



## **What Motorcycle Riders Themselves Do To Improve Motorcycle Safety**

### ***Introduction***

As riders are aware motorcycling is a pleasant experience. However, the motorcyclist is a vulnerable road user, like the pedestrian and pedal cyclist. Those present at this conference will be aware from their professional involvement, either as scientists or as activists in the field of rider training, that accidents are still too frequent. Although it is true, being confirmed by recent studies in Europe, that motorcycle riding is comparable to cycling and walking, in terms of overall safety. There are limits to the amount of protection that can be achieved without the benefit of being surrounded by a steel or aluminium shell.

Against this, although to some people it seems a contradiction in terms, most motorcyclists are in fact safety conscious being well aware of the risks involved. It is often noted by driving instructors that experience on a motorcycle tends to make people much better and more alert drivers. In particular being more aware of the importance of changes to the road surface, adverse weather conditions and the interests of vulnerable road users.

In this paper we highlight some things that riders are doing for their own safety through the FIM and other motorcycling organisations with whom we work closely. We are aware from our work in Brussels with the European Union (EU) and in Geneva and New York with the United Nations, that we are one of the few consumer groups that have a professional representation of their interest. One of the main topics in this is safety.

This interest is represented in two ways:

On the one hand there is the necessary response to legislative proposals that affect our interests. By reasoned argument and clear communication at the appropriate time preventing politicians from taking extreme measures. For example some politicians wish to implement the zero-vision in such a way that all road user with a high-risk profile are excluded from traffic. Zero vision is an extension of the established road safety philosophy of target setting to seek a world without transport related casualties. Some exponents of this philosophy would seek to use it to end all travel by powered two wheeler. We obviously cannot agree with this. Such extreme views taken to their logical conclusion would also forbid human beings from walking in the open air!

A more rational use of this philosophy is to always seek a better safety performance without neglecting the importance of environmental and mobility issues in transport planning.

On the other hand keeping the motorcycle on the safety agenda. Often the powered two wheeler (PTW) is not included in both traffic and infrastructure planning. Some detail is given later of a major project in Europe on crash barrier design and installation.

We are not only involved in the political side of motorcycle safety. Political work usually involves asking other organisations to take care of our safety. We are also involved in activities that directly influence motorcycle safety. We give some examples. Some are being done by our own organisations, others are connected to the political work, mainly with the European Commission of the EU. (EC)

Our main strength is the experience and knowledge of riders themselves.

### **FIM**

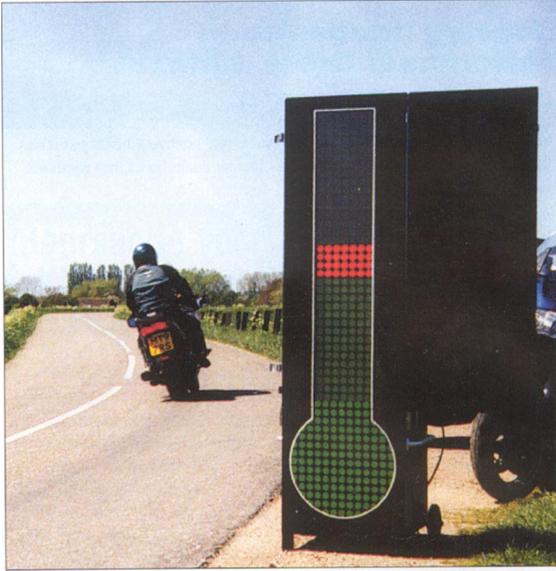


This is the world organisation for motorcycling. Headquartered in Geneva, Switzerland and founded 1904. FIM interests are: motorcycle sports, tourism including international rider gatherings, safety and public policy work. In the latter group representation takes place in Brussels and Geneva by both a professional consultancy office, and by members of our safety and public policy committee. FIM is a politically independent organisation with an income both from membership of national organisations and fees from motorcycle sports. FIM has a regional structure with six continental Unions covering North America, Europe, Asia, Africa, Oceania and South America. The Unions are represented in our safety and public policy committee.

