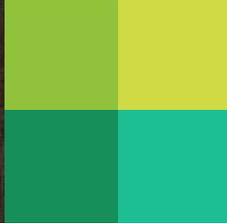


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MESSAGE FROM ARCHIVES CHAIRMAN DON NIELSON



Don Nielson

Dear Alums,

If by chance you get the paper version of this newsletter, you will probably be surprised at its heft. At 32 pages it is one of our largest efforts, and thanks to everyone who brought it all together. Reading it will take you through interesting and vital news about SRI, past, present, and future.

It opens with our recent reunion that, despite the COVID cloud still hanging over us, was well attended. (Part of that cloud is masking, making name tags more important than ever!) Please take a moment to read about the new Hall of Fame inductees for they epitomize the best of SRI's technical leaders. A further update on SRI's current plan for the Menlo Park site indicates how the change will be transformational, not only for the Menlo campus, but potentially for SRI in general. With timely relevance, you will also meet SRI's new CEO and undoubtedly wonder along with us how he will fit into or influence this transformation.

I think you will be impressed by the advanced work the people of SRI continue to undertake. Quantum computing has been in the wings for some time now, and to see us in the thick of the quantum world and its impact on a range of new technologies is exciting. Out front is where SRI must strive to be, including in this race to the awaiting wonders of smallness. SRI technology is also being applied to help farmers worldwide easily obtain crop insurance and quickly settle claims. Together with SRI aiding New Mexico in its post-COVID economic development, these projects and the others described exemplify the diversity and importance of SRI's research.

Looking to the past, you'll enjoy an interesting personal account about the travails of project work in developing

countries. From Europe comes a note of gratitude for World War II era U.S. benevolence.

With somberness, I note an unusually large number of obituaries. All are noteworthy, but one is close to our Alumni Association's heart: Marlyn Johnson. Marlyn volunteered for many years as secretary to the Steering Committee, taking meticulous minutes and keeping us on schedule. She also contributed wherever extra hands were needed, including the annual reunions, where she helped with the distribution of name tags, made sure everyone had refreshments, and took on countless other tasks. Marlyn lived near SRI and was a commuting cyclist—rain or shine—long before this was urged on us for ecological reasons.

Now, to a point of celebration! This November SRI turned 75 and while there won't be any real fireworks, it deserves the diamond this anniversary implies. In the comings and goings of Silicon Valley, this is truly an accomplishment, especially for an organization dedicated totally to contract research. Here is a site recently released where you can see some of the impacts SRI has had, but they are by no means all: <https://medium.com/dish/sri-75-years-of-innovation/home>. For certain, SRI has left its mark on the world, and we can all be proud to have been a part of it. Coincidentally, two of the Bay Area's stalwart teams, the Warriors and the 49ers, are also celebrating their diamond anniversary this year.

