

S U M M E R 2 0 1 9

Making Progress



The Plymouth Advanced Motorcyclists Newsletter

Welcome

Hello and welcome to the Summer Newsletter.

There has been some fantastic weather and club rides around the Westcountry, great activity days such as the PAM Challenge, which was enjoyed by all those who attended. The superb perennial Wales weekender was promptly followed by a holiday in the Picos de Europa and the Pyrenees both of which we immensely enjoyable

We would love to hear about your motorcycle escapades this year for inclusion in our winter issue (deadline January 1st please)

You can email any article to our new email address
pamroadsmart@gmail.com

See you down the road
Mark

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Save the Date!

Regional iAM Training 5th and /or 6th October

The excellent regular iAM regional training at Betty Cottles Inn - You do need to book and all details can be found on our Club Blog

Monthly Social – Tiff Coates 14 October

Tiff Coates, Adventure Motorcyclist and member of Globbusters will be with us to talk about her adventures from all over the World

Xmas Quiz and Buffet 9th December

Our Xmas quiz and hot buffet. With prizes up for grabs it a good night and well attended

Kevin's Treasury Update



I hope you've all been enjoying the Summer and getting out and riding safely on your bikes.

Generally the weather has been pretty glorious. I write this from Torbay, in August, a fairly challenging time for biking, when although the weather is generally very good, there are many safe challenges to safe riding as the population of Torbay seems to have increased about 20 fold, with the large majority of drivers not concentrating on their driving (how many do at the best of times?), driving slowly as they do not know where they are going and enjoying the wonderful views. (I thought coaches and open topped double-deckers were for that!) I find this brings me a great opportunity to practice patience and focus on riding safely in the way that we were taught by our observers. Luckily, we also know the roads off the main tourist routes where we can make progress.

From our August bank statement, our club bank balance was a healthy £8261.77p.

We have received income of £1871, which comprises of:

£580 from Subscription renewals,

£434 from new associates joining us,

£275 from our gift aid claim,

£249 from the sale of Hi-viz jackets

The remainder has come from receipts from those who enjoyed the Skills day at Thruxton in June and a donation.

Expenditure was £502, which includes the buffet for our AGM, attendance costs at the AGM spring conference and costs associated with the excellent PAM challenge event organised by Adrian and Jerry.

Our current membership, again on 5th August 2019, stood at 124, with 28 of these being associates, 96 full members, 2 of which are fellows of the IAM.

During the period since March, 20 of our members have renewed their subscriptions; it is one of our busiest times for membership renewals.

I have sent out 17 reminders to members that their renewal is due. Hopefully we will receive their membership shortly. I've also sent reminders to 4 members, who haven't renewed their

Roadsmart membership but responses have been positive and I am confident they will renew shortly

Always keep an eye on your email inbox, as I no longer post reminders, but now email them out to you however, if I know that you have a standing order set up, I will not send you a reminder.

If you would like a standing order form, to avoid the worry (and the nagging from me), then please let me know and I will happily send you one that you can take to your bank

Welcome to our new members

Roland Tooze, Neil McClung, Michael Askew, Tony Hacker, Jo Torres, Maciej Sularz, Paul Brindley, David Page, Andy Yarwood and Dean Hopwood.

I hope you all enjoy your riding.

Kevin



Finally, some more of my biking history

Last time, I told you of the great fun I enjoyed by owning a brand new 1971 Yamaha YCS 180cc, which unfortunately, even though it was ridden carefully suffered 2nd gear expiring so it was sold and replaced with a 1960 Matchless 350 single. NB. this picture isn't the original motorcycle I owned.

Oh dear, after the 2 stroke Yamaha this was a shock to the system. I don't think this machine had been loved before.

The headlight bulb would regularly fail, and my model had an 'sporty' aluminium rear mudguard which would regularly split just above the rear light. As my courting now involved nightly return trips to Farnham in Surrey of about 25 miles, this was a bit of problem and most trips were interrupted by regular repair stops. Have you ever tried riding home by torchlight at 11pm?

The top of carburettor also had worn threads, so care was required as under sudden acceleration! The top of the carburettor would come off, requiring one handed riding while I reached down to hold it the top on!. I also couldn't understand why my girl friend complained of vibration until I put my feet on the pillion footrests, I then realised why the mudguard split and the bulbs kept blowing.

Do we put rose tinted spectacles on when we dream of old British bikes?

The end of this Matchless came after a mate (?) helped me repair the rear brakes.

Unfortunately on the way home, disaster occurred with the rear wheel. The frame lug broke where the rear wheel slots in. Fortunately for me I was going slowly and near home, so I managed to back safely.

Interest had now been lost in the Matchless, I was courting now and it was sold for a princely £10. I still wonder what it would have been worth had we kept it and stored it for prosperity. That was the end of my motorcycling for the next 16 years or so with the money going towards a reliant regal 3 wheeled van which I would then drive

Kevin



Andy Yarwood
Jo Torres
Hamish Rutherford
Danny Alexander
Adrian Massett
Jon Petty
Simon Payne

All successfully passing their 'Green Badge Test' and achieving *iAM Roadsmart* Advanced Rider status and gaining full membership of the Institute of Advanced Motorists

Congratulations
Stefan Bogatko,
iAM Masters with Distinction

A Perfect Ride?

I remember pulling into Sainsbury's car park on a very wet and dreary day, around 5 years ago, to undertake my first observed ride with PAM. A few moments later a very wet (and not so dreary) Barry Hine arrived, pulled off his sodden gloves, wrung a bucket full of water out of each, shook my hand and said "Grasshopper". I don't know why he called me Grasshopper, and I wasn't unduly fussed, as most people can't pronounce my name properly. Anyway, he said "Grasshopper, when you can take these stones from my hand ...". And amongst many other things he also said "there was no such thing as a perfect ride" and off we went into the gloom. A number of rides later I passed my test and the rest is history.

