (produced 2015/16/17) new light aircraft has a very(extremely) high re-sale value within 10 years use (the reason for buying new or the system would not operate well in a finance loan) !!!!

Your bank would not be particularly worried if you had a PPL and/or also the extra accreditation set (bad weather, VNF, over 100 Knots handling).

a hangar, and insurance and costings(craft,tyres,training,service,hangaring,odd-bod-electronics-that help) to 250,000

NOTE – MONEY MENTIONED HERE IS A “TOTALS GUIDE ONLY” (SOME IDEA OF THE TOTAL CRUNCH!)

The bad news (It’s massive money juggle and at base variable loan for aircraft hangar house and car and PPL approx 550,000 over 15 years loan),

Your house and car are around the other 150,000, a town outside a city (is that so bad).

In short, mainly you would borrow 150,000 first to buy your home, and keep your loan capacity level , then, after gaining a PPL would then hand the financing deal to the same bank as per - perhaps agreement foreseen with the origin loan.

Final point! Do not allow your insurance policy to lock it up against its usage, **THAT IS WHAT THE AIRCRAFT IS FOR** - to go long distances up to 3 - 4 hours at/over 110Knots, do not allow either Insurance or bank agreement to prevent shorter hops (particularly mountain terrain hop over to avoid) or practice once every two weeks to a month.

While the population around 1970 had 128 p/100,000 fatality on roads and by year 2000 after the redo into proper 6 lane highways it went to 4.1 (four point one) p/100,000 statistically, Some 12,000 people or more approximately a year are "hospitalised by road accidents every year" ! Driver-less car or not, it is too far too long in journeys over 300Km and it never hurt anyhow to use such a device (light aircraft) between 100 - 200 Km to nearest major town or city with some ground transport pre-management.

Roads waste lifetime!

<https://www.youtube.com/watch?v=WAJ-ofkyfEI>

<https://www.finder.com.au/australian-families-transport-costs-soar-higher>

<https://www.brisbanetimes.com.au/national/queensland/brisbane-households-spend-19000-a-year-on-transport-report-20170522-gw9xvi.html>