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 <b>Transport</b>	



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# 1. Introduction

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## 1.1. SAU project general summary

The reduction of the number of road accident fatalities by 50 %, by the year 2010, suggested by the EU, involves the active contribution of all the agents in charge of the road safety in Europe. Even though the accidents that happened in urban areas have a relative smaller severity, it is the place where, for the moment, in absolute terms, the major number of accidents take place in the EU countries, as well as generating serious consequences on the more vulnerable users (pedestrians, cyclists, children, the elderly...).

The current action has as main objective the creation, validation, discussion and spreading, at European level, of the 'best practices' for the collection, processing and analysis of traffic accident (TA) data in urban areas. The foreseen final result fundamentally consists in the disposal of a European guide of advices or of "best practices" in order to implement / improve the traffic accident collection, analysis and monitoring systems in urban areas.

For that, a compilation of the current "best practices" and on the exchange of experiences between municipalities from several EU countries will be counted on, added to the practical pilot experience that will be carried out as part of this project in several Spanish cities. With the spreading of this guide, the purpose is to contribute to the development of local tools in order to help giving answers and solutions, with more reliable and accurate knowledge, to the problematic of the accident rate in each municipality.

The concrete actions that are developed in the project are the following ones:

- 1) Bibliographical revision and summary of the "state of the art" on the problem of underreporting, the quality, management and analysis / exploitation of TA data in urban area.
- 2) Development of an in-depth "case study" and application and evaluation of the

best practices in some Spanish municipalities from different sizes.

- 3) Execution of a survey study with the objective of getting an approximation to the current situation and practice from a representative sample of European cities from different sizes.
- 4) Organization of a workshop where the results will be discussed, after the fulfilment of the previously exposed objectives.
- 5) From all the information obtained from the previous stages, writing and spreading of the Guide of Best Practices throughout the EU.

The current report corresponds to the activity 2: Case study.

## 1.2. Objective of the report

In this report, the results of the activity 2 of the SUA project are presented.

*Case study: Evaluation of a set of Spanish municipalities from different sizes.*

This document is based on the detailed analysis of the situation of the TA data collection and analysis police procedures in several Spanish municipalities. Likewise, it has been considered, for some municipalities, several actions of improvement of such systems carried out in the general framework of the SAU project and/or of specific agreements with the different municipalities.

The cities included are:

Barcelona (Large municipality: 1.527.000 inhabitants)

Valencia (Large municipality: 761.800 inhabitants)

Murcia (Medium-sized municipality: 377.900 inhabitants)

Elche (Medium-sized/small municipality: 207.163 inhabitants)

Castellón (Medium-sized/small municipality: 163.088 inhabitants)

At the methodological level, the work approach varies according to the particular circumstances of each municipality and of the type of collaboration that is established, in a line that goes from the implementation of works and concrete interventions in some municipalities to, at the other end, the mere obtaining of detailed information on

the situation in the municipality. Nevertheless, several fundamental elements are raised as excellent:

- a. Study of the accident data system: Definitions and rules, computer support, working procedures, types of questionnaires, type of data and output exploitation, etc.
- b. Analysis of the accident data quality and application and validation of procedures of data quality evaluation: Control of univariate and bivariate distributions; deterministic or logical contrasts – tests to detect impossible or incompatible data – and approximate tests (empirical or probabilistic), of which objective is to locate very little probable data. The lack of representativity will be tried to determine through “indirect” indicators like could be particular “anomalies” in the annual distributions or proportions according to the different variables (age, severity...) always compared to “typical” reference standards established at the national and international level.
- c. Meetings with experts and technicians of each municipality. Evaluation of experts, in collaboration with the municipal technicians, referring the proceedings, computer tools and analysis outputs now is use.

## 2. Case study

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The case study is organised in 6 sections: The sections 2 to 6 are focussed on five delimited urban areas (Barcelona, Valencia, Murcia, Elche and Castellón), referring to their specific administrations. In the study of each urban area, a positive critical aspect which pretends gathering - in a summarized way - the basic core of the “best practices” in order to study it in depth by strengthening it and drawing conclusions and important generalizations on the experience in the above-mentioned cities, that will be highly useful in the creation of the Guide of Best Practices, has been selected and emphasized.

On the contrary, the first section is focussed on the most important topics related to deficiencies and problems. In this case, the diagnoses of the five mentioned urban centres (Barcelona, Valencia, Murcia, Elche and Castellón) have been compiled and synthesized. In this section it has been possible to take into consideration information of many other municipalities in the framework of the SIDAT project with the Servei Català de Trànsit (SCT) and the ARENA II project with the General Directorate of Traffic, both projects having the main purpose of improving the accident data records in the competences of each administration. In this section, the defective critical aspects are collected without mentioning in which municipalities the specific problems occurred, with the aim of protecting very important confidentiality aspects. In fact, in this report, in all the sections, the minimum needed information will be presented in order to describe, conceptually, the most outstanding aspects in each case, letting outside the concrete details that represent confidential information in each municipality.

### 2.1. Section 1. Main limitations and identified problems in the case study.

From the analysis of the situation in the municipalities included in the case study, pointed out before, a series of critical questions that are the basis of the deficiencies that usually appear in the urban accident records and that are listed hereafter emerge:



1. In the framework of the police activity, the collection of statistical accident data with the aim of carrying out studies and statistical analysis is integrated in a large process of investigation, reconstitution and legal and administrative management of the accident. In practice, the collection of this information is more **oriented to an administrative and legal resolution** of the accident, where what is critical is to determine the responsibilities, than to the study of accidents with the aim of carrying out research and statistical analysis, which inevitably affects the type of information recorded.
2. **The human and technical resources available to fill in the suitable documents** for an accident (technical, legal, administrative and statistical documents, accident report, proceedings, technical report, etc.) **are often insufficient**. This generates that, on the one hand, the quality of the accident investigation is sometimes very defective and, on the other, the record of the statistical information is relegated to a minor degree of priority.
3. To what precedes, it has to be added that sometimes the work is done on outdated database systems.
4. **Duplication of tasks**. As in most of the countries, the information on accidents at a national scale starts with the compulsory fulfilment, throughout Spain, of the information fields required in the **official statistical accident report of the DGT**. The fulfilment of this questionnaire is quite difficult due to its **large content** and because it has to be filled in for all the accidents that cause injuries, regardless of its severity. This normally ends up implying a duplication of tasks since this is a report that is added to the other documents and that repeats a lot of information. Moreover, in some particular cases, **the amount of required information uses to be excessive**, especially in the low-serious accidents for which an investigation is barely done.
5. Due to how this questionnaire and the information management procedures are designed, for the moment, **the municipal police forces do not have a direct access to the information they fill in the national accident report for its statistical exploitation**, which influences the fact that they consider this task as a useless additional work for their local area and as a potential work overload. On the other hand, the results of **the data exploitation by the official organizations** use to be presented with a huge delay and, sometimes, with such a **level of aggregation** that it means that they lose a great part of its utility for the authors of its collection at local level. This entails that the local administrations handle their own record and data entry for their own use, emphasizing in this way the

duplication of tasks and a work overload previously reviewed. In fact, in practice, a large amount of **the information included in the statistical accident report appears to be duplicated or tripled** in the other documents, such as to entail discomfort and nonconformity.

6. In many cases, **the agent that attends the accident on site is not the same as the one that fills in the statistical accident report**, being a person that has not been in the scene of the accident the one that carries out the task having as starting point the report and notes from the agent that attended the accident.
7. The official statistical accident report has been designed like a document that implies the manual introduction of the data and **it does not set filters and automatic control and reporting systems** that improve the information management and quality.
8. As for the **information contents**, a usual criticism from the municipal authorities is that the official accident report does not consider the appropriate features and the particular needs of information of the urban areas – and of each municipality in particular – (it is rather designed for the motorway accidents), and then loses its purpose. On the other hand, **it does not consider the updated information about the new components and technologies** that are now part of the traffic and road infrastructure system.
9. **To stand out the current impossibility of being able to link the police records with other databases** like the databases of hospital coaches, forensic surgeons, emergency services, insurance companies, occupational accidents... This would allow a more complete research on the accident rate from several points of view.
10. **Finally, it has been noticed that, locally**, some administrations and some urban police forces **have created their own data collection and analysis systems** and their own work procedures, with the aim of trying to overcome those limitations. This has produced a great **heterogeneity** of information which complicates the creation of a common database having the entire national record of accidents under standard criterions. On the other hand, there are obvious differences between the municipalities, because most of them do not have at their disposal enough economic, technical and specialized human resources to design and maintain such systems.
11. **Actions in road safety separated from accident data.** It has been noticed that the actions in urban road safety, in many cases, do not start from the accident statistical data analysis, because of, among other things, the lacks in the records and in the exploitation of these ones. Moreover, this is emphasized by the fact that

the data, as it is considered right now, is often considered as a statistical-administrative record which objective is solely to know the figures, from the frequency point of view, of the accident rate and not as a diagnostic tool that could allow us raising actions from its in-depth analysis.

12. As a consequence of what has been previously said there are the important current lacks in the accident records in urban areas, given that **a significant percentage of urban accidents are not collected, or if they are, with serious problems as for the exhaustivity and quality of the data.**

## 2.2. Section 2. “Best practice” (1): Urban Area of Barcelona (Servei Català de Trànsit)

This part has been focused on one of the most critical aspects of the urban accident rate monitoring and analysis procedures: the collection, coding and computerizing accident data system (also known as accident report).

The first contacts with the municipality of Barcelona were taken through the Servei Català de Trànsit, which is the organization responsible for the traffic in the Autonomous Community of Catalonia which got transferred these competences, being independent from the central administration, with the only duty of providing to the Spanish General Directorate of Traffic the eventual data of the accident rate in the Autonomous Community through a form that is, at present, quite outdated.

In 2003, a first Convention of research (SIDAT1 project) that allowed us obtaining a first approximation of the problem had been set up<sup>1</sup>.

Later, in 2004, as a result of the extension of the SIDAT2<sup>2</sup> convention, the start of the SAU project and the obvious need to converge to CARE, this particular study was suggested for the City of Barcelona. The SAU project being launched and due to the needs of the Servei Català de Trànsit to continue with the ongoing work, it was decided to bring forward this phase of the project and to leave for later on the phase of the survey, as mentioned before.

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<sup>1</sup> INTRAS (2003) SIDAT1: New Integral System of traffic accident data collection of the Servei Català de Trànsit (Phase 1: Description and Definition of the contents)

<sup>2</sup> INTRAS (2004) SIDAT2: New Integral System of traffic accident data collection of the Servei Català de Trànsit (Phase 2: filling in and pilot test)

The work performed in the section 2 consisted, in a first moment, in an in-depth analysis of the procedure of accident data collection, codification and computerization from the local police agents with the aim of subsequent analysis and monitoring. It has to be stressed on that the city of Barcelona is, for the time being, one of the Spanish cities that has the best integrated and developed accident collection system. However, the system is far from being perfect and there is the possibility of introducing improvements on it. At a later stage, in this section, an action of improvement of the collected information at the level of the “contents” has been developed.

Roughly speaking, the Urban Guard of Barcelona (name of the City of Barcelona's police force) has its own computer system that is used by a specialized staff that deals with urban accidents. This system allows filling in at once the administrative information, the simplified accident reports, the technical reports of reconstitution and the statistical accident report, with no need of duplicating the information, optimizing the time and the resources used in this task. This system is integrated in a more general system of police incidents and public safety that feeds a police database (FENIX). From this database, specific road accident data is extracted and is electronically sent to the Servei Català de Trànsit to be integrated with all the data for Catalonia.

From the point of view of the “best practice”, firstly some “basic principles” have to be pointed out, principles in which the development of the system has been based on and that, to a great extent, are the basis for its good performance. These principles are the ones that are listed hereafter:

1. **Two main objectives:** (1) Facilitate the work of the patrol that makes up the report, supplying tools that reduce the administrative load and allow a greater dedication to the attention of the citizen and the analysis of the causes of the accident. (2) Manage the information and transform it into “knowledge”, in a way that the fast detection and solution of the safety problems could be allowed.
2. All the process, from the action of the police in site until the data entry in the statistical accident report is **done by the same police patrol**. That is to say, the same persons are the ones that act in the scene of the accident and subsequently enter the information in the database system.
3. The entry of the **statistical data is not an added task**, but it is integrated in the police management procedure of the accident information. The information

that has been entered serves to automatically generate all the documents (accident reports, reports, statistical data...)

