



Director:
Gary Howard
714-270-2614
jghoward@cox.net



Assistant Director:
Denis Hergenreter
714-746-4200
denis327@hotmail.com



Treasurer:
Tom Clark
Cell 714-892-3383
tom@tclarkcpa.com



Susan Hergenreter 714-814-7938 hergifamily@sbcglobal.net

# The Orange Peel July 2021

A monthly letter by the Orange County region of the Vintage Chevrolet Club of America (OCVCCA) by and for its members

Bill & Colleen Ingalls, Editors

You can find pictures of all our cars, car events and more on our web site <a href="www.ocvcca.org">www.ocvcca.org</a>. Mike Sherman, our website designer, up dates and maintains it. Thank you Mike.

You can now find us on Facebook. Under search, just type in "Orange County Vintage Chevrolet Club of America". There you can add your friends that are interested in Chevy's and write stories about your Chevies.

Business meetings are temporarily suspended.

### Chevy Lovers:

On Sunday May 16<sup>th</sup> we had our annual Picnic in the Park. It was a very cloudy, cold and then rainy day. Many of the members chose not to bring their cars out in the rain. Very disappointing but <u>completely</u> understandable. Still there were a lot of folks who challenged the day, drove their cars and had a great time and picnic. Thanks to Fred Waugaman and Greg Bunch for the outstanding job of preparing the food, even in the rain. Thanks to them both.

I still considered the picnic a great success since we had fun. Also, thanks also to our membership chair, Colleen Ingalls and her husband, Bill, we got 3 new members—Doug Gillespie who has a 1957 Bel Air 2 Dr. Hardtop, Michael Grassi who has a 1993 Corvette 40th Anniversary and Luke Redmann who has a 1956 150 4door sedan. So glad to welcome 3 new members.

We did have a problem, since we had so much food and few members who attended due to the rain, we had too much food left. So, what to do???? Freeze what we could and planned an in-person BBQ and meeting. The Irvine Water District still does not have their meeting rooms open so we arranged the use of the Westpark/ Culverdale clubhouse on June 8<sup>th</sup> at 5:30 PM. Not bragging but I think we had a good feast and meeting. It was so nice to see people in person and talk about all the good things coming for the rest of the year. Back to Normal---Yea!!!!!!!!!!!!

We are in the midst of planning for our Oct. 10 car show and will decide if we will have a July meeting, August meeting or just have a car show planning meeting in July. Susan and Dennis Hergenreter will meet with Jim Karras to make that determination. Till next month---Gary



Happy 4<sup>th</sup> of July from the Howard's!



Tour Chairman:
Ray Miller
714-307-7861
simerestorations@sbeglobal.net



Membership Chairman: Colleen Ingalls 323-816-0305 co.ingalls@gmail.com

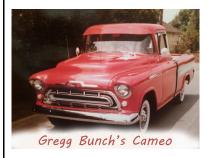


Photographer & Newsletter:
Bill & Colleen Ingalls
323-816-2597 or
323-816-0305
bi.ingalls@gmail.com
co.ingells@gmail.com

Webmaster:
Mike Sherman
714-389-0722
ms55@cox.net



Car Show Chairman:
Jim Karras
714-633-8210
jimkarras@aol.com



Picnic Chairman
Greg Bunch
gbunch1269@sbcglobal.net
714-318-9642



Car Show raffle Chairperson
Susan Hergenreter
714-728-7938
hergifamily@sbcglobal.net



Sandi Schroeder is "Miss Sunshine" Sandi Schroeder 949-837-7878 sandijimaloha@aol.com and writes:

I talked to Rose and she said that Jim is holding is own and doing okay and so is she.



Happy Birthday

Billie Bowland 07-07 Mark Krogh 07-13 Bernie Merry 07-19 James Miller 07-09 Helen Norman 07-09 Bob Schmahl 07-11

Jean Castle 08-13 Thomas Daugs 08-02 James Guinn 08-22 Jerry Montgomery 08-22 Sandi Schroeder 08-03 Dorothy Scully 08-05 Lee Tully 8-29



### Happy Anniversary

Larry & Jean Boberg 7-19 Doug & Roberta Gillespe 07-12

Mark & Arlene Fliegler 08-19 Jerry & Martha Montgomery 08-20 Richard & Sue Palazzo 08-15 Pat & Diana Welch 08-26

Memories remind me that nothing lasts forever.

