



Agenda Report

2725 Judge Fran Jamieson
Way
Viera, FL 32940

Consent

F.2.

4/20/2021

Subject:

An Appointment to the Save Our Indian River Lagoon Citizen Oversight Committee

Fiscal Impact:

No Cost

Dept/Office:

Natural Resources Management

Requested Action:

It is requested that the Board of County Commissioners appoint Mr. David Sherrer to the Technology Alternate seat on the Save Our Indian River Lagoon Citizen Oversight Committee.

Summary Explanation and Background:

On January 26, 2021, the Board of County Commissioners selected Mr. Vinnie Taranto to fill the County Commission's voting member seat for Technology on the Save Our Indian River Lagoon Citizen Oversight Committee. This opened up the Technology Alternate seat where Mr. Taranto had previously served. The Space Coast League of Cities was asked to rank and nominate a citizen volunteer to fill the vacated Technology Alternate seat. The vacancy was re-advertised and 11 volunteers applied. At their April 12th meeting, the League of Cities selected Mr. David Sherrer (application attached) to be confirmed by the County Commission.

Background:

On August 23, 2016, the Board of County Commissioners adopted Ordinance No. 1615 for the Save Our Indian River Lagoon Project Plan and Trust Fund. The Ordinance called for establishment of a Citizen Oversight Committee to make recommendations to the County Commission regarding annual updates to the Save Our Indian River Project Plan that is funded by the half cent Save Our Indian River Lagoon sales tax. The Committee structure consists of 7 members and 7 alternates representing 7 fields of expertise: Science, Technology, Economics/Finance, Real Estate, Education/Outreach, Tourism, and Lagoon Advocacy. Half of the Committee is selected by the County Commission and half the Committee is nominated by the Space Coast League of Cities, with all seats appointed by the County Commission. Terms are for 2 years, after which members and alternates can be reappointed or replaced.

Clerk to the Board Instructions:

None



Kimberly Powell, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001
Fax: (321) 264-6972
Kimberly.Powell@brevardclerk.us

April 21, 2021

M E M O R A N D U M

TO: Virginia Barker, Natural Resources Management Director

RE: Item F.2., An Appointment to the Save Our Indian River Lagoon Citizen Oversight Committee

The Board of County Commissioners, in regular session on April 20, 2021, approved appointing Mr. David Sherrer to the Technology Alternate seat on the Save Our Indian River Lagoon Citizen Oversight Committee.

Your continued cooperation is always appreciated.

Sincerely,

BOARD OF COUNTY COMMISSIONERS
RACHEL M. SADOFF, CLERK

A handwritten signature in cursive script that reads "Kimberly Powell".

Kimberly Powell, Clerk to the Board

SAVE OUR INDIAN RIVER LAGOON CITIZEN OVERSIGHT COMMITTEE VOLUNTEER APPLICATION

The Brevard County Board of County Commissioners is soliciting applications for one seat on the Save Our Indian River Lagoon Citizen Oversight Committee. Volunteers are sought to represent one field of expertise: Technology.

Basic Requirements and Duties of Oversight Committee Members

Applicants must commit to serving the public interest by providing stewardship of Lagoon Trust Funds, especially in relation to restoring health to the Indian River Lagoon, and must demonstrate expertise and experience in one or more of the following field: Technology. Knowledge of water quality issues and the major sources of pollution affecting the lagoon are highly desirable.

Members and their alternates oversee progress and make recommendations to the Brevard County Board of County Commissioners on spending an estimated \$489 million from sales tax revenue to **Reduce** pollution sources to the lagoon, **Remove** legacy pollution from the lagoon, **Restore** natural systems within the lagoon, and **Respond** to new information by recommending annual amendments to the Save our Indian River Lagoon Project Plan (SOIRLPP).

Duties include participation in meetings to evaluate progress towards plan implementation and lagoon health, review technology and alternative project proposals for reducing pollutants and improving water quality, assess the cost-effectiveness of projects and recommend plan revisions accordingly. The Committee addresses questions, concerns, and ideas from the public to improve the SOIRLPP. Applicants must be willing to ensure that the SOIRLPP reflects the most effective, timely and responsible means to restore the Indian River Lagoon and that the Save Our Indian River Lagoon Trust Fund is managed in the best interest of the public.

