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**TECHNICAL SUPPORT FOR THE EFFECTIVE FUNCTIONING OF  
PHOTO AND VIDEO FIXATION SYSTEMS FOR TRAFFIC  
VIOLATIONS**

Now Ukraine is among the world leaders in the number of deaths due to road accidents along with Georgia, Russia, Armenia, India and the USA.

The most effective preventive solution to improve road traffic safety is considered to be the introduction of a system of photo and video recording of traffic violations by motor vehicles. However, its implementation requires the solution of a number of problems, including technical ones, for example, the tactical technical characteristics of own equipment, data transmission channels, a comprehensive system of information protection and many others. It is important in the process of implementation of such a system to make the right decisions, it is possible only when focusing on the international experience of such work, taking into account the false steps of countries have already introduced systems of photo and video fixation and their consequences.

It is important in the process of implementation of such a system to make the right decisions, it is possible only when focusing on the international experience of such work, taking into account the false steps of countries have already introduced systems of photo and video fixation and their consequences. In the article on the basis of the analysis of foreign materials, concerning functioning of systems of photo and video fixation of infringements of rules of traffic by motor vehicles a

number of technical problems which arises at introduction and operation of such systems is resulted. In particular, one of the most frequent problems is the choice of the location of the photo radar complex itself (a device that measures the speed of the vehicle and captures its photo or creates a video order), and it is worth noting that such a problem arises for all types of complexes – stationary and mobile.

Again, based on foreign experience, the article provides examples of solutions to these problems abroad and ways to prevent them. Recommendations are provided to ensure the maintenance of the effective functioning of such systems. First of all, these are the following errors:

- the axis angle of the complex in relation to the direction of movement of vehicles is incorrectly set;
- the set threshold for speed measurement does not correspond to the threshold allowed in the control zone;
- the geographical coordinates of the installation of the complex do not correspond to the actual coordinates, which may lead to inaccuracy in the speed measurement;
- the type of violation is fixed by the complex does not correspond to the one established for the given control zone;
- the direction of movement of the vehicle is incorrectly indicated;
- error in the settings of the current time of the complex;
- incorrectly selected control lanes complex.

In addition to these errors, there are other errors, such as the so-called “cosine effect”, where the vehicle’s speed is measured by a device that stands at some angle to the roadway. The calculations in the article show that the measured speed will be lower than it actually is, of course, in favor of the driver. To compensate for this error is introduced a certain coefficient, which is calculated by the device itself. However, the user of the device can enter the maximum value of this coefficient, but the speed measurements should be carried out with an angle

value close to zero, which is already noted in the press. Thus, there are still many technical problems that need to be solved.

Again, on the basis of foreign experience of introduction of similar problems in article examples of the decision of these problems abroad and ways of their prevention are resulted. Recommendations on maintenance of the service personnel by effective functioning of such systems are given.

**Keywords:** photo and video fixation, photo recorder, angle, speed.

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