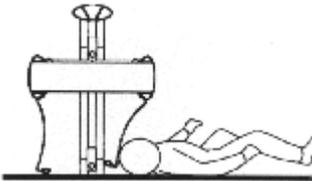
At European level one of the organisations with whom we work closely is FEMA, the Federation of European Motorcyclists Associations. This organisation is based in Brussels, Belgium. It is also politically independent. It is a representative group of national road rider organisations within Europe.

FIM and FEMA have a different background: FEMA comes from grass root rider groups, FIM from more "traditional" national motorcycle organisations. We have many shared interests and for some years we have worked closely together whenever possible.

## Road Infrastructure



As indicated in the introduction we will now discuss the issue of road infrastructure. This is one of the areas where motorcycling suffers from the lack of specific knowledge and awareness on the needs of motorcycle safety. Almost all member organisations of FIM and FEMA have national projects on the improvement of road and road side infrastructure; at European level FEMA has taken the initiative and conducted a survey on crash barriers. FIM was a partner in this project.



Crash barriers are one of the roadside objects that cause many rider casualties. This safety device has been designed to guide—as the name says—vehicles back to their original position and prevent them striking obstacles or traffic participants behind the barrier. In the event of a motorcyclist hitting a crash barrier, the motorcycle usually has already fallen on the road surface and often slides—with the rider—under the crash barrier where the metal posts do their (often) lethal work.

We discovered that in the European homologation procedure for crash barriers there is no mention made of motorcycles. Although the risk of existing crash barrier designs has been universally recognised very little has been done Europe wide to reduce the severity of motorcycle accidents against these barriers.

FEMA took the initiative, together with FIM and supported by the European Commission, to conduct a study on *Motorcycles and Crash barriers* in order to develop recommendations to road traffic authorities for reducing injuries to motorcyclists in collision with barriers. A working group of members of FEMA and FIM studied existing scientific reports and interviewed experts. Their report has recently been published and contains recommendations to improve risk situations. Of course we recognise the practical impossibility of redesigning every metre or foot of barrier throughout Europe. We recommend "black spots" to be fitted with additional devices to cover the posts, with an extra guide rail at the lower level, or even guide rails to be removed and replaced by a free safety zone or by concrete guide constructions.

One of the recommendations—allied to the theme of this paper—is to give local and regional motorcycle organisations a role in identifying those black spots: it is again the rider himself who is often the best expert on his own safety. This report has now been published and is available to the motorcycling community throughout the world. Although it has only been available for a short time it has already influenced government policy in Norway. Highway engineers are now obliged to take specific account of motorcyclists when siting barriers. In France a new manual has been prepared by the authorities, dealing specifically with safety issues related to motorcycling and the roadside environment.

## ***Diesel Spillage***

This is another subject to which brief reference will be made. In conjunction with infrastructure, diesel spillage is a serious hazard for motorcyclists. Large goods vehicles and buses often spill diesel fuel in road curves when they have just been refuelled. Diesel on the road surface is as slippery as ice for riders of a PTW. The problem is exacerbated in Europe by the far greater use of diesel powered vehicles, as many cars are also powered by diesel rather than petrol engines. In curves protected with a crash barrier diesel spillage is an extreme safety risk for motorcycle riders. In fact this is a vehicle design and use problem. FEMA and FIM have worked in Brussels to have those design rules changed, an endeavour in which we succeeded. Again the experience of ordinary riders was the input to change a political discussion.

Road safety experts often use the triangle "road – machine – man" when discussing aspects of safety and ways of improvement. In recent years the focus of the political discussion has been on the "machine" side of the triangle. Many years have been spent on very detailed discussions on vehicle design rules (in Europe) when the so-called Multi Directive was on the political agenda of the European Union. There was a strong lobby for very detailed and fine tuned regulations, seeming to exclude every possible risk. We however have been opposing these excessively detailed proposals because they were too restrictive for the consumer, but above all, in our opinion, not necessary.

By way of explanation: Frame layout, braking systems, tyres etc. have in recent years been well developed. (a good example of the contribution motorcycle sports can make to the benefit of the street rider). Sophisticated braking systems appeared on the market. But above all: when we study motorcycle accident statistics the contribution of machine failures—by design or by lack of maintenance—is very low.

