



ZUFFENHAUSEN NEWS

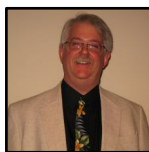
April 2021



**This issue dedicated to the memory of
Robert "Rink" Reinking**

Fueled by Volunteers!

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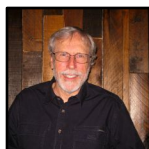
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ON THE COVER:
Rink's 1958 356
Photo by Jim Kendler

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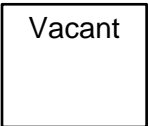
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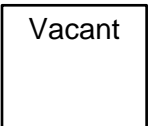
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President's Corner

By Pat Norris



Welcome to April.

We've had a few events - even a couple "in person" - and there's more planning for future events, too.

¥ There was another tour – well attended and a great drive - and there's about to be another!

¥ We held a safe and successful DE - we even have an instructor option and had a student on track.

¥ And, just announced, if you can't find a Snell 2020 helmet, you can still use your 2010 for the rest of 2021.

¥ Parade registration, phase 2 is open as of 4/7/2021.

¥ Treffen is just around the corner for those who got in.

And while we're getting close to the slow part of the year with the heat, there are a few events in AZ region, too.

We also have a new Social Media Chairperson, **Chris Grossklaus**, who will be working on our online presence. And **Kim McCollum** has agreed to take over the Charity Chair. Watch for more in the coming weeks and months and look for a chance to get involved.

Sadly, we're also noting the passing of long time SAR member Rink Reinking. I cannot say that I knew Rink well, but he always had a smile, a kind word, and was happy to speak with me any time I saw him.

There are many wonderful SAR folks with great stories of SAR and other PCA events. Going forward, I hope to meet at the events and get to know more of you. See you at the events, and online.

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Editor's Column

By Debi Norris

Our PCA-SAR family recently lost another fundamental member. Robert "Rink" Reinking was a pivotal member of the club for many years. I would like to dedicate this issue to his memory. I did not know Rink well, as by the time we moved to Tucson his health was declining. But, I did have the pleasure of talking to him a few times and hearing the many stories of the early years of PCA-SAR.

Please enjoy the remembrances of those who knew him well. If any of you have additional memories please send them to me to be included in a future issue.

newsletter@pcasar.org

THINK RINK



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Upcoming Events



Local events in **Bold**

April

03-04 - DE/TT at Chuckwalla - SDR

06 - Virtual Membership Meeting - check your email for details and a link

10 - Driving Tour - check your email for details

18 - Autocross at Autoclub Speedway - RSR

20 - Board Meeting

May

04 - Virtual Membership Meeting - check your email for details and a link

05-09 Treffen Scottsdale

18 - Board Meeting

June

08 - Virtual Membership Meeting - check your email for details and a link

22 - Board Meeting

July

06 - Virtual Membership Meeting - check your email for details and a link

11-17 - Porsche Parade - French Lick, Indiana

20 - Board Meeting

All events subject to cancellation or postponement due to COVID-19 restrictions. Check our website at pcasar.org for up-to-date information.

THINK RINK

By Barb Crowley - Lifetime Member

Our Porsche club family has lost another special SAR Lifetime Member. Robert M. Reinking passed away March 20, 2021. We all knew him as "Rink." He was part of the dynamic duo of "Rink and Pati" who together, with their passion for friends and Porsches, built the foundation for what this club has become.



We met Rink and Pati when we became SAR members 44 years ago. They were so warm and welcoming. We were the 'newbies' to the region and had missed a lot of the early 'crazy' days of SAR. (oh, the tales we've heard!) You can hear Rink and other 'old timer' SAR members reminisce about the early days of SAR by visiting our SAR website. (Click on "Member Videos" and scroll to "PCA-SAR 50 Years Later – Round Table 50th Anniversary."). The video shows a fun old photo of Rink judging during a "Glovebox Concours." He enjoyed telling stories about all the strange things found in those gloveboxes. There were many other stories.



Carol Cloutier recalled that there were some early unique competitive events. When 6-cylinder Porsches were becoming more popular and prevalent than the 4-cylinder 356s, Rink started having the "4s

vs 6s" races. The first race was a tricycle race on a slalom course set up in a parking lot on Mt. Lemmon! Another competition was a wheelbarrow race held during a picnic to the Chiricahua Mts. Someone would get in the wheelbarrow and be pushed around a slalom course. Knowing Rink, he probably got the Fastest Time of Day!!!

On one of the club's many tours to Pinetop, Dennis and I got a late start and joined the group at their lunch stop at the picnic grounds at Salt River Canyon. We had splurged and bought some sandwiches at a gourmet sandwich shop. Wow, would everyone be impressed! NOT! Much to our surprise, by the time we arrived ... there was the group by the river with Rink

and Pati sitting at a table with Pati's home baked bread, served on an exquisite platter filled with gourmet cheeses, fruit, and meat, with wine in crystal goblets artistically arranged on a fancy table cloth. And the clencher? Candelabra! Yep, that was Rink and Pati. Living the good life!

Rink and Pati were instrumental in establishing the *Zuffenhausen News* and Pati designed the original SAR logo. Together they planned or hosted many of the social events. Pati would organize the popular "Progressive Dinners" which were basically a Parade of Homes paired with gourmet food and a driving tour of Tucson. Rink would plan his famous Beer Tasting competitions and parties. Good times, good food and good friends prevailed whenever the Reinking team was involved.

Rink was SAR President from mid 1970 to mid '71.

Throughout the years, he held many board positions and was a presence at all club meetings ... often being the speaker. Rink wrote numerous informative and entertaining articles for the ZN. Even *Panorama* published two of his articles.



One of the articles he wrote was for the September 2011 ZN. In it he said: "*Pati actually owned a Porsche before I did and some say that's why I married her. She bought an Atrium Green Sunroof 356 coupe in 1963. After driving it myself a few times, I sold my red '62 Corvette and bought a red '59 356 Convertible D, one of only 1400 made. Unfortunately, that car died in the fog on a California freeway (otherwise I would still own it). Sometime later we would buy a brand new 1967 Irish green 912 Coupe. (which was Rink's daily driver for decades) Pati's car was deeded to me when I started talking about modifying the new 912, and she said, "If you leave the new car stock, you can do anything you like to my car." The car was soon repainted in Sunfire Yellow and the engine modified to 1800cc. And there have been a few other changes along the way.*"



Continued on next page.



Many of you still remember seeing that yellow 356 coupe at racetracks in and around Tucson and New Mexico. It was numbered '58' and under that number on the rear end, were the words, "THINK RINK." Driving events were a passion for Rink. He loved the track. I think that more than that, he really loved the camaraderie of the people. He became "promoter in chief" of SAR driving events ... in the newsletter, at meetings,

and on the website. He would be out at the track before dawn with the other organizers and volunteers. He especially enjoyed Drivers Education. How many of you in this region got 'hooked' because you caught some of his enthusiasm? So many of you benefitted from having Rink as your driving instructor. He became a certified driving instructor with PCA. He was a true teacher ... sharing knowledge and practicing patience.



Driving is not all that Rink taught. He had a successful research and teaching career in the field of neuroscience, teaching graduate students in two different labs. His research and training helped advance the careers of more than 50

neuroscientists during his 40-plus years at the University of Arizona. (from 1967-2016).