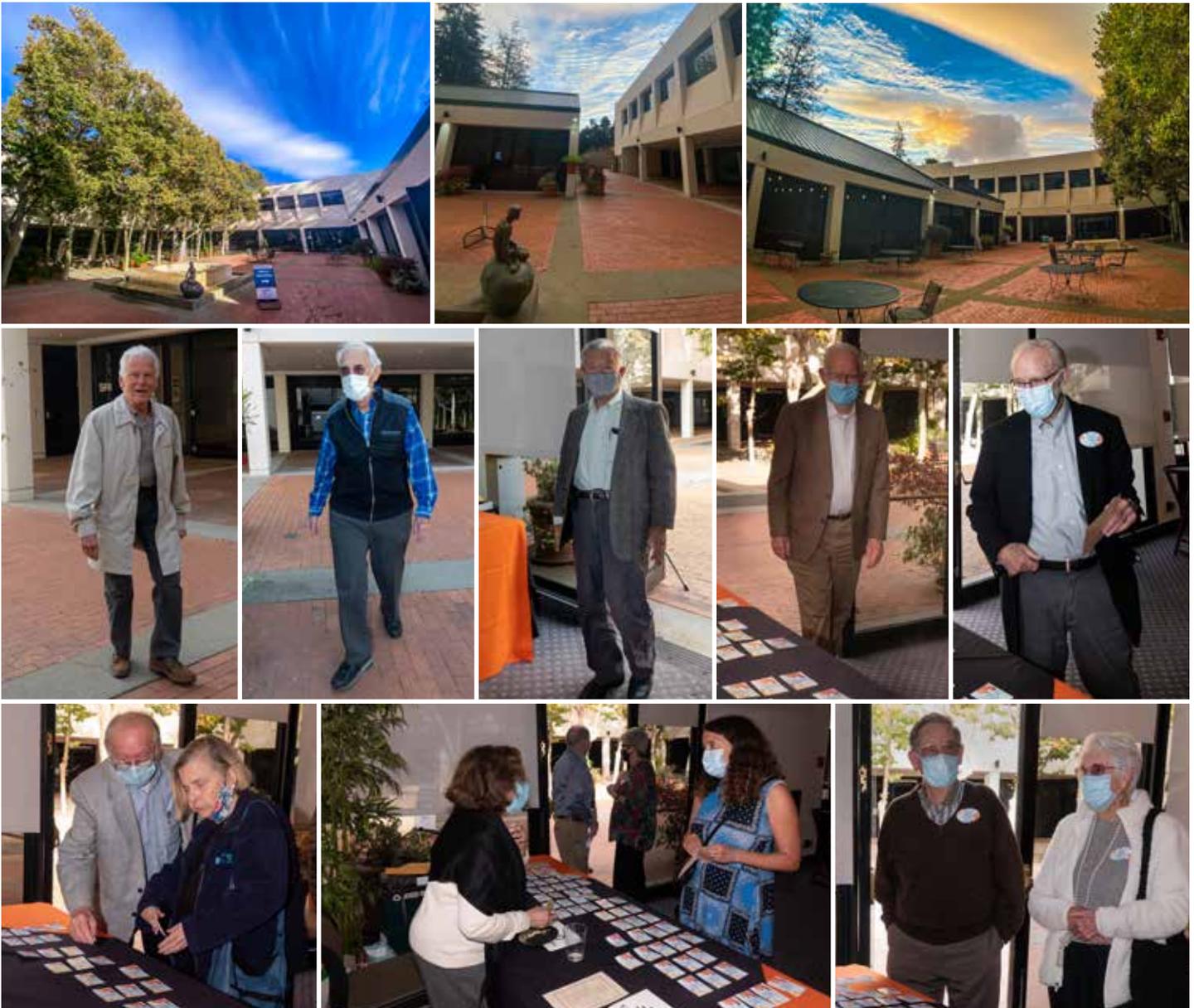


Finally, to each of you a wish for meaningful and enjoyable holidays! This year has continued to ask a lot of us, and you can hopefully look forward to a bit more normalcy in your celebrations. For those who live nearby, if, among your coming resolutions, you find a desire to come and help your Alumni Association, you would be most welcome.

Annual Reunion, October 21, 2021

The 2021 annual reunion was held in the International Building on October 21. Turnout was similar to past years, with 72 people attending. The program included a technical presentation by Roy Kornbluh on “Underwater Kites and the Promises and Challenges of Tidal Energy Harvesting,” a presentation by Don Nielson on “Campus Renovation — Status, Promises, and Implications,” and the induction of David R. Crosley and John Kelly into the SRI Alumni Hall of Fame. Alumni and guests enjoyed sumptuous hors d’oeuvres, excellent drinks, delightful conversation, and plenty of door prizes. Everyone was grateful and happy to mingle with former colleagues on what turned out to be a glorious fall evening.

