



BP2: Highway Features and Policy

Reference: BP2 002	Title of Project:	Advanced Stop Line Trials
Version: 3	Website:	www.munimadrid.es www.motorcycleguidelines.org.uk/mg_04_4.htm
Brief Description of Project:	<p>Trials are underway in Spain and studies completed in the UK to assess the benefits of allowing powered two wheelers (PTWs) to stop in front of other vehicles at traffic signals.</p> <p>This separation should allow motorcycles and mopeds to manoeuvre more safely with reduced conflict with other traffic. In Madrid trials are underway allowing PTWs to enter an area ahead of the main traffic stop line at traffic signalcontrolled junctions. Motorcycles can enter this 'box' via a bus/motorcycle/taxi/cycle lane to reduce the risk of PTWs weaving through traffic to reach the head of the queue.</p> <p>The box is formed by positioning a second stop line for PTWs about 4m ahead of the main stop line for other vehicles. The box is marked with motorcycle pictograms, with road markings being the standard 40mm width.</p> <p>In Barcelona a similar measure is being assessed at 3 main junctions in the city. The 'bike box' is available to all two-wheelers and is indicated with a yellow hatched marking.</p> <p>In the UK the Transport Research Laboratory completed an experimental study on behalf of the Department for Transport (DfT) into the effects of permitting motorcycles to use Advanced Stop Lines (ASLs) – at present only bicycles are permitted to use them. This research project assessed potential conflict between PTWs and cyclists in a simulated, off-road situation and the results were inconclusive.</p>	



	<p>The DfT previously commissioned preliminary research into the effects of allowing motorcycles into ASLs, as a way of providing motorcyclists with additional safety benefits. The safety effects of permitting motorcyclists and cyclists into ASLs needs further detailed research as it is a complex issue where potential conflicts need to be fully understood.</p> <p>A study was completed on behalf of Transport for London (TfL)- see WP4 Demonstration Projects- which looked at actual behaviour of PTW users, cyclists and other vehicles at 5 study sites and 4 control sites in London. The study was based on analysis of video of the junctions and assessed current use of existing 'cycle only' ASLs.</p> <p>The results clearly showed regular use of ASLs by PTWs and other vehicles. An analysis of the collision record at each junction showed no history of collisions related to the use or abuse of ASLs. The TfL study would appear to suggest that there is likely to be no safety benefit to changing the law to allow PTWs to legally use ASLs.</p> <p>Research undertaken in Athens (Spyropoulou and Sermpis, published in Transport 162, May 2009) evaluated the performance of urban junctions with high PTW flows. Whilst not specifically researching casualty reduction potential, the report concluded that the performance of such junctions can be enhanced with segregated provision for cars and PTWs.</p>
<p>Monitoring Data:</p>	<p>Data from the trials in Spain is awaited. The TfL study has provided detailed data and analysis of current use of ASLs and the collision history associated with the junctions studied.</p>
<p>Results:</p>	<p>The results of the TfL study are summarised as:</p> <p><i>ASLs at the study sites analysed currently experience high levels of encroachment into and in front of them by PTWs and in front of them by cyclists. Other vehicles encroach into ASLs far less frequently. They are only used by between 20% and 40% of cyclists.</i></p> <p><i>The results from this research study suggest that:</i></p> <ul style="list-style-type: none"> <i>• Most PTW riders appear to currently regard ASL reservoirs as intended for their use in addition to cyclists;</i> <i>• Many cyclists prefer to sit in front of the reservoir and even use the advanced position to assess whether it is 'safe' to enter the junction against the red signal;</i> <i>• Most other road users stay out of the ASL reservoirs except where there is significant blocking back or queuing.</i>

Key Effective Conclusions:	In-depth studies of PTW collisions identify junctions as high risk locations in urban areas. Until the trials in Madrid and Barcelona are complete and the report produced it is not possible to reach a firm conclusion, however, results from the London study show that - where ASLs are already in place- PTW riders already use them and there appears to be no resultant safety benefit in changing the law to allow PTWs to use ASLs..
Projects for Comparison:	Motorcycles in Bus lanes (BP2 001).
Justification:	There may be potential to contribute to eSUM WP3, BP2 objectives but it is too early to reach a conclusion.