Rink and Pati loved Tucson and the desert. They were supporters of the Desert Museum and the Tohono Chul Botanical Garden near their home. They enjoyed watching the birds and wildlife in their back yard. Rink was an accomplished photographer specializing in the flora of desert. When he learned about the danger of buffelgrass to natural habitats, he started a buffelgrass mitigation program as an SAR community service project, which evolved into Adopt-a-Roadway.



Rink lost his soulmate, Pati on Christmas Day, 2016. He never was quite the same. We will miss Rink's wry grin, the twinkle in his eye, his stories, his laughter, and his hugs. We will miss his friendship. There is some solace in knowing that the dynamic duo of 'Rink and Pati' are together again.



**May the road rise up to meet you.
 May the wind be always at your back.
 May the sun shine warm upon your face;
 The rains fall soft upon your fields
 and until we meet again,
 May God hold you in the palm of His hand.**

(Old Irish verse)

Remembering Robert “Rink” Reinking

By Kathleen Kendler – Membership Chair

On Saturday, I received an e-mail from a dear friend informing me that my friend Rink had passed away at his home. He told his caregivers that his Dad, Mom and Pati were there but only he could see them.

It took me a few minutes to conceive that this kind soul had died. I put on a little James Taylor and the first song to play was “Carolina On My Mind.”

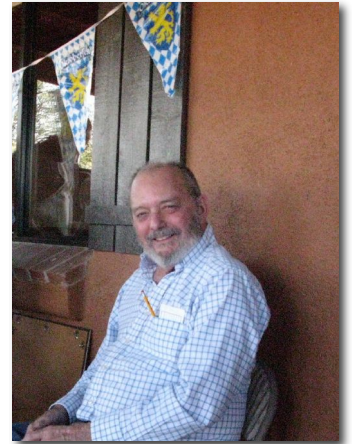
This gave me time to reflect on Jim’s and my friendship with the Reinkings. We have known them for about 15 years. My first memory of them was a trip to Vulture Mine in Wickenburg, AZ in 2006. It was an overnighter and we stayed in a rustic hotel with the mine tour scheduled for the next day. We were sitting at a couple of joined picnic tables, sharing a little of what everyone brought for snacks prior to our wonderful dinner. Many of the members on that trip had been



in the club for a while. Pati and her crew were in hostess mode, making everyone feel welcome.

That was Jim’s and my first event with the club and it was memorable. Jim later told me he heard Rink remark to someone that “they could be useful.” Rink was referring to getting us more involved in the club. Little did he know to “be careful for what you wish for...”

Over the years, Rink and Pati proved they were the most gracious couple I knew. Both went out of their way to get to know us ... and we, them. I will always treasure the times we broke bread, planned events, or just shot the bull. Rink’s track knowledge was superb. I always enjoyed our conversations of cars and driving techniques. I think he was the happiest at the track and when he was with Pati.



This past year has been hard on all of us but I know it was extremely difficult for Rink. He and the rest of us were not able to engage in club activities as we had prior to March 2020. I think the last time I was face to face with him was at our last public general meeting. He was happy and I remember his grin as I write this small tribute to him.

For those of you who never met or had the opportunity to interact with Rink and Pati, you have missed getting to know them and truly appreciate all they have done for the club. For those of you who have known them from the early ‘70s, I can only imagine your loss.



The Reinking SAR Accomplishments:

Rink: President: 1970-71, 1971, - (note: The first few years of our club, the positions were held from mid-year to the following mid-year)

Board Member at Large: 1974, 1975, 1979, 1987, 1991 and 2001

President’s Cup: 2009

Lifetime Members: prior to 2002 (records do not indicate what year) but Pati & Rink where in the fourth class of honorees.

Pati: Vice President: 1976

President: 1977 and 1985 (one of the first Porsche Club female presidents)

Board Member at Large: 1973, 1980 , 1982, 1989, 1990, 2003

More Memories of Rink Reinking

Many SAR members have expressed their remembrances about Rink when they heard about his passing. Some of the sentiments follow:

Bill Boynton, SAR Past President: "I have so many wonderful memories of time spent with Rink at club activities as well as in other social environments with friends from the club. I am sure there are others in the club with better memory than mine that can talk about all the events we did together. Rink was very helpful to me when we ran our driver's school and we were actually doing time trials on a closed course. The overnight trips and progressive dinners were great social events and Rink (and Pati) were always an important part in making things click. Sometimes it is also the little things that leave a lasting impression. I remember one time when I visited Rink at his house, and we were talking about his green 912 that he loved so much. He was ready to wash it, so he got in ... buckled up his seat belt, ... backed it out of the carport, drove it 20 feet away, shut off the engine and removed his seatbelt. I was so impressed, but still teased him about his seat belt use. He said it is a good habit, and of course he was right."

Larry and Rita Dennis: "We remember that our first event with SAR was a party held at the Reinking's. They were so warm and welcoming to us newcomers. So welcoming and friendly."

Terry Prince: "I feel such a void ... I wish I had been closer to Rink, I know I could have been, he was that kind of guy. Hopefully we can soon all be together to remember...."

Carol Cloutier: "Rink's mother gave him money for lunch and every Saturday he headed for the library and read every issue of National Geographic and Scientific American. His love of knowledge was never ending." "His last few years have not been easy but he is at peace now."

Greg Robertson: "OMG, I'm so sad. He was an amazing man."

Jeff Gamble: "Sad to see another Porsche friend pass."

Debi Norris: "He was such an important member of our club! I am sad that we have had so many of these articles (about losing SAR members) lately..."

Tom and Chris Murphy: "He is now at peace."

Bob and Beth Nurin: "Such sad news. I am sorry we did not know him before the illness took his memory."

Randy Hannon: "I've thought about Rink and happy hours often. May he Rest In Peace."

Vickie Channell: "So hard to believe they are both gone."

Dave and Barb Radmacher: On "...Saturday (the day Rink passed) Dave drove Rink's old '68 VW home after weeks of rehab for our Zoe's first car and our RV pull-behind. It was a shock to see the email with the sadness about Rink."

And a final remembrance from Terry Prince

When I bought my first Porsche and joined SAR back in 2000, Rink was there ... one of the "old hands." Rink and I were not really close friends, but we did get to spend a bit of time together. For the first few years, I was pretty deeply involved in helping to run our SAR autocross program, in those days at Pinal Airpark. Rink was a regular. He and Kurt Cramer would always show up to run Rink's little yellow 356 ... usually among the fastest of the day. They always came, Kurt's white van with Rink's 356 towed along behind. While showing up for a long day at the track was a challenge for most, Rink and Kurt were a team, organized, a well-oiled machine. They made it look easy ... as if they had done it a million times before (which they almost had).

Later, when the Club started to do DEs at Arroyo Seco in Deming, NM, Rink and I drove over and roomed together once or twice; he to be an instructor and I to be a track worker. The 356 wasn't set up for the bigger tracks and higher speeds, but he wanted to be there helping others. I remember our rides over and back, learning that he taught applied mathematics, and Rink almost bringing that down to a level that I could understand; for me, a guy who couldn't quite pass calculus. I also discovered that he was knowledgeable on carbon fiber. This was way before carbon was a thing, but Rink seemed to know all about it. I remember being impressed with his quiet, calm confidence; which I'm sure made him a great teacher and terrific driving instructor. I know he was always in demand by the drivers new to the track.