4. **Each data is only entered once.** Any information duplication is eliminated. The entered data is recovered for all the document outputs that the system may offer.
5. All the document outputs generated by the system are **homogeneous**. Their **distribution is automatically** done.
6. In relation with what comes before, the entered information allows fulfilling the statistical information requirements requested by the Servei Català de Trànsit (main traffic authority in Catalonia). Moreover, such information has to be **useful for its use at the local level**.
7. **Optimization of the data entry procedure:** Speed up to the maximum the procedure by using the different possible strategies for each different field of information: Data obtained automatically, filters, calculated fields, etc.
8. From the point of view of the data exploitation, the system **must be able to detect, automatically, the risk areas or locations** (accident concentration stretches or points), generating the consequent alerts that allow a more detailed investigation in such points or areas of the urban road network. For that, the use of Geographical Information Systems (GIS) is required. It is stressed on the concept of "area" of accident concentration opposite to the "point" concept.

This system classifies as "risk area" the area in which, in a radius of 15 meters, 10 accidents happen in one year. In 2004, it detected 52 dangerous areas in Barcelona.

9. **"Proactive immediacy"**: In relation with the previous point, it makes reference to the possibility of detecting possible conflictive stretches at the same time when the accident data is entered: if the system detects an accumulation of cases in the place where the new accident has happened, the system notifies it to the agent that is entering the data. So, this allows a fast solution to the problem.
10. From the perspective of the computer support, some key aspects should be pointed out:
  - a. It has been developed by the Municipal Institute of Informatics of Barcelona.

- b. There are information modules shared with other municipal services, maximizing its utility (e.g. street directory, municipal mapping (GIS)...).
- c. Strict application of the privacy rules (Control and monitoring of the LOPD application – LOPD: Ley Orgánica de Protección de Datos Personales: Organic Law on Personal Data Protection -). Access security (users).
- d. Common infrastructure for many applications: Database server (Oracle); Shared record server; Internet application server; LAN/WAN corporate networks.
- e. Client-server system. Delphi / Java for the client and Oracle for the server.
- f. GPRS/UMTS server for the data entry of the point of occurrence of the accident by the acting units.

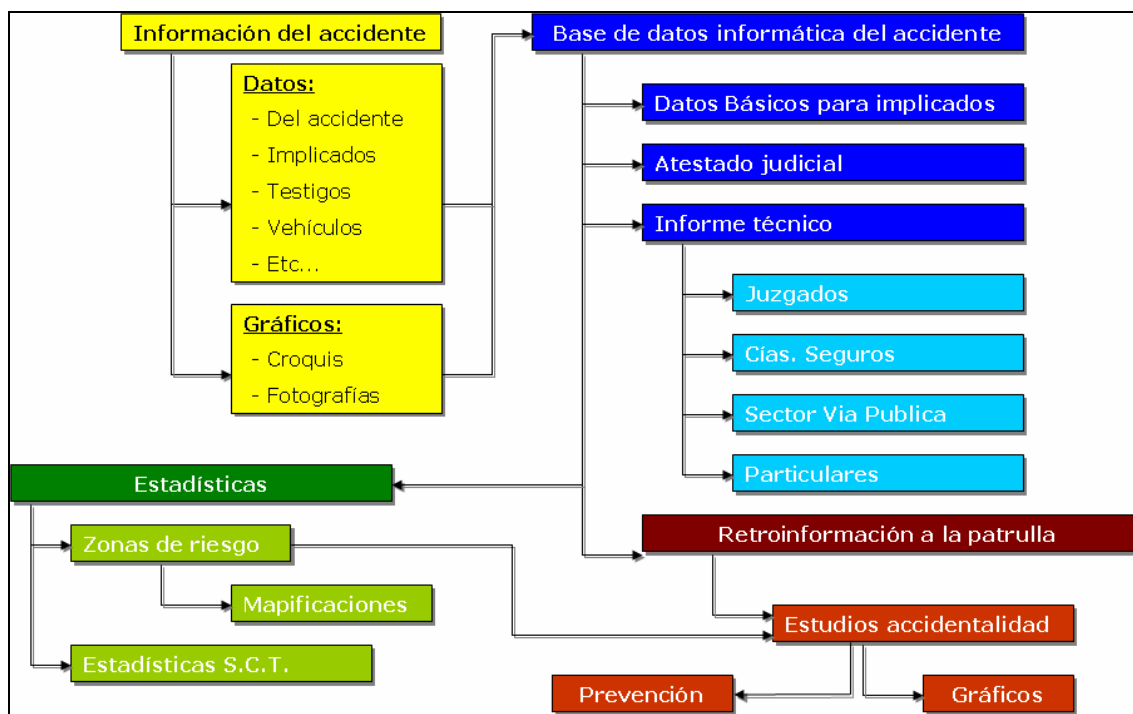


Figure 1. Diagram of the traffic accident data of the Urban Guard of Barcelona.



**Accidents GUB**

Accident Documents Atestats Zones de Risc Manteniment taules Vistes Questionari S.C.T. Ajuda Sortir

Nombre de la patrulla

Nº: 20015000044 Lloc: Pg Gràcia, 11

Dades Bàsiques Testimonis Ressenya Opinió Patrulla S.C.T. Vehicles Croquis Fotografies

Núm. Atestat: 218/02 N° Reg.: 2002S001165 Origen: Cecom Accident  Simplificat

Agent 1: 22326 Agent 2: 22415 Agent 3: Agent 4: Patrulla: KZ409 N° Minuta: Carrer 1: Font Honrada

Data dels fets: 07/02/2002 18:00 Unitat Origen minuta: Carrer 2: Olivera

Data trucada: 07/02/2002 18:01 Localit.:

**CLASSE D'ACCIDENT**

- Atropellament
- Col·lisió frontal
- Col·lisió fronto-lateral
- Col·lisió lateral

**MARQUES VIÀRIES**

Inexistents o esborrades

**PECULIARITATS DE LA CALÇADA**

- Seca i neta
- Molla
- Glaçada o nevada

**SENYALITZACIÓ CRUILLA**

Sense senyalitzar

**CAUSA PROBLEMA D'ACCIDENT conductor/s**

- Avançament defectuós/improcedent
- Canvi de carril sense precaució
- Desobeir semàfor
- Desobeir altres senyals
- Envair calçada contrària
- Fallada mecànica o avaria
- Girar de carril indegut
- Manca d'atenció a la conducció
- Manca precaució incorporació

**CAUSES MEDIATEES**

- Alcohòlemia
- Drogues o medicaments
- Excés de velocitat
- Calçada en mal estat
- Estat de la senyalització

**IL·LUMINACIÓ**

Solar

**ESTAT DEL TEMPS**

Bon temps

**CAUSA PROBLEMA D'ACCIDENT vianants**

**LLOC ATROPELLAMENT**

**VISIBILITAT**

Bona visibilitat

**CIRCULACIÓ**

Fluïda

**ALTRES DADES**

- Presenciat per la patrulla actuant
- Localitzats testimonis
- Es prenen mides
- S'observen traces

Següent Anterior Guardar Cancel·lar

Figure 2. Data entry in the software of the Urban Guard of Barcelona.

**Fuissió del document ACCIDENT 2002S001165 - Cartas modelo1**

Archivo Edición Ver Insertar Formato Herramientas Tabla Ventana ?

Texto independ Verdana 11

Ajuntament de Barcelona Hoja nº 3

Guàrdia Urbana  
Divisió de Trànsit  
Unitat d'Accidents

Instructores  
Agent 18003  
Agent 18373

Reg. de sortida núm. 218/02

**ATESTADO POR UN DELITO CONTRA LA SEGURIDAD DEL TRÁFICO  
(Alcohòlemia per Accident de Trànsit)**

**DILIGENCIA DE FILIACIÓN Y LESIONES DEL CONDUCTOR Y DATOS Y DAÑOS DEL VEHÍCULO**

Nom		1r. Cognom		2n. Cognom	
Justino		MUÑOZ		PENÀ	
Data de naixement	Lloc	Provincia	Pais		
20/05/68	Espejo	Cordoba	ESPANYA		
Nom pare	Nom mare	DNI o passaport	Targeta residència o altres		
Antonio	Rafaela	80137456			
Domicili, carrer/plaça			Telefon	Tel. mobil	
Morabos nº 24, 1º 4ª			934268046		
Municipi		Provincia	Pais		
BARCELONA		BARCELONA	ESPANYA		
Permis de conduir	Classe	Data expedició	Expedició		
Lesiones					
No constan					
<b>VEHICLE</b>					
Matrícula	Classe	Marca	Model	Color	
B6508CY	Turismo	FORD	FIESTA	Groc	
Tara	PMA	Grup activitat	Núm. Conductor Taxi/Bus	Calca Taxi/Bus	Linea bus

Pág. 3 Sec. 1 1/1 A 4,9 cm Lín. 1 Col. 1 GRB MCA EXT SOB AWP

Figure 3. Automated accident report generated by the software of the Urban Guard of Barcelona.

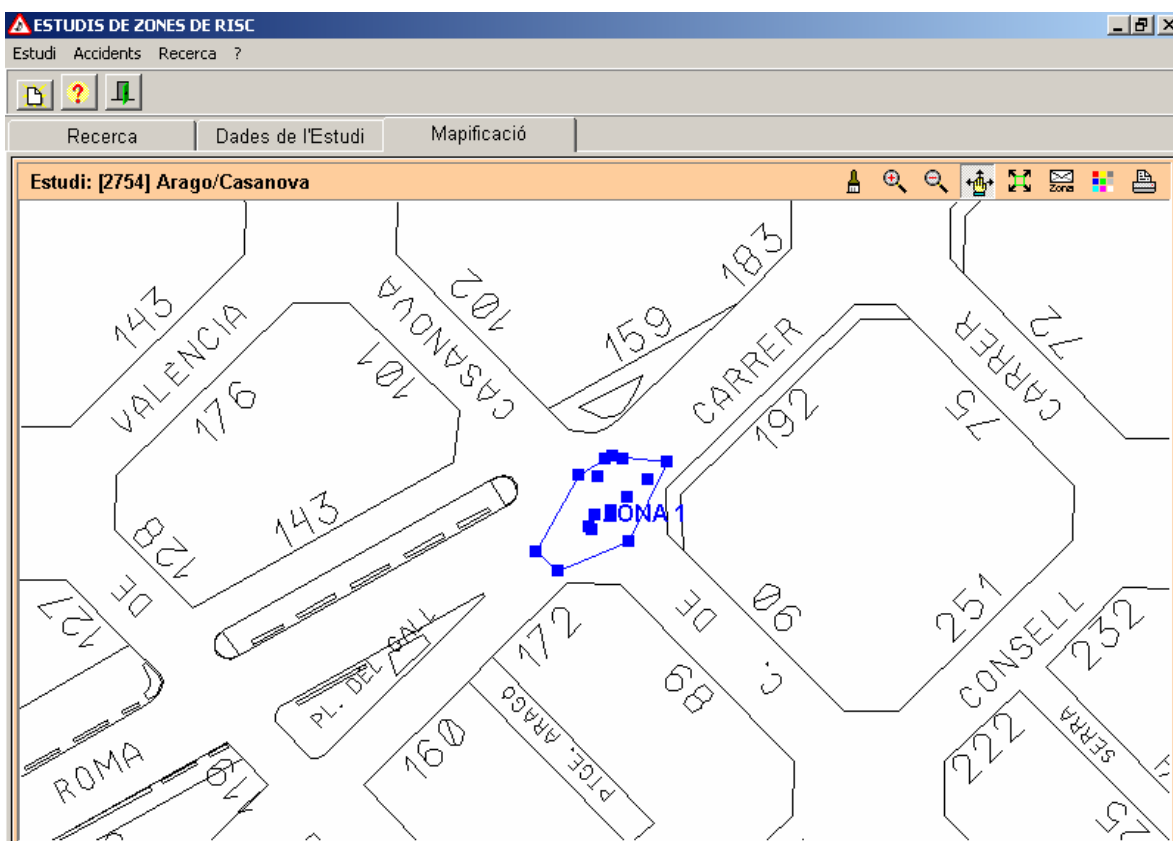


Figure 4. Identification of dangerous areas with the software of the Urban Guard of Barcelona.

About this system, in the SIDAT / SAU context, a series of improvements in the information content have been carried out. In this framework, the work carried out has been focussed on the following aspects:

1. From an **evaluative and diagnostic perspective** of the collection system, an analysis of the procedures now in use, with the aim of detecting and identifying its positive and negative aspects and to compare them with the ones that are used in motorway accidents, has been carried out. For that, the help of the agents in charge of the motorway traffic - which, in Catalonia, are the "Mossos d'Esquadra" and not the Civil Guard that is in charge for the other communities except the Basque Country – has been counted on.
2. From the perspective of the **pilot study**, new information **contents** that may imply an essential improvement of the quality of the collected data have been posed and introduced. The result has generated a new system in which all the information fields have been reviewed with respect to its information contents



and computer specifications, taking into account the real possibilities of collecting the information and the available resources when a police agent attends a TA on-site. In this sense, one of the most important aspects that had been acquired has been to create a system that differentiates a statistical accident report with two levels of information, depending on the severity of the accident.