In our opinion we—riders and politicians—should focus more on the third factor "man" to improve motorcycle safety. We agree that this is the most difficult factor to influence and also not an easy topic to include in rules.

In order to show that we do what we have a belief in, we have been working ourselves on this issue. We believe that one of the best ways to influence the factor "man" is training: both initial and experienced or advanced rider training.

Here we present some aspects of our work on rider training to you:

1. The experienced rider trainer network
2. The initial rider training research
3. Improvement of rider training schemes

## ***A Brief Outline***

What we see here is a line of development is that starts with a focus on machine control and develops to the concept of "risk oriented behaviour".

As an annexe to the political discussions in Europe, members of the FIM road safety group CMT discussed motorcycle rider training. We discovered that most of the organisations were active in experienced or advanced rider training. Most had training programmes operated by professional volunteers. We also noted that none of the schemes was alike; the content also differed from country to country and they were in different stages of development. To cut along story short: we decided to arrange a meeting of experts in this field in order to exchange views and experiences.

To make one thing clear: our goal was not, and never has been, to create a unified syllabus of training. We share information and show to each other best practice. Also we make this information available to those member organisations which do not have any training schemes at all; for example those in the new East European democracies.

In 1996 the experts met for the first time. This first meeting served also another purpose to influence European politics, especially the legislation on the driver's licence. For this reason we gave the meeting a high profile. Our goal was to meet close to European Union offices in Luxembourg in order to make it possible for EU policy makers to be present. We obtained the use of European Parliament building at the Plateau de Kirchberg; a famous motorcycle rider opened the meeting: His Royal Highness Albert the 2<sup>nd</sup>, King of the Belgians. Since then FIM and FEMA have been recognised in Brussels as expert organisations on rider training and are still working closely together with the Directorate General for Transport and Energy of the EU on training and other issues.

One of the conclusions of the first meeting—which was also the main conclusion of the FEMA research, supported by the European Union) on initial rider training (based on interviews with motorcycle riders from several European countries) —was that there is a strong focus on machine control. Only two presentations (Germany and The Netherlands) at that time made visible what the purpose of those skills was. In two video films machine skills were translated day traffic situations.

The next meeting of the experts was convened in Germany in 1999. In co-operation with the German motoring and motorcycling club ADAC we organised this time a more practical based symposium using one of the ADAC training grounds near Frankfurt. In 1999 we welcomed a new member: Japan. We mention this new member as we note there is a safety development going in the Orient that ought to be followed by other parts of the world. Major investments are being made in motorcycle training by the motorcycle industry. The leading organisation there is Honda. Without wishing to be accused of not being independent we think this is a perfect example of a corporation showing responsibility for the safety of it's customers. To recall: In USA and Europe most training schemes are being organised by organisations of customers.

## *The Latest Developments In Rider Training*



In the Frankfurt meeting in Germany a start was made with the concept of risk oriented riding behaviour. Based on accident analysis standard risk situations were identified. Training has been developed further in order to teach the rider to recognise at an early stage such situations so behaviour can be adapted to avoid this type of situation.

A statement was made by the expert presenting this concept that a high level of machine control leads to a feeling of safety which in fact endangers the rider more compared to less skilled riders. The risk of skills being used to push the limits is predictable (as can also be concluded from a recent research project conducted by The Netherlands institute, SWOV).

## **Conclusion**

In conclusion, we have cited some examples of what motorcycle consumer organisations do to work on the improvement of motorcycle safety. We have seen two examples of a public private partnership (crash barriers and initial rider training).

At this conference of scientists, policymakers and rider training experts we have a thing to ask and a thing to offer.

We ask your assistance and partnership to work on motorcycle safety; i.e. to get those topics on the research agenda that can affect safety.

We offer: knowledge and experience of many hundred thousands of motorcycle riders throughout the world, organised under the umbrella of FIM.