Over the following years it became apparent to me that there was more I could do to improve my riding and that some bad habits were beginning to creep in. Even though there is no such thing as a perfect ride, I decided that it was time to up my game. I resorted to Google and searched for some information about IAM Masters to see what all the fuss was about. I soon bumped into a BMW GS forum where the topic was being discussed. One guy knew someone who had a mate who knew someone who had done the Masters test: "it was properly quick ... there were sparks coming off the footpegs as they touched down on every corner", etc. I decided that Masters was not for me.

So, in April of this year I signed-up for the Masters programme. I wanted to see where my riding was against the Masters standard: "the most challenging advanced riding programme available in the UK". I coughed-up my £300 and eagerly awaited the arrival of my Masters pack. The IAM were quick off the mark and my disappointingly small parcel arrived. In it was a copy of the Police Federation Motorcycle Roadcraft handbook (which I had already purchased some years earlier) and a very slim Masters Course Logbook. The logbook is pretty much just that – a blank logbook. I re-examined the parcel for something extra and more exciting but found nothing. Shortly afterwards Tim Collins from CAM contacted me and we arranged our first ride together. Having a frail ego, I had decided to undertake my Masters mentoring outside of PAM so that no one would discover the weaknesses and shortcomings of my riding – and if things didn't go so well then no one in PAM would ever need to know about it.

I set off on a rather damp day into deepest Cornwall to meet Tim at Damerells. The briefing was brief and to the point: 1.5 hours of non-stop Masters-standard riding was required. Tim doesn't waffle or use 20 words where one will do. However, he did mention that "there is no such thing as a perfect ride" and that if I made a cock-up then not to dwell on it as it would risk spoiling the rest of the ride. He was very friendly and polite, but to the point. **We headed off - I have no idea where.** I'm usually lost once I'm a few miles from home. In fact Debbie jokes about me going "oop north" if I head beyond Okehampton.

Just as I thought that my riding was okay and the session going to plan, Tim suddenly shot past me and we pulled into a lay-by. "Okay, I've seen enough" he said. "There is no point in us just continuing the same thing for another 45 minutes". He then set off back to Damerells and gave me a demonstration ride of what he was expecting to see - which was worth far more than talking to me at length. The ride back was safe and legal, but brisk and business-like, and at no time were any footpegs scraped on the ground around corners. I now had an appreciation of where the Masters standard was - and it was not where I was. I set off homewards into the rain and into a glum mood.

Over the coming rides together we explored some of Cornwall's finest roads and Tim certainly has a knack for coming up with a great mix of them. Just as I was settling in to a dual-carriageway we would turn off onto some single-track only to suddenly turn onto a fabulous, fast, twisting A-road. **Don't ask me where we went as I have no idea.** And we always finished the ride exactly at the 1.5 hour mark.

On one of my rides with Tim I encountered a car travelling on an A-road at exactly 50 mph, and for so long that I thought that the driver must have had cruise-control set. I followed the car for a while looking for a suitable opportunity to overtake. Finally there was a long, straight, empty stretch of road, and off I went, accelerating quickly up to 60 mph while asking myself "can I perform a legal overtake when I am gaining on the car at only 10 mph?" It took a while for me to close the 1 second following gap, then a bit longer to draw alongside the car. I was very surprised at just how far I had travelled along the road without being able to safely complete the overtake. Then an oncoming vehicle came into sight and I had to accelerate to finish the job in a timely fashion. My scores from Tim for planning and overtaking took a bit of a hit. I went home and did some calculations regarding the 50 mph/60 mph overtake and have written a separate article for the newsletter about it entitled **To Boldly Go**. Lesson learnt.

I was correct in thinking that some bad habits had crept in and aspects of my riding needed improving. Tim concisely communicated this to me. On our fourth ride together, at the end of May, I managed to attain a perfect score of 1s for all 26 competencies. I was ready to apply for my test. We had a further ride together to make sure my previous score was not a fluke and then Tim put me in for my test.

I assumed that I would have had my test within a couple of weeks and therefore know my fate without much further ado, but no, Shaun Cronin, Masters examiner, contacted me and stated that his next free Masters test slot was mid-August! **Yikes, 10 weeks to wait.**

In the meantime I went to Thruxton for the IAM skills day, which I can highly recommend - but that's another story also I clocked-up 1,850 rather rapid miles in Spain with some of the boys and girls from PAM – but that's yet another story.

continues

A Perfect Ride?

With my test just one week away I decided that, under no circumstances, would I look at the weather forecast. The recent weather had been grim with storm after storm, high winds and rain coming in off the Atlantic. I looked at the weather forecast. Rain and wind were predicted for as far as the eye could see except Thursday, 15th August - my test day. Now, what are the chances of the forecast remaining consistent for a week hence? As luck would have it the forecast stayed the same with a small, dry and windless window in the weather for Thursday. I had planned to head off to Blandford Forum (my test location with Shaun) via Dartmoor but the fog and rain put me off - so much for the forecast. **I was rained on and blown around all the way to Lyme Regis.** I also managed to miss spotting a speed limit change and cocked-up an overtake en-route. I wasn't feeling at my sharpest. I had a few stern words with myself at my Lyme Regis coffee stop and worked on trying to hold my nerve. "Hopefully, a bad rehearsal before a good show" I thought to myself.

Some 130 miles and 3 hours of riding later I arrived at Blandford Forum in sunshine. Shaun arrived soon afterwards and gave me a brief briefing of what was to happen. Shaun is a nice, very relaxed chap who tried to put me at ease and said that we were going to explore some great roads around Dorset. He also mentioned that the ride was to be enjoyed and not endured. "Nice", I thought. Finally, he said "there is no such thing as a perfect ride" and that if I make a cock-up not to dwell on it as it would risk spoiling the rest of the ride. It all sounded very familiar. He asked me if I had any questions to which I replied "what is our procedure should we get separated?" He looked somewhat bemused, and said that that had never happened to him. I wasn't quite sure how to interpret that.