You can be happy today and sad tomorrow.
Time is precious and should not be wasted.
Enjoy life and be thankful you are blessed.
Try not to count your days . . . . .
Make sure your days count.

Sandi Schroeder

#### Vendor that are recommenced by our members Gail's Speedometer Shop Orange Auto Upholstery Powder Paint 187 E 16th St. 1909 North Enterprise Street 2737 Gamsey Street Costa Mesa, CA 92627 Orange CA 92865 Santa Ana CA 92707-3340 (949)646-9120 (714) 279-2990 (714)979-2233 Contact is: Mike Recommenced by Gary Howard Recommenced by Gary Howard Recommenced by Tom Clark Moyer's Repair Service ABS Brakes Frank Moyer 233 N Lemon, Orange CA 92866 2040 So Grand (714)771-6549 Santa Ana, CA Recommenced by Gary Howard (714)549-8131 Recommenced by Gary Howard Recommenced by Bill Ingalls Saddleback Cars, Inc. Cars Incorporated 1951-1972 Chevy Restoration Parts 25701 Taladro Circle, Suite F OLD CAR RADIOS Sheet Metal, Interior, parts Mission Viejo, CA 92691 1000B S. Melrose St. Placentia, CA., C. E. "Chuck" Rusa (949) 855-6700 714-666-8660, 800-451-1955 Nick Papageorges www.carsinc.com Chuck Rosa, (714)734-7825 Recommenced by Tom Clark. "He Recommended by: 1676 Sunny Cove, Corona, CA has done my vehicles for 40 years" Bill Ingalls & Gary Howard 91720 Recommenced by Gary Howard D & P Classics - Classic Car & Orange County Sand Blasting Orange County Powder Coating **Hot Rod Restorations** Media blasting Steve Hurwitz Paul Gravley 976 N. Parker Street 17395 Mount Herman 415 West Walnut Fountain Valley, CA 902708-8102 Orange CA 92867 Gary Howard has had a lot of work done **Orange**, CA 92867 714-532-4610 there and they are top notch! Recommended by Ray Miller Recommended by Ray Miller Ed Maistro Don Geisen **Drivelines Incorporated**

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ONE MONTH ATATIME!



Good old analog days. Thank Goodness they are goon!



Gas pump from the past. They had the actual pump inside this case. WOW! And they smelled!

## Mark Wilk, a member of our OCVCCA who dose all of our graphic work, in great standing. Here's his brief history.



I was born in Connecticut to a second generation Irish mother (Cavanaugh) and Polish father (Wilk, of course!).

My family, including my older brother and sister. We moved to California in 1956 when I was the tender age of three years.

We traveled Route 66 in my father \$\&#39\$; \$1950 Chevrolet, pulling a small trailer. I must have been allergic to the stuffing in the upholstery because all

I remember is how sick I got from the smell of it.

After a short stay in the Thousand Oaks area, we moved to a little trailer park on PCH near Will Wright's Ice Cream parlor and across the street from Newport Bay. That great little trailer park, as well as the Ice Cream parlor has long since vanished into history; the sad reality of growing up in Orange County.

In 1960 my father 1939 ish salary at the Post Office started to increase at a more rapid rate, so we moved to a brand new tract home in Westminster. My folks' mortgage was \$70.00 a month, quite a burden for them, as I recall.

I went to Fountain Valley High School and then to Long Beach State for two years. After becoming disillusioned with being a Fine Art major, I decided to take a break and join the new VOLAR Army, which was the all-volunteer army that was implemented at the end of the Vietnam war. The recruiting officer congratulated me on my excellent placement test score and said I was qualified for any MOS (occupational specialty) that I wanted, except the only openings they had were for radio operator or small arms repair. So, I spent the first half of my tour of duty in Berlin, Germany as the armorer for an Infantry Company. When it was discovered that I had graphics skills, I was transferred to G-3 where I made maps for war games and did other graphics related projects. Who knew the army needed graphic artists?

