

# *Aerion AS2 Market Analysis*

**AERION CORPORATION**

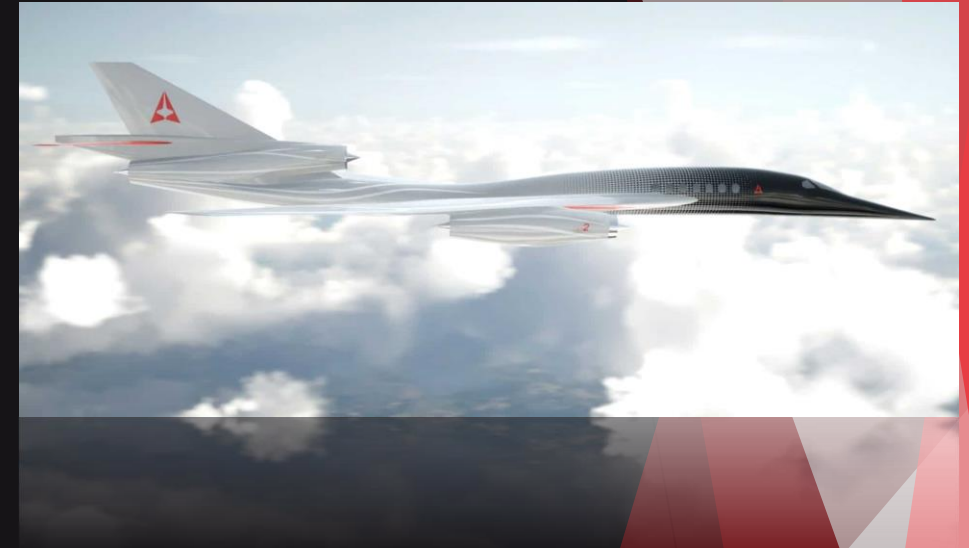


**Analyst: David Aughinbaugh II**

# *Aerion AS2 Market Analysis*

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*Note: This presentation was developed using public information. David is currently not affiliated with Aerion Corporation.*

# *Aerion Corporation*

## **STATUS**

- ▶ February 2019 – Boeing Partnership.
- ▶ 2019 – Team formation and supplier selection.
- ▶ April 2020 – Moved global headquarters to Melbourne, FL – Aerion Park.
- ▶ July 2020 - Jetex partnership – jet terminals.
- ▶ 2020 – Continued supplier selections.
- ▶ Nov 2020 – Wind tunnel validation.
- ▶ December 2020 - Avion Pacific marketing & sales agreement - \$6.5B Backlog.
- ▶ December 2020 – Construction planning – Aerion Park.
- ▶ February 2020 – NASA Partnership expansion – high speed point to point travel.
- ▶ Company is accelerating development for a targeted 2023 production start.





# *Aerion AS2 Business Jet*

## *STATUS*

- ▶ 2019 – 2021 continuous supplier selection announcements.
- ▶ September 2020 – Wind tunnel testing in France.
- ▶ November 2020 – Wind tunnel testing complete.
- ▶ Development accelerating toward 2023 initial production.
- ▶ November 2020 - Spire Global collaboration for weather.
- ▶ December 2020 – Order backlog increased to \$6.5 B.
- ▶ On target for 2023 production start and 2025 launch.



# *Aerion AS2 Business Jet*

## *MARKET OUTLOOK - COMPANY*

- ▶ Aerion projects sales of 300 jets for 10 years.
- ▶ Average of 30 jets per year.
- ▶ \$36 Billion in revenue at reported \$120M per aircraft.
- ▶ \$40 Billion in overall revenue.
- ▶ Estimated \$4 Billion to develop AS2 jet.