Off we went, out from the café and almost immediately onto a fast A-road and soon right up behind a car travelling at around 50 mph, occasionally up to 55 mph. "Hang on", I thought, "I have been in this situation with Tim and it didn't go well". I decided to look for overtaking opportunities, such as out of corners, but the car didn't slow. I soon became aware that some time had passed and that if Shaun was thinking I was a ditherer then it was already too late.

Next up, a right hand turn, and time to show a nice blind-spot check. For some inexplicable reason I decided to turn my head, look at nothing in particular over my shoulder and take a fair bit of time doing it. Perhaps I thought it looked smooth and controlled. By the time I started to look in the direction I was actually travelling I was in danger of missing the turn and had to perform a less than perfect manoeuvre. "No such thing as a perfect ride" I thought.

I congratulated myself on spotting the 30 mph gateway immediately after the turn and set my mental cruise-control accordingly. The road passed by some houses and then narrowed to single-track. On we went for a mile or so. I continued to maintain 30 mph. A few miles more and I began to have doubts - no street lights, no repeater signs, nothing, nada, zilch. Hmmmm.

Then I saw Shaun waving an arm and closing up on me fast. It became clear that I had missed the National Speed limit gateway. How? I remembered Shaun's advice about not dwelling on cock-ups and then spent the next few miles and minutes dwelling on my cock-up. While I'm busy thinking about this we continued on single-track roads but were now passing by beautiful cottages with manicured gardens. "Hang on" I thought, **"we are in a village"**, "where were the speed limit signs?" Now I was getting wound up. I was pretty sure that we were still in a 60 mph limit but we were riding through a built up area for a mile or more. I started to doubt my own reasoning and wondered if I had missed another set of signs.

Soon after we turned onto a main road and were back at 60 mph, but the nagging doubts about my previous performance continued to occupy my mind. I saw, but was late in reacting to, a clearly visible 40 mph gateway and had to brake gently rather than use acceleration sense - which would have been far more appropriate given the circumstances. My mood-o-meter was getting pretty low by this point. I recognised a roundabout from the outbound route and correctly guessed that we were at the end of the session. We pulled-up outside the coffee shop and by now I was feeling really quite annoyed with myself.

Helmets off and Shaun started to ask me how things went. I commented on the 50 mph car at the start of the ride and mentioned my experience with Tim in similar circumstances. I was able to quote their travelling distances at various speeds as they were still fresh in my mind from my calculations regarding my 50 mph/60 mph overtaking experience with Tim. **Finally, I quoted page 193 of Motorcycle Roadcraft** regarding overtaking, suitably nerdy I thought, and the only page number I had deliberately memorized. He agreed with my assessment of the situation. What a relief! But there had not yet been any mention of me having passed or failed the Masters assessment, nor had we discussed the not insignificant matter of me failing to spot the 60 mph signs. I brought up the subject and Shaun said that the signs were there but not visible. He explained that the farmer had very recently cut the hedgerow but had been unable to flail near the signs so that they remained buried in the undergrowth! I had wound myself up over nothing. He then went on to say how crazy it is to have a 60 mph limit through the extended village where I thought I might have missed a 30 sign. Phew!

By my reckoning I thought that I might have passed the test but there was still no word from Shaun. We discussed a few random topics related to the ride, observing and advanced motorcycling in general and then he congratulated me on passing my **Masters with distinction**. I asked for permission to grin inanely which was granted. We had a good chat and de-brief and then I set off for the 3 hours ride home.

In all, not a bad ride, in fact, quite a good ride, but there really is "no such thing as a perfect ride".

Stefan



Talking Tyres

Whatever we ride we need tyres.....

They are the only contact we have with the surface and can make a big difference to our riding comfort, confidence, ease and safety. Never have I felt this to be more true than this year as my tyres having done a mere 4200 twisty miles were in terrible shape (profile and tread) and affected my riding confidence severely whilst away on with PAM in the Pyrenees.

Tyres are something of a black art – how long should they last, do they go hard, what pressures should you run them at, what's the minimum tread depth?

How do I choose the best motorcycle tyres?

It sounds obvious, but the most important point is that the tyre must be the right size for your motorcycle, with the correct speed and load ratings. Then, be honest with yourself, and choose rubber that's recommended by the tyre manufacturers to suit your needs.

A good example is sports tyres – many people think they should buy the stickiest race rubber they can, but unless you're riding hard on track, it won't get up to temperature properly, so potentially won't perform as well as a more road-focussed tyre, and could sacrifice wet weather safety too.

Durability, performance, all-weather capability, the types of road you ride, the luggage you take, if you carry a pillion and even the climate you'll be riding in should all be considered; there is no best all-round tyre, but technology has moved on so far in the last few years that you can expect good wet and dry grip, as well as longer life from much of today's road rubber.

What makes a good tyre for different conditions, like dry, rain, snow etc?

The design of a decent motorcycle tyre is all about its construction, compound and tread pattern. Advances in the materials used have developed dramatically, with new elements offering manufacturers multiple options for both carcass design and compound variation. The traditional balance of a hard compound for mileage and a soft compound for grip has been modified by additional elements that make the rubber behave in very different ways.

Tread design is crucially important for water clearance, while also allowing movement, which helps to generate heat in the tyre and to improve performance.

What really matters when looking at tread patterns?

Effective water clearance on a road tyre of course, as well as generating heat. On adventure, enduro, motocross and other off-road tyres, grip on loose surfaces is important, but also durability and mud clearance – it's no good having a knobbly hoop if it clogs with mud. But in addition to that, tyre designers might need to consider how they can make a tyre that can put the power down, without tearing up the surface too much.

What does the writing on the side of my tyre mean?

In this photo we have a 180/55 ZR17 (73W) tyre, which means it's 180mm wide, and the profile height is 55% of that, so 99mm. The 17 relates to the rim size – 17inches – while the 71W is the speed and load rating; 365kg and 168mph (270kmh). Because that rating is in brackets, it means the tyre is capable of speeds above the figure, but if there were no brackets, it'd mean the rating was the maximum. The 'M/C' simply denotes that the tyre's intended for use on a motorcycle. You can also see the direction of rotation – if this is the wrong way round, your bike will fail its MoT.