Applications with resumé and letters of recommendation or endorsement should be submitted no later than **April 5, 2021**. The League of Cities will review applications for Technology expertise and finalize the one appointment at their regular meeting on **April 12, 2021**.

Additional Requirements

In addition to completing the application, a resumé and at least one letter of recommendation are required. The letter of recommendation can be a personal recommendation from a professional in the same field and/or an endorsement by a reputable nonprofit organization.

Send your application, resumé, and letter(s) of recommendation to:

Natural Resources Management Department
Carol Gerundo, Administrative Assistant to the Director
Carol.Gerundo@brevardfl.gov
Phone: 321-633-2016

**SAVE OUR INDIAN RIVER LAGOON CITIZEN OVERSIGHT COMMITTEE
VOLUNTEER APPLICATION**

As part of the application process the Board of County Commissioners requires each applicant to answer in writing each of the following questions:

Name	David William Sherrer II		
Mailing Address	84 Country Club Road		
City	Cocoa Beach	State	FL
Zip Code	32931		
Phone	5402307054		
Email	dsherrer2@gmail.com		

Please complete the following questions and statements.

1. Do you reside in Brevard County? Yes ☒ No ☐ Number of Years

2. Are you willing to serve on the Committee for a minimum of two (2) years and be available to attend monthly weekday meetings? Yes ☒ No ☐

3. Please check next to one or more of the following that best matches your expertise:

☐ Science	☒ Technology
☐ Economics/Finance	☐ Real Estate
☐ Education/Outreach	☐ Tourism
☐ Lagoon Advocacy	

**FOR THE QUESTIONS BELOW, RESPONSES MAY BE UP TO ½ PAGE EACH
AND ON A SEPARATE SHEET IF NEEDED**

1. Please list one or more reasons why you are personally interested in applying to serve as a member of the Save Our Indian River Lagoon Oversight Committee.

Since I moved to Cocoa Beach in Fall of 2019, I see, live, play, and explore this lagoon every day- it is my back yard and the "back yard" for all of us. It is a special, unique, and irreplaceable natural resource and it is intimately tied to property value and quality of life in our city.

The BRL/IRL is the largest and most bio-diverse marine lagoon sanctuary in the United States – and it became clear to me that it is in trouble after speaking with neighbors about algae blooms and continued loss of water clarity. Last year, I invested in multiple tools to measure dissolved oxygen, Ph, turbidity, salinity, ORP, and so on. In January 2021, I experienced my first fish kill. It started with floating baby dead flounder, puffer fish, catfish and a half dozen other species in the lagoon. It was devastating to see. I measured the oxygen levels and saw the lagoon in my back yard was anoxic all the way to the surface as the result of the cyanobacteria bloom. I watched small schools of fish at the surface gasping for air, stone crabs crawled to the top of the dock poles to try to breath barely alive – thankfully I was able to help them out onto the dock. I have done what I can to create a breathable sanctuary around my dock and have been aggressively monitoring the situation since it is more dire that I originally suspected. I am actively seeking how to provide leadership by example – showing citizens what they can do to protect our precious resource and all the complex life in it.

We need to be asking and answering questions: How healthy is our lagoon? How long until the next fish kill? What caused the latest drop in water quality/ bloom/fish kill? Could it have been prevented? Predicted? Reduced? How can we minimize and ultimately prevent them in the future? What are the short-term tactics and the long-term strategies we can put in place to undo the damage that we as humans have largely caused to this once thriving, fish filled lagoon?

2.

Please provide a brief overview of your background and experience (education, professional experience, and community volunteer experience) as it relates to your understanding of the SOIRLPP and the restoration needs of the Indian River Lagoon.