*\$4B DEV COSTS*



*300 JETS*

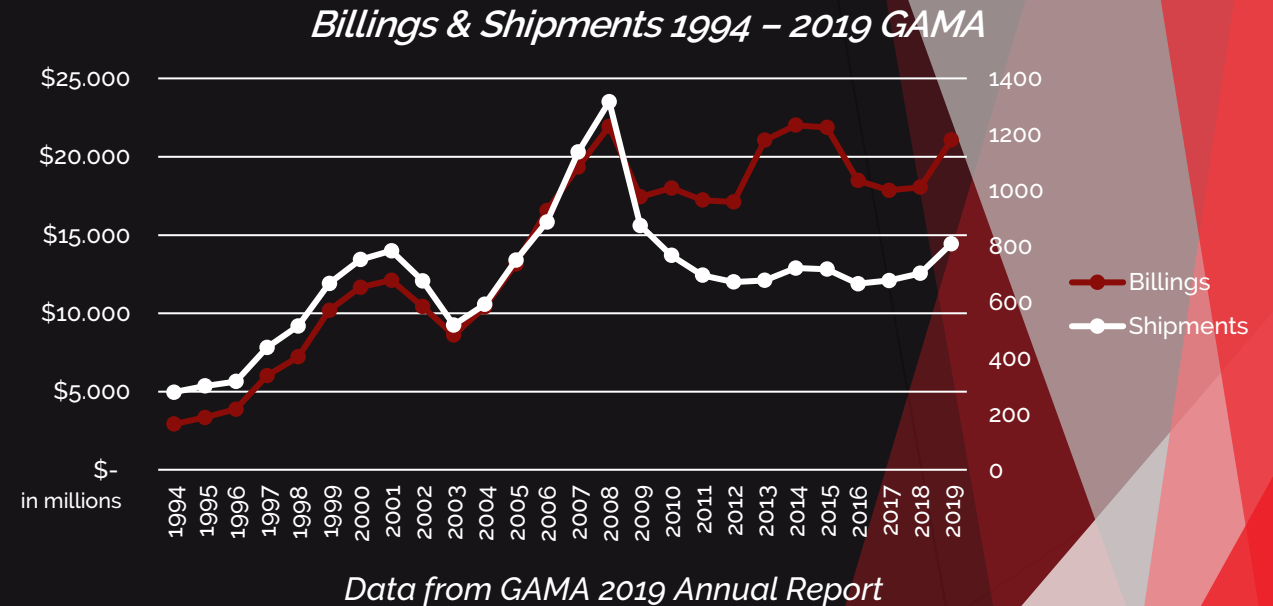
*\$40B REVENUE*



# *Aerion AS2 Business Jet*

## *BUSINESS JET MARKET OUTLOOK*

- ▶ Aviation industry impacted by COVID-19.
- ▶ GAMA reports 20.4% decline in shipments of business jets for 2020. (Updated 2/25/21).
- ▶ Honeywell forecasts 7,300 new business jet deliveries from 2021 to 2030 (avg 811/year).
- ▶ Forecast down 4% from last year.



# *Aerion AS2 Business Jet*

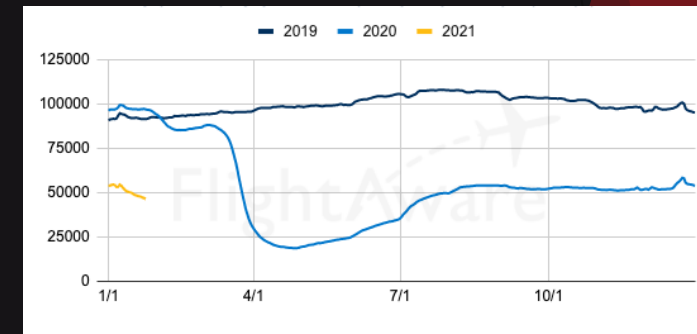
## *COVID-19 IMPACT*

- ▶ Business jet market recovering from COVID-19 impacts.
- ▶ Honeywell reports that 80% of operators' purchase plans have not been affected by COVID-19.
- ▶ FlightAware Business Aviation flight data (U.S.) shows a sharp rebound in traffic from the 2020 lows. YOY change 2021 vs. 2020: -11.33%, 2021 vs. 2019: -7.47%.
- ▶ Commercial aviation still severely impacted.