I'm sorry to have missed seeing him at SAR meetings over the last year. So, we will miss Rink, I already do. Farewell, friend.....

Tour to Roper Lake State Park

By John Duclos - Photos by Jim Kendler and Debi Norris

A near perfect day with clear skies and lots of sun, albeit with a stiff breeze, greeted 43 participants in 23 Porsches of varying vintages as we gathered on the morning of March 6th at the Denny's parking lot in the Southeast corner of Tucson for SAR's second tour of the season. After the socially distanced driver's meeting conducted by our Tour Chair, Kurt Fuerstenau, two groups of ten or so cars, plus a leader and sweep for each group, took off on a two hour scenic drive to Roper Lake State Park in Safford.

Starting out on I-10, we wound through the incredible rock formations near Dragoon. After exiting I-10, we made our way through the little community of Dragoon as we headed east and north, hooking up again with I-10 for a bit before we finally exited onto AZ191 north to Safford. While the road to Safford is largely devoid of any real twisties, the setting as you enter the Safford area is spectacular, with snow-capped mountains, including Mount Graham (with an elevation of more than 10,000 feet), immediately to the west. For those who don't know the Safford area, its main industry is mining, though the preponderance of horse trailers indicates a fair amount of ranching as well.

The entrance to Roper Lake State Park is a just a couple of blocks off AZ191 and was the perfect spot for a leisurely lunch and conversation, with plenty of Porsche parking available (as well as clean bathrooms for those of us with weak bladders. You know who you are). The temps were comfortable and the wind died down, so conditions were perfect for exploring the lake and surrounding area.

Many thanks for Kurt Fuerstenau for organizing and leading the tour. Looking forward to our next tour, on April 10, which will include checking out the murals in Benson. Can't wait.



Willkommen, Bonjour, Glad to Meet You

By Kathleen Kendler – Membership Chair

It is March 20th, 2021 as I finish this article to send off to the editor.

I was saddened to receive an e-mail from Connie Sherman on February 26th informing us of the loss of Tom.

As Barb Crowley has pointed out his numerous contributions to our club and Debi Norris has shared her fond memories, I, too, feel the need to let those of you that never met him or had the opportunity to get to know him see how special he was to us.

I met Tom and Connie in 2006 when Jim was researching the club for his next social interest group.

Tom was very outgoing and a perfect fit for the club's membership chair. Over the years, I watched him welcome many others into the club. Some would say his follow-up bordered on annoying but I saw it as his passion for the club and the cars. He didn't want anyone to miss out on the wonderful experience of being a member of the Southern Arizona Region.

Jim and I spent many wonderful conversations and events with Connie and Tom. We traveled in caravans to parades, escapes and events. Tom would go out of his way to make you feel welcome and part of the group. I worked closely with Tom in transitioning into the membership position. I remember telling Connie that when Tom was ready to step down as membership chair, I was willing to step up. It was not long after that conversation, that we began working on the transition. We had many review sessions - he had many boxes of documents, his from 2002 to 2015 and those before him.

I will greatly miss him and hope Connie will continue to participate in our events. Tom, may you have a 912 in heaven that never needs repair.

Our new member as of March 1st is: **Jeff Saelid**

I sent an e-mail out around March 13th asking for some basic information on our new members. I loved the responses to my questions. Some of you were so kind, you even wrote me a paragraph or two about yourselves, which I will share in the next few months. I took the liberty to edit some of the answers to leave room for discussion upon our first in-person meeting once COVID releases us and we can socialize again. As I stated in my e-mail, I can't get all of you in one article so I will be releasing a matrix with your answers in the upcoming issues. If you haven't provided me the info and still want to, I'll take it when you have the time. I hope all of you enjoy getting to know the new and not so new club members.

If you are getting too much mail from us and pressing delete is too much trouble, you can opt out of emails by logging into your national account. From the Home page after your log in, select the tab that has your log in id, then scroll down until you see the email setting portions. You can select the items you would like to opt out of. By placing a check in the box, you can opt out of specific type of e-mails or select them all.

If you are a spouse/associate member and are not receiving the newsletter, you can send me your e-mail or change your e-mail setting in the national database. I use that database to send out notices for the club.

I hope to see you in the near future. In the meantime, please stay safe and healthy.

I can be reached at membership@pcasar.org. I will try to assist you in accomplishing your membership needs.



Meet Some New Members

By Kathleen Kendler - Membership Chairperson

When I sent out a list of questions so we could get to know each other a little better, little did I know that some of you would be so generous as to send me pictures of your cars and very interesting and detailed answers to some of the questions. So, over the next few months I will expound on those questions for our members.

Steve and Barb Proctor are the proud owners of this Porsche Speedster.



What makes your car special?

Our Speedster was the model for the Harold James Cleworth poster (sometimes mis-identified as a '55 Speedster)



Have you personalized your car?

Our Speedster has period-correct GT modifications: Louvers on decklid, GT bumper trim, hand hammered GT aero mirror housing with contoured and beveled mirror, French fryer basket headlight grills, Technomagnesio wheels with spacers and bullnose studs, leather interior. Numbers matching engine is on a shelf in the garage with a hot-rod 1883cc 912 engine I built in the garage installed in the car. Hot cam, light flywheel, balanced, 90mm pistons, Dellorto carburetors and Sebring exhaust.

Dan Scheper also had an interesting answer to my question.

Why did you buy your Porsche (current one or first)?

My first Porsche was a '90 928GT, which is my favorite by far! I bought it from the original owner who got it as a wedding gift in Boston. He had his choice of any car he wanted and picked a new 928GT. He and his bride drove it across the US, got a few tickets on the way and had it serviced at Beverly Hills Porsche and put it on a boat to Maui. He was a trust fund baby and had the choice of any home he wanted. I met him through friends and ended up playing poker at his house every week and noticed the 928 in his garage covered with boxes of Christmas decorations and a flat tire. He had lost the keys and hadn't driven it in a year. It had 3800 miles on it! A year later he got a key sent from Germany but then the driver's side door glass would not go up. So, it sat in his garage for another year or so. Every time I saw him, I jokingly told him I'd be happy to tow it off for him so he'd have more room in his garage!

Then one month his trust fund check didn't come through and he owed everyone money. Out of the blue he called me asking if I was interested in the car! I told him I was just a working stiff and didn't have much money, but really loved the car. He sold me the car at an extremely good price and I've owned it ever since! We moved from Maui to Arizona and it now has 18,000 on it. The car is happy and so am I. The car **finally** gets to stretch its legs!

In my humble opinion the GT is the best 928 Porsche made. The gearing, suspension and engine put it ahead of even the GTS!

Author's Note: I must agree that the 924s, 928s and 968s are my (Kathleen Kendler's) favorites. Jim & I owned a 1994 968 for 7 years. I loved that car!

Continued on next page.

Continued from previous page.

