



Lebanon National Training Workshop on the European Agreement concerning the Work of Crews of Vehicles Engaged in International Road Transport (AETR)

Beirut, 12-13 September 2017

Roots of the « Tachograph system »

Gilles baranger
AETR and Digital Tachograph Expert



Content of the presentation

- **History**
- **Targets of the Tachograph system**
- **The 3 pillars of the Tachograph system**
- **International regulations**
- **From Analogue to Digital Tachograph**



During years 1950-1960, road transport expansion in Europe imposed an in depth thinking in order to manage and monitor an activity which appeared as essential for economy.

Road traffic was raising up on non homogeneous roads networks and lead to a fast increase of road safety issues with more and more fatalities.



Road accidents are mainly due to:

- Road infrastructure
- Vehicles (maintenance, failures,...)
- Human errors (drivers)

In Europe, it was demonstrated that **90%** of road accidents are due to **Human errors**.

Overspeeding, loose of vehicle control,
Absence minded mainly due to fatigue

Then appeared the requirement for ***ruling driving and rest times***
per day and per week





Road transport has been a key issue for international trading.
In parallel, Transport undertakings are competitors and various national Regulations could grant competitive and unbalanced advantages to some of them:

Driving/working times may differ according to various national regulations
Drivers wages depend on economic standard of each country

Consequently, it was required to ***harmonize a regulation*** for transport undertakings engaged in international transport

Driving and rest times are the key issues of the regulation



Increasing number of road transport undertakings needed **employment of more and more drivers**, usually as employees.

For this new job category, working rules had to be adapted due to their **specific working conditions** of non-sedentary employees.

Road driver activities encompass:

- driving.
- Administrativ tasks (documents management)
- Logistics (loading, unloading)
- Availability (waiting for loading/unloading)



In order to ensure a social protection for drivers, ***driving and rest times*** are still key issues







Regulation on **driving and rest times** or other drivers activities shall be clearly specified and unified.

Similar to a production plant where workers record their working times on a dedicated clock system, a control device shall be implemented in each vehicle in order to fulfill requirements of the road transport business:

- Road safety
- Fair competition
- Drivers social protection



Tachograph shall record :

- Speed 
- Driven Distance 
- Driving times 
- Rest times
- Working times 
- Availability

Recording device automatically switch to « DRIVING »
as soon as vehicle moves



Quite often, **speed** records are checked rather than driving and rest times:
Speed records are available and readable by any controller without any specific tool

Speed may appear as an easier way of enforcing road safety

But the primary aim of the tachograph is checking driving and rest times!
In order to :

tackle fatigue
harmonise driving times
respect drivers activities

Road safety
Fair competition
Social protection



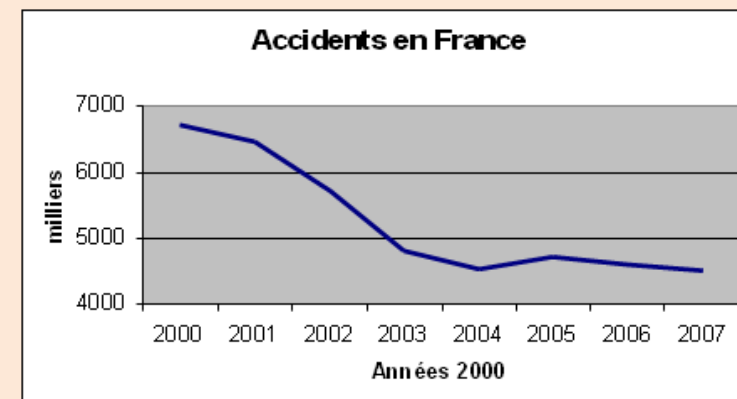
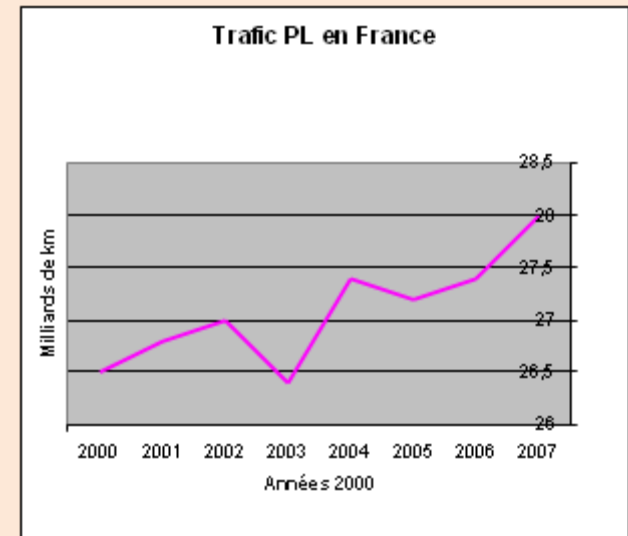
How tachograph may contribute to road safety?