This way, an easier questionnaire for the accidents with slight victims (similar to the old one but without some information hard to evaluate) and another one, more complete, for the accidents with serious or fatal victims (for which, as a norm during the police investigation, much more information is collected for legal reasons and therefore turns out to facilitate the completion of the questionnaire) have been proposed. For the moment, as for the city of Barcelona, the Urban Guard has already modified and adapted its computer system to follow these specifications. For the other municipalities in Catalonia, it has been suggested to create a software and an application that, included in a WEB based application platform, allows the introduction and the local exploitation of the data in order to be able to investigate, for which the computer characteristics of each field and the structure of the information have already been specified. This application is at a development stage and until the moment of its launch, a paper questionnaire that allows the completion following the new specifications is available.

3. In the pilot implementation, the adequacy of the new system to the standards posed in CARE PLUS1 and CARE PLUS2 has been taken into account. The new collection system has taken into account the development of CARE and, in this sense, important conclusions have been drawn. The first critical point is that when the TA implies slight consequences, the collected information may perfectly be adapted to CARE PLUS1 without any particular problem, but not to CARE PLUS2. When the TA is serious or fatal, not only it can adapt to CARE PLUS2, but it could even go beyond, collecting more information with appropriate quality levels. This would lead to raise the possibility, given the real experience – shared with the police agents themselves – of having problems to collect the information about the accidents, to think about two levels of accident databases depending on the severity, with the premise to keep acceptable levels of data viability and quality. The study of these possibilities is almost finalized and we are looking forward to being allowed to raise it in Spain and in the CARE forums, given its importance and the

experience acquired in this topic.

4. To be able to make the new system effective, a manual to fill in the accident questionnaires has been developed and the system has been evaluated during some conferences with representatives of the various police forces (local police and motorway police) from Catalonia, and it got a real positive evaluation. Both the manual and the description of the procedure of its development have been published as a book from the Servei Català de Trànsit.
5. Another aspect particularly innovative that has to be emphasized is the creation of a system to register and code the sequence of events that happen in a TA (opposite to the traditional categorisation of "accident type"). Traditionally, to classify the accident typology, a unique category that emphasized only one of the most important events of the accident was used (e.g. rear-end collision, head-on collision, running over...), but, in some cases (especially in accidents having a certain importance, complex or multiple collisions) it is really difficult to decide which type of accident happened, since it is usually a composition of several events. This way, depending on the criteria selected by the agent, the same accident could be identified differently: first event (e.g. "getting out of one's lane"), more critical event (e.g. "head-on collision" after getting out of one's lane), position or final condition of the vehicle (car turned over and on fire after the head-on collision), etc. The developed system (only for serious or fatal accidents) simply explains how to collect the different events that happen in a sequenced way, identifying the action of each vehicle and the event that implies the most serious injuries.

Regarding the question of the accident sequence, and due to its novelty, an on-site pilot study has been carried out with the aim of valuing the viability, effectiveness and reliability of the information collected with the new collection system. For that, several agents have filled the accident sequence for a sample of accidents and technical report of these accidents. A series of accidents that resume the most frequent and common accident typology in Catalonia, differentiating between the occurrence area of the accident, the demarcation and the number of involved vehicles, have been selected. Likewise, the complex accident system has been tested even though with low presence. The accidents have been evaluated and codified with the new collection system (from the police reports and the technical reports done by the agents) with the aim of carrying out the codification of the accident sequence. Each one of them has been evaluated by the same agent that attended the accident, by other

agents that did not attend it and by the INTRAS researchers. Given that each accident was evaluated by several persons, having no communication between them, it has been possible to compare the levels of consistency (by psychometric methods of “agreement between judges”) and then state a reliability level perfectly appropriate, even when it was evaluated by agents that did not directly attend the accident and that only rely on the available documentation.

As a conclusion, the accident sequence has been considered as viable, opening future possibilities as to other aspects that could be developed, taking advantage of the information that is compulsorily collected by the police agents in the most serious accidents. This topic has been considered as crucial to such an extent that an INTRAS researcher is now focussing his doctoral dissertation on this topic, aiming to analyse deeply the collected data.

It is also important to stress that the work has gone far beyond the objectives established in the SAU project, mainly thanks to the great collaboration of police agents and technicians involved in the numerous work sessions that took place, just as the efficient and fast accomplishment of the revision tasks and of the pilot test. A result of that is the start of the system in a record time, in spite of the multiple novelties, in Barcelona (and it is forecast for the other Catalan municipalities). On the other hand, it was not predictable that, from the beginning, it could be possible to propose and carry out so innovative and in-depth reformulating procedures like the accident sequence or the significant increase of information for the serious and fatal accident questionnaire.

It is also convenient to emphasize on the level of consensus acquired by all the participants just as the good evaluation of the final results. These aspects are fundamental when the municipal police agents and technicians will internalize their commitment and responsibility towards the good quality of the data. Another aspect that has also been well-valued is that the system has been perceived as easier to use, despite that the amount of information collected for serious and fatal accidents is greater. In fact, one of the most frustrating problems for the agents was to provide information they could not get for slight accidents and the duplication of many fields in the required documentation for each accident.

Finally, point out that the Municipality of Barcelona has offered its accident data management system to the municipalities interested in its implementation, both in

Catalonia and in the rest of Spain. The only requirements have a technological nature, referred to the need of having an appropriate computer infrastructure in order to implement the system. For the moment, several municipalities are pending to launch the system.

### 2.3. Section 3. “Best practice” (2): City of Valencia.

The University of Valencia keeps a framework convention on collaboration with the Municipality of Valencia since several years and several actions have been carried out in topics related to urban accident rate by INTRAS and in collaboration with the local police<sup>3</sup>. A result of these actions has been an exhaustive analysis of the procedures of urban accident data collection and analysis in the city. The critical conclusions of this work are gathered in the section 3 and are integrated with the other case studies.

For the time being and partly thanks to the previous actions carried out with the local police of Valencia, its state is in a stage that could be considered as prior as the one in Barcelona. One of the conclusions that was already mentioned in the study was the redesigning of the computer collection system in order to be integrated with the general collection system of police incidents and public safety in the city. This way, the police agents did not have to fill in twice several questionnaires and reports. It was obvious that this was the solution to be able to rely on more efficient and reliable mechanisms, as it was already being demonstrated in Barcelona. This process is at a developing stage at the local police and we are waiting for a future meeting to check its development.

The specific topic, as a particular case of “best practices”, that is described in this section is the one of the development of **accident data analysis system procedures** which have a special importance for the accident rate diagnosis and monitoring in urban areas. After having analysed the drawbacks of the system, it was considered particularly important to study how it could be possible to best take advantage of the obtained information and what type of analysis could be useful to monitor and diagnose the accident rate.

The most important developments obtained are focussed on three aspects:

1. The use of analysis procedures that allow the study of the cross incidence on

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<sup>3</sup> INTRAS (2003) ANIVAL2: Analysis and research of the road accident data in the city of Valencia (2)

variables, with independence of risk exposure data. One has to bear in mind that most of the time, it is not possible to get covered kilometres data with a sufficient detailed level. An alternative that seemed to be useful was to cross variables and obtain relative comparisons on the basis of expected frequencies under hypothesis of distribution equality. By standardizing the residual frequencies, diagnostic indicators of problematic points that can easily guide the police responsible persons without having to turn to sophisticated statistic techniques are obtained. Here is an example of it.

**HORA DEL ACCIDENTE EN FUNCION DEL DIA DE LA SEMANA**

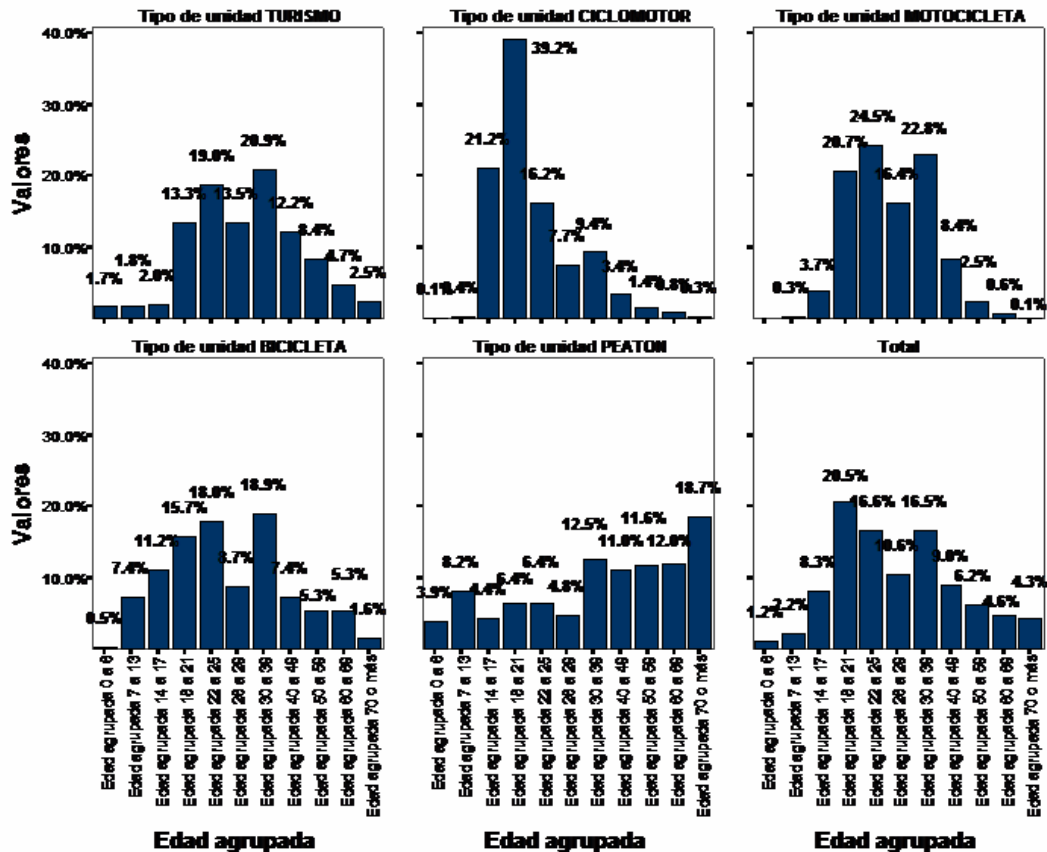
			Dia de la semana				Total
			LABORABLE	VIERNES	SABADO	DOMINGO	
<b>Hora del accidente</b>	23 a 7 horas	Recuento	1945	794	1538	1441	5718
		% de Hora del dia agrupada	34,0%	13,9%	26,9%	25,2%	100,0%
		% de Dia de la semana agrupado	12,2%	17,2%	34,4%	36,2%	19,7%
		Residuos corregidos	-35,6	-4,6	26,9	28,2	
7 a 12 horas		Recuento	3372	833	556	566	5327
		% de Hora del dia agrupada	63,3%	15,6%	10,4%	10,6%	100,0%
		% de Dia de la semana agrupado	21,1%	18,0%	12,4%	14,2%	18,3%
		Residuos corregidos	13,4	-5	-11,1	-7,2	
12 a 16 horas		Recuento	4141	1060	837	683	6721
		% de Hora del dia agrupada	61,6%	15,8%	12,5%	10,2%	100,0%
		% de Dia de la semana agrupado	25,9%	23,0%	18,7%	17,2%	23,1%
		Residuos corregidos	12,4	-3	-7,6	-9,6	
16 a 19 horas		Recuento	2833	800	641	526	4800
		% de Hora del dia agrupada	59,0%	16,7%	13,4%	11,0%	100,0%
		% de Dia de la semana agrupado	17,7%	17,3%	14,3%	13,2%	16,5%
		Residuos corregidos	6,1	1,6	-4,3	-6,0	
19 a 22 horas		Recuento	3699	1129	902	766	6496
		% de Hora del dia agrupada	56,9%	17,4%	13,9%	11,8%	100,0%
		% de Dia de la semana agrupado	23,1%	24,5%	20,2%	19,2%	22,4%
		Residuos corregidos	3,5	3,7	-3,8	-5,1	
Total		Recuento	15990	4616	4474	3982	29062
		% de Hora del dia agrupada	55,0%	15,9%	15,4%	13,7%	100,0%
		% de Dia de la semana agrupado	100,0%	100,0%	100,0%	100,0%	100,0%
		Residuos corregidos					