The maximum load – here it's 365kg – is the most the tyre can support at a standardised pressure – in this case 42psi. This isn't necessarily the pressure recommended for your bike, so check your owners' manual or the tyre manufacturer's fitment guide.

This circle shows that the tyre is homologated for use in Europe, with the number indicating the country in which the approval was made – in this case Netherlands.

How can I tell how old my tyres are?

The production date of any tyre made since 2000 can be found on one of the sidewalls, at the end of the 'DOT' (Department of Transport) code. The last four figures – typically after other letters and numbers – show the production date.



The first two are the week it was made, and the last are the year. So this tyre was made in the 9th week of the year 2017. Tyres used to have a three-digit date code, as it was considered that none would be used for more than a decade. Unfortunately, this made it very hard to tell if the rubber on a bike you were buying in 2005 with a 327 code was made in the 32nd week of 1997, or the 32nd week of 1987. Just know that a tyre with a three digit code on now is too old.

Can I run tubes in a tubeless tyre?

Yes, but it's worth checking that there are no loose labels on the inside of the tyre that could cause a problem with the tube.

Does running a tube reduce my tyre's speed rating?

The addition of a tube has no effect on a tyre's speed rating up to a maximum of 130mph (210kmh), beyond that the tyre would typically be rated at the next speed down.

What is the difference between tube and tubeless tyres?

Simply put, a single layer of material on the inside of the tyre's carcass. All the materials used in a tyre are about performance – a balance of grip, flexibility and durability. It may surprise you to hear that the ideal mix of rubber is actually porous, so will slowly leak air. In the past, this was overcome by fitting a tube with a completely different rubber mix that would contain the air much better and have little effect on the overall performance of the tyre. The biggest issue with this design is that if it's subjected to a puncture, the tube will lose all of its air suddenly, which would have typically escaped rapidly through the spoke heads on the wheel. Rapid deflation of a tyre on any vehicle is not good, particularly when travelling at speed.

Created predominantly with safety in mind, the tubeless tyre was designed by taking a section of tube material and making a single continuous layer on the inside of the tyre carcass, and also saving weight.

Of course, a tubeless tyre can still be punctured, but the offending object usually stays stuck in the tread and the tyre deflates slowly, giving the rider an opportunity to slow down. At the same time, cast wheels mean spokes are no longer needed, so the entire unit has become sealed. Now, instead of manufacturing both tubed and tubeless tyres in the same size, most companies only make tubeless, and recommend that tubes can be fitted if required. The disadvantage to this is that it adds additional weight to the total wheel assembly, which can lead to more heat generation, which ultimately means faster tyre wear. If a tyre states that it is 'tube type', then it will have no tubeless liner, so it will not hold air and therefore must be fitted with an inner tube.

What is the minimum tread depth on motorcycle tyres?

The legal tread depth limit for motorcycles, mopeds and scooters over 50cc in the UK is 1mm across three quarters of the width of the tread pattern, and with visible tread still remaining on the other quarter. At this point though, the ability of your tyre to disperse water will be limited, and it will be performing far from its best in the dry. For anything under 50cc, the law simply states that you must be able to see the original tread pattern across the whole tyre.

If I don't ride many miles, how long will my tyres last? Will they go hard?

As long as a tyre is stored in a cool, dry place, and away from direct sunlight, chemicals or other ozone effects, it will be fine for a long time. Tyres do slowly age, but most tyres can be sold and used unconditionally as a new tyre from up to five years after the date of manufacture. The warranty period on a most tyres commences at the date of purchase, regardless of the production date. Most manufacturers recommend replacing any tyres that are more than ten years past the date they were made and advise against buying or running used tyres that have an unknown history

Do I need to put my bike on stands when I'm not using it?

Bikers sometimes worry that they'll get flat spots on their motorcycle's tyres if they leave it standing for any length of time. In fact, the most important thing to do is simply keep them inflated correctly; with your tyres at the correct pressure there's no need to lift the bike off the ground.

How do I check my bike's tyre pressures?

Check the pressures when the tyres are cold. As you ride a bike on the road, the tyre warms up, and can increase up to around 0.5 bar (about 7psi) – don't let your tyres down to remove this as they'll be under-inflated when you next ride. Use a quality stand-alone pressure gauge, not the one fitted to your pump, or on an airline.

What tyre pressures should I use on my motorcycle?

Your bike's owners' manual will tell you the recommended pressures, or sometimes a sticker on the swing-arm or hugger. Use them – the bike will have been thoroughly tested to find a safe recommendation based on getting heat into the rubber, and the load you're likely to carry.

Incorrect pressures reduce the life of your tyres, and can affect the handling; if you run them low, the contact patch can be reduced – not increased – because the tyre deforms, lifting the middle section away from the road. They'll also easily overheat and can be damaged. If you over-inflate your tyres, they'll again wear unevenly, handle poorly and give an uncomfortable ride.

You might find different pressures recommended for different loads and riding – Continental recommends that you ride at the highest pressure stated in your owner's manual. If you don't have the bike manual, check the tyre manufacture's website.

Should I reduce my tyre pressures in wet and bad weather?

No. They're designed to work at a specific pressure. Some people reduce the pressure of their tyres in the winter, believing they'll grip better. They'll get warmer as they move around more, but the contact patch will be reduced due to deformation, and the tread pattern will perform less efficiently; they'll wear out quicker and be potentially dangerous.

Is it safe to repair a motorcycle tyre after a puncture?

There's a British Standards recommendation, but it is just that – a recommendation – so you will find some differences between manufacturers and dealers. Personally, I'd go with the following:

Tyre speed rating	Up to J	Above J, up to V	Above V
Max speed equivalent	62mph	Up to 149mph	Over 150mph
Max diameter of damage	6mm (1/4 inch)	3mm (1/8 inch)	No repair permitted
Max number of repairs	2	1	0

These repairs need to be carried out using a plug inserted from the inside of the tyre and vulcanised in place.