Thanks are due to the many people who contributed to another successful reunion. Dave Harvey planned the logistics and menu. Augustina Biosic and Linda Jansen compiled the list of attendees, designed and printed the program/name tags, greeted the attendees, and coordinated the prize raffle. Antonia Tena helped greet attendees at the reception desk. JD Smith arranged for the raffle prizes from the Credit Union. Don Shockey acted as emcee for the Hall of Fame presentation, while Linda Hawke-Gerrans created the Hall of Fame poster and certificates. Patti Schank managed the alumni website and emailed the reunion invitations. Arturo Franco and his SRI Conference Services staff provided a pleasant event space with great food and beverages. And, finally, Gary Bridges captured the entire experience with excellent photos of a memorable gathering.







2021 SRI Alumni Hall of Fame Recipients

Two former SRI staff members, David Crosley and John Kelly, were inducted to the SRI Alumni Hall of Fame at this year's reunion. They received this honor in recognition of their exceptional contributions to the success of SRI. Their complete citations are included here.

David Crosley



David R. Crosley joined SRI in 1979 to begin a program in laser detection techniques applied to combustion studies. He is a pioneer in this field, having begun his career using laser methods to study the structure and collisional behavior of small molecules. His research program at SRI, begun with laser-based combustion

diagnostics, soon added the detection of species important in atmospheric chemistry; and it eventually expanded to include laser spark spectroscopy, laser-ionization mass spectrometry, combustion and atmospheric chemical processes themselves, and, to a lesser degree, some other areas involving laser spectroscopy. Over 95% of this work was supported directly or indirectly by a large variety of US governmental agencies.

David's research group, at its apex including more than 15 scientists, comprised permanent staff members, postdoctoral research associates, graduate and undergraduate students, and visiting senior scientists supported by their home institutions, often from overseas. Many of David's alumna and alumni have gone on to successful research careers in academic institutions and research laboratories. He received the first of the Mimi Stearns awards for mentoring and has been elected an SRI Fellow.

David has published more than 200 papers on these research topics, which have over 10,000 citations. He is a Fellow of the American Physical Society and the American Association for the Advancement of Science. He, with a professor from Berkeley, founded in 1981 the Gordon Conference on Laser Diagnostics in Combustion, which has continued to this day. David has also been invited to present talks at the Atmospheric Chemistry Gordon Conference and conferences of the American Chemical Society and American Physical Society, among others. He has organized workshops, often held at SRI, for his clients; these involved

top researchers in the topic of each, and some of these workshop reports, particularly for NASA, have been widely quoted.

David began his SRI career as a program manager in the Molecular Physics Laboratory and after some 15 years was promoted to laboratory director. David finally fully retired in 2014.

John Kelly



In his long and distinguished career as leader of the Center for Geospace Studies, John Kelly, PhD, made contributions to SRI and its reputation, both nationally and internationally, in the scientific fields of upper atmospheric and ionospheric physics.

Early in his SRI career, John (JK to those who know him) had focused on researching the phenomena of the aurora borealis at the incoherent scatter radar (ISR) at Chatanika, Alaska. In the early 1980s, JK led the National Science Foundation-funded project to move the Chatanika ISR to Sondrestrom, Greenland, a logistically challenging undertaking that he completed on schedule and on budget. After the successful move, JK managed the Sondrestrom facility from Menlo Park, making frequent trips to Greenland to ensure both that the systems were working properly and that the employees were functioning as an effective team at this remote location. As a manager, he was professional, curious, and knowledgeable but never aloof, which helped build significant loyalty within the team. In fact, such was the esteem of the people JK managed that the radar station came to be known (and listed on signposts and maps) as Kellyville, somewhat to his chagrin.

After a protracted campaign, JK successfully arranged funding and secured the contract for the advanced modular ISR (AMISR) system development and implementation. This significant accomplishment required vision, determination, and political astuteness. As always, JK developed long-term relationships with clients and demonstrated a commitment to see that their goals were achieved. The AMISR systems very much pushed the state of the art in ISR technologies and capabilities, and they remain vital instruments for ionospheric and space-weather research today. AMISR radars are now operating under NSF grants to SRI in Poker Flat, Alaska, and Resolute Bay, Canada.