2. On the other hand, it is important to properly represent this information on a graph in order to facilitate its understanding. For that, after having studied several methods that were easily understandable for road safety agents, the utility of

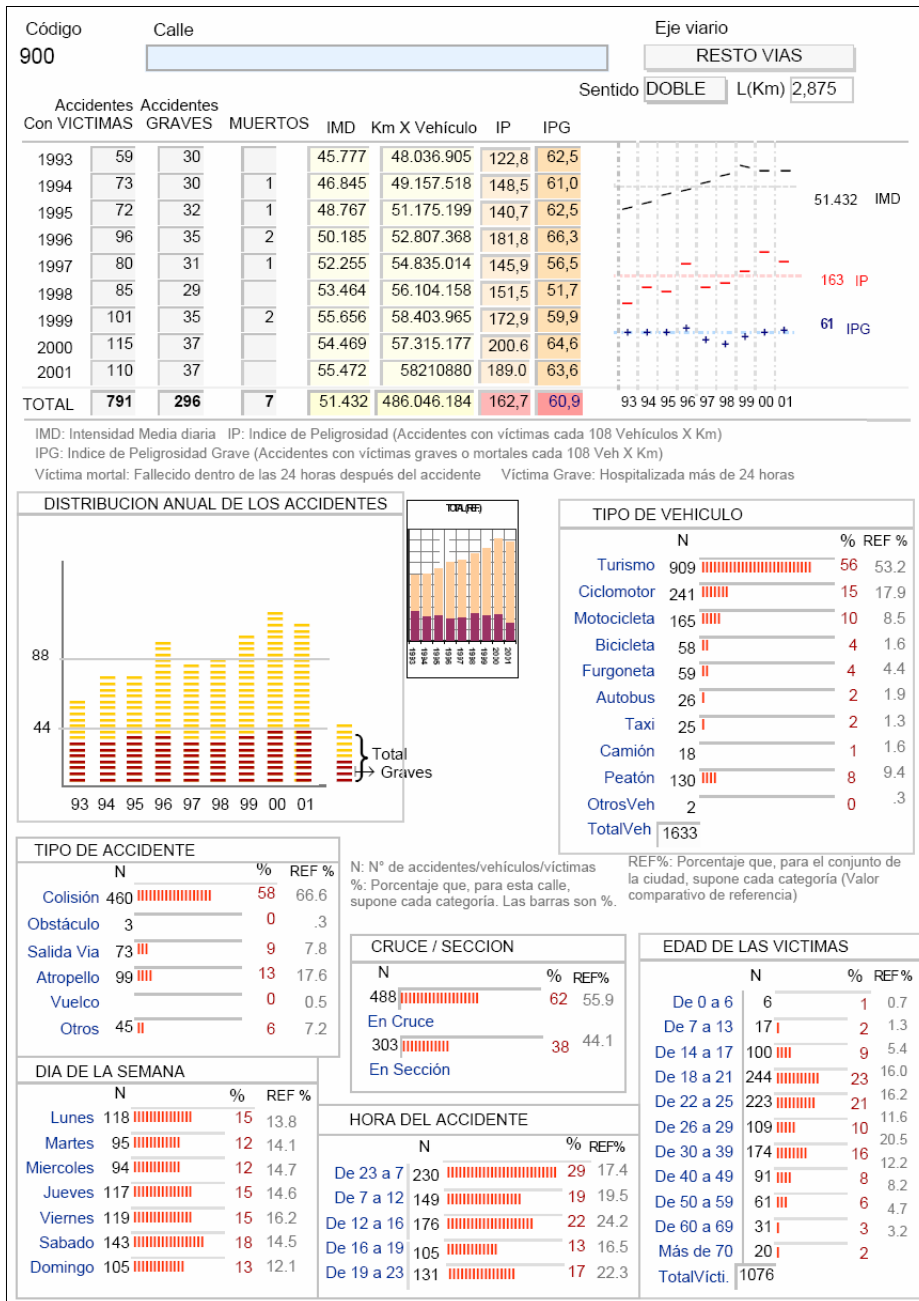
using panel graphs - as the ones that are presented in the following example – was posed.

### Tabla de contingencia A2-64: Víctimas por Edad agrupada \* Tipo de unidad

Estadísticos : % de Tipo de unidad



3. In another range of things, one of the topics that quite bother at the municipal level is the accident rate monitoring by streets. This is due to the type of responsibility that hold the municipal authorities and the possibilities and priorities of intervention on the traffic management in the streets. For that, several procedures have been tested to propose a database prototype that could offer comparative graphical and statistical outputs that could allow a detailed monitoring per street. An example of it is shown hereafter.



## 2.4. Section 4. “Best practice” (3): Urban Agglomeration of Murcia.

The development of this section has been performed with the collaboration of the Municipality of Murcia, particularly with the mobility service<sup>4</sup>.

This action has also included a general study of the urban accident rate collection and analysis systems in collaboration with the persons in charge in the municipality and in the local police. The results and conclusions have been integrated, as for the other cases, in the section 1.

The “best practices” specific part that appears in this section makes reference to two fundamental aspects:

- 1) An intensive exploitation and use of the accident rate data as a tool to carry out a local multilevel in-depth diagnostic study, which will be the starting point to develop a large urban road safety local plan.*
- 2) Integration of the accident rate data and studies into the mobility ones in order to test its utility when used to offer recommendations on urban restructuring, especially taking into consideration the urban road safety aspects related with the mobility ones.*

The diagnostic study carried out in Murcia features a structure by differentiated analysis levels in order to be able to be informed of the structural characteristics of Murcia as well as the needs, in the detail level, of results where the initial statistic analysis data shows that there might be some specific safety problems. On the other hand, several work methodologies and data sources and complementary information have been melded (statistical analysis, study of the mobility survey data, field observations, analysis of the proceedings...) and this enables to have a more global vision on the studied problem for each case. The same way, two groups of accidents have been analyzed: (1) The accidents that cause victims or injuries (those are usually taken into account in the official road accident rate statistics both national and local) and (2) the accidents without any victims or injuries that even if they are less complete, improve the study.

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<sup>4</sup> The convention with the Municipality of Murcia *SEVAM: The factors that affect the road safety and the action proposals for the Municipality of Murcia*



As for the structure by levels of analysis, three levels, from the most general or macro to the most specific or micro, have been differentiated.

1- Macro Level. In this level, (1) a global study on the accident rate state in urban areas, taking as well into consideration the mobility data (2), is carried out. It has been tried to identify and place in the space and time the main risk factors that condition the accident rate at the macro level. The same analysis techniques as the one applied in Valencia have been applied. This first level of analysis offer relevant information that may allow the establishment, from a social, educational, normative and police supervised perspective, of main directives in the road safety policies at a global level.

From the macro analysis results, a selection of urban roads from a large sample has been done in order to undertake an individualized specific analysis.

#### 2- Intermediate level of analysis and observational study

The intermediate level of analysis and observational study are constituted of (1) an individualized detailed statistical accident analysis of each road and (2) a field observational study – on-site – of each one of the road.

The conclusions that are drawn from the study of these roads are applicable to these ones as well as, while a representative sample of all the roads are developed, it allows to draw conclusions and advices which can be applied generally in the urban road as a whole.

3- Micro Level. It implies the analysis, at the individual level, of all the available information on fatal accidents. It provides richer information on the causes of the accidents.

As to the work methodologies and the data sources, we may distinguish:

1. Statistical data analysis. This analysis is applied in the macro and intermediate levels. As regards to the analysis types, descriptive indicators (univariate and, particularly, bivariate) are basically used aiming to identify conditions where the risk is increased. This has been carried out by means of the use of cross or contingency tables, analysing the marginal distributions of the variables that cross as well as, particularly, the conditional distributions, using as statistical contrast “chi square” tests and a “cell by cell” study of the standardized residuals values. These are the same techniques already shown in the Section 3: Valencia.
2. Qualitative in-depth specific study of the accident reports and reports about the accident reconstitution referred to fatal accidents.

3. Field observational study. Field visits are carried out in the conflictive points and roads selected for the intermediate level.

The most interesting thing of this approach is that it has allowed to work from top to down, allowing going in-depth as the concrete problems were appearing. From this approach, actions at all the levels are derived from, from educational campaigns to specific groups to concrete actions on points or stretches of the road network.

## 2.5. Section 5. “Best practice” (4): Town of Elche

This section has been focussed, as it has been the case of Barcelona, on the accident data collection, coding and computerizing system. The difference is that in this case, the improvement process is developed in a smaller city than Barcelona, being consequently the technical, human and economic resources better and then need specific solutions for this size of town.

The town Council of Elche, through the Local Police, has closely been working with INTRAS for years, providing the “know how” of its experts and the applied experience in Road Safety actions.

The improvement of the accident data collection quality and quantity has been an objective pursued since more than a decade in the municipality of Elche. With that, year after year, it has been tried to grow the knowledge of the causes of the Elche accident rate and therefore, its prevention.

In this context, back in 1997, a new accident data record was designed in order to know in detail the accident rate in the city. The new record basically consisted of the definition of two levels of accident investigation. In the first one, a basic group of data that has to be collected for all the accidents (damage only, slight, serious and fatal accidents) was defined. In the second level, more specialized, a more exhaustive information collection was carried out, aiming to be able to perform an accident reconstruction later.

This system had been put into practice since the 1<sup>st</sup> of January 1998, getting good results, to the extent that it was considered convenient in January 2000 to modify the procedure for the damage-only accidents by transferring the responsibility of this type of accident to the non-specialized units, being the accident investigation agents freed from the accident administrative procedures and being able as a matter of fact to be focussed on the investigation of the most serious events that required greater

dedication and specialization.

This way, investigating on the accident causes, speeding up the attention to the citizen procedures, and, thanks to the acquired knowledge, specific solutions were developed and Elche managed to slow down the increasing evolution of the accident rate in the last years.

This new data collection system oriented to the prevention, was supported on standardized documents, that will guarantee, in a smooth way and no matter the specialization of the agents, a basic data set that will lately allow to the Road Safety Cabinet – organization of the local police in charge of the accident rate macro-investigation, to carry out an as most complete as possible analysis of the risk zones, groups of special attention, measure implementation, etc.

With the aim to homogenize the data, a manual for the agents was written together with the forms, this manual explained in detail what was the needed information in each field.

The design of the documents fit to the reality of the daily practice, setting three data levels:

1. Accidents with injuries: in which more information was collected, for the accidents with injuries (independently of its severity). In this document, the information was structured in two sections, the first one was structured as a small notebook designed for the scene of crime investigation, compiling information on the road and the vehicles and the second one was distributed in colour sheets, in which the information on the drivers and other administrative circumstances was gathered.
2. Damage-only accidents: in which the information on damage-only accidents without any agreement between the parts was gathered. This document was designed as self-copying in a way that the collected information for the statistical and administrative procedures of the form was also useful to give to the parts the information they had to present at the Insurance companies.
3. Damage-only accidents with agreement: in which the collected information was only at the statistical level. This document contained a basic data set to be statistically treated in the Road Safety Cabinet.

Together with these tools, a redesign of the computer application that allowed the treatment of this information was carried out. The modification mainly affected the interface, which was fit to the design of the paper forms, aiming to avoid loss of time and information. In short, what had been done was a copy of the form that was filled in

in the street in the screen of the computer. Likewise, the fields were enlarged in order to give room to the second level data (more specific, like the vehicle mass, track widths, etc.) and the variables were redistributed in three tables.

The re-approach of the procedures of the Accident Investigation Unit allowed on the one hand increasing the quantity and the quality of the information that was collected in situ and on the other hand facilitating the procedures in such a way that simple delivery of a copy of the form to the involved parts, a reduction of 60% of the number of persons that went to the police to have the information for the Insurance companies was reached.

The Annex I gathers all different information collection protocols that are now used in Elche according to the levels of information.

## **2.6. Section 6. “Best practice” (5): Municipality of Castellón**

The Town Council of Castellón, like Elche, through the Local Police, has been working together with INTRAS for years.

This section has been focussed on two critical aspects of the accident rate collection and monitoring system:

- 1 – Implementation of a procedure of monitoring at 30 days the Serious Casualties
- 2 – Mapping of the fatal and serious accidents.

### ***2.6.1. Monitoring at 30 days***

This procedure establishes and standardizes the routine through which it will be set how to carry out the traffic accident injury monitoring at 30 days of the serious victims.