Although representing the FIM, which has worldwide interests and responsibilities, the authors are both Europeans. Both reside within the European Union. With over three hundred million citizens and increasingly harmonised laws the EU inevitably influences other jurisdictions which tend to copy European regulations. The EU system and political jurisdiction is in no way comparable to that of the United States of America. Unfortunately it is often wrongly perceived, as an aspiring, "United States of Europe" for want of a better term. Accordingly we have attached an Annexe giving more detailed description of the issues of political communication within the EU.

We sincerely hope we can closely work together for the benefit of rider safety.

**Achilles Damen**  
**John Chatterton-Ross**

*Geneva, October 2000*

## **APPENDIX**

### ***Communicating the motorcycle safety message to politicians and officials within the European Union.***

With over three hundred million citizens residing within the nations that make up the European Union there is no doubt of the influence of the EU. Against that many misunderstandings exist and the EU political system bears no comparison at all to that of the United States of America. The EU is important to other jurisdictions outside its boundaries. Its sheer size leads to many legislators around the world using EU law as a model.

It is not intended—under the present treaties—to establish a new nation of Europe, but to retain an alliance of nation states, a supra national body, in which limited aspects of sovereignty are shared. One of those aspects is transport policy and since the passing of the Treaty on Union (commonly known as the Maastricht Treaty after the Dutch town in which it was drafted) transport safety has also become an EU competence. Of course nothing is that simple and certain matters are also still the concern of the nation states under the doctrine of subsidiarity. In effect these issues remain a shared responsibility between Brussels (the city of the EU headquarters), and the national capitals.

The debates about the efficacy of the doctrine of subsidiarity reflect those in the United States, of Federal versus State rights. This is not surprising given the comment of former EU President, Jacques Delors, that the term was “without meaning.”

The treaty defines it as:

The principle of subsidiarity means that, in areas which do not fall within the EC’s Exclusive competence, it “shall take action only if, and in so far as the objectives of the proposed action cannot be sufficiently achieved by the member states and can therefore, by reason of the scale or of the effects of the proposed action, be better achieved by the Community.”

*NB: here the term EC = European Community is used rather than European Union for legal reasons. The term “Union” covering other aspects beyond the scope of this paper.*

The principle has been used both to justify and oppose the concept of a single drink drive limit for alcohol across the member states. Commissioner Kinnock being in favour of such action. His successor Commissioner Loyola de Palacio citing it as reason for the EU Commission to restrict its opinion to “strong advice”.

### ***EU Institutions and how they differ from those of nations.***

#### ***The Parliament.***

To most people the term Parliament is synonymous with legislature, indicating a body, which drafts laws. In the EU, the Parliament has no such function at all! It merely comments on and

amends laws put before it. Its former title of Assembly more accurately reflected its limited role. The Parliament is elected by the citizens of the EU and is indeed the only directly elected body. Successive treaties have increased its powers but they are still very limited. A popular term in discussions within Europe is the need to address this “democratic deficit”

### ***The Council of Ministers.***

This is the most important body in the EU. Here Ministers from the nations that make up the EU have the final say. Confusingly its membership varies according to the subject under discussion. Thus if it is a transport safety issue normally the Council will be made up of national ministers having that portfolio. If agriculture, then the ministers with that responsibility.

Voting inside the Council is by a complex system of weighted votes according to the size of the state casting its ballot. The Council **meets in closed session**. Again, this element of secrecy makes up another aspect of the discussions in Europe about the democratic deficit. Recently there have been some open sessions but these have amounted to no more than a public relations exercise and have been completely unconvincing.

To handle its vast workload the Council is assisted by a **Committee of Permanent Representatives**. This is a body of officials based in Brussels who have the status of Ambassadors. They have the power to agree uncontentious business. What is and is not controversial is of course a matter for debate and not all citizens would agree on the way in which business is divided. – Let alone the concept of officials however prestigious their rank, effectively legislating on behalf of three hundred million and more of their fellow citizens.

### ***The College of Commissioners – EU Commission as it is usually known.***

This is perhaps the most curious body of all within the EU system of government. One or two Commissioners are appointed from each member state according again to its size. They swear allegiance to the treaties of the EU and are required to act independently of national political interest. A President heads the Commission and also has a right thereby to attend meetings of the Council.