Because of the success of the Sondrestrom and AMISR radars, the NSF asked JK to bid for the project to operate and maintain the Arecibo Radar in Puerto Rico, the flagship of NSF's Upper Atmospheric Facilities program and the largest radio telescope in the world at the time. When SRI was awarded that grant, JK's group was responsible for four of the eight ISRs in the world.

JK provided a work environment where staff at all levels could prosper professionally. He often joked that he was

"leading from behind," but it was understood he was actually providing options and encouragement. In 2004 JK and the Center for Geospace Studies received SRI's Presidential Achievement Award—the first time the award was given to a group and not to just one individual.

Over the decades, John Kelly clearly contributed greatly through his leadership of the SRI projects and staffs at these significant radar sites.



NEWS FROM SRI

An Update on SRI's Campus Overhaul

By Don Nielson

Last issue, you got a glimpse of the huge transformation that will be taking place on SRI's Menlo Park site. Transformation is the right word, for in most aspects you will not be able to recognize your former home. For those of you who tuned in to David Stringer-Calvert's talk on November 4, this may not be news. Here is some of what he mentioned, plus some of what just appeared in a local paper, followed by a possible new awareness and a few issues that seem critical to this observer.

There can be little debate about whether SRI should have been realizing the potential of what it has been sitting on, some of the most desirable real estate on the Peninsula. Most of us probably were too engaged in getting along to see how valuable it was and what a wasteful drain it was

on the Institute. Some of the property along the edges had been sold off a long time ago, but the vast remaining 60-plus acres had a lot of unused and deteriorating space. Doing something to correct this has, in retrospect, been way overdue.

Back in 2017, SRI's administration and the board of directors began to move. Their goals were to bolster the Institute's operating potential by

- Increasing SRI's financial stability by monetizing its underutilized land
- Strengthening our technical reputation and impact with improved research facilities
- Enhancing staff recruitment and retention
- Generating additional research opportunities
- Lowering our overall multipliers to increase competitiveness
- Providing an inviting facility to host numerous customer visits.

Gaining the revenue that will make these changes possible has, in part, the following arrangements and stipulations:

- SRI has chosen Lane Partners of Menlo Park to provide the development capital and expertise.
- SRI will retain ownership of all 63 acres by granting a very long-term lease on all but what SRI itself uses. It will have free rein on what it does with its retained portion.
- SRI will receive a share of the annual lease revenue from all new development.
- SRI is positioned to protect its interests in case of future default.

The undertaking is scheduled to begin shortly with the formal contract agreements and applications to the City of Menlo Park. Sometime next year, SRI will begin renovating Building S for classified work and in 2023 will begin upgrading Buildings P and T. SRI will consolidate into that

renovated space in 2024. The next two years will see the complete demolition and rebuilding of the remaining land.

Here is the latest site plan, the details of which are a bit elusive or undefined except that the only buildings SRI will retain and occupy are P, S, and T. Buildings on the left are residential. Those in right center contain office space, and the rest, save SRI's, are parking structures—yes, lots of parking it seems.

But before going into some issues with the plan, there are a couple of salient and not unrelated factors that lie behind this whole initiative, factors that David pointed out and that we need to understand. The first is that the cost of living on the Peninsula has made attracting good talent to SRI increasingly difficult. As of now, most new hires would be able to look at only leasing or long commutes or both. This lack of affordable living space is a far more imposing factor now than it was in the early decades of SRI, and new talent obviously is SRI's most critical asset.