I completed my BS degree in physics in '92, BS degree in Philosophy '93, MS degree in Electrical Engineering '96 with most credits for a Ph'D completed at VA Tech. I started a microfabrication company in a burnt down church that served as my home, where I constructed a semiconductor clean room in the basement to build fiberoptic and microfabricated hardware. This company was acquired by Rohm and Hass (a \$6B materials company) which was in turn acquired by Dow Chemical. After acquisition, I dual reported to the CTO and President of Rohm and Haas for 5 years running my former business with a charter to create scalable "step out" technology and growth. After Rohm and Haas was acquired by Dow, I started a new company, Nuvotronics. We were using a newly invented manufacturing technology I developed with \$20M in funding from DARPA grants for which I had applied. As CEO and CTO, I grew this company until its acquisition by Cubic Defense Systems in 2019. Our primary markets were Space, National Security, Defense, and 5G. Since the sale in 2019, I moved to Cocoa Beach, In the last two years I became a member of Cocoa Beach Rotary serving as co-chair of the boat parade for 2020 and chair for 2021. I work with the president of the Junior Achievement Space Coast, serve on the board or as an investor in several regional start-ups including ViewStub, am a contributor to the MRC and work on lagoon problems and solutions in my spare time. My entrepreneurial experience made me skilled at finding the expertise and resources needed to solve complex problems. I try to learn from and leverage the best of what has been done already to solve a problem. When there isn't a solution I can find, I try to innovate, often with others, to provide a new one. To that end I have about 125 issued patents and about 15 scientific publications. I am new to this area and the problems the lagoon faces; however, I have been busy learning what we can do both in the short term to make the lagoon situation better. There are many things that could be implemented in the short term while we and other cities and counties continue to implement programs and projects to eventually reverse the damage that has already been done. "Fixing" this 156 mile Indian River Lagoon and it's connected 35 mile Banana River Lagoon, however, will take money, time, communication, cooperation and politics. Together, we can achieve this necessary goal.

3. Please describe what character, judgement, analytical, communication, and group consensus building strengths you would contribute to the purposes and duties of the Save Our Indian River Lagoon Citizen Oversight Committee.

I created and grew several companies; two companies from the ground up with essentially no funding. Each of those two has grown to multi 10's of millions in sales in the tech sector by investing immense time, love, passion and care into their lifeblood – the staff. Each time I was employee #1, laid out the vision, and recruited and managed the key staff, built the HR, quality, engineering, and sales and marketing teams and created the workflows and operations needed to manage these departments. I say I, however the moment there is a 2nd employee – it is WE. I also reported to board of directors of small and multi-billion dollar companies, managed investors and board members that ranged from retired citizens who invested part of their nest egg into my operation, to Lockheed Martin and \$26B Keysight Technologies (formerly Hewlett Packard). I was able to successfully communicate the science, technology and the numbers. By education, I am trained in science, and via my philosophy education, the use of reason to make an argument. I have never run my companies as a top down, command and control operation instead I have always used consensus building and collected staff input, believing in the idea that “We” is smarter than “Me”. I favor flat over hierarchical organizations. I believe in the sentiment “I have never met a man so ignorant I could not learn something from him” – Galileo Galilei. I believe to make permanent change to the lagoon, first, we need to engage the citizens of all walks of life every day - not just when the panic of a fish kill event happens. Next, we need to bridge the gap between the environmental left and the water front land owners with practical solutions that still preserve property value.

4. Please describe the importance of committee members putting public interests first and avoiding real or perceived conflicts of interest in making recommendations for expenditure of the Save Our Indian River Lagoon Trust Funds.

Everyone I have spoken with is 100% behind finding ways to help out lagoon. No one likes paying taxes – especially “more taxes”. If people believe that their money isn't being “wasted” most of them will support not only the current tax – but even more -everyone wants a solution. Communicating that this problem took two decades to create and will take a decade or more to undo is part of the job. Lack of consensus of where the problem lies and what is the right way to fix the lagoon, there will always be critics and even experts, that disagree. The goal is to communicate well the paths chosen and why; to provide cost effective solutions and gain public trust that their money is being spent in everyone's best interest. One way to completely undermine even the best plan with the best intentions is to make mistakes in conflicts of interest where someone can rightly point out that the money is being channeled through insider contacts or a “good old boy” network. Making sure alternatives are considered and public bids for work are posted and evaluated fairly is key to maintain public trust. Only through transparency and open communication can we hope to sustain public support for what will be a long, expensive, and tedious process of slowing the damage we are currently doing, so that we can turn the tide into the recovery of this precious resource. A resource that - in linear water front footage - is probably 20 times the shore line length of it's boarderung Atlantic Ocean due to all the weaving channels that have been carved for our housing and public access points. We all have a responsibility to care for our aquatic “back yard” and its living inhabitants that depend on us to make the best decisions we can for its future. It is truly a matter of life - and death – for millions of small animals that lie in our hands. We as the citizens of Brevard county have a moral imperative to do our besst to restore ecological balance, to ensure we have a thriving marine estuary and sanctuary, both for us, and for generations to come.