Aided by a staff of officials the Commission has the power to originate EU legislation. It also acts as a guardian of the treaties and can bring prosecutions of member states in breach of EU law before the **European Court of Justice**.

Despite its power, prestige and importance the staffing level of the Commission in terms of officials is small. Fully one third of them are professional interpreters and translators as the EU works in all the languages of its member states. – Although day to day business of a less formal kind is dominated by French and English and increasingly German.

### ***The European Court of Justice.***

The Court is based in the city of Luxembourg and forms part of the EU system. Much confusion arises even amongst professional commentators with the European Court in the French city of Strasbourg. The European Court is unconnected to the EU and administers the European Convention on Human Rights and Fundamental Freedoms.

The **ECJ** rules on cases brought against member states by the Commission (see above) and between member states themselves when they are in dispute. It has other legal functions also, occasionally dealing with matters involving individuals and corporations.

The **ECJ** has the power to inflict massive fines and has quite often done so against corporations found to be in breach of trading law. Companies such as Volkswagen have found to their cost that maintaining unfair pricing policies by obstructing customers seeking cross border transactions will be punished severely.

The right of workers to move freely within the EU is clearly established. Professional soccer players have successfully challenged the rules of the governing body of that sport FIFA. The motorcycling community has paid more attention to EU law and so far has had no problems with the **ECJ**.

### ***The legislative process and how to influence it.***

EU law is passed by a system of Byzantine complexity the detail of which is beyond the scope of this paper. In essence the Commission makes a legislative proposal, this is then passed to the Parliament for comment and amendment. The draft law then goes to the Council and compromise is sought. Council has the final say but in some cases can be obstructed if sufficient political support can be generated in the Parliament.

To add further complexity there is no single legislative system as the powers of the various bodies differ according to the nature of the law under consideration! Often Parliamentarians themselves do not know which system they are operating and become confused. The motorcycling lobby in Europe has become expert in this area and has been known to advise politicians not just on policy but also on their own powers!

### ***Communicating with Parliament.***

This is relatively easy. It is seldom necessary to communicate with hundreds of members. Each proposal first goes before a Committee. One member is selected as a “rapporteur” and manages the proposal through the committee stage drafting amendments and communicating with colleagues and outside interests who seek his or her attention.

The political groups within the Parliament also meet as groups, and establish the attitude they will take to a particular proposal. Good communication with the rapporteur, other leading committee members and leading figures within the political groups is the key to success.

Members of the EU Parliament (MEPs) are open to discussion, keen to improve the status of their institution as the only directly elected body.

The motorcycling community has done well and it is often commented on that we are a refreshing change from the commercial interests of large corporations.

At the Committee stage Parliament generally meets in the city of Brussels in Belgium. Unfortunately by the arcane rules of the EU when in full or “plenary” session it is obliged by law to hold its meetings mainly in the French city of Strasbourg. Hundreds of tonnes of documents are moved around Europe on a regular basis to accommodate this strange process. Parliament also has a home in the city of Luxembourg, capital of the Grand Duchy of Luxembourg. Many of the officials who serve the Parliament are based there but Parliament seldom uses the meeting chamber. Moving from one place to another and having the officials in a third city makes for a very inefficient system.

The willingness of the motorcycling community to work co-operatively with this system is much appreciated by politicians.

### ***Communicating with the Commission.***

This is seldom done at Commissioner level. Instead most dealings are with the small band of administrators responsible for drafting legislative proposals. Despite a European public opinion that believes otherwise the number involved amounts to less than in a single department of state within one of the larger member nations.

Commission officials tend therefore to be very open to reasoned communication with outside experts. Again, the motorcycling lobby over the last ten years has established expert status with the Commission. The key to communication success is always to become involved early, before a legislative proposal *has been drafted*.

In order to do so it is necessary to maintain an intelligence watch on forthcoming proposals. FIM does this by the use of professional consultants working in Brussels.

### ***Communicating with the Council.***

In the smaller member states it is usually possible to access the office of the Minister for Transport or any other minister with whom it is necessary to communicate. In the larger states such as the UK with senior and junior transport ministers this is much more difficult. – Although not by any means impossible. The key to Council communication is not really Brussels at all but within the national capitals of the EU states.