Afterwards I went back to school at Golden West Junior College this time and obtained degrees in Drafting and Technical Illustration. With the exception of an occasional detour into real graphic design, I've been a Technical Illustrator for over twenty-five years. I worked at a number of good companies, including Printronix, the printer manufacturer, and Fisker the high end hybrid car company.

I joined OCVCCA in 1994 and became the Recorder in 2000, Tour Director in 2003 and Car Show Chairman in 2005 and 2006. I also had the pleasure of serving as club director in, maybe 2008.



Wilk family moving to California. 1950 Chevy. I'm the one my mother is holding.



Mark in the Army in Berlin. Photo taken at the Brandenburg Gate.

As far back as I can remember, I've always liked cars. As a child, I thought I'd like to be a car designer. I learned how to work on my first car, which was a 1958 Bel Air hardtop and with the help of my older brother, who was a bonafide car nut put it in good shape.



When I returned from Germany I had the Volkswagen the "bug" so I bought a Volkswagen Bug, and then a Squareback. I finally restored a 1963 Notchback. I thought I'd gotten it out of my system until I saw a green 1953 Club Coupe in my own neighborhood with a For Sale sign in the window. As they say, the rest is history.

Sadly we were informed June 7th by Mrs. Judy Yocky that Jerry Yocky has passed.

Jerry came to a meeting a couple of years ago when we were meeting at Citrus Cafe. He did not have an email so was keep up to date by the Ingalls' wonderful newsletter being mailed to his home. He had a 62 Corvette and 55 Chevy 150 2door. We send condolences to the family----Gary

I ran across this article about the comparison of the 2017 Chevy Bolt and the Tesla model S as I was review articles saved from the Hemmings publications over the years.

As we know, the Tesla Model S is a heavy luxury car while the Bolt is a runabout Hatchback. But, with that said, I was astonished by the fact that the two cars have so many similarities.

Now, this is a 2017 article so many facts have changed in 5 years.

The Chevrolet Bolt EV and Tesla Model S are the only battery-electric cars in existence with more than 200 miles of range on a charge. *Both the Bolt EV and Model S 60 have 60-kW-hr batteries*, and have the patriotic bonus of being made in the U.S.A. So, which one is better, given that you could have two Bolts (after federal tax credits) for the price of one Model S 60? Is the Tesla is actually worth the extra 30 large?

A quick side note: This Bolt versus Model S 60 comparison is the exhibition before a more appropriate title fight—Bolt versus Elon Musk's \$35,000 Tesla Model 3. Set to arrive in late 2017 with a price much closer to the Bolt's, the compact Model 3 currently has more than 400,000 reservation holders, promises to go at least 215 miles on a charge, and will be available with all the Tesla tech and mystique the company's fans love.

Until then, however, the only proper comparison to the just-arrived Bolt is the Model S 60, which was discontinued in 2015 and brought back temporarily in June to up-sell Model 3 reservation holders who could possibly swing payments on a \$66,000 luxury sedan.

Over two weeks of testing the 2017 Chevrolet Bolt Premier and Tesla Model S 60 back to back, things got a lot more complicated than expected.

### Charging Up

With 238 miles of EPA-rated range and 210 miles of range, respectively, the Bolt EV and Model S 60 are the first EV that could conceivably function as a family's lone car.

Despite the differences in price (\$41,780 for the Bolt and \$71,200 for the Model S 60, as equipped), size (compact vs. large), and overall shape (hatchback vs. sedan), a peek at the specs reveals just how similar the two cars are even if they aren't exactly direct competitors. Both the Bolt and Model S are built around their lithium-ion battery packs, the chassis essentially a battery pack skateboard forming the car's deck with the bodies built on top of them. Body-on-battery, if you will.



2016 Tesla Model S60 front-end



2017 Chevrolet Bolt EV Premier-front-end

The battery in our rear-drive single-motor Tesla Model S, nominally a 60-kW-hr battery with an EPA-rated range of 210 miles, is actually a 75-kW-hr battery limited to 60 kW-hr of charge. Model S 60 buyers can go online and plop down their Amex (in this scenario we imagine all Tesla owners are Platinum Card holders), and a \$9,000 over-the-air update later, their Model S 60 has turned into a Model S 75 with 234 miles of range. We actually did the 75-kW-hr update to "our" Model S 60 after the majority of this comparison test was executed just to see if it works as advertised. (It did.)