Only the central 50% of a motorcycle tyre's width can carry a repair, and not the sidewall. It's also not recommended to attempt to repair a tyre with less than 0.8mm of tread – if it's that worn, invest in a new one.

Roadside repair kits aren't considered a permanent fix, and should only be used to get you home; although I use a 'Stop & Go Repair kit' which is brilliant and the repairs last well, most manufacturers will still tell you that you're best off having the bike picked up if you suffer a puncture at the roadside. A blowout on a bike is extremely dangerous, and as your tyres are all that connect you to the road, it's worth using common sense when considering a repair...

Mark

To Boldly Go

We've all been there: out on a perfect day for a bike ride as we crack along at 60 mph on a great, twisty road only to find a car in front of us travelling at 50 mph. A suitable spot for overtaking comes into view and we prepare ourselves. Everything ahead looks good to execute the overtake and we decide to go (boldly).

Well, I was faced with this exact dilemma on one of my Masters observed rides in Cornwall and wondered if I had enough open road ahead to complete a legal overtake. I decided to give it a try. It took a little longer than expected to close the following distance and a little longer to get alongside, but what I was most surprised about was the distance I had covered in the meantime. Then an oncoming car came into view. It was apparent to me that I would not be able to complete the overtake at my current speed without the oncoming vehicle having to brake, so I had to wind on the throttle a little more to complete the job. My scores from my mentor for planning and executing overtakes were marked down accordingly. Lesson learnt. But just what had I learnt? I was now wondering about just how much space did I really need to be able to execute the entire overtake at legal speeds? Upon my return home I found the back of an old fag packet and did some calculations and I thought I would share them with you.

I have a question for you before I start: how much clear road ahead do you think you need to be able to execute an overtake at 60 mph when the car you are planning to pass is travelling at a constant 50 mph? Give it a thought for a moment and then read on.

Meet The Volunteers

For the purposes of this exercise I have employed the services of a fictional volunteer, **Captain Kirk** (Rtd), not of PAM or the IAM, who knows no fear, has a death wish, is a stunt rider and is certifiably mad as a hatter. Captain Kirk will ride at a constant 60 mph and attempt to overtake a car which is travelling at a constant 50 mph. Kirk's return "landing spot" for completing the overtake will be just in front of the car (almost catching its front bumper on the way back in). Kirk will attempt to miss an oncoming car travelling at 60 mph (driven by another fictional volunteer, **Mr Spock**), with literally no extra room at all - not even an inch. Mr Spock reckons that this stunt is "illogical" and so do I.

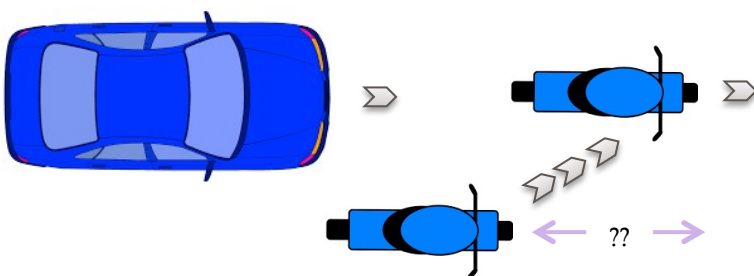
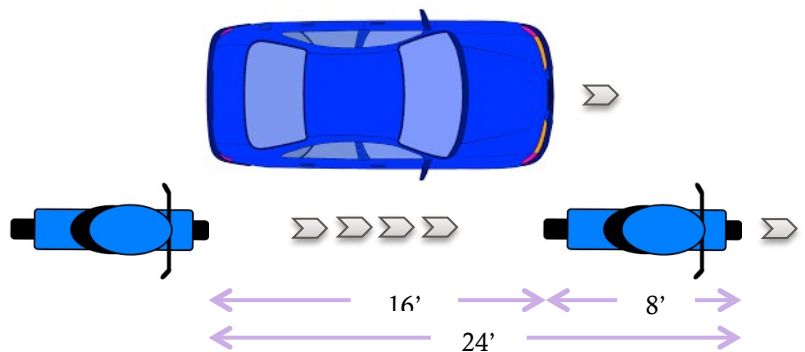
This is the sort of stuff you would see in movies, but the scene would have to have been created on a computer as it would be way too dangerous to attempt in real life. You have been warned. *Do not try this at home.* The scenario presented here and its associated calculations are for illustrative purposes only.

Here we go grab a cup of tea, coffee or something stronger, you're going to need it and prepare to "pay attention at the back of the class".

An Illogical Overtake – Step 1

We join Captain Kirk on his overtaking journey just as he has the front wheels of his bike in-line with the back of the car that he is planning to overtake.

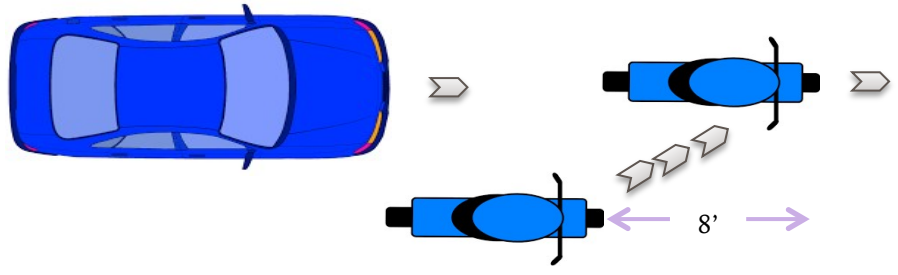
The car is 16 feet long and his bike is just shy of 8 feet long. Kirk therefore has to travel $16 + 8 = 24$ feet more than the car to get the back of his bike in-line with the front of the car:



A Illogical Overtake – Step 2

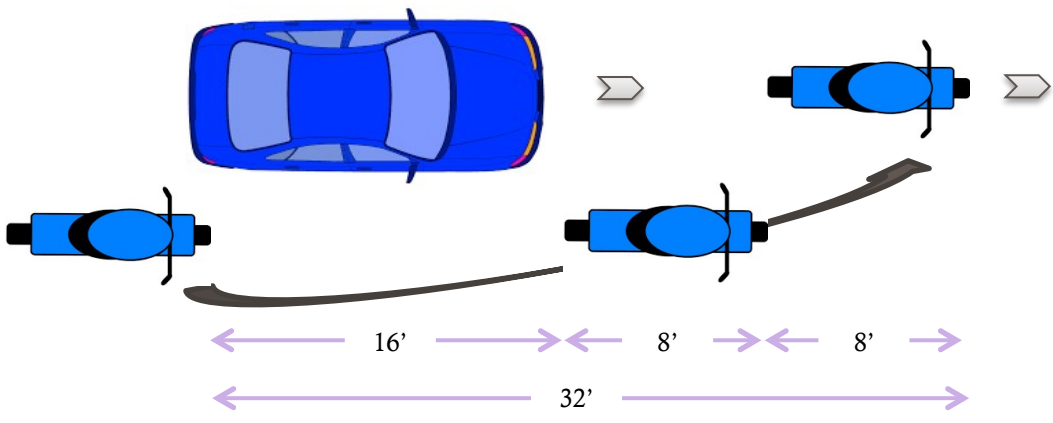
Kirk now has to return to his side of the road before Mr Spock arrives in his oncoming car.

As the back of Kirk's bike passes the front of the car he swerves violently to the nearside to complete his overtake. Remember that Kirk is travelling at 60 mph, which equates to 88 feet per second. Even if he manages to complete this manoeuvre in 1/11th of a second (which I would argue is impossible) he would have travelled a further 8 feet: $88 \text{ ft} \div 11 = 8 \text{ ft}$.

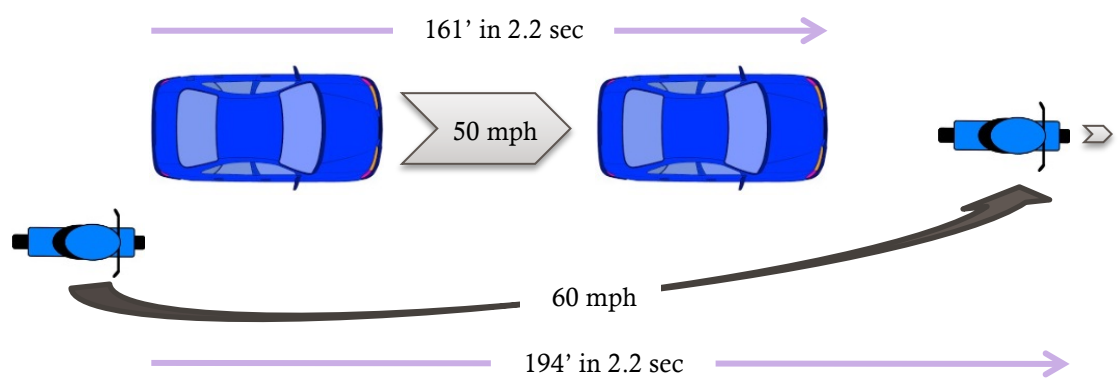


A Illogical Overtake – Thus Far

Captain Kirk has travelled from being in-line with the back of the car to in-front of it and back onto the near-side of the road:



As the diagram shows, he has travelled a total of 32 feet more than the car. Kirk is travelling at 60 mph. The car he is overtaking is travelling at 50 mph. He is therefore passing the car at the rate of 10 mph. At 10 mph Kirk is travelling at just under 15 feet per second (14.67 to be precise). So it will take Kirk 2.2 seconds to complete the overtake, as per the above diagram: $32 \text{ ft} \div 14.67 \text{ ft/sec} = 2.2 \text{ seconds}$. At 60 mph Kirk is covering 88 feet every second. Therefore in 2.2 seconds he will have travelled a total distance of 194 feet: $88 \times 2.2 = 193.6 \text{ ft}$. The car is travelling at 50 mph, or 73.3 ft/sec, and will have travelled 161.3 feet in 2.2 seconds, i.e. 32 ft less than Kirk.



A Illogical Overtake – Enter Mr Spock

Unfortunately for Captain Kirk and you, the reader, there is more to come.

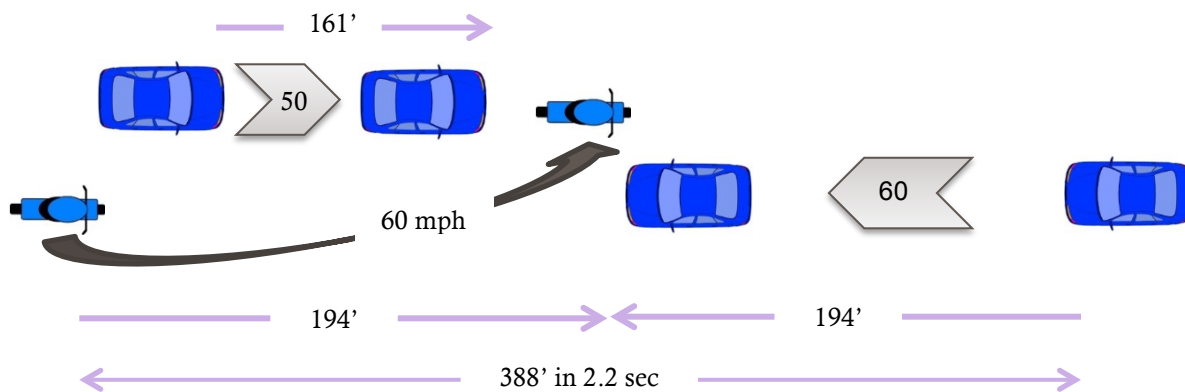
At the very moment Kirk commits to his overtake, he is at the point of “no return”. I would argue that the last point at which Kirk can safely abandon his overtake is when the front of his bike passes the back of the car. Up to this point he can brake and, hopefully, pull back in behind the car (assuming that another member of PAM or other road user hasn’t gone and occupied that space). Beyond this point there is the possibility that the driver of the car panics and jumps on their brakes leaving poor Captain Kirk “marooned”, side-by-side with an oncoming vehicle heading straight towards him. Captain Kirk could, of course, always ask for Scotty to “beam him up”.