U.S. Business Aviation Traffic



Commercial Air Traffic Worldwide

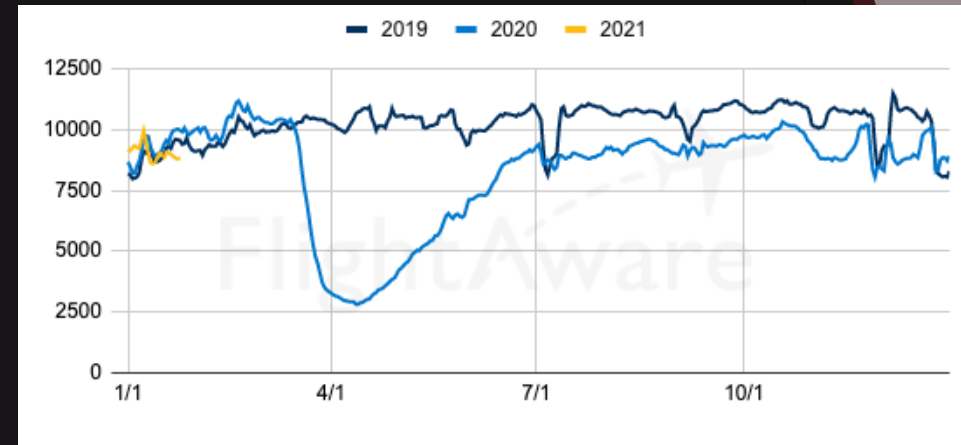


# *Aerion AS2 Business Jet*

## *DAVID'S MARKET PROJECTIONS – COVID-19 IMPACT*

- ▶ COVID-19 will have a minimal impact on Business Aviation.
- ▶ International travel may be impacted for a longer timeframe.
- ▶ AS2's high speed use case is great for international travel.
- ▶ By 2025 COVID-19 will be grounded.

U.S. Business Aviation Traffic



SFO Photo by [Daniel L. Lu on Wikimedia Commons](#)

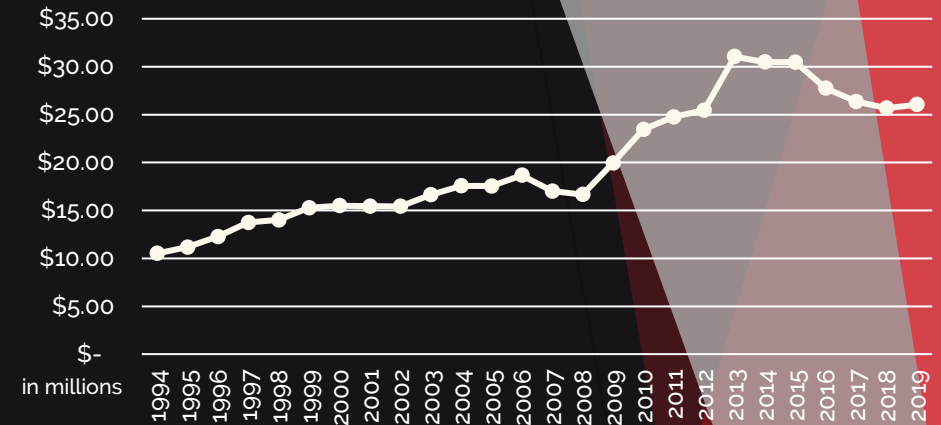


# *Aerion AS2 Business Jet*

## *DAVID'S MARKET ANALYSIS*

- ▶ Business jet market has been stable since 2010.
- ▶ Aerion's target market includes those operating high-end jets (large/commercial business).
- ▶ Large jet markets has been stable. Deliveries had declined from 14 to 17. 18 to 19 up.
- ▶ Large jets: approx 25% of the market since 2006.