In the past most GM-built electric vehicles, including the EV1 and the Chevy Volt plug-in hybrid, have their batteries in a T-shape inside the cabin. Building on lessons learned with the Chevy Spark EV, where the battery pack was underneath the rear seats and cargo floor, the Bolt is GM's first EV where the car actually rides on top of the battery pack. The benefits of building an electric car like this, as Tesla learned between Roadster and Model S, are numerous. Putting the battery underneath the body allows for better interior packaging, a bigger battery, a lower center of gravity, and impressive structural rigidity. (The battery pack is good for 28 percent of the Bolt's structural rigidity.)

The Bolt's battery is the most energy-dense GM has ever put in an electric vehicle; it's rated for 60 kW-hr,. Built in South Korea by LG Chem, the Bolt's battery is, as Chevy puts it, of "nickel-rich lithium-ion chemistry." This allows the battery to operate at a more optimal higher temperature, and it gives the Bolt an impressive 238 miles of EPA-rated range.

Where the Bolt and Model S 60 differ mechanically is where each mounts its single electric motor—even if the principles behind the two are the same. Like the high-priced German luxury sedans it challenges, the Tesla opts for rear-drive, the power coming by way of a single rear-mounted AC-induction motor paired with a one-speed automatic. The ultra-efficient motor is good for 382 hp and 317 lb-ft of torque. All-wheel drive dual-motor versions are also available.

Like most other compact EVs, the Chevy Bolt goes with front-wheel drive. The Bolt's front-mounted motor is mated to a single-speed automatic, and it's good for 200 hp and 266 lb-ft of twist.

Despite the differences in the driven wheels, the driving experience of the Bolt and Tesla is remarkably similar.

The Tesla Model S 60 drives much like its higher-powered and longer-range brethren. It may not brutally assault your senses like a Ludicrous-enhanced Model S P90D will, but stomp on the accelerator from a standstill, and the Model S 60 hooks up and rockets forward like only an electric car can. Accelerating from 0 to 60 mph takes this Model S 5.0 seconds, the quarter mile falling in 13.6 seconds at 103.5 mph. Aided by regenerative braking and arguably the best-feeling brakes ever fit to an electric car, the Model S comes to a standstill from 60 mph in 121 feet. The Model S 60 may be slower than Tesla's high-performance models, but it can still hang on the figure eight, lapping the course in 26.5 seconds while averaging 0.70 g.

The Bolt is slower, but not by much. It'll do 0 to 60 mph in 6.3 seconds, and the Chevy will motor through the quarter mile in 14.9

seconds at 93.1 mph. Those are serious "hot hatch" numbers, on par with the VW GTI or Ford Focus ST. The Bolt does need more real estate than the Tesla to stop, with the 60–0-mph test taking 132 feet. Limited by low-rolling-resistance tires, the Bolt's figure-eight time is 27.6 seconds at a 0.64 g average.

With their test numbers in the books, we devised a 62-mile drive loop in the California high desert to test the Bolt and Model S to see if there would be some separation in how they perform in the real world. The loop was a roughly 50–25–25 split between highway driving (where EVs are traditionally at their worst), urban driving (where EVs are at their best), and rural back roads (because all cars, electric or otherwise, should be fun). In the interest of fairness, the cars would be driven as near identically as possible over the 84-degree day. Cruise control would be set to the same speed on the highway, air-conditioning would be run at 72 degrees, and the speed limit wasn't to be exceeded by more than 5 mph.



Shockingly enough, the Bolt and Model S perform similarly in the real world. The Tesla is a known quantity by now, but it continues to impress, especially on the highway. On the interstate, the Model S quickly zips up to speed, the wind noise and passing scenery the only real indicators you're on the move. The Tesla's cabin is serene on the highway; it's a place you can happily spend some time as you leapfrog from Supercharger to Supercharger. The semi-autonomous Autopilot system, which has gotten its share of bad press lately, is still a technological marvel, reducing the driver's workload by an order of magnitude and making the driving experience a stress-free affair while on a well-marked highway. Tesla drivers clearly aren't only buying into the electric car. They're buying into the technology, as well.