This procedure is applied to all the serious traffic accident for which the Local Police of Castellón (PL-CS) have stepped in. The seriously injured persons are the ones that need to be hospitalized for more than 24 hours as a consequence of a traffic accident.

The following pages show the procedure implemented for such objective.

### ***2.6.2. Mapping of the fatal accidents***

The objective of this procedure is to establish the methodology to make a map of

the serious and fatal traffic accident in the reports created by the Local Police of Castellón.

The seriously injured persons are the ones that need to be hospitalized for more than 24 hours as a consequence of a traffic accident

The fatality is considered as a person that passes away as a consequence of a traffic accident immediately or within the next 30 days.

The mapping of the serious or fatal TA uses the free software Google Earth as support and is composed by position marks (files .kml). The KML, or Keyhole Markup Language is an XML grammar and a file format to create models and store geographic functions as dots, lines, images, polygons and models that will be shown in Google Earth and Google Maps. It is possible to use KML files to share places and information with other Google Earth and Google Maps users.

The choice of files .kml and the Google Earth support for the mapping of the serious and fatal traffic accident responds to information accessibility criterions. All the teams of the PL-Cs responsible persons that are going to use the mapping of serious or fatal TA have the software installed in their computer, this guarantees a later query and allows sending all the information electronically and its later storage in a hierarchical structure of files.

The Annex II gathers the procedures implemented for such objective.

## ANNEX I Questionnaires of the Local Police of Elche



Exp. \_\_\_\_\_

**Informe de accidente con daños materiales****DATOS GENERALES**

Fecha	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	Hora	<input type="text"/>	<input type="text"/>	Agentes	<input type="text"/>	<input type="text"/>	Casco Urbano	<input type="checkbox"/>
Lugar:	<input type="text"/>											Pedanía	<input type="checkbox"/>
												Interurbano	<input type="checkbox"/>

**IDENTIFICACIÓN DE IMPLICADOS Y VEHICULOS**

<b>CONDUCTOR A</b> DNI _____ Nombre: _____ _____	<b>CONDUCTOR B</b> DNI _____ Nombre: _____ _____
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<b>PERMISO</b> Clase: A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> Licencia: <input type="checkbox"/> Núm.: _____ Expedido en: _____ Validez del: ____ / ____ / ____ al: ____ / ____ / ____	<b>PERMISO</b> Clase: A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> Licencia: <input type="checkbox"/> Núm.: _____ Expedido en: _____ Validez del: ____ / ____ / ____ al: ____ / ____ / ____
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<b>VEHÍCULO A</b> Fuga: <input type="checkbox"/> Estacionado: <input type="checkbox"/> Matrícula: <input type="text"/> Marca: _____ Modelo: _____ Clase: Turismo <input type="checkbox"/> Ciclom. <input type="checkbox"/> Moto <input type="checkbox"/> Furgón <input type="checkbox"/> Otros: _____ Color: _____ Año matric.: <input type="text"/> ITV: Sí <input type="checkbox"/> No <input type="checkbox"/>	<b>VEHÍCULO B</b> Fuga: <input type="checkbox"/> Estacionado: <input type="checkbox"/> Matrícula: <input type="text"/> Marca: _____ Modelo: _____ Clase: Turismo <input type="checkbox"/> Ciclom. <input type="checkbox"/> Moto <input type="checkbox"/> Furgón <input type="checkbox"/> Otros: _____ Color: _____ Año matric.: <input type="text"/> ITV: Sí <input type="checkbox"/> No <input type="checkbox"/>
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<b>TITULAR A</b> Su conductor: Sí <input type="checkbox"/> No <input type="checkbox"/> Nombre: _____	<b>TITULAR B</b> Su conductor: Sí <input type="checkbox"/> No <input type="checkbox"/> Nombre: _____
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<b>SEGURO OBLIGATORIO A</b> Presenta: Sí <input type="checkbox"/> No <input type="checkbox"/> Compañía: _____ Núm. de Póliza / Carta Verde: _____ Cobertura del: ____ / ____ / ____ al ____ / ____ / ____	<b>SEGURO OBLIGATORIO B</b> Presenta: Sí <input type="checkbox"/> No <input type="checkbox"/> Compañía: _____ Núm. de Póliza / Carta Verde: _____ Cobertura del: ____ / ____ / ____ al ____ / ____ / ____
--	--

**INFORMACIÓN PARA LOS IMPLICADOS****¿QUÉ ES UN ACCIDENTE DE TRÁFICO?**

Es un conflicto Civil.

No es un ilícito penal, a no ser que los daños sobrepasen la cuantía del Seguro

Obligatorio de Responsabilidad Civil o como consecuencia del accidente se produzcan lesiones en las personas, por ello no se levanta atestado, sino que se elabora un informe. Recuerde que dispone de un año para reclamar vía judicial civil en caso de no llegar a un acuerdo entre las partes implicadas.





## INSTRUCCIONES

### TRÁMITES A SEGUIR TRAS EL SINIESTRO.

1. La intervención de la Policía Local en este accidente no presupone la remisión a la Autoridad Judicial de las actuaciones practicadas. Transmita este documento sin demora a su Asegurador.  
En caso de disponer de Asesor Jurídico puede remitirle copia del documento.
2. Recuerde que dispone de un año para reclamar vía judicial civil en caso de no llegar a un acuerdo entre las partes implicadas.
3. Para cualquier consulta relacionada con su accidente de tráfico pueden dirigirse a la Jefatura de Policía Local (Unidad de Tráfico), a través de:

El teléfono 966658097 en horario de 8'00 a 14'00 horas.

Fax 965455394

Correo: calle Mesalina, s/n - C.P. 03291 Elche

E-mail: [seguvial@ayto-elche.es](mailto:seguvial@ayto-elche.es)

### SOLICITUD DE INFORMES

1. La solicitud de informes deberá realizarse mediante escrito que se remitirá por correo dirigido a la Jefatura de la Policía Local (Unidad de Tráfico) o mediante presentación en el Registro General del Ayuntamiento, adjuntando a la misma el original del pago de las tasas.
2. En el escrito de solicitud se indicarán los siguientes datos:
  - Número de expediente, que figura en el impreso facilitado por los agentes que intervinieron en el siniestro.
  - DNI del implicado.
  - Matrícula del vehículo siniestrado.
  - Persona que solicita el informe.
  - Forma en que desea recibir el informe (por correo, fax o E-mail) indicando claramente dirección y teléfono de contacto.
3. La solicitud irá acompañada del recibo original que acredite el pago de las tasas municipales.
4. La tasa municipal se hará efectiva en el Banco Bilbao Vizcaya Argentaria (BBVA), entidad 0182, oficina 0120, dígito de control nº 78 y cuenta nº 0012435503 o en la Caja Municipal del Ayuntamiento de Elche.  
En el recibo de ingreso deberá figurar:
  - Ayuntamiento de Elche
  - Expedición tasa atestados
  - Ordenanza fiscal, art. 6, epig. 1, aptdo. 6.

### ANOTACIONES

## Policía Local

Calle Mesalina, s/n, 03291 Elche Tel: 966 658 092 (Central) Fax 965 455 394 Emergencias **092** E-mail: [polilocal@ayto-elche.es](mailto:polilocal@ayto-elche.es)

## Informe de accidente con daños materiales sin intervención

Exp. \_\_\_\_\_

## DATOS GENERALES

Fecha	<input type="text"/>	Hora	<input type="text"/>	Agentes	<input type="text"/>	Casco Urbano	<input type="checkbox"/>
Lugar:	<input type="text"/>					Pedanía	<input type="checkbox"/>
						Interurbano	<input type="checkbox"/>

## DATOS ESTADÍSTICOS

<b>Tipo accidente</b>	<b>Tipo de vía</b>	<b>Estado de la vía</b>	<b>Calzada</b>	<b>Tiempo</b>
Colisión <input type="checkbox"/>	Intersección <input type="checkbox"/>	Mojado <input type="checkbox"/>	Doble sentido <input type="checkbox"/>	Bueno <input type="checkbox"/>
Objeto fijo <input type="checkbox"/>	Curva <input type="checkbox"/>	Buena <input type="checkbox"/>	Vial de servicio <input type="checkbox"/>	Tormenta <input type="checkbox"/>
Salida de vía <input type="checkbox"/>	Recta <input type="checkbox"/>	Encharcado <input type="checkbox"/>	Sentido único <input type="checkbox"/>	Lluvia <input type="checkbox"/>
Vuelco <input type="checkbox"/>	Rotonda <input type="checkbox"/>	Gravilla <input type="checkbox"/>	Recinto privado <input type="checkbox"/>	Niebla <input type="checkbox"/>
Atrop. a animal <input type="checkbox"/>	Rasante <input type="checkbox"/>	Humedo <input type="checkbox"/>	Otros: _____	Nublado <input type="checkbox"/>
Alcance <input type="checkbox"/>	Puente <input type="checkbox"/>	Aceite <input type="checkbox"/>	<b>Momento</b>	<b>Señalización</b>
Otros: _____	Otros: _____	Otros: _____	Amanecer <input type="checkbox"/>	Vertical* <input type="checkbox"/>
			Noche <input type="checkbox"/>	Bueno <input type="checkbox"/>
			Día <input type="checkbox"/>	Malo <input type="checkbox"/>
			Alumbrado <input type="checkbox"/>	Estado <input type="checkbox"/>
			Atardecer <input type="checkbox"/>	Reglamento <input type="checkbox"/>
			Otros: _____	Luminosas* <input type="checkbox"/>
				Si <input type="checkbox"/>
				No <input type="checkbox"/>

\*(Ver ficha operativa)

## INFORME DE LOS ACTUANTES

Responsable en opinión de los actuantes:

A  B  C 

## VEHÍCULO A

Matrícula:  Estacionado 

Modelo: \_\_\_\_\_ Marca: \_\_\_\_\_

Clase: Turismo  Ciclom.  Moto  Furgón  Otros \_\_\_\_\_Código de causa aparente:  Descripción (si procede): \_\_\_\_\_

## VEHÍCULO B

Matrícula:  Estacionado 

Modelo: \_\_\_\_\_ Marca: \_\_\_\_\_

Clase: Turismo  Ciclom.  Moto  Furgón  Otros \_\_\_\_\_Código de causa aparente:  Descripción (si procede): \_\_\_\_\_

## VEHÍCULO C

Matrícula:  Estacionado 

Modelo: \_\_\_\_\_ Marca: \_\_\_\_\_

Clase: Turismo  Ciclom.  Moto  Furgón  Otros \_\_\_\_\_Código de causa aparente:  Descripción (si procede): \_\_\_\_\_

## OBSERVACIONES

## CÓDIGO DE CAUSAS APARENTES

## 1. CAUSAS RELATIVAS AL CONDUCTOR.

- 1.1. Circula por mano contraria o dirección prohibida.
- 1.2. No mantiene el intervalo de seguridad.
- 1.3. Giro incorrecto y/o cierra el paso a otro vehículo.
- 1.4. Adelanta antirreglamentariamente.
- 1.5. Circula en ZIG-ZAG.
- 1.6. No indica o indica mal una maniobra.
- 1.7. No respeta prioridad.
- 1.8. No respeta otra señal de tráfico o policía.
- 1.9. No respeta las indicaciones del semáforo.
- 1.20. No respeta la señal de STOP.
- 1.21. No respeta la señal de Ceda el Paso.
- 1.22. Entrar sin precaución en la circulación.
- 1.23. Estar influenciado por alcohol o drogas.
- 1.24. Circula a más velocidad de la establecida.
- 1.25. Invade parte izquierda de la calzada.
- 1.26. Pierde el dominio del vehículo.
- 1.27. Falta de pericia en la conducción.
- 1.28. Apertura de puertas sin precaución.
- 1.29. Realiza maniobra de marcha atrás sin precaución.
- 1.30. Circula por carril restringido/no autorizado.
- 1.31. Mal estacionado.
- 1.32. Colisiona con objeto fijo.
- 1.33. Realiza maniobra de marcha atrás en cruce.
- 1.34. No inmoviliza adecuadamente el vehículo.
- 1.35. Otros. Se deben describir en el informe del agente.

## 2. CAUSAS RELATIVAS A LA VÍA.

- 2.1. Diseño o distribución de los espacios.
- 2.2. Mala conservación.
- 2.3. Iluminación insuficiente.
- 2.4. Falta de visibilidad.
- 2.5. Obstáculo en la calzada.
- 2.6. Señalización defectuosa.
- 2.7. Otras que se deben describir en el informe del agente.

## 3. CAUSAS RELATIVAS A LOS VEHÍCULOS.

- 3.1. Carga incorrecta.
- 3.2. Defecto en los neumáticos.
- 3.3. Defecto en las luces.
- 3.4. Otras que se deben describir en el informe del agente.

