http://smartdrivingcar.com/T-M_Split-080116
Monday, August 1, 2016

Mobileye Ends Partnership With Tesla
M. Ramsey, July 26, " A key supplier of semiautonomous car technology ended a supply agreement with Tesla Motors Inc. following a high-profile traffic fatality in May involving one of the Silicon Valley company's electric vehicles.

Mobileye NV said it would no longer provide its computer chips and algorithms to Tesla after a current contract ends due to disagreements about how the technology was deployed. Mobileye provides core technology for Tesla's Autopilot system, which allows cars to drive themselves in limited conditions....Read more *Hmmm....Very interesting!! Alain*
And in ***Mobileye's Short Trip with Tesla*** : D. Gallagher, July 26, "In the emerging business of autonomous driving, even the safer road isn't free of potholes....In explaining its move, Mobileye suggested that protecting its reputation was at least part of the rationale. Below is what the company said on the call:... Read more *Hmmm....And why in all of this isn't there a discussion of Automated Emergency Braking (AEB) technology/suppliers?? There must be no consumer/regulatory appeal to AEB? Alain*

PRELIMINARY REPORT: HIGHWAY: HWY16FH018
NTSB, July 26, "...Tesla Model S, traveling eastbound on US Highway 27A ...struck and passed beneath a 2014 Freightliner Cascadia truck-tractor in combination with a 53-foot semitrailer. At the time of the collision, the combination vehicle was making a left turn from westbound US-27A across the two eastbound travel lanes....The Tesla struck the right side of the semitrailer, approximately 23 feet forward from the end of the trailer. Damage from the collision was consistent with a 90 degree angle of impact....Tesla system performance data downloaded from the car indicated that vehicle speed just prior to impact was 74 mph. System performance data also revealed that the driver was operating the car using the advanced driver assistance features Traffic-Aware Cruise Control and Autosteer lane keeping assistance. The car was also equipped with **automatic emergency braking** that is designed to automatically apply the brakes

to reduce the severity of or assist in avoiding frontal collisions. *Hmmm....Why the "hurdle" set so low for AEB? order mattters. It should be **avoid** frontal impact or reduce severity? Unfortunately, in this case it did neither.*
As a result of the crash, the rear hatch frame separated and folded back over the crushed rear window. Other than the roof structure—and the front bumper components that engaged the pole—the main body of the car was generally intact, as shown in figure 3. ...Read more
Hmmm... Could it be that the truck cut him off so aggressively that he felt that his best option was to slip underneath? Unfortunately, we'll never know. Alain

REUTERS **Tesla mulling two theories to explain 'Autopilot' crash: source**
D. Shepardson, Juky 29, "Tesla Motors Inc told U.S. Senate Commerce Committee staff it is considering two theories that may help explain what led to the May 7 fatal crash...at an hour-long briefing on Thursday that they were still trying to understand the "system failure" that led to the crash, the source said....Tesla is considering whether the radar and camera input for the vehicle's automatic emergency braking system **failed to detect the truck trailer** or the automatic braking system's radar may have detected the trailer but discounted this input as part of a design to "tune out" structures such as bridges to avoid triggering false braking, the source said. Tesla declined to discuss the meeting except to say it did not suggest that the vehicle's cameras nor radar "caused" the accident. It was not clear if other factors were under investigation....Read more *Hmmm....Why did it fail to detect the tractor pulling the trailer. Can't use the "Bridge" excuse there?! See Also NYT. Alain*

FORTUNE **Apple Car Might Have Already Been Delayed a Year**
D. Reisinger, July 21, "The Apple Car doesn't even technically exist, but it's already been delayed, according to a new report....

In a look at brothers working on Apple's AAPL 1.70% ultra-secret car project said to be called Project Titan, technology site The Information revealed that Apple has delayed its vehicle to 2021. Several rumors have claimed Apple had planned a 2020 launch for Apple Car, but The Information's sources say that the project has "run into challenges," and that a person who had worked on the Project Titan team confirmed Apple has pushed back its target launch from 2020 to 2021.... Read more *Hmmm....Interesting. Alain*

Bloomberg Technology **Mobileye Bears Folding as Tighter Grip Seen on Driverless Future**
G. Coppola, July 23, "Bearish bets against Mobileye NV are receding after the maker of chips and software for driverless cars said it would team up with BMW AG and Intel Corp. to deliver fully-autonomous cars by 2021.
Traders cut short interest on Mobileye, at one point the world's most-shorted software stock, to 17 percent of shares outstanding last week, near the lowest level since September. It peaked at

22 percent on June 6. The stock has doubled since hitting a low of $24.54 in February. Investors say Mobileye's pact with BMW shows it has gone beyond advanced driver-assistance systems to establish itself as a key partner for automakers as they step up investment in the race to achieve fully-autonomous driving. The stock's meteoric rise after a $1 billion initial public offering in 2014 made it a target for short sellers like Citron Research, which argued its valuation implied a quasi-monopoly status for what was essentially an early-to-the-game chipmaker with no moat to fend off competition.... Read more *Hmmm.. After a plunge holding flat within a band. Alain*