Off the freeway and in town, the Model S drives with the authority of a big luxury car as it silently stalks traffic. The Tesla's deceleration is particularly noteworthy—ease off the Tesla's throttle, and the Model S' regenerative brakes progressively kick in, meaning you can both in theory and in practice drive with just the accelerator pedal. Tapping the brake pedal nets you old-school mechanical braking if you need it.

The Model S 60 is pretty decent around corners, but the chassis is certainly missing the air suspension and stickier tires found on the higher-trim Model S. Without the air suspension—a \$2,500 option—the Model S' body rolls far more in corners, and our tester's 19-inch wheels shod in hard all-season tires struggle a bit for grip. Despite the steel suspension and four-season rubber, the Model S still sports good steering feel and elegant ride quality over the poor pavement on the rural sections of the drive loop.

As for the Chevrolet Bolt, there are effectively two ways you can drive it: like a traditional gas-powered car or like an EV. Knowing its budget-friendly sticker price would have the Bolt seeing more EV converts than ever before, GM baked two distinct driving modes into the Bolt's one-speed transmission.

"Drive" is designed to ease the owner's transition from piloting a gas vehicle to an electric one. This mode has the Bolt essentially mimicking the sensation of a car powered by an internal combustion engine—creeping forward from a stop with your foot off the brake and with a slight slowing when off the throttle when coasting at speed, mimicking the feeling one would get from a gasoline car. Drive isn't necessarily the most efficient way to drive an electric car, but it does help convert from carbons to electrons; it also makes for a nice highway setting, allowing the driver to coast with the flow of traffic. "Low" mode will feel immediately familiar to any driver with previous EV experience. Put the Bolt's transmission into Low, and you get all the heavy regenerative effects the Tesla has. Regeneration can be ramped up further by pulling the On Demand paddle on the left side of the steering wheel—modulating the throttle and pulling the paddle are generally enough to bring the Bolt to a complete stop while maximizing your energy savings without ever tapping the brake pedal. The Bolt engineers I've spoken to expect that most owners will spend the majority of their time in Low, so that's what I did.

The experience behind the wheel of the Bolt is shockingly zippy—when one might expect cheap econobox performance, given its size. The Bolt is a happy little scamp around town. Its small dimensions, torquey motor, and quick steering rack allow the Chevy to bolt (sorry) off the line and quickly plug holes in traffic. That fun-to-drive character really comes into its own when tearing down back country roads. Steering is progressive and linear with surprisingly good grip from the eco-oriented front tires, and there's little body roll to speak of. The Bolt feels more like a hot hatch than eco-friendly electric car. The Chevy is solid on the highway, too, which is a surprise considering its darty, back road—friendly nature. Merge onto on-ramps, and the Bolt accelerates quickly and has plenty of passing power on the move. Tire noise in the Bolt is pretty well controlled, but there is without a doubt a bit more wind noise in the Chevy than in the Tesla—chalk that one up to the Bolt's 0.32 coefficient of drag.

Whereas Tesla has conditioned many EV drivers to expect advanced semi-autonomous driving systems in their cars, the Bolt is currently lacking in this department. It has old-school cruise control paired with a lane keep assist system that'll ping-pong you between lane markers if it hasn't already given up. With autonomous Bolts currently running around San Francisco and Silicon Valley, GM has an Autopilot-rivaling self-driving suite in the works. But as the car sits today, the Bolt's system is severely lacking.