DAVID SHERRER

Cocoa Beach, FL | (540) 230-7065 | david@davidsherrer.com | linkedin.com/in/sherrer

CEO|INNOVATOR|ADVISOR|ADVOCATE

PROFESSIONAL QUALIFICATIONS PROFILE

Executive, Entrepreneur, Inventor, Business Transformation Leader with over 25 years' broad experience gained from growing businesses from the ground up: Problem solving, market analysis, invention, patents and patent analysis, product development, proposal writing, team building, key employee recruiting, manufacturing, venture capital, acquisitions, business planning, technical communications, and product marketing. Passionate about building high-growth, high-value technology-based ventures with focus on lagoon environmental restoration through development of aquatic MetaGenome mapping technique using nano-pore technology for environmental monitoring.

SELECT MILESTONES...

Leading + Defining + Developing + Managing a company and portfolio of >150 Patents

Research & Development (R&D) | Semiconductors | Sensors | Program Management | Product Development | Electronics Business Planning | Manufacturing | Radio Frequency (RF) | Patents | Leadership | Testing & Simulations | Thin Films | IC Venture Capital | Entrepreneurship | Systems Engineering & Design | Acquisitions | Product Marketing | Materials Science

- **Inventive Mindset That Improves, Builds and Impacts Business: >150 Patents.** Successfully sold ~50 of these patents to Samsung, the largest global electronics companies (>\$100B) for semiconductor, advanced packaging, and HBLED lighting.
- **Nuvotronics President David Sherrer** interviewed on Satellite Assembly Automation September 13, 2017

SNAPSHOT AREAS OF EXPERTISE

Manufacturing, sensors, MEMS, microwave & mm-wave devices, advanced packaging, microfabrication methods, 3D Metal-Dielectric microstructures, optoelectronic devices, wafer level packaging, and RF devices. Water quality monitoring, marketing and communications, innovation, team building, presentations, strategic partnerships.

CAREER Highlights

SEEDFUNDERS ORLANDO | August 2019 – Present



Seed Funders Orlando is a member-owned operating company that invests in pre-revenue Central Florida technology startups selected by our members. We find, fund, and help guide select start-up companies from Orlando through the Space Coast. We believe that smart investments in emerging startup companies will benefit both our member's portfolios and Central Florida's innovation economy.

<https://www.seedfundersorlando.com/>

General Partner, Member

SCOPE: Weekly meetings finding, talking to, due diligence, and sometimes funding Central Florida high growth start-ups

SELECTION OF KEY -CONFIDENTIAL BUSINESS IMPACTS

- Performed in-dept technical due diligence with several local tech companies
- Invested in five Space Coast start up companies
- Member/partner in SeedFunders Miami covering the region below Melbourne to Miami.

VIEWSTUB | March 2020 – Present



ViewStub is an Orlando high-growth technology startup offering a turn-key software platform for hosting virtual events with an all-encompassing solution for ticketing, video streaming and marketing. <https://viewstub.com>

Member of the Board of Directors

SCOPE: Attend Monthly Board Meetings to help steer the successful growth of the company

SELECTION OF KEY NON-CONFIDENTIAL BUSINESS IMPACTS

- Largest and early investor with introduction to Seed Funders Orlando
- Advise on issues associated with rapid growth and hiring while achieving positive net income
- Guide to and through next round of funding to address rapid scale up demands
- Work directly with their president on growth issues

ROTARY CLUB COCOA BEACH | April 2020 – Present



Rotary International is an international volunteer service organization. Rotary is a global network of 1.2 million neighbors, friends, leaders, and problem-solvers who see a world where people unite and take action to create lasting change – across the globe, in our communities, and in ourselves. <https://www.rotary.org/>

Member Cocoa Beach Rotary

SCOPE: Meet and volunteer weekly for various projects in the local community while also helping with international projects such as clean drinking water, vaccinations, and medical care. Our stated mission is to Promote peace, Fight disease, Provide clean water, sanitation, and hygiene, Save mothers and children, Support education, Grow local economies