Fully fifty percent of success at EU level depends on national organisations working in harmony with their representatives at the centre. Again, this is one of the most misunderstood aspects of communication. Many people feel that delivering a message in Brussels is sufficient. This is far from the case.

With the system of weighted voting within the Council the votes of smaller states such as Luxembourg are very important indeed. Any successful communication process needs to have this in mind and not focus only on the larger national governments which are in any case more difficult to influence.

### ***Timing of communication.***

With the complexity of the EU process a message – however good – will be wasted if delivered at the wrong time. It will simply disappear under the mountain of paper concerning other issues.

One successful method of combating this, pioneered in the UK, is the establishment of a “Letter Writers register” of leading volunteers. Such people usually do not have time to take an active part in the organisation as officers but are willing to participate on an occasional basis by writing an appropriate personal letter. Volunteers skilled in advocacy, perhaps as a result of their profession or background, can make a particular contribution.

The Letter Writers are called into action at key points in the legislative cycle and supplied with appropriate factual guidance.

Standard form letters, card campaigns etc. are too crude to be successful in the EU system and should be avoided.

### ***Conclusion***

Matters related to transport safety remain at the heart of the EU agenda. Currently these include a revision of the Directive dealing with driving licences. This has indirect affects on training of drivers and riders. Tension continues over the issue of EU involvement in legislation to combat drinking and driving. Testing for drugs (including prescription medicines and their possible effect on safety) remains an interest. The massive effects of intelligent transport systems – fuelled by the downturn in demand for defence equipment and consequent technology transfer – are a serious concern.

In research cross border data collection on accident causation is a subject of two major partnerships with the EU. One on motorcycling accidents, another related to cars.

The EU is now concerning itself with voluntary training taken in addition to that for the basic driving licence. It is examining the possibility of an EU wide “quality label” for such schemes.

Communication networks across Europe so-called TENs (trans European networks) are a EU concerns which include road transport. Recent legislation has sought to improve design criteria on filler caps for vehicles. Given the widespread use of diesel power for cars as well as large goods vehicles in Europe, the spillage of diesel is a major road safety hazard to motorcyclists. The Commission is also actively promoting the concept of daytime use of lights on all vehicles as a safety measure. This is controversial given the likely increase in daytime fuel burn of 1%-2% and the consequent emission of more greenhouse gases. Recent complaints by EU citizens against the high price of fuel may set back this particular agenda.

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## ***Curriculum Vitae***

### Personal

Name: **Achilles H.J.M. Damen**

Male, born 1961, Dutch nationality, married, one child.

### Motorcycle career

- Motorcycle rider since 1979
- Member of the management council of the Royal Dutch Motorcyclists Federation KNMV responsible for road safety and public policy issues
- Vice President of the Road Safety and public Policy Committee of the World motorcycle federation FIM (Fédération Internationale de Motocyclisme) based in Switzerland
- Secretary of the Dutch Lawyers Motorcycle Group

### Professional education

Master degree in law, Tilburg University, Netherlands

### Professional career

- Public prosecutor in the district court of Almelo, Netherlands; special task in traffic law enforcement
  - Teacher on the subjects of criminal law and criminal procedure, Hogeschool Utrecht
  - Former professions: prosecutor assistant; clerk of the court, publisher.
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### Personal

Name: **John W. Chatterton-Ross**

Male, born 1952, British nationality, married.

### Motorcycle career

- Motorcycle rider since 1968. Competition rider, road racing, 1977-1980
- Member of the Board, British Motorcyclists Federation Rider Training Scheme.
- President of the working group on Mobility and Safety of the UEM (Union Européenne de Motocyclisme – a continental union of the FIM – based in Italy)
- Member of the Commission for Road Safety and Public Policy, of the world motorcycle federation, FIM.

### Professional education:

- Bachelor of laws, University of London.

### Professional career:

- Police Sergeant, Thames Valley Police, UK; specialising in front line patrol work.
- Former profession: Principal Court Clerk, Magistrates' Courts Service.