The second factor, driven by the first, may define a changing image for SRI. While SRI began and was concentrated in Menlo Park, over most of its life it has had outlying offices, even several overseas. These arose in response to both markets for research and consequent project need. In only one instance this observer can think of was an outlying office for the convenience of employees. SRI now lists 19 satellite offices, almost all domestic. SRI's ongoing strategy appears to embrace satellite offices, driven to a large extent by the above housing costs. Furthermore, the COVID pandemic has shown that staff can live far from an office and still work effectively. Such distributed growth takes advantage of talent acquisition in more affordable settings and may well characterize a future for the Institute.

Now to a few important issues that will hopefully be addressed by SRI. Two of them seem critical but aren't evidenced in the current layout or its description. First is whether SRI is adequately gauging the amount of acreage and type of facilities it will need for its future use in Menlo Park. Beyond the ability to become tenants in the developer's buildings, presumably at market rates, can a bit of buffer land be retained for adapting to unforeseen research opportunities? Indeed, what are the boundaries of SRI's retained space besides the noted buildings? Indications are that Buildings P, S, and T will accommodate just 400 on-site staff members. In spite of not knowing exactly what the comings and goings of a new hybrid occupancy design may entail, it seems targeted for continued shrinkage of staff, at least in Menlo Park. Will growth locally force some staff to work at home? Will offices be time-shared or comprise open, compact cubicles? If so, that will drastically change one of SRI's hallmark and attractive traditions, a separate office for all staff.

Beyond that issue is the type of space needed for some types of research. Will there be open bays for larger equipment? Will the likes of Ness Auditorium exist for conferences and convocations that SRI has hosted over the years? Too much of the plan speaks of constraint and loss of flexibility. Perhaps for the first time in its history, SRI is predetermining and narrowing its opportunities for research, at least in Menlo Park, and correspondingly planning for a smaller Menlo Park staff.

The second important issue is SRI's presence. This doesn't seem to be a consideration in what has emerged so far and is troubling in its absence. Given that this is SRI property, why give up all the Ravenswood frontage to some unpredictable set of tenants? Something as straightforward as the retention of a revamped I Building would give both street presence for SRI and "an inviting facility" for customers and other entities on campus, one of the above-stated goals. It could also provide on-site amenities such as food (replacing the cafeteria) and staff health facilities. It seems as if SRI's physical prominence has been abdicated, unwittingly or not.

If you want to see a bit of the developer's view, including other puzzling aspects of the project, read the recent article from Menlo Park's *Almanac* (<https://almanacnews.com/news/2021/11/18/developers-officially-submit-parkline-proposal-to-rebuild-sri-campus>). You will almost certainly be surprised by the inclusion in the SRI site plan of provisions for a small soccer field, a playground, exercise stations, a dog park, and mile-long running and bike paths, all for open public benefit and access. One can guess why this is on the table, but hasn't anyone noticed that one of the area's largest and most accessible parks, Burgess Park, is just across Laurel Street with most of those features enabled already? Fortunately, now missing from the updated plan is the inane bike shop-SRI museum combination on Middlefield across from Menlo-Atherton High School! A small museum of notable accomplishments would be worthwhile but better in conjunction with a more formal and obvious SRI entrance.

Addressing these important concerns seems doable if the will is there. But above all we are seeing an unprecedented transformation, not just physical but of operational substance: a less familiar SRI, one that is purposely distributed if not decentralized. But I submit SRI can succeed in any environment if its impacts are exciting and consequential. Optimistically, this new endeavor can leverage that. Regardless, Menlo Park is still the hub of the Institute, and SRI demands a physical presence beyond being just another tenant on its own land! Let's hope that some flexibility remains in what unfolds, something that helps SRI retain its rightful exposure here where it was born.

Meet SRI's New CEO: Dr. David E. Parekh

David Parekh becomes SRI's new CEO this December, succeeding William Jeffrey, who has served as CEO since 2014. David has had a storied career in technology research and development, most recently as an independent consultant and member of various boards, including those of the Connecticut Science Center and the American Council for an Energy-Efficient Economy.