SELECTION OF KEY IMPACTS

- Drown Zero program in Cocoa Beach (2019 to present) where we have installed and maintain life-ring stations at every block of Cocoa Beach's beachfront. <https://www.facebook.com/drownzero/> WWW.DROWNZERO.COM These life ring stations have already saved several people from drowning as has been reported in the local media.
- 2020 Co-director of the Cocoa Beach Boat Parade : An annual non-profit holiday event
- 2121 Director elect of Cocoa Beach Boat Parade <https://www.facebook.com/CocoaBeachChristmasBoatParade>
- Personal Donations made to provide multiple families with clean drinking water in Africa

Junior Achievement of the Space Coast | December 2020 – Present



Junior Achievement of the Space Coast (JASC) is working to build a better Brevard

Through our volunteer-delivered, K-12 programs that foster work-readiness, entrepreneurship, and financial literacy skills. Junior Achievement uses experiential learning to inspire kids to dream big and reach their potential and will be on track to reach more than 20,000 students in the 2021-2022 school year. Despite being the second-smallest JA in the country, JASC is one of the most highly-regarded area offices in the country, currently ranked #7 of 107.

Volunteer

SCOPE: JA inspires students to develop competitive skills and confidence. Their success bolsters the local workforce and contributes to economic growth. JA empowers Brevard County young people to own their economic success.

SELECTION OF KEY IMPACTS

- Assist JA Space Coast President with development of STEM and technology-based programs
- Final round judge for 2021 Balda Family Foundation Innovation Challenge, Brevard's own teen shark tank.

NuvoNexus, LLC | August 2021 – Present

NuvoNexus is my personal research working to understand the Indian River /Banana River Lagoon ecosystem

The charter for NuvoNexus is to understand and help restore polluted saltwater ecosystems.

[Note: After over >\$50,000 of personal investments, I decided to put my personal investments into a shell company for tax purposes. This has not been filed from a tax perspective and if it produces any conflict of interest with the lagoon advisory role it can be undone.]

Owner/President

SCOPE: NuvoNexus is a “no profit” no revenue self-funded research endeavor. After moving to Brevard on the Indian and Banana River Lagoon Estuary and observing a first fish-kill triggered by a harmful algae bloom, I began working to understand what is going on at the chemical and microbial level.

SELECTION OF KEY IMPACTS

- Working to map the metagenome of the lagoon for all sampled aquatic organism from virus to bacterial to plankton using a Nanopore genetic sequencer capable of reading 300 base pairs per second running 48 channels in parallel. This data will allow all DNA collected to be tagged and the known species present in the water to be identified. Genetic variations and mutations that might be occurring could also be identified. Hardware procured; lab techniques being developed.
- Created weatherproof outdoor 24x7 lagoon monitoring system recording key parameters such as dissolved oxygen, pH, Salinity, Temperature, and ORP wirelessly transmitting this data back.
- During the 12/2020 fish kill event, built and deployed a first lagoon oxygenator in 18 hours from hardware store parts, implemented it, and provided instructional videos on how to do this to create “breathable” lagoon sanctuaries around docks and inlets. Shared by Cocoa Beach Mayor Ben Malik, multiple systems were built.
- Implemented a one-acre aerator system to automatically turn on when dissolved oxygen becomes life-critical for lagoon aquatic animals.

CAREER HIGHLIGHTS, CONTINUED

SELECTION OF KEY IMPACTS (cont)

- Researching and testing new anti-fouling techniques to coat hardware and sensors to eliminate barnacles and reduce operating maintenance costs as a model for a solar powered system that can be more broadly implemented.
- Implemented lagoon-friendly waterfront landscaping as a model for maintaining property value and aesthetics while eliminating fertilizer and reclaim water for waterfront residential and commercial properties.
- Implemented over 20 non-bottom sitting oyster shell marine habitat refugiums to monitor live oyster growth and health.
- Measure and collect data on turbidity using secchi disks and light-beam digital turbidimeter, pH, Salinity, and dissolved oxygen vs depth.