*Average Price Per Business Jet*



*Large Jet\* Shipments*



Photo: Gulfstream G650/Gulfstream

\*Large jet shipments include some super-midsize jets from Dassault due to the way shipments are reported for the company. Data from GAMA



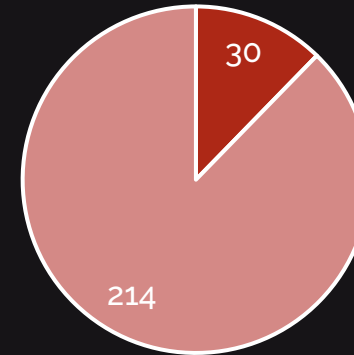
# *Aerion AS2 Business Jet*

## *DAVID'S MARKET ANALYSIS*

- ▶ At 300 jets/10 years = 30/year avg.
- ▶ 14% of the yearly average large jet shipments.
- ▶ Aerion would become the 4th largest manufacturer in the large jet category.
- ▶ Is this achievable?...

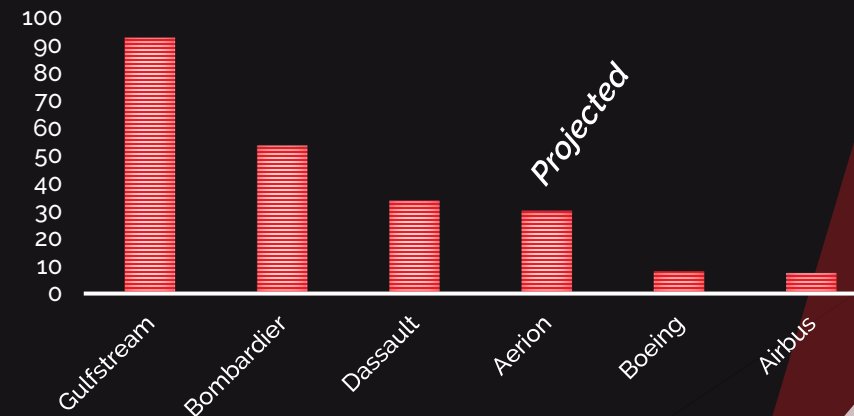


*Aerion AS2 & Avg Large Jet Sales*



■ Aerion AS2 ■ Average Large Jet Sales (Yearly)

*Average Yearly Shipments  
2006 - 2019*

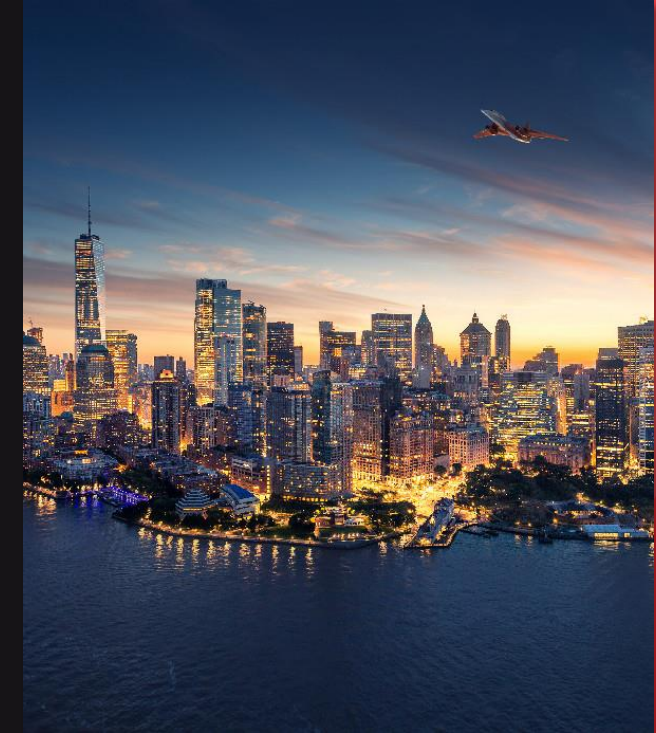
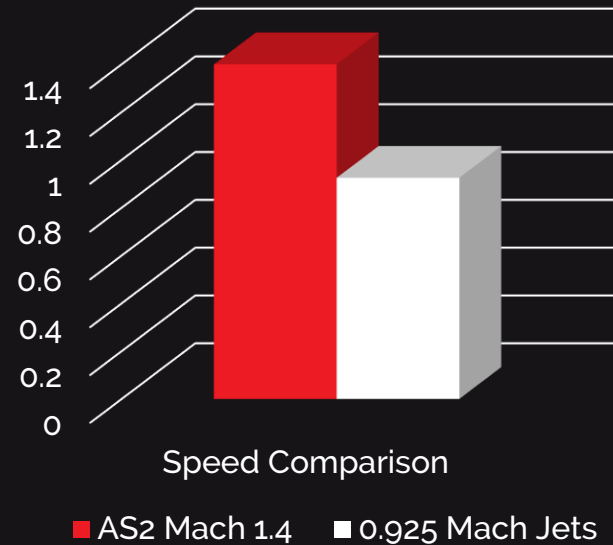