Finally, **Thomas Laniewicz** sent this interesting bio:

I am a retired Air Force Dental Officer who has served most of my career overseas; Spain, Italy, and Ramstein, Germany. I joined PCA about 3 months ago, after purchasing a '02 Carrera C2 that I bought from an Audi/Porsche dealership as it was just traded on a new Porsche. It's what I was looking for - very good looks, runs very good, no leaks with over 100K miles, with no records or any paperwork, and as is. It is my 2nd Porsche, first was an '86SC. What a car! Throughout High School, College, Dental School and Military I have rebuilt Healeys, MGs, several Triumphs, Vettes and a few VWs. Now I have a Porsche that I will upgrade suspension, etc. with love. I'm originally from Erie, PA, schooled in Buffalo, NY, Dental School in Buffalo, NY. Between High School and Dental School I was a Tool and Die maker in Buffalo working in the aerospace industry, and also working in an orthodontic lab of two brother orthodontists developing what today are called invisiliners (removable appliances that straighten teeth with no

orthodontist visits). I am divorced, almost 80, look 50-55, and loved being stationed in Germany with all the exposure to Porsche clubs and racing tracks. I raced 10cc hydroplane race boats in High School where race engines had to be taken apart and reassembled after every race, then moved up to rebuilding under 900cc foreign car engines, especially VW engines. I was unable to touch my 911SC, except for minor maintenance. My '02 needs just the things I want to update, since nothing was ever replaced (only because nothing needed replacement). Would I upgrade to a newer Porsche? Tucson, AZ, is not exactly a place to drive a NEW Porsche. I excel in perfection and excellence in workmanship, everything I saw in Dr. Porsche's first Porsches (knowing his prevision of what he wanted to achieve). My first car that I purchased was a '77 Vette which I garaged for 6 years, and never drove. One day I just sold it, and bought this small shiny black metallic 911SC, which I never let dust settle on. I remember visiting it in the garage several times every night. Pride of Ownership.

More Information About Our New Members - Welcome!

Question	Steve Proctor	Dan Scheper	Laura Sullivan
1. When did you join PCA?	1977	Recently	January 2021
2. What Porsche(s) do you have?	2015 Boxster S 1958 Speedster	1871 911T 2001 996 Cabriolet 1990 928 GT	2021 718 Spyder
3. Where are you from?	Iowa	California and Maui	Tucson
4. Family/Significant Other?	Wife: Barbara	Wife: Kathy	Husband and Son
5. What is your work background/trade?	Retired: Defense/ Aerospace Industry	Retired: Cabinet Maker and Realtor	Retired
6. What makes your car special?	Boxster S: Sporth Chrono package, PDK, 20" Carrera Sport Wheels, low miles	All Porsches are special!	Limited edition gift from my husband!
7. Have you personalized your car?	None Planned	Air-cooled Turbo	None Planned
8. What is your favorite memory with a car?	See article on previous page		None Planned
9. Why did you buy your Porsche (current one of another?)	Sorry we can't keep them all!		Just got it
10. Do you have any special interests or hobbies?	First Porsche was a 1960 coupe. Had a hopped-up VW at the time and rode in my friend's 912. Game over!		I have wanted a Porsche my entire life!
	President of Arizona Outlaws	Years ago I got to drive a near-new SC and I was hooked!	Traveling and loving our 11 dogs

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2021 Porsche Taycan 4S & 2021 Taycan [rear-wheel drive only] Can I [Ever] Get There(s) From Here?

Part 4, The Final Report

By Damond Osterhus

This is the 4th and final article in my series on Porsche Taycans, and my attempt to determine whether or not they can get me from Tucson, AZ, to Henderson/Las Vegas, NV, safely, comfortably, and in a manner befitting driving a Porsche ... any time of the year. This includes those extremely hot months of June, July, August, and sometimes early September when the desert Southwest experiences daytime temperatures of 105F to 115F.

By safely, I mean not ever having to worry about running out of battery in the middle of the desert, possibly without any cell phone coverage. That is, not having to suffer “range anxiety” at any time during a long-distance trip while driving my Taycan.

Comfortably means that when it is 105-115F outside, I can operate the cabin air conditioning (AC) such that all passengers (front & rear) are kept at a comfortable 72-75F. Also, this means not having to charge the drive battery for over an hour in full sun when it is 105-115F while running the 1-hour limited cabin pre-cooling to keep the cabin temperature from getting over 80.

Finally, what I mean in a manner befitting a Porsche is that being able to drive the interstates and US highways at speeds up to 10 mph over the posted speed limits. That is, drive I-10 at 80-85 mph and US 95 at 70-75 mph. This also means definitely not having to drive these highways at 60-65 mph in order to conserve battery state of charge (SOC) in order to make it to a charging station or destination!

It is interesting to note the current Porsche.com/USA website states the following when looking at the Range tab showing the current EPA estimates for Taycans:

“Please make sure the range is adequate for your daily driving needs prior to finalizing your purchase.”

It follows this statement with the following comments about the EPA estimates:

“ The EPA range estimates enable comparison to other electric vehicles. These range estimates provide guidelines but the distance you can drive (range) varies considerably based on a number of factors, such as driving conditions and traffic situation (e.g., stop-and-go driving or highway driving), personal driving habits and selected driving mode (e.g., Sport), speed, topography, use of comfort/auxiliary equipment (e.g., air conditioning, heat, etc.), optional equipment (e.g., wheels and tires), weather, outside temperature, number of passengers, cargo, age of vehicle and the battery, battery capacity, and charging habits.”

I don't remember seeing these statements when I first started my investigation into what it would be like to own and operate a Taycan living here in Tucson. Particularly, when I wanted to drive it to Henderson/Las Vegas all times of the year. In light of my findings and analyses, this sounds like good advice for anyone wanting to own and operate an Electric Vehicle (EV) while living here in Tucson! It's essentially what I did over this past year.

THE FINAL REPORT - OVERVIEW

It has been a year since I published my first article in the Porsche Club of America, Southern Arizona Region (PCA-SAR) *Zuffenhausen News (ZN)* in April, 2020. Since then, I published follow-on articles in August, 2020, and December, 2020. Each article contained a lot of technical details about estimating range and impacts of charging of the Taycan 4S. I will not repeat that level of detail in this article.

Thankfully, you can go to the PCA-SAR member website, go to NEWSLETTER, and download/print any or all of them for additional reference.

NOTE: It is easiest to start by using the latest email for the latest edition of the *ZN*, logging in using the password, and going to the latest edition, then go to Members Only, NEWSLETTER to find the other editions.

In this article, I will focus on my findings on range for the Taycan 4S, and for the new 2021 Taycan (rear wheel drive only). These are as of March 24, 2021. I will also address the status of the charging station infrastructure here in the desert Southwest. This will focus on routes that would affect the drive I would like to take from Tucson to Henderson/Las Vegas or even San Diego in a Taycan or any EV. So, I will now include a short analysis of driving a Taycan from Tucson to San Diego. This was actually suggested by one of the PCA-SAR members. Plus, I will do a comparison of the Tesla's charging infrastructure as it relates to my Can I get There from Here? Tucson to Henderson/Las Vegas question.