NUVOTRONICS | JUL. 2008 – MAR. 2019 (ACQUIRED BY CUBIC NYSE: CUB)



Nuvotronics, is a privately held high-tech company delivering advanced microwave products for aerospace, defense and commercial application that leverage unique Polystrata and Si-Pak manufacturing platforms. Specialization is in design and manufacturing of 3D microwave and mm-wave products and the systems that use them. We manufacture our own materials, then fabricate, assemble, and test our products in-house. We deliver the tested hardware to nearly all major aerospace and defense contractors and DOD agencies for next generation applications. Since acquisition, Cubic has executed on the plans laid out including a \$30MM investment into flat panel manufacturing for David's key invention of the PolyStrata Technology with design wins for 5G infrastructure and multiple Satellite clusters.

FOUNDER, BOARD OF DIRECTORS, PRESIDENT AND CEO

SCOPE: Building the go-to organization for new technology and manufacturing innovation in RF/microwave hardware, micro-mechatronics, and their resulting disruptive systems. Company Focus - performance, size, weight, and power as key challenges. Company partners with defense prime contractors and industry to develop new applications in microwave communications, phased arrays, radar, microwave power amplifiers, RF filters, 3D microwave circuits, and cost-effective micron-precision batch manufacturing. Maturing the first technology for 3D integrated backplanes and hybrid circuits capable of operating DC to THz. Leadership of revolutionary manufacturing of meso-scale micro-mechanical devices enabling applications ranging from medical to munitions.

SELECTION OF KEY NON-CONFIDENTIAL BUSINESS IMPACTS:

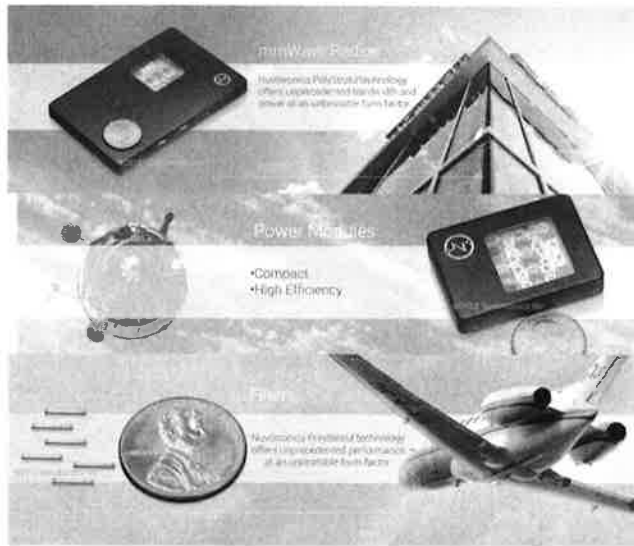
- **Received a NASA Small Business Innovation Research award** for proposal "Wafer level Integration on PolyStrata® Interposer (WIPI)" June 11, 2018
- **Multi-million-dollar order from a leading defense Prime Contractor** to develop and deliver high performance RF assemblies for space applications based on our PolyStrata® additive manufacturing technology (March 2018).
- **Nuvotronics became one of the first companies in North Carolina and Virginia to achieve full AS9100D Certification** for the design and manufacture of high frequency electronic products for the space, defense, and commercial industries December 2017.
- **Nuvotronics Facility Space Expansion April 2017.** As demand for higher frequency wireless data explodes with 5G, IoT and sophisticated defense communications all becoming reality at the same time, led Nuvotronics in uniquely positioning to provide the smallest, lightest and most effective solutions to wide range of market applications. Expansion, combined with VA manufacturing facility focuses on the demand in engineering talent, secure facilities, manufacturing capability.
- **DARPA awards Nuvotronics \$4.2M contract under ViSAR program.**
- **Nuvotronics, LLC Wins \$1.93 Million Contract for Time Delay Development.**
- **Led Nuvotronics in winning contracts from the US Army** to develop Microfabricated Antenna Technology for Performance Enhancement and/or Miniaturization: Multi-year, multi-millions dollar programs
- **Active Board Member through the company's successful acquisition by Cubic Mission Systems (2019)**

CAREER HIGHLIGHTS, CONTINUED

NUVOTRONICS | CONTINUED



INVENTED AND PATENTED NUVOTRONICS POLYSTRATA® TECHNOLOGY AND PRODUCTS:



mmWave Radios Nuvotronics mmWave radios leverage patented PolyStrata® Technology to deliver unprecedented performance in an unbeatable form factor. With a foundation of high-performance Polystrata® Components boosting everything from power handling to heat dissipation, our products can excel in the most demanding applications.

mmWave Power Modules The most power in the smallest solid state package. Ultra-compact millimeter wave power modules leverage high efficiency air-core PolyStrata® Technology microcoax combiners for highest power per unit volume.