For the sake of my argument, Mr Spock is going to come into view at the very moment that Captain Kirk commits to his mad overtake, i.e. he cannot abandon.

From the point at which Kirk commits to his overtake he is out on the other side of the road for 2.2 seconds, with Spock heading towards Kirk at 60 mph, which is 88 feet per second. Therefore, Spock also travels 194 feet in the same 2.2 seconds, just as Kirk did: $88 \times 2.2 = 194$ ft.

For Kirk not to collide with Spock, Kirk needs an additional 194 feet of road ahead of him as he commences his overtake.

So now we have Kirk having travelled 194 feet and Spock also having travelled 194 feet in 2.2 seconds which is a



For Captain Kirk to pull off his stunt he needs at least 388 feet of clear road ahead of him before he commits to the overtake. A Premier League football pitch is around 115 yards long. So, Kirk needs 388 feet or 130 yards or 119 metres or the length of 1.1 Premier League football pitches to do the impossible

An Illogical Overtake - Summary

To get from being in-line with the rear of a small car travelling at 50 mph and execute a most likely lethal and impossible overtake, whereby landing just 8 feet in front of it, whilst riding at 60 mph, Captain Kirk needs at least 388 feet or 130 yards of clear road ahead.

Don’t forget that this is a “no return”, fictional overtake, containing impossible elements and that figure given above:

- Does not allow for any other variables such as grip, weather conditions, road conditions, etc.
- Allows no room at all between Kirk and Spock as they pass one another.
- Assumes that Kirk is able to swerve to the nearside in 1/11th of a second (impossible?).
- Assumes that the car being overtaken does not exceed 50 mph.
- Assumes that the oncoming car driven by Spock does not exceed 60 mph.
- Does not include the time and distance required for closing-up any following distance beforehand.
- Is not suggested or recommended by me, PAM or the IAM.

And that:

- Kirk and Spock are fictional characters
- We cannot ask for Scotty to “beam us up” should we cock-up an overtake

A Slightly Less Illogical Overtake

The above scenario is based partly on the assumption that Captain Kirk can somehow return to his side of the road in $1/11^{\text{th}}$ of a second – impossible I'd say. It also assumes that Kirk and the oncoming Spock would pass one another with absolutely no free space between them whatsoever. This then begs the question as to what sort of distance might Kirk need to execute an overtake while leaving some room between himself, the car he is overtaking and the oncoming Spock?

Purely for the sake of argument, and not to be taken as any sort of recommendation, what if Kirk were to leave an additional 1 second, after passing the front of the car, before returning to his landing spot, i.e. the same as for the IAM recommended following position when planning to overtake? This would allow Kirk an additional 15 feet between his motorcycle and the car making this aspect of his overtake more likely to be possible. Further, what if Kirk also allowed another 3 seconds between moving to the nearside and Spock passing by? Don't forget that the closing speed between Kirk and Spock is 120 mph or 176 feet per second so, to me, 3 seconds doesn't seem overly generous. If, in total, Kirk were to leave an additional 4 seconds then the calculations would look like this:

$$4 \text{ seconds} \times (88' \text{ per sec for Kirk} + 88' \text{ per sec for Spock}) = 704 \text{ feet or } 235 \text{ yards.}$$

As shown in the An Illogical Overtake Summary, Kirk already needs 130 yards to complete his impossible overtake.

Therefore, in total Kirk would need his original "illogical" 130 yards plus an additional 235 yards of a clear road ahead, as he commits to his no return overtake, which is a total of 365 yards or 334 metres or the length of 3.2 Premier League football pitches.

The additional seconds used in the above calculations are purely for illustrative purposes and not recommendations for safe overtaking.

A Slightly Less Illogical Overtake - Take 2

At the risk of completely overstaying my welcome here, I have just one more set of calculations for you to consider: If Kirk had wanted to allow a 1 second following distance in preparation for his overtake, as per IAM guidelines, then just how far ahead would he have to be able to see to complete the overtake before an oncoming vehicle came into sight?

- The car Kirk is planning to overtake is travelling at 50 mph or 73 ft/sec.
- With a 1 second following distance Kirk would therefore be 73 feet behind it.
- Kirk accelerates to 60mph, or 88 ft/sec, in preparation for overtaking.
- He is now gaining on the car at 10 mph, which is 14.67 ft/sec.
- It will take him 5 seconds to make up the following distance: $73 \text{ ft} \div 14.67 \text{ ft/sec} = 5 \text{ seconds}$.
- In those 5 seconds he will travel $5 \times 88 \text{ ft/sec} = 440 \text{ feet}$.
- An oncoming car at 60 mph would also travel the same distance in the same time, i.e. an additional 440 feet.
- The total distance travelled by Kirk and an oncoming car is therefore 880 feet.
- If we add this distance to the 704 feet that Kirk also needs to get past the car (as shown in A Slightly Less Illogical Overtake above) then we now a grand total of $880 + 704 = 1,584 \text{ feet}$ or 528 yards or 482 metres or the length of 4.6 Premier League football pitches or exactly $1/3^{\text{rd}}$ of a mile!

A Slightly Less Illogical Overtake – Summary

To get from being 1 second behind a small car travelling at 50 mph and execute an overtake, whilst not exceeding 60 mph himself and leaving 1 second before returning to the nearside and 3 seconds before Spock passes by, Captain Kirk needs at least 528 yards, or $1/3^{\text{rd}}$ of a mile of clear road ahead.