In essence this article is my final and complete report to my fellow PCA-SAR members who are interested in possibly purchasing a Taycan or other EV. I want it to help satisfy that warning of Porsche to "*Please make sure the range is adequate for your daily driving needs prior to finalizing your purchase.*"

Why it is my final report? It is my final report because I have not been able to accurately determine the driving range of the Taycan 4S when driven in the 105F-115F temperatures we actually experience here in the desert Southwest. This has been despite over a year's research and analysis. I have looked into all aspects of the Taycan 4S, and contacted everyone I can think of in Porsche in an attempt to get them to reveal what they know about how the car behaves.

I tried to get any of the Porsche dealerships in the Phoenix and Tucson area to run a real-world test, but to no avail. I also contacted the folks at *Insight EVS* when I learned they were going to run the test that is mentioned below. They too weren't interested in doing a test that possibly couldn't blow away the EPA estimate. I even mentioned in one of my articles that I would pay the expenses for a PCA-SAR member owning a Taycan to do a test between Tucson and Phoenix. Again, no takers.

I have monitored the *TaycanForum.com* website to see if anyone had attempted to drive their Taycan here during the summer heat. Again, no one seems to have taken the risk. I will continue to see if anyone does take the chance.

I see that I will run into the same problem when trying to determine the driving range of the 2021 Taycan when it is driven in 105F-115F.

Frankly, at this point I am at the end of my rope.

So here goes my final report.

DRIVING RANGE AND CHARGING

The safety, comfortability, and the manner in which the car can be driven comes from a combination of an EV car's driving range under actual conditions, its ability to quickly recharge its drive batteries, and the location & capabilities of the charging

stations along the route between starting point and destination. I have delved as deeply as I could into as many aspects of both these items over the past year. Here's what I found, and what I could not accurately determine.

DRIVING RANGE.

Driving range is the vehicle's part of the safety, comfort, and the ability to drive a Taycan in a Porsche manner equation. As indicated in the Porsche.com/USA statements from above, there are many things that affect the driving range of the Taycan, and for that matter, any EV.

2020 Taycan 4S Driving Range. I tried to investigate as many of these "factors" as I could so as to determine the true driving range of the Taycan 4S under the following operating and environmental conditions. They are what I expected I would encounter while driving around the desert Southwest between Tucson and Henderson/Las Vegas in my Taycan 4S:

- Daytime Outside Temperatures: 105F-115F
- Taycan 4S configuration: 93.4 kWh Performance Plus Battery (optional), 19 in Taycan Aero wheels, no sunroof. The standard battery is 79.2 kWh.
- Automatic AC set for a cabin temperature, front and rear, 72F-75F; Not EC or EC Plus settings
- Driving Profile: Interstate and US highways at 75-85 mph, normal mode, not Sport mode, but possibly RANGE mode with top speed set at 85 mph; RANGE mode lowers the car for a more aerodynamic profile at high speeds.
- Regeneration Mode: Set to "Auto."
- State of Charge (SOC) Between Stopping Points: at starting point-100%; subsequent recharges-starting at no lower than 10% SOC and then charging up to 80% SOC.

The results of my investigation were that there is strong evidence that the true driving range of the 2020 Taycan 4S is higher than the EPA estimate of 203 miles. This is when driven in some but not all the conditions specified above.

For example, the *Inside EVs* website reported driving 258 miles on a 100% SOC down to 10% SOC test drive, and 278 miles on a 100% down to 0% SOC. This was done on a highway loop, outside temperature 84F with AC set at 74F, the cruise control set at 71mph, RANGE mode on, 22 in wheels. The AMCI Testing Certified Real-World Range testing paid for by Porsche resulted in a City/Highway range for the 2020 Taycan 4S of 271 miles. The settings were Normal mode, Regeneration Auto, AC set to ECO, driving profile speed up to 5 mph over speed limit on highways, 100% SOC down to limp home mode [about 5% SOC]. No outside temperature was reported.

Over this past year, I have constantly researched the TaycanForum.com threads as they related to driving range. Consistently all reports of driving ranges were above the 220-mile mark. None ever approached driving while it was much above 80F, and many were driven without AC or at speeds below 70 mph. Most had sunroofs; the initial production runs of Taycan 4S's all had sunroofs. And most came with the larger and less range efficient 20–22-inch wheels.

In an attempt to find an estimated range that approximated the conditions I listed above, I resorted to using range estimating programs provided on the Porsche.com website for non-US/non-Canadian locations. Since they do not have to use the US's EPA estimators, Porsche provides many of the non-US or Canada Porsche.com websites with the same estimating tool, the Porsche Range Indicator (PRI). The only difference between the PRIs for the different locations was the maximum outside temperature setting. Dubai's PRI (PRI-D) max outside temperature setting is 104F (40C). The China PRI and other countries only have a max outside temperature setting of 95F (35C). I chose to use the PRI-D estimator early on to see what the various estimates were at different settings. It was the one that had the highest max outside temperature. I have used it throughout my investigations on driving range.

The result of the PRI-D for the 2020 Taycan 4S was 229 miles for a starting SOC of 100%, with a 100% Interstate (aka Motorway*) driving profile, outside temperature 104F, AC setting of 72F, 19 in wheels, and 93.4 kWh Performance Plus battery. PRI-D had no setting for REGENERATION. For the 80% SOC after recharge, and also to adjust for the negative impact of 105F-115F outside temperatures, I derated the estimate 20% to 183 miles. This derating factor was consistent with some of the reported lessening of range due to extreme cold or extreme heat I found in the literature.

* Motorway speeds are assumed to be around 85 mph. Although in Dubai the maximum motorway speed limit is 130 mph! Speeds above 60-65 mph have an increasingly negative effect on range due to aerodynamic drag.

As noted above the negative impact of temperatures above 105F comes from not only the battery having to power the wheels, it also must keep the cabin cool, and has to also drive the heat-pump based battery cooling system. This battery temperature management system works to keep the battery temperature below 100F. It also works to heat up the battery to 85F when outside temperatures are below 50F.

Most importantly, I could NOT find anywhere where someone had driven a 2020 Taycan in 105F plus temperatures. None of the reported independent testing, nor individual drives occurred at temperatures above 95F. Consequently, I was not able to accurately determine the driving range of the 2020 Taycan 4S using published reports. I even emailed the Porsche manager of the Taycan battery system asking to know about happens when the outside temperatures are 105F (41C) to 115F (46C). I got no answer.

To resolve this problem, I even attempted to convince the Porsche dealerships in Scottsdale, Chandler, and Tucson to run a “real world” test during last summer’s heat. Something like a 219-mile-long driving test between the Electrify America’s (EA) DC Fast charging location in Buckeye, AZ, and the EA DC Fast charging station in Indio, CA. It would start at Buckeye with a 100% SOC. The Charge Point 50kW DC Fast charging station in Blythe CA, the halfway point that could act as an intermediate for a topping up of charge in order to safely make it to Indio. The return to Buckeye would be done with an 80% SOC to start with, and again the 50-kW charging station in Blythe could be used to add charge on the way back. Alas, there were no takers! Porsche won’t allow dealerships to do their own tests nor allow them to loan out cars to do such tests (officially).

So, for the Taycan 4S, over this past year I have been unable to get what I would call a real-world accurate estimate of its driving range when it is 105F-115F. It seemed like at best it was around 190–200 miles given my specified conditions.