Mercedes pulls 'self-driving car' advert following concerns over Tesla's use of 'Autopilot'

F. Lambert, July 29, "When we reported on the European Public Road Authority supporting Tesla's Autopilot system following some concerns over the use of the word 'Autopilot' and the program being in 'beta' earlier this month, we also mentioned that a bigger concern could be Mercedes calling its E-Class with 'Drive-Pilot' a 'self-driving car' in an advert, which is significantly more misleading than Tesla's 'Autopilot'. Now we learn that the automaker is pulling the ad following Consumer Reports complaint to the FTC.

Mercedes' Drive Pilot, like Tesla's Autopilot, is a semi-autonomous driver assist system with features like active cruise control and automatic steering on highways, but the performance of the two systems are reportedly extremely different. Read more *Hmmm... I didn't save a copy of the commercial. If you have a copy, please forward. Other videos 1, 2, 3 Alain*

Letter to the FTC Chairwoman

July 27, "As advocates for motor vehicle safety and truth in the marketplace, we urge you to carefully scrutinize auto manufacturers' marketing related to automated technologies. Today, we ask for your attention to Mercedes-Benz's advertising for the 2017 E-Class, including a TV ad currently airing called "The Future," which markets automated features available in the 2017 EClass. This ad is likely to mislead a reasonable consumer by representing the E-Class as selfdriving when it is not. The Federal Trade Commission (FTC) should take enforcement action against companies that falsely, misleadingly, or unfairly claim that their cars drive autonomously when they actually require the steady control of a human driver. " Read more *Hmmm...While it is nice that CS et al. are making sure that MB and Tesla don't "over-promise" on Self-Driving, why aren't they also complaining about Automated Emergency Braking (AEB) systems that don't work. AEBs have been on the market for some years now and IIHS and other testing agencies have been demonstrating that many of these systems fail to work even at approach speeds of 12 mph. The foundation of any Self-driving is the AEB. In many ways, lane centering and intelligent cruise control are easy in comparison. AEB is intended to operate when weird things happen like a tractor trailer cutting you off.*

Moreover, why aren't these folks complaining about most advertising associated with automobiles. Too many ads misleadingly promote some superhuman aspect of the vehicle. The simple fact that the speedometer in my car displays values up to 160 mph yet relies upon me to

not be an idiot and not misuse this feature. The whole "love affair" with the automobile was built on deception.
And if they really want "truth in the marketplace" why don't they demand that speed limits be real speed limits and that stop signs really mean stop, look (and listen) and yield signs really mean yield. The current system has evolved into a game in which there is little respect for many aspects that leads to horrible driver behaviors. At least Self-driving systems can be designed to respect the true "rules of the road". If these folks really want public agencies to "take enforcement action" they could focus on regulations mandating automated systems that override driver's actions that place the car on a collision course should those actions continue. A driver's action should not be such that it leads to a collision; else, that driver should be taken out-of-the-loop and not able to regain control until the collision threat is not longer imminent. Even though, such defensive driving can not eliminate all collisions, as may well have been the case when the Tesla was cut off by the tractor-trailer, many/most of these collision regimes can be readily identified and averted. Anti-lock brakes don't allow me to lock my brakes; AEBs shouldn't permit me to collide with another car, pole, or other object and lane centering shouldn't allow me to run off the road or drift out of my lane. (and lane markings should be clearly identifiable by all human drivers under "all" conditions. If they are, then they'll be readily identifiable by automated sensors.) Alain

THE DRIVE **The War For Autonomous Driving: 2017 Mercedes-Benz E-Class VS. 2017 Tesla Model S**
A. Roy, July 27, "It's a DrivePilot vs. AutoPilot cage match fight to the death—potentially yours...." Read more *Hmmm... See also videos in **2017 Mercedes-Benz E-Class First Drive***

FINANCIAL TIMES **Uber to pour $500m into global mapping project**
L. Hoook, July 31, "Uber is preparing to pour $500m into an ambitious global mapping project as it seeks to wean itself off dependence on Google Maps and pave the way for driverless cars....By developing its own maps Uber could eventually reduce its reliance on Google Maps, which currently power the Uber app in most of the world....Last year Uber hired one of the world's leading digital mapping experts, Brian McClendon, who previously ran Google Maps and helped create Google Earth. Read more *Hmmm..., T. Russell Shields of NavTeQ got Phillips to spend more than $1B to create a global digital map that sold to Nokia for $8.1B . Who knows how much Google has spent to get to where they are but it may well be 10x $0.5B. So, Uber, be prepared to spend much more if you really intend to develop a competitive product. The digital attributes need to be pristine! Alain*