### **Nuts and Bolts**

There's a good reason for that inefficient drag coefficient: packaging. For better or worse, the Bolt's form follows its function as a people-moving city runabout. Whereas other eco-friendly cars such as the fourth-gen Toyota Prius feature aerodynamically-clean designs and drag coefficients to match (0.24 cD for the latest Prius), the Bolt's side gig as a future flagship of sorts for ride-sharing service Lyft dictate that it has to be capable of comfortably seating four adults, five in a pinch. Despite its subcompact size (it's about the size of a Honda Fit), putting the battery beneath the floor and pushing out the wheels to all four corners have allowed Chevy engineers to build a small hatchback with an impressive 95 cubic feet of passenger volume, 1 cubic foot more than the Tesla, which is 32 inches longer. That number translates to a spacious back seat with plenty of room for a 6-foot passenger to sit behind a 6-foot driver. Although the middle seat is hard and flat, the seats do at least fold, offering up a flat load floor, with additional storage available via the trunk's tiered setup. The only

major con in the Bolt's back seat is the surprisingly low roof rail—likely the lone concession to aerodynamics—which is just low enough that even our 5-foot-4 Detroit editor smacked her head getting into the back seat.

Aside from that minor quibble, the rest of the Bolt package is well thought out. Materials are all price-appropriate and look pulled straight from the cool pages of the Ikea catalog. The ultra-thin front seats are nonetheless comfortable and supportive. The driver gets a reconfigurable high-res 8.0-inch digital instrument cluster, which does a good job at giving the driver only the information needed, such as speed, battery state of charge, range, and power usage, without overwhelming with extraneous information—like what exactly the powertrain is doing at any given moment. All that extra nice-to-know info is found in a separate 10.2-inch touchscreen on the center stack. Unique to the Bolt, the upgraded MyLink infotainment system includes data on current energy usage, charge time, and more while also functioning as a Wi-Fi hot spot and handling Apple CarPlay duties.

The Tesla's cabin has aged rather well considering it hasn't really changed much since it made its debut in 2013—if it ain't broke, don't fix it. Hop into the Tesla's front seats, and it's pretty easy to see that Chevy took a lot of inspiration from the Model S, with the Tesla's big 17.0-inch iPad-like display mounted front and center and a big digital instrument cluster mounted in front of the driver. The instrument cluster might have a bit more of a learning curve to it than the Chevy's equivalent, but the Tesla's infotainment screen still remains among the best in the auto industry. The Model S' cabin is well appointed, although with the scratchy base black cloth seats and black wood trim, it doesn't feel as luxurious as moderately equipped Teslas. The Tesla's back seat package is quite good considering its rakish roofline; the seat cushion is low, so your knees are high, but there's plenty of legroom. Headroom is a bit tight, but that's the price one pays for the massive sunroof. Although the Tesla's passenger cabin is ever so slightly smaller than the Bolt's, its front and rear trunks do give it a 9-cubic-foot advantage in cargo capacity.

Our drive loop sought to answer the two biggest questions potential electric cars buyers have: "How far can I go, and how long does it take to charge?" We hoped to figure out how much energy both the Bolt and Model S used when driven exactly the same way in the same conditions and to see which vehicle used up less of its precious range. Our testers would deplete each car's battery to empty and plug them in to see how long it would take to charge. It wouldn't be a perfect science, but it would be a good anecdotal guideline to keep in mind before handing the keys over to our Real MPG team.

EPA-rated at 210 miles, the Tesla showed a dash readout of 212 miles' estimated range when I set off on the 62-mile loop. When I got back, the same readout indicated that I'd used 78 miles of that range and 21.5 of the battery's 60 kW-hr over the loop. It had 134 miles of range left. After a few hours spent running the Model S' battery down, we rolled into our local Supercharger—Tesla's bespoke 120 kW-hr fast-charger—with just 9 miles of range remaining, and we plugged in. Most Tesla owners will tell you they only charge up enough to get them to the next Supercharger, but sometimes that requires a full charge. How long did that take? One hour and six minutes. Not bad. According to the EPA, our Model S as equipped will fully charge in 10 hours from a 240-volt home charger or three hours and 45 minutes with the optional \$1,500 charger upgrade.