2021 Taycan 4S Driving Range. The only change in the EPA’s estimated driving range for the 2021Taycan 4S was that its estimate was raised from 203 miles to 227 miles. Nothing was mechanically or electronically changed in the Taycan 4S to affect this increase. From the reports I read, the change was a negotiated change by Porsche and the EPA. It had to do with the data that supported the contention that a larger fraction of the Taycan 4Ss produced had the more efficient options, and therefore the estimated mileage for all the Taycan 4Ss was greater. It should be noted that Porsche in the past has agreed to any “derating adjustments” to the EPA estimate. So, it probably pushed for this upwards adjustment based on this data.

Porsche also had AMCI re-run the driving range tests for the 2021 Taycan 4S. This time the 4S got 272 miles with the 93.4 kWh Performance Plus battery, and 19 in. Aero Wheels. It used the same settings as it had used for the 2020 Taycan 4S. The result: a 1 mile longer driving range estimate.

I reran the PRI-D on March 22, 2021 using the same settings as I did for the 2020 Taycan 4S. The estimated driving range went from 229 miles for the 2020 Taycan 4S to 236 miles for the 2021 Taycan 4S. This certainly wasn’t as big a jump as the EPA estimate. Still derating it 20% for an 80% SOC vs 100% SOC, and 105F-115F, leaves it at around 190 miles.

Still without a real-world test/driving experience, I cannot accurately determine the driving range of a 2021 Taycan 4S accurately when it is 105F-115F.

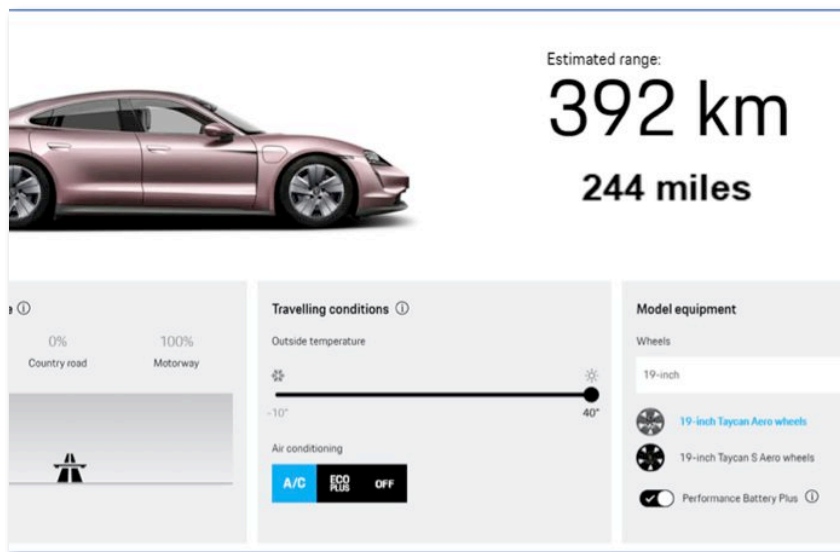
2021 Taycan (rear-wheel drive only) Driving Range. Although just new to the US, this model has been for sale in China for at least 6 months. The only difference from the 4S is that it is not a 4-wheel drive Taycan. The front electric motors are not there, and so it is lighter; 4742 lbs. vs 4953 lbs. for the 4S. And of course, it’s a little slower, only 5.1 seconds to 60 vs 3.8 seconds to 60 in the 4S (both using launch control).

So, what does the EPA say about its estimated range with the 93.4 kWh Performance Plus Battery (option): 225 miles. That’s 2 miles less than the 2021 Taycan 4S! Certainly not what I expected! Again, Porsche is agreeing to an EPA estimate that is known to be always lower than “reality.” Initial reports by folks actually driving the car are reporting as high as 280 miles on a 100%

SOC. Maybe it too will be adjusted for the 2022 Taycan?

Again, Porsche is showing in its Porsche.com/USA website the results of the AMCI testing of the Taycan. Testing that they paid for. The AMCI City/Highway Single Charge Range is 282 miles for a Taycan with the 93.4 kWh Performance Plus Battery option and 19 in. wheels. Again, the AMCI test is done from a 100% SOC down to a limp home mode SOC (probably less than 5%) using a combination of City and Highway driving. Highway driving does not exceed the highway speed limit by more than 5 mph. It was driven in Normal mode, HVAC set at ECO, and REGEN set at Auto. The outside temperature and AC settings are not mentioned in the AMCI report.

Also, I did run the PRI-D estimator for the new 2021 Taycan using the same settings as with the 2021 Taycan 4S: 100% Motorway, 104F (40C) outside temperature, AC on Auto set at 72F, 19 in Taycan Aero Wheels, and the 93.4 kWh Performance Plus Battery. This is what I got:



At this point there are only a few real-world drives/tests being reported on the 2021 Taycan, and if the past is any indicator, none will try to tackle the high temperature environments of our desert Southwest in June, July, August, and part of September. It's not what will make the news. Beating the EPA estimate is news!

That leaves me with the same uncertainty about how far can I drive a Taycan with the 93.4 kWh battery, safely, comfortably, and in a Porsche way, when it is 105F-115F?

CHARGING

There are 3 aspects to Taycan (or EV) charging that affect the ability to safely, and comfortably drive long distances requiring multiple charging stops. The first is the vehicle's ability to be charged quickly. The second is the capability of the charging station to reliably charge the vehicle quickly. The third has to do with the locations/distances between the reliable charging stations. The second and third combined are commonly referred to as the Charging Infrastructure.

Taycan 4S and Taycan Ability To Be Charged. Looking at the Taycan 4S and Taycan charging specs for the 93.4 kWh battery, here's what the Porsche Car Configurator, Technical Specifications says

- Charging time for alternating current (AC) with 9.6 kW (0 to up to 100%) - 9.5 hrs.
- Charging time for direct current (DC) with 50 kW (5 to 80%) - 93.0 min
- Charging time for DC with maximum charging power of 270 kW (5 up to 80%) – 22.5 min

As you can see, some charging isn't done "quickly."

It also needs to be noted that the DC charging times are not straight line. That is, the batteries resist being charged depending on their state of charge (SOC). As a result, when the SOC gets to 50% the charging rate that they can accept drops to about 2/3rds to 1/2 of the maximum rate that the charging station can deliver. And when the SOC hits 80%, the charging rate that the

batteries will accept is as low as ¼ to 1/3 the maximum station charging rate. This means that it takes longer for one to charge the battery between 50% to 80%, than it took to charge from 5% to 50%. The times shown above reflect the sum total of the time it takes.

Infrastructure - Charging Station Capabilities Looking at the ability to be charged bullets above, at least 3 different charging station capabilities are shown; the AC 9.6 kW, the DC 50 kW, and the DC 270 kW. In addition to these 3, there are charging stations that can deliver a maximum 100 kW and 150 kW. These 50 kW, 100 kW, 150 kW, and 270-350 kW DC charging stations are referred to as DC Fast charging stations. The AC 7-9 kW charging stations are also referred to as Level 2 charging stations. The Level 2 stations use the same 240-volt AC (VAC) power that upgraded home charging stations use.