Main causes of fatalities are:

- Road infrastructure
- Vehicles
- Speed
- Human errors
- Fatigue

Tachograph responds to 2 causes on 3 thanks to recording speed, driving and rest times

Example in France (source ONISR),
Observatoire National Interministériel de
Sécurité Routière





To fulfill the transport business requirements:

- Road safety
- Fair competition
- Drivers' social protection

Tachograph system lays down on 3 pillars:

-Recording unit



trace

-Controls



checks

-Regulation



legal basis



Tachograph: a recording unit

Analogue or Digital, the same data are recorded!

Implemented in Europe more than 40 years ago,

- Analogue tachograph still equip older vehicles
- Digital tachograph equip newly registered vehicles since:



1st May 2006 in the EU Member States



16th June 2010 in non-EU AETR Contracting Parties



Road side checks are directly possible thanks to Printout facilities. Advanced cheks are recommended on Digital Tachographs with dedicated tools

Company checks: aim is to check whether the Company applies the regulation and takes necessary measures (disciplinary, preventive,..) when needed

Such checks aim in promoting transport undertakings and Drivers responsibility

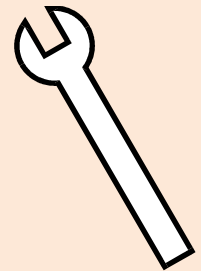
And create a « road safety culture »





-**Technical** requirements

- Recording unit Spécifications
- Recording sheets and cards Spécifications
- Installation and check procedures
- Definition of Security principles
- Type approval scheme



-**Social** requirements

- Drivers activities definitions
- Vehicles in scope of the regulation
- Tachograph data usage
- Tachograph data checks





Target is always the same !

- road safety
- fair competition
- drivers social protection

Records are always the same !

- speed
- distance
- driver's activities (driving, rest, work, availability)

Thanks to technology :

- data are more secured
- data processing by computers is possible
- drivers help facilities are possible, but non mandatory (optional)





Recording devices and tachograph cards:

Type approved by competent authorities

- Functional requirements
- Security requirements
- Interoperability

Installation and checks by approved workshops

- Installation conformity
- First functional and calibration assessment
- Periodical functional and calibration assessment (2 years)

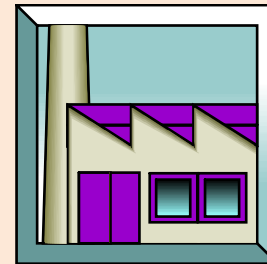




Approved workshops, Key point of the tachograph system:

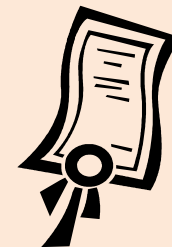
Workshops are approved by competent authorities according to specifications:

- Technicians and manager skill
- Dedicated training on technics and security
- Security procedures (confidentiality, probity)
- Installation, repair and check procedures
- Dedicated approved tools (measuring)
- Relevant premises



Workshop agreement is periodically renewed after an audit by competent authority

Unannounced audits shall strengthen system reliability











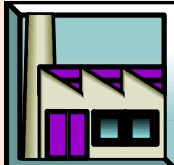


Each category of concerned people has to be trained:

- Drivers (regulation, usage, liability)
- Companies (regulation, liability)
- Workshops (technics, security, liability)
- Enforcers (regulation, usage)





TARGETS	Road safety 	Fair competition 	Drivers' social protection 
COMPONENTS « 3 pillars »	Regulation 	Recording unit 	Checks 
MEANS	Trainings 	Type approval, agreements 	Approved workshops 



Thank you !