Authorizing Automated Vehicle Platooning: A Guide for State Legislators

M. Scribner, July 28, "... One problem ... is found in states' following-too-closely (FTC) statutes, which outlaw many automated vehicle platooning applications. Automated vehicle platooning —often referred to as road trains, connected automated vehicles, or cooperative automated vehicles—is one of the more promising potential functions of automated vehicle technology. Platooned automated vehicles can travel close together at highway speeds, mitigating traffic congestion, improving fuel economy, and increasing vehicle throughput without costly physical roadway capacity expansions.6this report is based upon an inventory of state laws as published rather than as interpreted by the courts...." Read more *Hmmm.... A very good and very useful synopsis of the state laws ; however, it is too early and unwise to advocate for platooning. The traveling public is not ready for it and we all need to get Automated Emergency Braking (AEB) system to work and deployed throughout the truck fleet before we promote platooning or self-driving. (and driverless is way after all of that). Without a proven and pervasive AEB, platooning is just a catastrophe waiting to happen. Plus the economic benefits of AEB probably outweigh the most optimistic fuel savings benefits of platooning. (It is nice that Peloton is finally recognizing the safety benefits of their system.) Alain*

Delphi launches autonomous car pilot in Singapore

M. Martinez, Aug 1, "Delphi Automotive PLC on Monday said it is launching a self-driving car pilot program in Singapore that will have driverless cars ferrying passengers and goods around a business park in the island nation by decade's end....Testing will last for three years, with operational service targeted by 2022. Delphi expects to announce later this year plans for similar testing in North America and Europe....Read more *Hmmm...OK, but what at once was "by 2018 s now "by 2022" Oh well! Alain*

Your Self-Driving-Car Manual

J. Reiner, July 30, " Congratulations on the purchase of your 2017 Golem Zombie, the world's most technologically advanced self-driving vehicle. This Quick Start manual will get you going to enjoy the best-in-class features that only the fully autonomous Golem Zombie provides, liberating you to enjoy the open road without the responsibilities of driving.

Unlike other self-driving vehicles, Golem's autopilot engineering and contextual cultural awareness sensors give you the power to select from 457 factory-programmed Driving Modes by simply engaging the LED dashboard menu through voice-activated commands. Some of the Zombie's popular Driving Modes include:..." Read more *Hmmm....Enjoy!!! Alain*

Some other thoughts that deserve your attention

Impact of Car2Go...

E. Martin, S. Shaheen, "...Car2go is currently the largest carsharing operator in the world, with a presence in nine countries and nearly 30 cities. It operates as a one-way instant access carsharing system within a pre-defined urban zone. Members can find an unoccupied parked vehicle, access it immediately, and use it to meet their local travel needs. As long as the vehicle is parked within the operating zone, users only pay for the time that they drive. As a one-way system, car2go provides flexibility to the user. There are questions as to whether one-way carsharing increases overall vehicle miles traveled (VMT), by facilitating easier oneway travel (and automotive commuting) within urban environments. The results of this study suggest that access to ubiquitous shared automobiles allows some residents to get rid of a car or avoid acquiring one altogether. These actions taken by a minority of members have VMT-reducing effects that are estimated to exceed the additional driving that does take place within car2go vehicles....

Most of the car2go population appears to use it for a small number of trips a year to satisfy incidental mobility needs. This activity generally adds to driving that is additional or would have otherwise occurred with another automobile. The analysis also found that a minority of the population uses car2go as a substitution for personal automobiles as they either sold personal vehicles owned or suppressed the acquisition of a private auto. The impacts of these changes are large relative to the overall increase in driving that is caused by car2go activity. Thus, the results of this analysis suggest that car2go is on net reducing vehicles that would be owned by households, reducing driving, and thus lowering GHG emissions. Read more

Hmmm....Interesting. Basically autonomousTaxis without the ride-sharing nor the empty car repositioning opportunity (for which no mention is made as to its implications on VMT) . Alain

On the More Technical Side

http://orfe.princeton.edu/~alaink/SmartDrivingCars/Papers/

Older stuff that I had missed:

Taking on Tesla: China's Jia Yueting aims to outmuscle Musk

N. Shirouzu, Apr 25, "Tomorrow's cars will be all-electric, self-driving, connected to high-speed communications networks ... and free. And probably Chinese....LeEco hopes to start producing a version of the LeSEE in a few years at a plant being built near Las Vegas by U.S. strategic partner Faraday Future, in which Jia has invested. Those cars would be sold in the United States

and China. Further ahead, the plan is to produce electric cars in China, too, probably through a partnership with BAIC Motor. Read more *Hmmm....Maybe??? The advertising environment in which they could immerse you could substantially reduce the price of a ride. Maybe!!! Alain*

C'mon Man! (These folks didn't get/read the memo)

Calendar of Upcoming Events:

Sept 15 & 16, 2016
Arlington, VA

Sept 19-21, 2016
Antwerp, Belgium