The problem with Level 2 stations is that at temperatures above 105F, they cannot deliver enough juice to both charge the drive battery and drive the Taycan battery management system's heat pump-based battery cooling system. The DC Fast charger charging times are adversely affected by temperatures above 105F for the same reason, the battery needs cooling down to 95F. The lower the maximum kW rating of the charger, the longer the charging takes.

Additionally, Taycans have a pre-cooling feature that will also run the cabin air conditioning for up to 1 hour when the SOC is above 25%. This feature can keep the cabin temperature from hitting in the hundreds when it's 105F-115F. This is handy to use just before heading off after charging. This pre-cooling too extends the charging time.

Clearly from the charging times shown above, the most preferred charging stations are those that support the maximum charging rate of 270 kW. The next best is the DC Fast 150 kW capable chargers. Finally, the DC Fast 50 kW capable chargers, could be used to add miles en route to a more capable station.

Infrastructure – Charging Station Locations. The key drivers in determining what route(s) you plan to take are the location of capable, reliable/dependable, charging stations and a realistic estimate of the vehicle's driving range. Today, when wanting to go for a drive a distance that because of driving range involves multiple charging stops, planning is critical. Planning involves having a Plan A, a Plan B, and if possible, an on-the-fly Plan C.

A Place to Go for Some Taycan Information and Road Trip Planning Tips & Suggestions. For those of you who are still interested in buying a Taycan, or any EV for that matter, one of the best places to go for information is from folks who are now driving Taycans. This is the [TaycanForum.com](https://www.taycanforum.com) website. Become a member so you can also respond and ask questions. Just Google *TaycanForum.com* and sign up. It will be well worth the time.

There are responders from around the world. The forum also addresses problems and issues Taycan owners are having. By becoming a member, and signing up for the weekly notification of the most popular threads, you will find out things about the Taycan that are interesting, if not sometimes troubling. Almost like finding out about the IMS problem on some Porsche engines.

For some interesting commentary on planning a road trip in a Taycan, search under: Forums, General Categories, General Taycan Topics and the thread titled "How to Road Trip in a Taycan – Tips & Suggestions." This thread was started on March 2, 2021 by PanameraFrank.

My Can I Get There From Here? Tucson to Henderson/Las Vegas Example. The Charging Infrastructure, as it exists on March 24th, 2021, here in the desert Southwest isn't sufficient to support even the simple task of driving a Taycan or EV from Tucson to Henderson/Las Vegas along the shortest route. This commonly driven route of around 410-415 miles cannot be accomplished today due to the lack of reliable, capable charging stations along the Tucson-Wickenburg-Kingman-Henderson/Las Vegas route. In fact, there are no DC Fast charging stations after Phoenix until Henderson/Las Vegas. This is a leg of over 300 miles, and is hard to do in a Taycan that has only a 200 to 230 non-anxiety mile range. Especially, when it is 105F-115F along this route.

As mentioned in my previous articles, the only route that was even possible was the Tucson-Buckeye-Blythe-Henderson/Las

Vegas route. This is a 460 to 470-mile-long route. The real problem with this route was that there were no DC Fast charging stations along the 198–203-mile leg between Blythe and Henderson/Las Vegas. The problem was not at Buckeye since it was only 143 miles from Tucson, and had DC Fast 150 kW and 350 kW stations. The leg from Buckeye to Blythe was only 120 miles. However, when ZN published my second article in August, 2020 there was only one DC Fast 50 kW charging station in Blythe. It was not networked, which meant that there was not any way to learn if it was operable ahead of time, either before one left the starting point, or was in Buckeye.

A note about “networked” charging stations/locations. Here in the desert Southwest, there are predominantly 4 companies that have “chains” of charging locations with several charging stations at each location. They are Electrify America (EA), Charge Point, EV Connect and EV go. Each has a membership organization and associated cell phone apps by which members can find and determine the operability of their networked charging stations. They often use the cell phone apps to start up the charging station and collect the charges for the kilowatts dispensed or time the charger is used. Some do not even accept credit cards, but use the cell phone apps and membership to do all the billing. In addition to the network apps and websites, there is the PlugShare.com website that shows the locations and capabilities of all the networked charging stations. It is a useful planning tool.

For Porsches, folks purchasing Taycans get 30 minutes of charge time free per station for a few years at Electrify America locations. VW group is helping to fund the construction of the EA stations. The bad news about the EA stations has been that they were not known to be reliable. They often were not working or failed to deliver the advertised electricity.

By December, 2020, there were now a couple of additional DC Fast 50 kW charging stations in Blythe. This made for a less impossible trip to Henderson/Las Vegas. Still the 198-203-mile-long leg from Blythe to Henderson/Las Vegas without any DC Fast charging stations in a Taycan 4S when it was 105F-115F heat was a little risky for me. Also, in that heat, the charging time at a DC Fast 50 kW station could take a couple of hours. Even then the total trip time was estimated to be around 10.5-11 hours. Eight hours of the time for driving the 460-470 miles, and 2.5- 3.0 hours of charging.

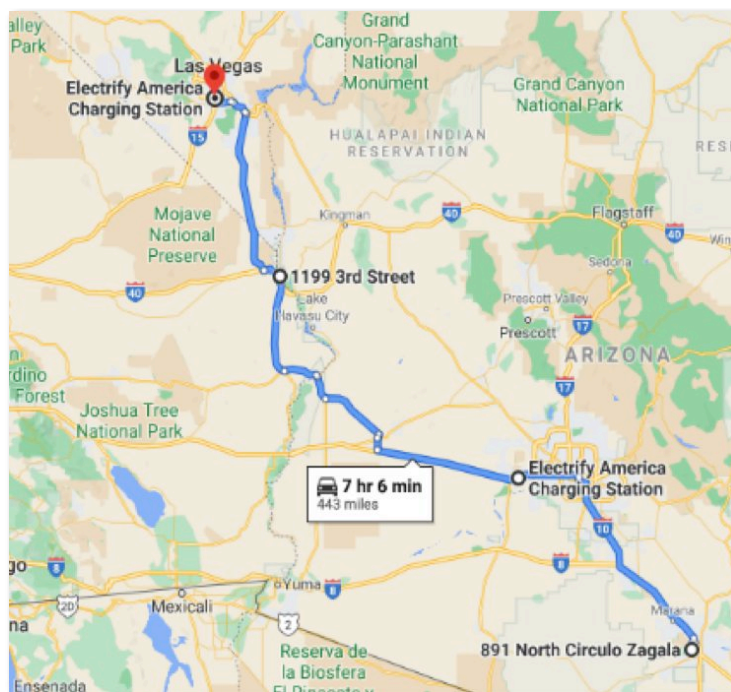
Current Infrastructure Improvements Tucson to Henderson/Las Vegas. So, has anything changed in the charging infrastructure since November 2020 when I last submitted my Part 3 article? Yes, but I am not sure it is enough.

Currently, there is now an EA charging location in Needles, CA. It has 5 ea 150 kW, and 2 ea 350 kW DC Fast charging stations.

That’s the good news. Now look at the revised Plan A route from Tucson to Henderson/Las Vegas.