This type of (anecdotal) test is a bit tough on the Bolt because the range meter gives you three readouts: your optimal range (think tree-hugging hypermiling), your likely range (drive like a normal person), and your worst-case scenario range (drive like Jason Cammisa). We're going with the likely range for our purposes, with the Bolt reading 198 miles of range when we set off. When we got back to base, there were 138 miles of range remaining, indicating we'd used 60 miles of range and used 18.4 kW-hr of the battery's 60 available kW-hr. After draining the Bolt's battery, we plugged it into the fastest available Bolt-compatible charger, a 50 kW-hr Level 3 DC Fast Charger, with 6 miles of range left. Compared to the Tesla, the Bolt took a painfully slow two hours and 34 minutes to be good to go. On a slower 240-volt home charger, the EPA says the Bolt will take nine hours and 20 minutes to charge from empty.

Although it was demonstrative, it isn't scientific to trust the Bolt's and Model S' in-car displays to tell me how efficient the two cars were. So we had in-house EV expert (and testing director) Kim Reynolds and the Emissions Analytics team to take the next step. **You can (and should) read Kim's excellent breakdown**, but here's the rundown: The Bolt scores 118 mpg-e combined on the Real MPG cycle in Drive mode (1 mpg shy of the EPA figure) and 121 mpg-e in Low. Emissions Analytics estimates the Bolt's range to be 210 miles in Drive and 222 miles in Low; the former converts to 238 miles on the more liberal EPA cycle and the latter 246 miles. The Model S scores 101 mpg-e combined on the Real MPG cycle (2 better than the EPA figure), good for 200 miles of range.

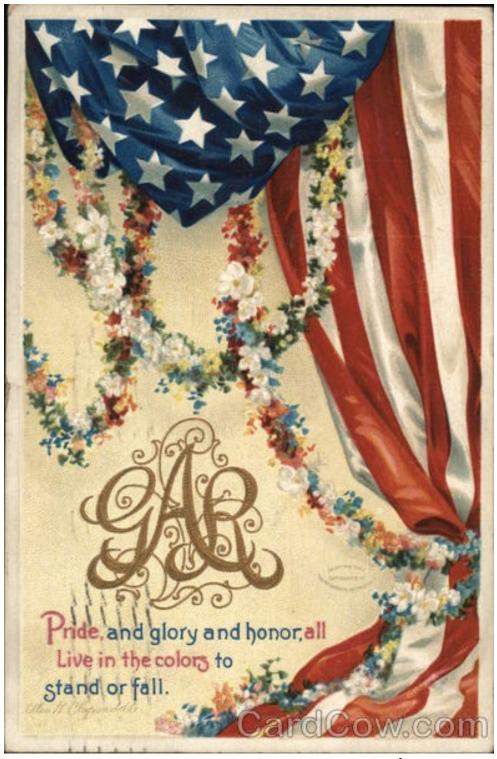
### **Powerage**

*Ultimately the Bolt and Model S 60 quite close in performance and function.* The Model S remains a technical tour de force three years after its release, with Tesla appearing to have no intention of letting its flagship car wither on the vine. If semi-self-driving technology and a proven quick-charging capability with worldwide infrastructure for long-distance travel is what you're after, there's really no choice but the Tesla.

Is that capability worth the \$30,000 premium over the Bolt? Well, if you *have* to travel long distances regularly, then possibly. But if simple fuel-free driving is what you're after, the Bolt's stellar real-world range can cover a week's worth of commuting plus errands for the average American without charging. Its 238 miles of range also easily enable intercity—but not interstate—travel. Toss the Bolt's puppy-dog driving dynamics into the mix with its stellar efficiency and family-friendly packaging, and the choice becomes pretty clear: the Chevrolet Bolt EV wins. More than any EV that's come before it, the Bolt makes emissions-free, environmentally friendly transportation a realistic proposition for millions of Americans. It has made the current crop of pricey, short-range electric cars from BMW, Nissan, and others utterly irrelevant.

Not that GM can rest on its laurels. The Model 3 will be here soon enough, and the rest of the auto industry is catching up quickly. For now, however, the Chevrolet Bolt EV earns the plaudit of being the first mover in affordable, long-distance electric mobility.

Jim Karras says: OCVCCA Car Show Committee Meeting is Saturday, July 3rd | 8:00 AM | Katella Grill, 1325 W Katella Ave, Orange, CA 92867. Lot to be discussed and decisions to be made. We need all the help we can get so try to be there.



We all hope that you have a spectacular 4th of July