# *Aerion AS2 Business Jet*

## *DAVID'S MARKET PROJECTIONS*

- ▶ AS2 is a very unique airplane.
- ▶ 1 of 2 supersonic business jets in development.
- ▶ USP: Mach 1.4. 51% faster than Mach .925 jets. Mach .95 subsonic.
- ▶ Utility to switch between supersonic & subsonic (cost savings).
- ▶ Revolutionary aircraft. \$120M to support the future.
- ▶ Environmentally friendly with fuel and carbon capture tech.
- ▶ Target Market: Ultra high net worth individuals, large corporations, & charter/fractional companies.

### AS2 Speed vs Others



# *Aerion AS2 Business Jet*

## *DAVID'S MARKET ANALYSIS*

- ▶ 2019 billionaires: 2,825 (CNBC).
- ▶ 2019 Ultra-High Net Worth Individuals (\$30m+): 183,400.  
7.2%/year growth 2012-2018 (Capgemini).
- ▶ 300 Jets = 11% of billionaires and 0.2% of UHNWI.
- ▶ 14% of overall large jet market.
- ▶ \$6.5B backlog before production.
- ▶ Corporate market = +.
- ▶ Aerion is capable of selling 300 AS2s over 10 years. Achievable.



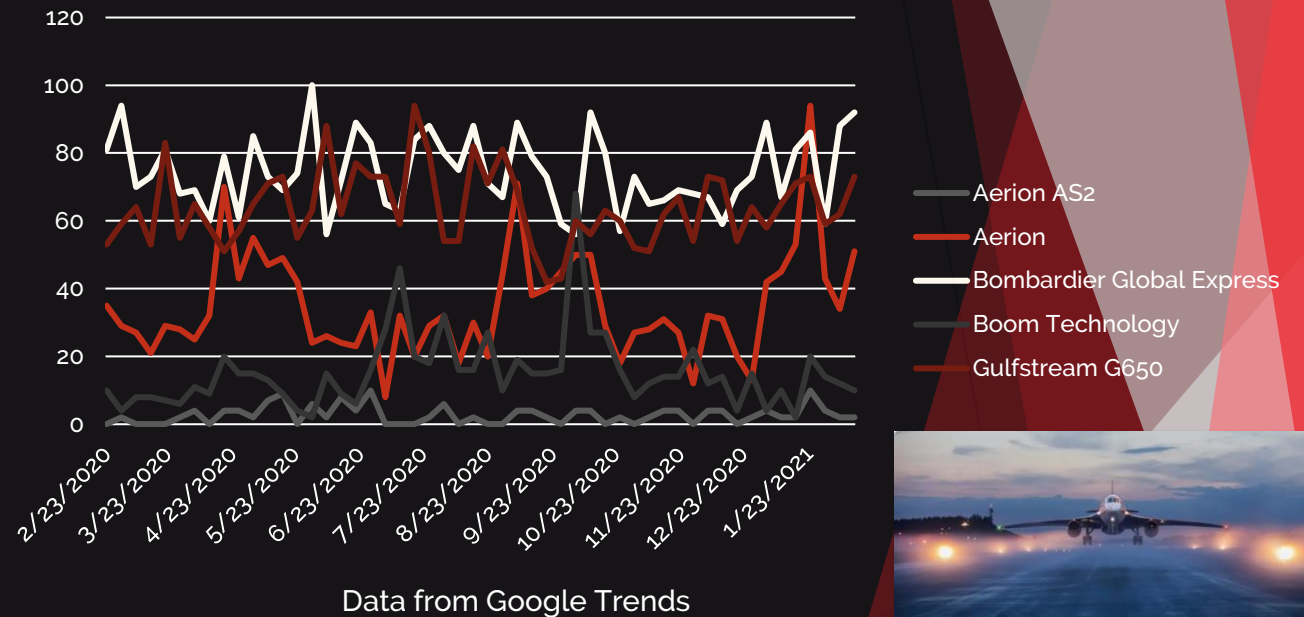


# *Aerion AS2 Business Jet*

## *DAVID'S MARKET PROJECTIONS – MARKET CHANGERS*

- ▶ Market Drivers (expansion):
  - ▶ Unique jet. Time savings.
  - ▶ Utility: subsonic capable.
  - ▶ Marketing boost as plane enters production & is delivered.
  - ▶ Fractional ownership & charter demand.
  - ▶ Cost reductions overtime. TVs & Computers example.
  - ▶ Bringing people together, distance no longer a barrier.

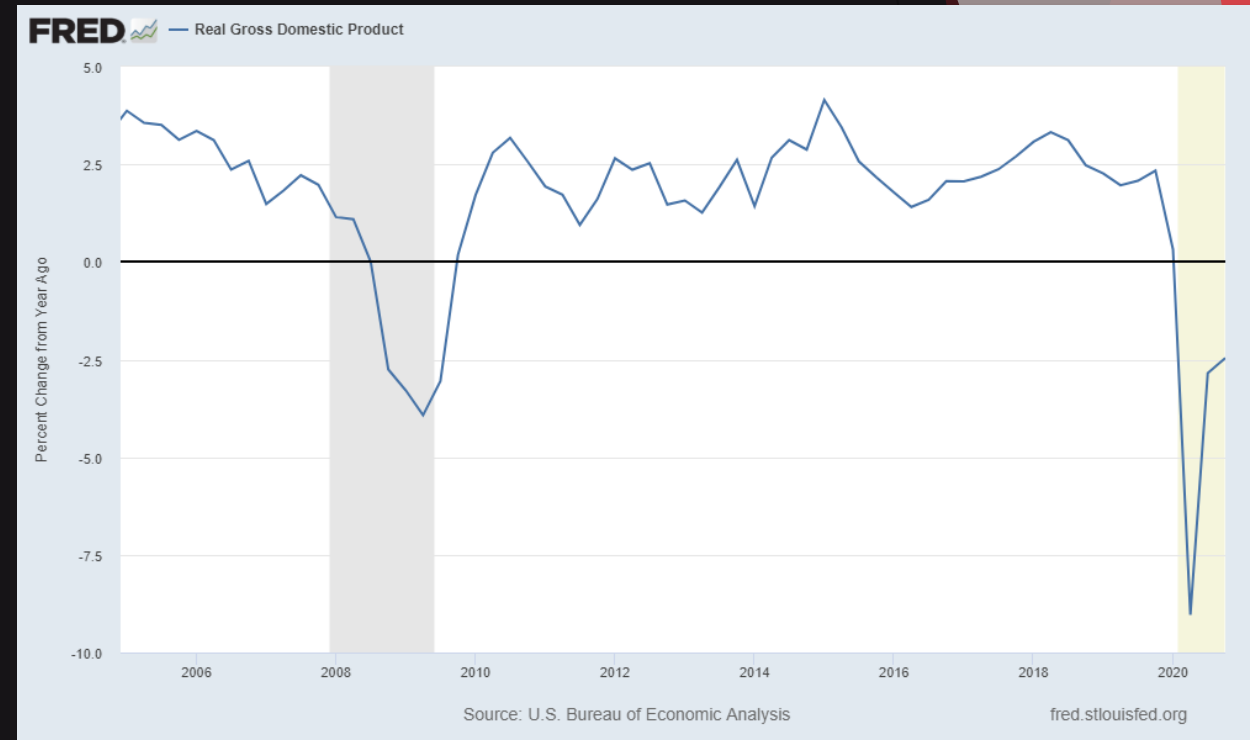
*Google Search Trends Prior 12 Months*



# *Aerion AS2 Business Jet*

## *DAVID'S MARKET PROJECTIONS – MARKET CHANGERS*

- ▶ Market Watch Items:
  - ▶ Economy: continued expansion?
  - ▶ Operating costs?
  - ▶ Maintenance costs?
  - ▶ Market acceptance of \$120M price tag?