- Leg 1, Tucson to the EA Charging Location, Buckeye, AZ via I-10; about 142 miles
- Leg 2, EA Charging Location, Buckeye, AZ to the EA Charging Location, Needles, CA via I-10, AZ-72 & AZ-95 to Parker, and AZ-62 & US-95 to Needles; 193 miles.
- Leg 3, EA Charging Location, Needles, CA to EA Charging Location, Las Vegas, NV; 108 miles
- Total miles: 443 miles; up to 20 miles shorter than through Blythe

Here’s the Google Map of the revised route:



Unfortunately, along Leg 2 there are no DC Fast charging stations. Again, this introduces some anxiety range risk when driven at 105F-115F. It would require charging to 100% in Buckeye to minimize this risk, but introduces some extended charging time over a charge to just 80% SOC when it's HOT. The only Plan B when driving the Leg 2 is to initially drive it at 60-65 mph to conserve battery SOC, and after determining that there is sufficient remaining SOC to make it easily to Las Vegas, increase the speed. This is one of the techniques shared on the TaycanForum.com website when the distance between charging stations is greater than 170 miles and/or the starting SOC is less than 80%.

Electrify America has said it would be building charging stations in Quartzite, AZ and now Kingman, AZ. The Quartzite site has been on the books for over 2 years now, and was last reported as being some chalk marks on the ground there. The pandemic has probably slowed a lot of progress on these sites.

A Look at Tucson to San Diego As promised, I also took a look at driving from Tucson to San Diego in a Taycan 4S or Taycan. It's a simple route, Tucson on I-10 then on I-8 to San Diego. The first step in the planning, is to hit up PlugShare to see where the DC Fast 50 kW or better charging locations are and Google Maps to get the mileages between.

Here's the route with stops at every DC Fast Charging station all the way into downtown San Diego:

- Tucson to EA Charging Station, Dateland, AZ (4 ea 350 kW, 3 ea 150 kW): 170 miles
- EA Charging Station, Dateland, AZ to EA Charging Station, Yuma, AZ (7 ea 50 kW): 66.3 miles
- EA Charging Station, Yuma, AZ to EA Charging Station, El Centro, CA (6 ea 50 kW, 1 ea 150 kW): 61 miles
- EA Charging Station, El Centro, CA to EA Charging Station, El Cajon, CA (7 ea 150 kW, 4 ea 350 kW): 94 miles
- EA Charging Station, El Cajon, CA to Cal Trans EvGo Charging Station, San Diego, CA (6 ea 100 kW); 20 miles
- Total miles: 412 miles

The charging infrastructure along this route pretty much supports a low 200-mile driving range vehicle. The temperatures are unlikely to be in the 105F-115F after El Centro, CA. However, between El Centro (elevation 39 ft.) and El Cajon (elevation 433 ft.) there is a 4000 ft. mountain range to drive over that will reduce driving range even though REGEN can help recover some lost SOC on the way down to El Cajon.

One could drive to Dateland, charge up to 90% SOC from 20% SOC at a 350 kW station in less than 30 minutes even in the heat. Then drive to El Centro and charge up at the 150 kW station as long as it takes to get to about 60-65% SOC, then hit up the 350 kW station in El Cajon for a 80% SOC charge. While in downtown San Diego, the Cal Trans EVGo location can be used to charge up there. Also, there are numerous other 50 kW charging stations around the San Diego area.

The trip back is about the same. Charging to 100% at El Cajon would make it possible to get to Yuma, but topping up at El Centro to 80% SOC using the 150 kW would make it possible to drive to Dateland without having to charge up in Yuma except for extra anxiety prevention insurance. In the summer, it will be hot in Yuma and the 50 kW chargers may not charge a lot in 30 minutes. Charging up to 80-90% in Dateland will make it possible to make it back to Tucson. However, for Plan B, there is an EA Charging Station in Casa Grande with 2 ea 350 kW, 3 ea 150 kW, and 2 ea 50 kW charging stations, plus there is an EA Charging Station location in the Premium Outlets Mall along I-10 near Marana that has 14ea 150 kW and 4 ea 350 kW charging stations.

As one can see, there are enough stations along the way such that it is unlikely that all stations in a location would be out, however there is a chance that the charging time would get extended if one had to resort to using the 50 kW charging stations when it was 105F-115F.

Clearly Tucson to San Diego is doable in a 2020 or 2021 Taycan 4S or a 2021 Taycan with the 93.4 kWh Performance Plus Battery.

Comparison with the Tesla Infrastructure. I took a look at the Tesla Supercharger station infrastructure just to see how it compared with what is available to other EVs including the Porsche Taycans. I specifically looked at my Can I Get There from Here? Tucson to Henderson/Las Vegas trip. Here's what I found relative to the locations and capabilities of Tesla

Superstations:

- Tucson to Culver's, Casa Grande; 6 ea Superchargers: about 65 miles
- Culver's, Casa Grande to Deer Valley Town Center, Phoenix; 16 Superchargers: 67 miles
- Deer Valley Town Center, Phoenix to Wickenburg Town Hall, Wickenburg; 8 Superchargers: 51 miles
- Wickenburg Town Hall, Wickenburg to Carl's Jr, Kingman AZ; 6 Superchargers: 130 miles
- Carl's Jr, Kingman AZ to Town Square, Las Vegas NV; 10 Superchargers: 104 miles
- Town Square, Las Vegas NV to Friends House, Henderson NV: 9 miles
- Total Miles: 424 miles

Essentially, if I were in a regular Tesla Model 3 with an EPA range of 254 miles, I could easily drive from Tucson to Henderson/Las Vegas using the short route via Phoenix, Wickenburg, and Kingman. It would take about 2 charging stops. I could not determine the amount of time it would take to charge when it would be 105F-115F.

I also looked at the longer Tucson-Buckeye-Quartzite-Needles-Las Vegas/Henderson route. Tesla also has sufficient Supercharger locations along that route to prevent any range anxiety. In general, it looks like Elon Musk has already laid in the necessary charging infrastructure to support Tesla cars.

Unfortunately, non-Tesla cars cannot use Tesla Supercharger stations, only Teslas can charge at the Supercharger stations. Also, Tesla cars can use an adaptor that costs about \$600 that will allow them to use the non-Tesla charging stations. There are no adaptors available for non-Tesla cars to use the Tesla Supercharger stations.

CONCLUSIONS AND DECISIONS.

It looks like I will have to wait until the number of charging station locations here in the desert Southwest provides the necessary coverage to support what looks like the low 200-mile driving ranges of Porsche Taycan vehicles. The ideal situation for Taycans and all EVs would be to have DC Fast 150 kW or greater charging stations no more than 75 miles apart along Interstates and US highways. Even a 100-mile distance would provide for most EVs a safe, and comfortable situation, where Taycans in particular could be confidently driven like Porsches. Thankfully, this seems to now be in the long-term plan for the US. Hopefully, I won't be too old when it comes about!

It would also help to know what one could reasonably expect the Taycan 4S or Taycan driving range to be when it is 105F-115F. I am now at a loss as to how to more accurately determine those driving ranges. My hope is that someone will do a real-world test drive under those temperature conditions and determine what they are. Summer is coming, maybe there will be someone who will attempt to drive in our summer heat and be able to report on how it came out.

Certainly, for me knowing that the driving ranges for the Taycan 4S or Taycan is over 250 miles when it is 105F-115F would accelerate my decision to acquire one of these wonderful cars.





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