To return to the question I asked you at the beginning of this article: how much clear road ahead do you think you need to be able to execute an overtake at 60 mph when the car you are planning to pass is travelling at a constant 50 mph? What was your answer and how does it compare with Captain Kirk's?

Parting Thought

There's a car ahead travelling at 50 mph that I would like to overtake, the speed limit is 60 mph, *shall I boldly go?*

Disclaimer

The calculations and assumptions in this article are my own and not approved or recommended by PAM, the IAM or myself. None of the calculations or assumptions are recommendations for overtaking practices, distances or times. If you have spotted any flaws in my logic, calculations or assumptions then please let me know via PAM. Remember: overtaking is your own responsibility and you do so at your own risk - not based on content of this article.

Stefan

Lessons learned

The risk of Assumption

When travelling through a country lane at the weekend a car pulled over to one side, to allow an oncoming vehicle (car) to pass. As the distance to the oncoming vehicle was fairly sizeable and the gap alongside both cars was significant, the riders assumed that the car driver had pulled in to allow the bikes to pass.

The driver was immediately annoyed that a bike decided to pass, so by the time the 4th bike had passed, he was suffering from road rage and nearly side swiped them.

The driver found the opportunity to stop and share his angst, stating that the riders were being "discourteous".

On reflection, perhaps we should not pass any vehicle that has "pulled over" unless they indicate or otherwise suggest that they have taken this action to allow the bike(s) to pass.

The risk of Hesitation

When approaching hazards, particularly junctions and roundabouts, we are encouraged to look for opportunities to go, but be prepared to stop.

It has been noted that some riders choose to stop (or slow down excessively), to gather the information before making a decision to go (in the name of safety).

The problem is that any behaviour which is 'out of the norm' can lead to an accident and should therefore be considered more fully. Such behaviour as that mentioned above, could cause other road users to become frustrated, or indeed could lead to a following vehicle assuming the bike in front "Must have gone"

Your views and opinions – send them to us using the website suggestion box or email us
@ pamroadsmart@gmail.com

Remember:

Accidents only happen when someone is moving

Accidents typically occur when someone is taken by surprise

Adrian

South West motorcycle training event at Okehampton 2019.

The Training Team for this day is made up of National Observers who have been further assessed for their ability to mentor and develop observers in the skills inherent in that role. The trainers can also give insight and practical riding training for those aspiring to the Masters test. The training approach is one of coaching rather than teaching. The sessions should be thought of much more as "peer to peer" than "teacher to pupil".

The basis for the success of the training day is in identification of the aims individuals bring to the event (for example, an Observer might say they have difficulty in identifying gear selection when following Associates).

Learning aims should be clearly stated at the outset to the trainer that individuals are working with. The trainer should be checking through the day that those aims are being met.

LO/NO training attendees should bring with them all the training aids and prompts that they would usually carry when working with an Associate. Observers will be asked to conduct their practical training sessions throughout the day as if they were dealing with an Associate. The trainers will advise on current practice promoted by iAMRoadsmart and its examining cadre. Radio training attendees who come with their own radios should bring the User Guide with them.

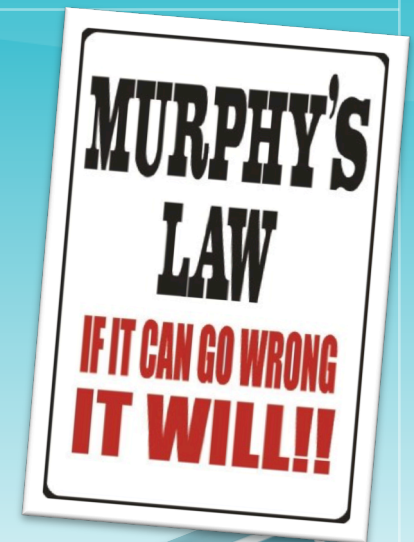
The cost of attending the training event is £30 per day. This covers refreshments at the training venue including lunch. Payment IN CASH is asked for on the day. The aim is to keep the administrative overheads to a minimum. As the training team has to make a financial commitment to the venue then groups will be invited to cover the cost of any member who does not show up.

These training days are also very much enhanced by open communication. Feedback from trainers to individual attendees will be verbal during and at the end of the day, written feedback can also be given if specifically requested by individuals. Verbal and written feedback from attendees to the trainers

Murphy's Motorcycle Laws

- *A motorcycle cannot/will not fall over without an audience.*
- *The fact your keys are still in your trousers pocket will become apparent after you put your gloves on.*
- *Once you have put on all your gear, rest assured nature will call*
- *Motorcycles are to bugs what aircraft carriers were to Kamikaze pilots.*
- *Quick fixes are named for how long they stay fixed.*
- *The only part you really need will also be the only part on permanent back order.*
- *Nothing is harder to start than a used motorcycle being shown to a prospective buyer.*
- *You will never suffer a punctured tyre on the road until you leave the repair kit at home.*
- *"Universal" accessories are so named because that is where you must search to find the bike they fit.*

Debbie



Adverse Camber has sent in these images and comments.

"I just love getting off the bike after a long ride to stretch my legs but this simple act can have a significant downside (no pun intended here). Recently while touring in Spain, and finding myself on a hillside with spectacular rural views I put my foot down on what I thought looked like dried mud. To my cost I found that it was the thin crust of an enormous Cow Pat. Oh how the stuff stuck to the deep tread of my touring boots!

Closer to home as the illustrations depict I find sylvan scenes of indiscriminate bowel movement at every turn. Even in more built up areas the dog bins runneth over as local councils simply can't keep up with the amount of incontinent canines. The bovine Spaniard left its mark for days, if not weeks (I can swear there are still vegan remnants on my non vegan boots) however, the stench of K9 S H One T takes a lot of beating as it can affect the olfactory senses for years! It's simply less trouble to stay on the bike - no shit! There, I've said it!"



Adverse Camber.