## Informe de accidente con daños materiales sin intervención

Exp. \_\_\_\_\_

## DATOS GENERALES

Fecha	<input type="text"/>	Hora	<input type="text"/>	Agentes	<input type="text"/>	Casco Urbano	<input type="checkbox"/>
Lugar:	<input type="text"/>					Pedanía	<input type="checkbox"/>
						Interurbano	<input type="checkbox"/>

## DATOS ESTADÍSTICOS

Tipo accidente	Tipo de vía	Estado de la vía	Calzada	Tiempo
Colisión <input type="checkbox"/>	Intersección <input type="checkbox"/>	Mojado <input type="checkbox"/>	Doble sentido <input type="checkbox"/> Vial de servicio <input type="checkbox"/>	Bueno <input type="checkbox"/> Tormenta <input type="checkbox"/>
Objeto fijo <input type="checkbox"/>	Curva <input type="checkbox"/>	Buena <input type="checkbox"/>	Sentido único <input type="checkbox"/> Recinto privado <input type="checkbox"/>	Lluvia <input type="checkbox"/> Viento <input type="checkbox"/>
Salida de vía <input type="checkbox"/>	Recta <input type="checkbox"/>	Encharcado <input type="checkbox"/>	Otros: _____	Niebla <input type="checkbox"/> Nublado <input type="checkbox"/>
Vuelco <input type="checkbox"/>	Rotonda <input type="checkbox"/>	Gravilla <input type="checkbox"/>	<b>Momento</b>	<b>Señalización</b>
Atrop. a animal <input type="checkbox"/>	Rasante <input type="checkbox"/>	Humedo <input type="checkbox"/>	Amanecer <input type="checkbox"/> Noche <input type="checkbox"/>	Vertical* <input type="checkbox"/> <input type="checkbox"/> Estado <input type="checkbox"/>
Alcance <input type="checkbox"/>	Puente <input type="checkbox"/>	Aceite <input type="checkbox"/>	Día <input type="checkbox"/> Alumbrado <input type="checkbox"/>	Horizontal* <input type="checkbox"/> Reglamento
Otros: _____	Otros: _____	Otros: _____	Atardecer <input type="checkbox"/> Otros: _____	Luminosas* <input type="checkbox"/> Si <input type="checkbox"/> No <input type="checkbox"/>

\*(Ver ficha operativa)

## INFORMACIÓN PARA LOS IMPLICADOS

## ¿Qué es un accidente de tráfico?

Es un conflicto civil.

No es un ilícito penal, a no ser que los daños sobrepasen la cuantía del Seguro Obligatorio de Responsabilidad Civil o como consecuencia del accidente se produzcan lesiones en las personas, por ello no se levanta atestado.

Recuerde que dispone de un año para reclamar vía judicial civil en caso de no llegar a un acuerdo entre las partes implicadas.

## DILIGENCIA:

Para hacer constar que los agentes de Policía Local con número profesional \_\_\_\_\_ y \_\_\_\_\_ informan a los implicados de los siguientes extremos:

1. Que tras una primera inspección ocular se comprueba que no existen indicios delictivos y que no se han producido lesiones en las personas.
2. Que preguntados los implicados si requieren la intervención policial, manifiestan que no.
3. Que quedan enterados que se tomarán datos únicamente a efectos de registro y estudio estadístico, por lo que al no realizarse una investigación detallada, no se confeccionarán informes sobre el desarrollo de los hechos.

Por todo ello, los agentes actuantes les informan que las reclamaciones derivadas de la producción del siniestro deben ser resueltas entre sus compañías aseguradoras, así como que pueden reclamar los perjuicios ocasionados mediante un juicio oral de naturaleza civil, en el plazo de un año a partir de la fecha del accidente.

Lo que se lee a los interesados los cuales firman en prueba de conformidad.

IMPLICADO UNIDAD A

IMPLICADO UNIDAD B

IMPLICADO UNIDAD C

D.N.I. \_\_\_\_\_

D.N.I. \_\_\_\_\_

D.N.I. \_\_\_\_\_

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IMPLICADO UNIDAD B

IMPLICADO UNIDAD C

D.N.I. \_\_\_\_\_

D.N.I. \_\_\_\_\_

D.N.I. \_\_\_\_\_

### OTRAS CIRCUNSTANCIAS

Cumplimentan el "Parte Europeo de Accidentes" en  Competencia de Guardia Civil u otras Fuerzas o Cuerpos de Seguridad  presencia de los agentes.

### GRÚA

Requieren la presencia de una grúa para la retirada de vehículos

IMPLICADO UNIDAD A

IMPLICADO UNIDAD B

IMPLICADO UNIDAD C

Empresa: \_\_\_\_\_

Empresa: \_\_\_\_\_

Empresa: \_\_\_\_\_

Observaciones sobre el servicio de grúa:



**DATOS DEL VEHÍCULO**

PERMISO DE CIRCULACIÓN			
<b>A</b>	Matrícula	<b>B</b>	Fecha de Matriculación
		Fecha de 1º Matriculación	
<b>C</b>	Apellidos o Razón Social		
<b>D</b>	Nombre	<b>E</b>	Domicilio (calle o plaza y núm.)
Localidad		Provincia	<b>F</b> Marca
<b>G</b>	Serie y número del bastidor	Masa máxima autorizada	Tipo
Modelo		Número de plazas	Servicio a que se destina

SEGURO	TARJETA DE INSPECCIÓN TÉCNICA
Compañía	Tara
Domicilio Social	MMA
Núm. de Póliza	Neumáticos
Fecha de vigencia <b>(desde)</b> /    /	Número de asientos
Fecha de vigencia <b>(hasta)</b> /    /	ITV fecha (desde)    /    /
Tomador del Seguro	ITV fecha (hasta)    /    /
	Medidas del vehic. (mm)
	Altura total
	Anchura total
	Longitud total
	Vía ant. / post.
	Cilindrada
	Batalla
	Potencia fiscal / real

**GRÚA** Notificado a los interesados:

Vehículo depositado en: \_\_\_\_\_ a disposición de: \_\_\_\_\_

**DATOS DEL CONDUCTOR**

Viajaba solo  Estacionado

PERMISO DE CONDUCCIÓN	No posee <input type="checkbox"/>	Desde	Hasta	Restricciones
<b>1</b> Apellidos	<b>A</b>	<b>A1</b>		
<b>2</b> Nombre	<b>B</b>	<b>A</b>		
<b>3</b> Fecha y lugar de nacimiento	<b>C</b>	<b>B</b>		
<b>4</b> Expedido el	<b>D</b>	<b>C1</b>		
en	<b>E</b>	<b>C</b>		
<b>5</b> Número (DNI)		<b>D1</b>		
<b>8</b> Residencia (localidad, calle y número)		<b>B</b>		
		<b>C1</b>		
		<b>C</b>		
		<b>D1</b>		
		<b>D</b>		
		Licencia		

**DNI** Pasaporte \_\_\_\_\_

Hijo de \_\_\_\_\_ y de \_\_\_\_\_

Tlf. 1 \_\_\_\_\_ Tlf. 2 \_\_\_\_\_

**ALCOHOLEMIA**

Positiva  Medición 1º: \_\_\_\_\_ mg/l 2º: \_\_\_\_\_ mg/l

Negativa  No finaliza  Desobediencia  Sangre

**LESIONES** No

**Pronóstico** Leve  Grave  Exitus

trasladado a: \_\_\_\_\_ por \_\_\_\_\_

Primera asistencia: \_\_\_\_\_

Lesiones que presenta: \_\_\_\_\_

**MANIFESTACIÓN** Cinturón / Casco: Sí  No

.....

.....

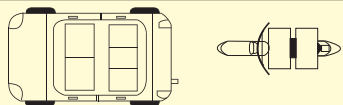
.....

.....

**OTROS IMPLICADOS**

Ocupante  Peatón  Otros: \_\_\_\_\_ Tlf. 1: \_\_\_\_\_ Tlf. 2: \_\_\_\_\_  
 Nombre y apellidos: \_\_\_\_\_ DNI: \_\_\_\_\_  
 Nacido el: \_\_\_\_/\_\_\_\_/\_\_\_\_ en \_\_\_\_\_, hijo de \_\_\_\_\_ y de \_\_\_\_\_  
 con domicilio en, \_\_\_\_\_, calle \_\_\_\_\_

Posición que ocupaba en el vehículo:



**LESIONES** No

**Pronóstico** Leve  Grave  Exitus

trasladado a: \_\_\_\_\_ por \_\_\_\_\_

Primera asistencia: \_\_\_\_\_

Lesiones que presenta: \_\_\_\_\_

**ALCOHOLEMIA**

Positiva  Medición 1º: \_\_\_\_\_ mg/l 2º \_\_\_\_\_ mg/l

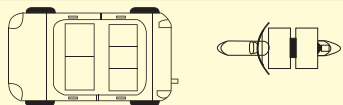
Negativa  No finaliza  Desobediencia  Sangre

**MANIFESTACIÓN**

Cinturón / Casco: Sí  No

Ocupante  Peatón  Otros: \_\_\_\_\_ Teléfono 1: \_\_\_\_\_ Teléfono 2: \_\_\_\_\_  
 Nombre y apellidos: \_\_\_\_\_ DNI: \_\_\_\_\_  
 Nacido el: \_\_\_\_/\_\_\_\_/\_\_\_\_ en \_\_\_\_\_, hijo de \_\_\_\_\_ y de \_\_\_\_\_  
 con domicilio en, \_\_\_\_\_, calle \_\_\_\_\_

Posición que ocupaba en el vehículo:



**LESIONES** No

**Pronóstico** Leve  Grave  Exitus

trasladado a: \_\_\_\_\_ por \_\_\_\_\_

Primera asistencia: \_\_\_\_\_

Lesiones que presenta: \_\_\_\_\_

**ALCOHOLEMIA**

Positiva  Medición 1º: \_\_\_\_\_ mg/l 2º \_\_\_\_\_ mg/l

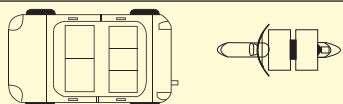
Negativa  No finaliza  Desobediencia  Sangre

**MANIFESTACIÓN**

Cinturón / Casco: Sí  No

Ocupante  Peatón  Otros: \_\_\_\_\_ Teléfono 1: \_\_\_\_\_ Teléfono 2: \_\_\_\_\_  
 Nombre y apellidos: \_\_\_\_\_ DNI: \_\_\_\_\_  
 Nacido el: \_\_\_\_/\_\_\_\_/\_\_\_\_ en \_\_\_\_\_, hijo de \_\_\_\_\_ y de \_\_\_\_\_  
 con domicilio en, \_\_\_\_\_, calle \_\_\_\_\_

Posición que ocupaba en el vehículo:



**LESIONES** No

**Pronóstico** Leve  Grave  Exitus

trasladado a: \_\_\_\_\_ por \_\_\_\_\_

Primera asistencia: \_\_\_\_\_

Lesiones que presenta: \_\_\_\_\_

**ALCOHOLEMIA**

Positiva  Medición 1º: \_\_\_\_\_ mg/l 2º \_\_\_\_\_ mg/l

Negativa  No finaliza  Desobediencia  Sangre

**MANIFESTACIÓN**

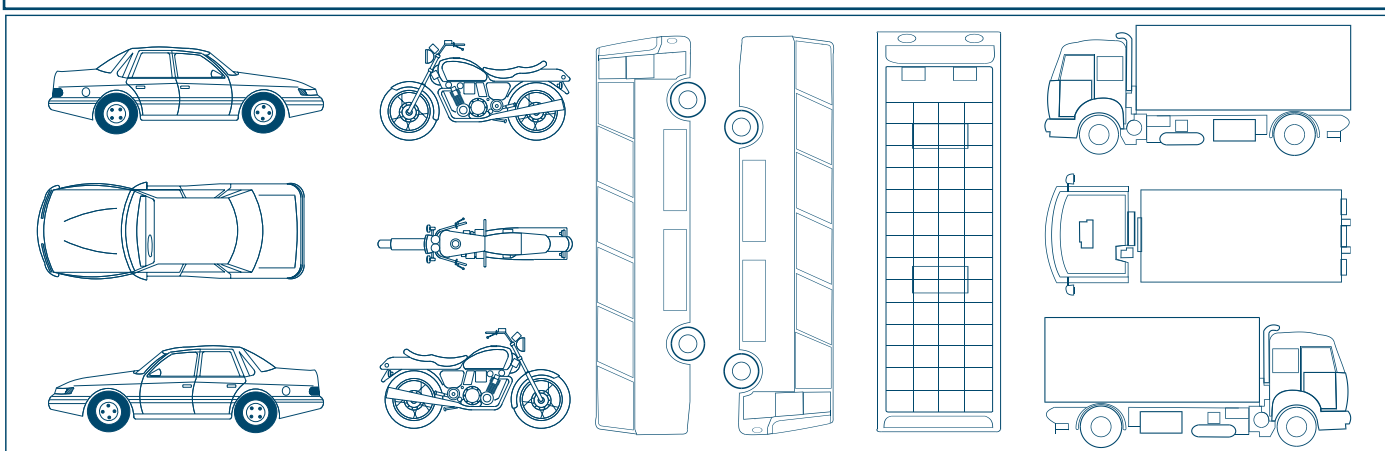
Cinturón / Casco: Sí  No



## INSPECCIÓN OCULAR

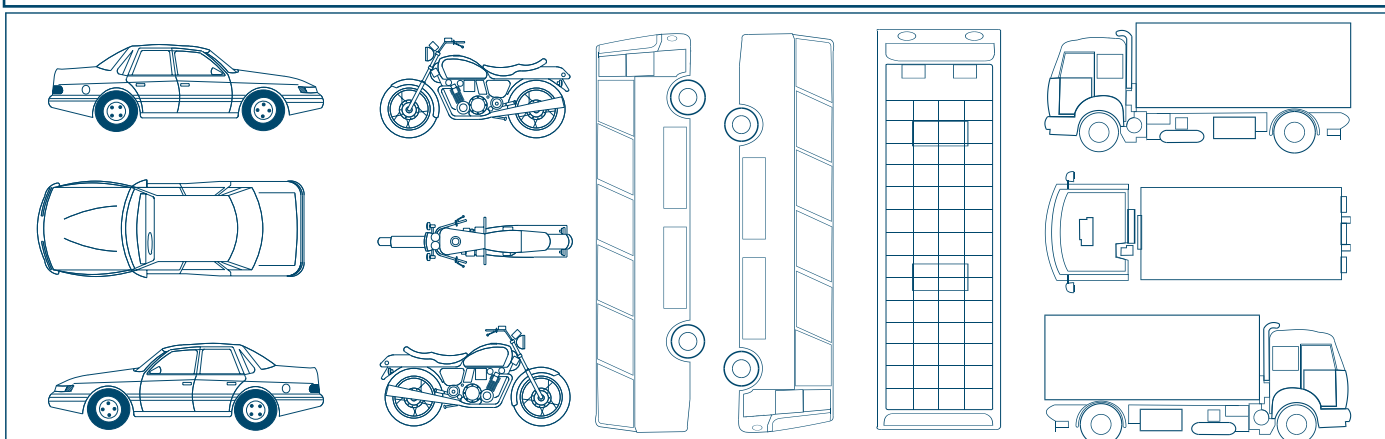
<b>UNIDAD</b> <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/>	Matrícula: _____	Color: _____
Palanca de velocidades en:	Daños materiales: _____ _____ _____ _____ _____ _____ _____	
Velocímetro en (Km/h):		
Cuentakilómetros (Km):		
Tacógrafo:		
Dirección:		
Frenos:		
Alumbrado:		
Conectado <input type="checkbox"/> Corto alc. <input type="checkbox"/> Antiniebla <input type="checkbox"/>		
Posición <input type="checkbox"/> Largo alc. <input type="checkbox"/> Intermit. <input type="checkbox"/>		
<b>Medidas de Seguridad Pasiva:</b> Cinturón: _____ Airbag: No lleva <input type="checkbox"/> Activado <input type="checkbox"/> No Activado <input type="checkbox"/>		

<b>Estado neumáticos</b> Bueno <input type="checkbox"/> Deteriorado <input type="checkbox"/> Dibujo desgastado <input type="checkbox"/> Endurecido / cuarteado <input type="checkbox"/>
_____



<b>UNIDAD</b> <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/>	Matrícula: _____	Color: _____
Palanca de velocidades en:	Daños materiales: _____ _____ _____ _____ _____ _____ _____	
Velocímetro en (Km/h):		
Cuentakilómetros (Km):		
Tacógrafo:		
Dirección:		
Frenos:		
Alumbrado:		
Conectado <input type="checkbox"/> Corto alc. <input type="checkbox"/> Antiniebla <input type="checkbox"/>		
Posición <input type="checkbox"/> Largo alc. <input type="checkbox"/> Intermit. <input type="checkbox"/>		
<b>Medidas de Seguridad Pasiva:</b> Cinturón: _____ Airbag: No lleva <input type="checkbox"/> Activado <input type="checkbox"/> No Activado <input type="checkbox"/>		

<b>Estado neumáticos</b> Bueno <input type="checkbox"/> Deteriorado <input type="checkbox"/> Dibujo desgastado <input type="checkbox"/> Endurecido / cuarteado <input type="checkbox"/>
_____



**LEYENDA:** Abollado / hundido ○ Raspado /// No existe o desprendido X Roto →

## ANNEX II Procedures implemented by Local Police of Castellón



# P12.01 TA victim monitoring

Review 01 23APRIL07

Review	Date	Reasons of the review
01	23APRIL07	Initial edition

	Reviewed by:	Approved by:
Officer Carlos	Intendant Andreu	Main intendant - Chief D. José Luís Carque Vera
Statistics and Road Safety Unit	Responsible of Quality (LP-CS)	Head of the Local Police of Castellón

## Contents

1. Objective
2. Field of application
3. Development
  - 3.1. Methodology
4. Responsibilities
5. Forms- records
6. Flowchart



Traffic Accidents (TA)  
Specific definitions. Order  
of the 18th February 1993 to modify  
the traffic accident statistics.

**Accident with victims:** with  
one or more fatality or casualty.

**Fatal accident:** with one or  
more fatality within the first 24  
hours.

**Damage-only accidents:**  
Without any fatality or casualty.

**Victim:** A person that passes  
away or is injured as a conse-  
quence of a traffic accident.

**Fatality:** A person that passes  
away, as a consequence of a  
traffic accident, immediately or  
within the following 30 days

**Casualty:** A person that did not  
pass away in a traffic accident  
and whose state needs an hospi-  
talization for more than 24  
hours.

**Serious casualty:** A person in-  
jured in a traffic accident and  
whose state needs an hospi-  
talization for more than 24  
hours.

**Slight casualty:** A person in-  
jured in a traffic accident but  
where the definition of serious  
casualty cannot be applied.

**Driver:** A person that drives a  
vehicle, rides draught animals  
or leads a flock

**Passenger:** A person that is  
not the driver and that is inside  
or upon a vehicle

**Pedestrian:** A person that,  
without being the driver, is  
walking on foot. Likewise, the  
following ones are considered  
as well: pedestrians pushing or  
pulling a baby buggy or wheel-  
chair or any other non motorized  
vehicle with small dimensions,  
the ones that are driving by foot  
a bicycle or a moped and the  
disabled persons in a motorized  
or not wheelchair, the persons  
that are circulating by roller  
skates or other similar devices  
on the roads or lands previ-  
ously described. Are also con-  
sidered as pedestrians the per-  
sons that are repairing the en-  
gine, changing the tyres or do-  
ing a similar action.

## 1. Objective

This procedure establishes the system to determine how to perform the monitoring of injuries produced by Traffic Accidents (TA) in serious victims at 30 days.

## 2. Field of application

This procedure is applied to every Traffic Accident (TA) with serious victims where the Local Police of CASTELLÓN LP\_CS have intervened. Serious victims are people injured in traffic accidents that require staying in the hospital more than 24 hours

## 3. Development

### 3.1 Methodology.

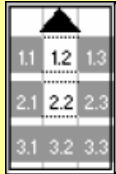
The first working day of the week there will be a review of the traffic accident reports elaborated by the Accident Reports and Accident Investigation Unit. After the review, some work must be done in order to:

- Set the severity of the victim according to the injuries aiming to know whether the injury is slight or serious. In case of being a slight injury, the monitoring form is not filled in.
- During the report review, all the reports of the TA with fatalities or serious casualties will be photocopied. The photocopied reports will be filed in the folders with the labels: "STATISTICS (year). FATAL ACCIDENTS" or in the folder "STATISTICS (year). SERIOUS ACCIDENTS". Both folders are located in the office of the Statistics and Road Safety Unity, on top of the shelf.
- Create a monitoring form for each TA fatal or serious victim. F01.P12 TA victim monitoring. The forms will be filed together with a copy of the report corresponding to the already mentioned folders.
- Once the existence of a TA serious casualty or fatality is confirmed, its corresponding TA position mark will be created in order to generate a map of Castellón with the fatal and serious accidents. The creation of the marks and of the TA map will be adjusted to what has been set in the action protocol "PA02.P12 Mapa de Accidentes con Víctimas Graves y Muertos" (Serious and Fatal Accident Map).
- **Only for the serious accidents:** note down a call (appointment) in the calendar of the MS Outlook software in the computer of the Statistics and Road Safety Unit (UeySV) with the following format: TA (ID number of the TA) TA VICTIM MONITORING. The call notes in the calendar will be put 15 and 30 days after the TA date. The first contact (15 days after the TA) is flexible and may be done with a margin of + - 7days in advance. If during the first contact, we learn that the TA victim had passed away, then the 30-days-after-the-accident call is cancelled from the calendar. If we learn that the TA victim has passed away by another source than the call, the validity of the information will have to be confirmed and written in the corresponding file of the victim monitoring.
- The call to the TA contact person extracted from the corresponding Report will be done by following the action protocol "PA01.P12 Llamada de seguimiento a víctimas por AT" (TA victim monitoring call).



## Numerical Identification of the position of the passengers in a passenger car.

According to the [CARE-Community Database on Accidents on the Roads](#) in Europe the numerical identification of the passengers of a vehicle is done according to the following figure.



The 1.1 being the driver and the 1.3 the front passenger (except for the right-driving wheel vehicle where the numerical identifications are inverted). The 2.1 would be the left back passenger, the 2.2 the centre back passenger and the 2.3 the right back passenger. The Row 3 is applicable for the minivans or the MPV cars and the 1.2 to the vehicles that have three front seats.

- In the cases where the victim or the contact does not have a phone the monitoring will be done with a personal visit to the reference address in the corresponding TA Report. The structure of the interview will be the same as the one developed in the action protocol "PA01.P12 Llamada de seguimiento a víctimas por AT" (TA victim monitoring call).
- Each month, a monitoring report will be written and addressed to the Intendant – Head of the Traffic Section and adjusted to the format of the form "F02.P12 Informe Mensual Seguimiento de Víctimas por AT" (Monthly Report TA Victim Monitoring).
- Migration of the reports and the monitoring forms: once the monitoring of each victim is finalized and in the case of fatality at 30 days, the monitoring form must be filed with its corresponding copy of the TA report in the folder: "STATISTICS (year). FATAL ACCIDENTS"

## 4. Responsibilities

Responsible for the TA reports making up: Accident Investigation and Report Unit.

Responsible for the other actions of the procedure: Officer of the Road Safety and Statistics Unit (USVyE).