Filters / Diplexers / Multiplexers We offer the smallest form factor filters and diplexers for the performance in the market today. Build these filters and diplexers in your integrated PolyStrata® backplane to make a phased array front end... an E-band point-to-point radio... an ultra-efficient transceiver... a micro network analyzer...

Antenna Arrays Phased arrays were the original application for PolyStrata's® 3D transmission line architecture, and for very good reasons. Small size, high isolation and low loss, combined with the ability to do complex routing in multiple dimensions, yields the most effective SWaP solution for low profile ESA front ends.



Custom Modules The ultimate advantage! Start with ultra-dense routing of high isolation, low loss PolyStrata® Architecture transmission lines. Add onto that architecture the functions you need: antennas, interconnects, filters, time delay, MMICs, switches, inductors, capacitors, and a whole library of built-in passive components. End up with the best solution, one that is also compatible with standard assembly processes: BGA,

solder attach, and wirebonding. And another thing...each substrate-free metal backplane can be mechanically interlocked with another to form larger and more complex assemblies with micron-level precision.

ROHM AND HAAS | OCT. 2002 – JUN. 2008



Rohm and Haas Company is a manufacturer of specialty chemicals for end use markets such as building and construction, electronic devices, packaging, household and personal care products.

DIRECTOR OF PRODUCT DEVELOPMENT / DIRECTOR OF R&D

SCOPE: New product development and commercialization for microfabricated products. Managed the development of two product platforms: Si-Pak(tm) hermetic laser packages and Polystrata(tm) microwave / mm wave packaging platform originating from DARPA's 3D-MERFS and DMT programs.

KEY BUSINESS IMPACTS:

- **Oversaw research, development, engineering and manufacturing operations** for a 6" wafer fab and packaging group specializing in MEMS, wafer-level packaging, laser packaging, optoelectronic devices, and RF devices.
- **Reported dually to the corporate CTO and division President** in this \$8B US based company.
- **Served as a member of the corporate IP strategy team.**
- **Won >\$20M in DARPA DOD funding as PI lead and proposal author** creating new materials and new manufacturing methods for 3D meso-scale digital design to "print" manufacturing
- **Dozens of key patents filed and awarded, lead inventor**

CAREER HIGHLIGHTS, CONTINUED

HALEOS | AUGUST, 2000 – SEPTEMBER, 2002

Manufacturing and product development company for MEMS based fiber optic components and assemblies (silicon bench, optical switches, fiber arrays, pig tailing waveguides, sensors). Manufacturer of optoelectronics packaging components (metallized fiber, ball lenses, fiber arrays). Acquired by Rohm and Haas Electronic Materials.

PRESIDENT / CEO / FOUNDER

SCOPE: Provided the latest in automated solutions for high volume manufacturing. Developed several technologies including Silicon Optical Bench (SiOB) platform.

KEY BUSINESS IMPACTS:

- **Formed strategic alliance with Newport for joint development of next-generation fiber optics and photonics manufacturing automation equipment.** "The combination of Newport's automation expertise and our engineering innovation provides a powerful vehicle for customizing and enhancing both existing and new automation solutions," said David Sherrer, Haleos' president and CEO. "Our technologies, including our Silicon Optical Bench (SiOB) platform, lend themselves to scalable automated manufacturing and even quality testing."
- **Invented and patented V-groove chip with wick-stop trench for improved fiber positioning** patent number: 6215946 on April 10, 2001.

ACT MICRODEVICES, INC. | JULY, 1996 – AUGUST, 2000

Silicon Micromachining / MEMS / Microfabrication / Thin-film based products manufacturer for Sensors, Optoelectronics, micro optics.

PRESIDENT / FOUNDER

SCOPE: Established and built a 4" MEMS fab and cleanroom in a re-purposed burnt-down church. Grew to 35+ engineers and technicians. Re-incorporated as Haleos, Inc. Raised >\$20M in venture capital after 4 years of sweat-equity growth.