*U.S. Real GDP Year Over Year % Change*

# *Aerion AS2 Market Outlook*

## *SUMMARY*



- ▶ Aerion is accelerating development toward production.
- ▶ Aerion Park HQ is being built in Melbourne, FL.
- ▶ Gained an order from Avion Pacific. Backlog at a solid \$6.5B.
- ▶ 300 deliveries projected over 10 years. \$40B revenue. \$4B dev costs.
- ▶ -26.7% decline in shipments of business jets (Q1-Q3 2020 vs 2019). COVID-19.
- ▶ Business Aviation has rebounded from COVID-19 according to flight data.
- ▶ Large business jet market has been stable for the past couple of years.
- ▶ Aerion's projections are 14% of the avg yearly total of large business jet shipments. Achievable?
- ▶ AS2 USP: Speed & flexibility. Revolutionary.
- ▶ Target markets: 300 jets = 10% of billionaires and 0.2% of UHNWI.
- ▶ \$6.5B Backlog and 14% of large jet market = Yes, achievable.
- ▶ Marketing boost from continued progress.
- ▶ Economy, operating costs, maintenance costs, and price acceptance are areas to watch.

# Thank You

*Aerion AS2 Market Outlook*  
*Analyst: David Aughinbaugh II*

More of David's Aerion analysis can be found here:

<https://d.davidaug.com/aerion>

This report can be accessed at <https://d.davidaug.com/aerionma>



# Data Sources

- ▶ Jet builder Aerion expects to fly silent supersonic planes by 2024, unlocking a \$40 billion market (CNBC 1) <https://www.cnbc.com/2020/01/16/aerions-as2-silent-supersonic-jet-aims-to-fly-by-2024.html>
- ▶ GAMA Publishes Third Quarter 2020 Aircraft Shipments and Billings Report (GAMA 1) <https://gama.aero/news-and-events/press-releases/gama-publishes-third-quarter-2020-aircraft-shipments-and-billings-report/>
- ▶ GAMA 2019 Annual Report (GAMA 2) [https://gama.aero/wp-content/uploads/GAMA\\_2019Databook\\_Final-2020-03-20.pdf](https://gama.aero/wp-content/uploads/GAMA_2019Databook_Final-2020-03-20.pdf)
- ▶ GAMA Announces 2020 Year-End Aircraft Billing and Shipment Numbers <https://gama.aero/news-and-events/press-releases/gama-announces-2020-year-end-aircraft-billing-and-shipment-numbers-2/>
- ▶ Honeywell Forecasts Business Jet Usage Will Recover To 2019 Levels By The Second Half Of 2021 (Honeywell) <https://www.honeywell.com/us/en/press/2020/10/honeywell-forecasts-business-jet-usage-will-recover-to-2019-levels-by-the-second-half-of-2021>
- ▶ Aviation Stats Update: January 27, 2021 (FlightAware) <https://blog.flightaware.com/aviation-stats-update-1-27-2021>
- ▶ 2019 had a record-high number of billionaires — here's how many and why (CNBC 2) <https://www.cnbc.com/2020/06/30/why-2019-had-a-record-high-number-of-billionaires.html>
- ▶ World Wealth Report 2019 (Capgemini) <https://www.capgemini.com/nl-nl/wp-content/uploads/sites/7/2020/07/World-Wealth-Report-WWR-2020.pdf>
- ▶ Google Trends Data (Google) <https://trends.google.com/trends/?geo=US>
- ▶ Federal Reserve Bank of St. Louis | FRED (Fed St. Louis) <https://fred.stlouisfed.org/> (for the GDP chart)
- ▶ Aerion Data, Information, & Photos from the Aerion website <https://aerionsupersonic.com/>