## 5. Forms - records

Code and review	Name	Author	Approved	Access	Coding	File	Type*	Time folder
F01.P12	TA Victim monitoring	USVyE	Quality Committee	USVyE	Report number	Officer USVyE	D	3 years
F02.P12	Monthly Report TA Victim Monitoring.			USVyE	Report number		RI	3 years
Without a code	Monitoring call in MS Outlook			USVyE	By date of the call		RI	1 year

- D = Document, R = Record, RI = Computer Record



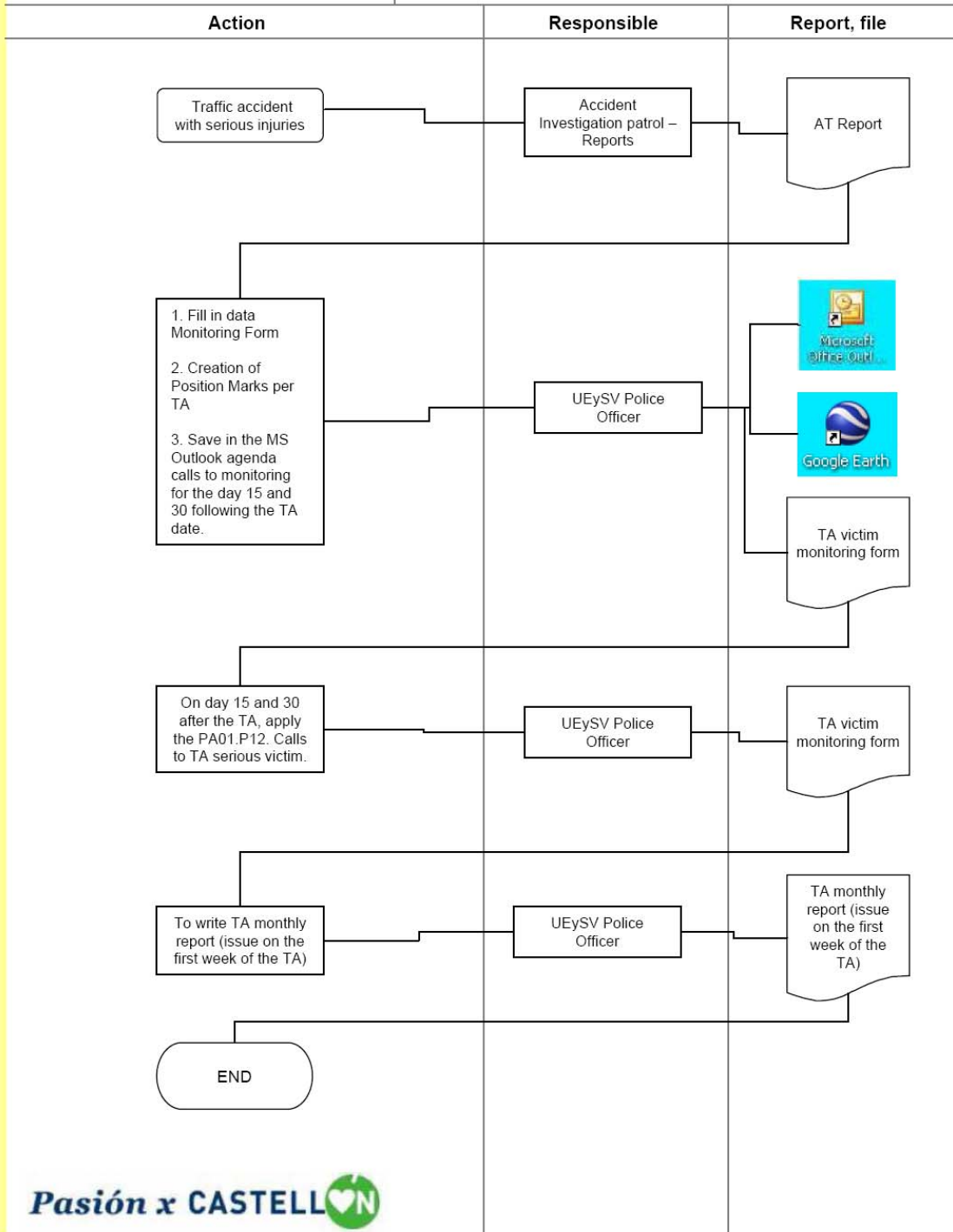
# P12.01 TA victim monitoring

Review 01 23APRIL07



**Policía Local de Castellón**  
Sección de Calidad y relaciones externas

## P12 Monitoring Victims to 30 days



**Pasión x CASTELLÓN** 





### SCOPE AND PURPOSE

To set the methodology to create serious or fatal traffic accident (TA) map in the reports developed by the Local Police of Castellón.

The **serious casualties** are considered to be the persons that, as a consequence of a TA, need to be hospitalized for more than 24 hours.

The **fatality** is considered to be every person that passes away, as a consequence of a TA, immediately or within the following 30 days (Order of the 18th February 1993 of the Ministry of Relations with the Courts and the Secretary of Government to modify the traffic accident statistics, annex I).

### THE MAP OF THE SERIOUS OR FATAL TA



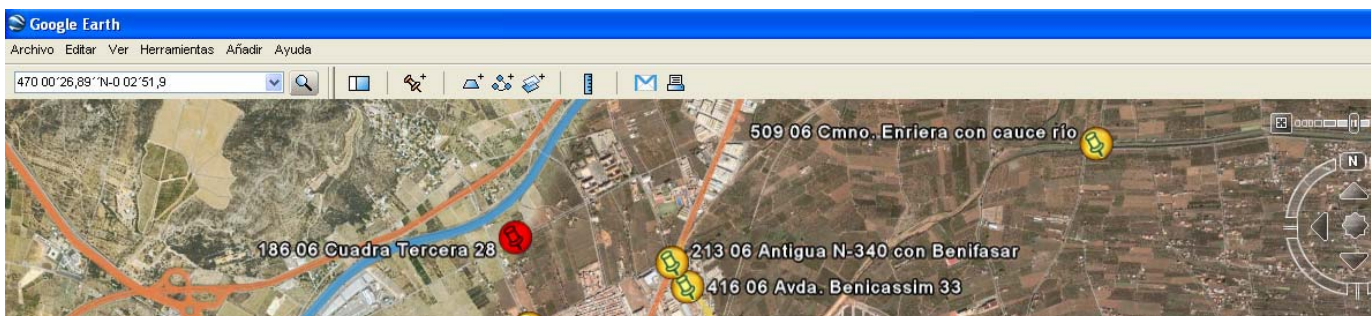
The map of the serious or fatal TA uses the free software Google Earth as support and is composed by position marks (files .kml). The KML, or Keyhole Markup Language is an XML grammar and a file format to create models and store geographic functions as dots, lines, images, polygons and models that will be shown in Google Earth and Google Maps. It is possible to use KML files to share places and information with other Google Earth and Google Maps users.

The choice of files .kml and the Google Earth support for the mapping of the serious and fatal traffic accident responds to information accessibility criterions. All the teams of the PL-Cs responsible persons that are going to use the mapping of serious or fatal TA have the software installed in their computer, this guarantees a later query and allows sending all the information electronically and its later storage in a hierarchical structure of files.



METHOD TO CREATE POSITION MARKS FROM THE TA.

For each serious or fatal TA, a position mark has to be created thanks to the button



In order to add a new position mark in any place of the viewfinder, here is what has to be done:

1º.- Open Google Earth by clicking on this icon in the desktop of the computer.



2º.- Place the viewfinder in order to see the place you want to mark in Castellón. The image can be brought nearer or moved away until the most appropriate level for the place you want to mark. This can be done in two ways: a) scrolling the scroll wheel with the index finger, b) using the navigation controls (see the box in the following page).

3º.- Mark the TA position: **The position mark must fit in with the conflict point (CP).** The conflict point must appear in the Report map.

- To assign a TA position mark, the tack icon in the toolbar at the top of the screen has to be clicked on.

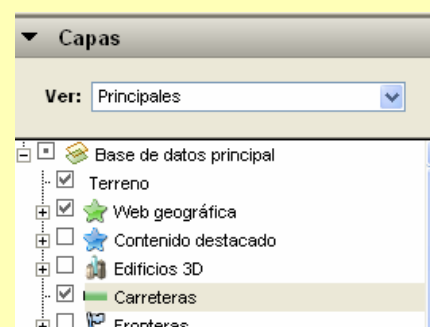


4º.- The dialogue box "New position mark" will open and a new position mark icon will appear in the centre of the viewfinder. Place the mark. For that, place the cursor on the position mark until it changes to a finger pointer and drag it to the selected place. The cursor will change to a hand icon meaning that the mark may be moved

5º.- Define the following properties for a new position mark for the TA:

- Name: Report number with the format "number year" e.g.: 798 07
- Description:
  - Date: dd/mm/yy
  - Time: hh.mm (24 h. format)
  - Place: Mention the name of the street. When the number or a clear reference is known, it is compulsory to add it.
  - N° of serious or fatal victims: Point out the number at 24 h. and 30 days, together with his traffic role, e.g.: "3 fatalities. Moped driver (in situ), moped passenger (day 15), pedestrian (day 26)"
  - TA circumstances: short description of the TA and other possible circumstances of interest for the local police Headquarters.

Useful advices for Google Earth



To activate / deactivate the layer of the Castellón streets, you just have to click on the verification box "Carreteras" that appears in the left margin of Google Earth.



To see / hide the lateral bar you just have to click on the "hide/show lateral bar" located in the tool bar.

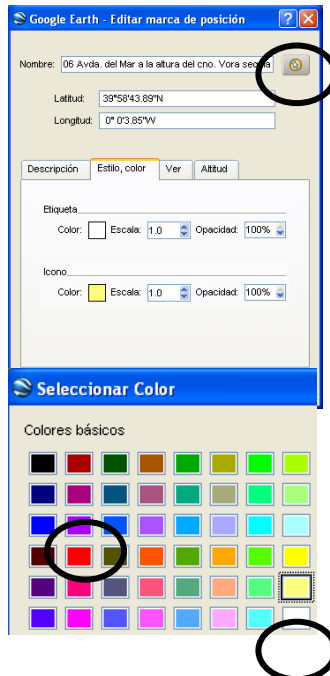


To see / hide the layers of the lateral bar, you just have to click on the triangle button next to the name.



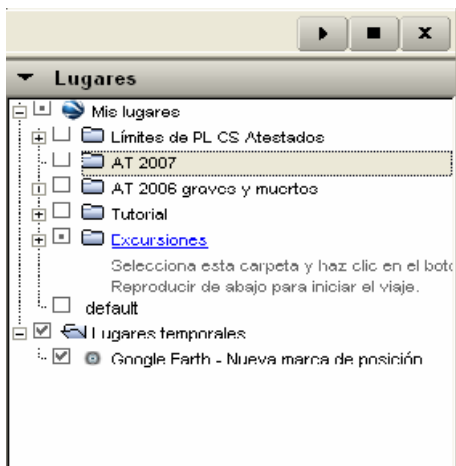


- ❑ Style, colour.: the identification of the icon colour for TA with **fatalities** at 24 h or at 30 days will be in **red**, for the **serious victims**, the colour of the icon will be **yellow**. See attached graph. The name labels will always be white.
- ❑ See: The content of this label does not have to be modified.
- ❑ Altitude: The content of this label does not have to be modified.
- ❑ Icon: You just have to use the icon that has been added, the scale will always be 1.0 and the opaqueness of 100%. Only the colour may vary according to what has been mentioned in the section "Style, colour". Icon type:



The TA position marks appear in the 3D viewfinder and as an entry in the selected folder. Once the mark has been saved, it will be possible to change its position and properties. For more information, look up the Edition of places and folders section.

### FILE OF THE TA POSITION MARKS



The TA position marks must be filed in the specific folder created in the lateral bar "Lugares". The identification of the folder follows the "TA year" criterion, for example, for the 2007 accidents, the folder will be called "TA 2007" (see left box).

**Before creating a new mark, you have to click in the folder where you have to file it, otherwise it will not be filed where it has to.**

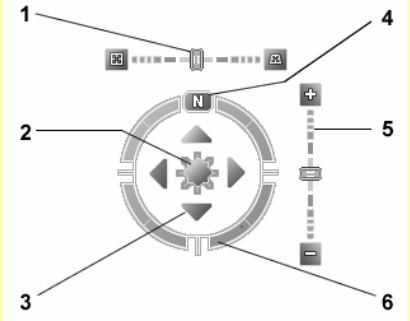
### SENDING OF THE POSITION MARKS

Each new TA position mark will be sent to the Traffic Intendant at the email [daniel.montañes@castello.es](mailto:daniel.montañes@castello.es).

### ANNUAL MAP OF TA.

During the first week of the year, a folder with all the TA position marks will be electronically sent to the address [daniel.montañes@castello.es](mailto:daniel.montañes@castello.es).

### Navigation controls of Google Earth



1. Use the incline slider to incline the field to a horizontal view. Move it to the left to have a zenithal view or to the right to have a horizontal view. Click on the buttons at the end of the slider to restore the inclination to a zenithal or horizontal view.
2. Use the joystick to move the central point of the view to the bottom, the top, the right or the left. Click in the centre, keep the mouse button pressed and move it to any direction. Before the meeting, do study in-depth the topic.
3. Click on the direction arrows to move the view in the direction you prefer.
4. Use the rapprochement slider to bring near or move away the image (the plus sign to bring it near and the minus sign to move it away). Click on the icons placed at the end of the slider to restore, bring near or move away the whole image.
5. Click and drag the navigation ring to rotate the view.



**RESPONSIBILITIES**

Officer of the Road Safety and Statistics Unit:

- Creation of the position marks per TA.
- Sending of the TA position marks to the Intendant of the Traffic Department.

**FORMS AND RECORDS**

Code and review	Name	Author	Approved	Access	Coding	File	Type*	Time folder
Without a code	Position mark	Officer USVyE		USVyE	Report number	Officer USVyE	RI	3 years
Without a code	Reading confirmation	Officer USVyE	DSC	USVyE	Date of email reception	Officer USVyE	RI	1 year

\* D = Document, R = Record, RI = Computer Record