EDUCATION

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

MS, Electrical Engineering, 1993 - 1996

Fiber and Electro-Optics Research Center, Eta Kappa Nu

VIRGINIA TECH

BS, Philosophy, 1988 - 1993

Sigma Phi Epsilon

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

BS, Physics, 1988 - 1992



SELECT PUBLICATIONS

Improving Electronics' Functional Density

Three Frequency Cloud and Precipitation Radar

Three-dimensional metal micromachining: A disruptive technology for millimeter-wave filters

<http://www.engineeringtv.com/video/Nuvotronics-PolyStrata-Transmis>

Executive Interview: David Sherrer

Wafer Level Packaging Technology for 10 Gbps TOSAs

PROFESSIONAL ASSOCIATIONS

Semiconductor Advisory Board Member - VIRGINIA TECH

Assisting with growth and development capabilities, specialization, and opportunities for the Semiconductor and MEMS research center.

Community Service – Misc.

Small Business Loan – Coastal Produce, Cocoa Beach

Provided the owner an unsecured "just in time" cash flow/ payroll loan, followed by a multi-year small business loan in 2020 after SBA loans failed. Financing was needed due to COVID produced financial losses. This aided their transition to a lower cost rental property and has returned the business to profitability.

Ron Flanary
2007 Hardwick Street
Blacksburg, Va 24060

April 5, 2021

Carol Gerundo
Brevard County Board of County Commissioners
Email: Carol.Gerundo@brevardfl.gov

Dear Ms. Gerundo:

I am writing to strongly encourage The Brevard County Board of County Commissioners to seriously consider David Sherrer for the volunteer Technology Advisor Position for the Save Our Indian River Oversight Committee. For some history, David and my paths crossed in 2008 when David was employed by Rohm and Hass (at a division he founded) and he had been presented with an opportunity to purchase the Rohm and Hass division since it no longer fit well with Rohm and Hass' longer term plans. The technology at the division was in its very early infancy phase and was going to require a massive amount of development work to fully mature the technology such that it was marketable. When I met David and I was immediately impressed with his unbelievable technological know-how and witty personality and I worked with him to help finance the purchase of the division from Rohm and Hass. To make a long story short David with the team he built fully matured the technology and the company (Nuvotronics) was ultimately purchased by Cubic (NYSE-CUB) in 2019 and today Cubic is continuing to invest significantly in scaling the technology platform (<https://www.nasdaq.com/press-release/nuvotronics-to-expand-manufacturing-facility-2020-10-30>) that was established by David. If you have met David you already know from a technology perspective, he is extremely smart, yet he remains very approachable and open minded. I will go as far as to say that from a technical perspective he is the best I have had an opportunity to work with, and I have worked with a lot of technologists over the years.

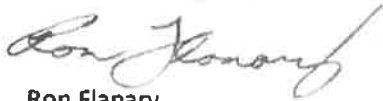
For some background on myself. I am an Electrical Engineer and I currently run a division of Moog Inc (a \$2.5 Billion dollar technology company; MOG- NYSE) that I co-founded many years ago. So, my entire career has and continues to revolve around technology and maturing technology into products. However, the technological advancements envisioned and brought to fruition by David at Nuvotronics were much more advanced and more of an industry game changer than anything that has occurred within Moog or other companies which I have been involved. As for advancing technology I assure you that you will not find anyone better than David.

In addition to David's in-depth technical understanding he has very strong interpersonal skills. David has a knack for presenting and communicating highly technically complex issues such that it is clear and

understandable in a manner that is never demeaning to the observer. The way David engages people with his positive outlook and nurturing nature will make you want to be on his team and rally with him for his cause. So, from my perspective you will not only be gaining a person that will advance technology to better solve the lagoon issues, but I am sure he will also be able to help rally support for the cause, if ever needed.

I am more than happy to speak with any committee members to help provide any additional insight needed for your consideration of David.

With Warm Regards,



Ron Flanary

General Manager - Moog Aspen Motion Technologies

(Former Chairman of the Board- Nuvotronics, prior to the Cubic acquisition)

Holder of 30+ Patents & Technology Investor

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