"Dr. Parekh brings a broad background of working in research at both nonprofit and for-profit companies as well as working with both government and commercial clients over the last 30 years," noted Leslie Kenne, chair of SRI's board of directors. "David is the right leader at the right time for SRI. His energy and passion for research, along with his strong leadership experience, will support and accelerate SRI's mission to create world-changing inventions that make people safer, healthier, and more productive."

Before becoming a consultant, David was corporate vice president of research and director at United Technologies Research Center (UTRC), providing global leadership for United Technologies Corporation's central research organization. Under his leadership, UTRC developed a broad portfolio of advanced aerospace, energy, and digital technologies for the United Technologies business units. Before his tenure at UTRC, David was deputy director of Georgia Tech Research Institute and associate vice provost for research at the university. Early in his career, he led various advanced technology programs at Boeing Phantom Works and McDonnell Douglas Research Laboratories. A Fellow of the American Institute of Aeronautics and Astronautics, David is also a member of the Connecticut Academy of Science and Engineering.

David earned a doctorate in mechanical engineering and master's degrees in mechanical and electrical engineering from Stanford University and a bachelor's degree in mechanical engineering from Virginia Tech in Blacksburg, Virginia.

"I am honored to be selected as the next CEO of SRI International," David said. "It will truly be a pleasure to work with the distinguished researchers and senior leadership at SRI to create the transformative solutions our customers

need. I am excited about the mission of the organization and look forward to joining this great institute that I have admired for many years."

Leslie Kenne thanked William Jeffrey for his very successful leadership of for the past seven years. "Bill's leadership brought a strategic vision and solutions-focused research to support the important mission of SRI to make the world a better place for all people to live."

Source:

SRI press release, October 26, 2021: <https://www.sri.com/press-release/sri-international-names-dr-david-e-parekh-as-ceo/>

Digital Crop Insurance App for Small Farmers

SRI spin-off Wingsure is an "insurtech" platform that enables underserved small rural farmers to obtain personalized crop insurance and rapid resolution of claims through their mobile phones. Insurtech refers to the application of technology to the traditional insurance industry.



"Farmers are the foundation of our society, but many farmers worldwide are exposed to risks that could cost them their livelihood and their land. We now have the technology to protect these small farmers anywhere in the world," said Avi Basu, founder and CEO of Wingsure.

Initial implementation will focus on India where 70% of households depend on agriculture for their living. Many are in remote locations without access to financial services and are unable to insure against crop failure or other unexpected events.

The gap between economic losses and those that are insured widened in 2020 because of the pandemic, reaching new high of \$1.4 trillion according to a Swiss Re Institute study. Wingsure addresses this gap by applying artificial intelligence and machine learning to connect insurance companies, brokers, and agribusinesses with underserved small farmers through their mobile devices. Further, Wingsure's application rapidly processes insurance claims with the aid of SRI's computer vision, geospatial, and augmented reality technology, which can confirm crop damage, identify the validity of the insurance claims, and make prompt settlement.

In addition, the Wingsure platform combines voice prompts and natural language processing to allow farmers to speak in their native language. The platform can be scaled to integrate with existing mobile communication platforms, and claims that previously took 3 to 12 months to complete can be verified and processed in minutes.

“The benefits of artificial intelligence need to be accessible to everyone—not just the big corporations,” said Todd Stavish, vice president and managing director of SRI Ventures.

Sources:

SRI press release, July 27, 2021: <https://www.sri.com/press-release/sri-spinout-wingsure-develops-ai-driven-mobile-insurance-app-for-small-farmers/>

Wingsure website: <https://wingsure.co/>

Quantum Computing Milestones



SRI manages the Quantum Economic Development Consortium (QED-C), which was established in response to the 2018 National Quantum Initiative Act that provides a \$1 billion annual budget for quantum research. Members include more than 120 U.S. companies and more than 40 academic institutions and other stakeholders. The consortium seeks to enable and grow the quantum industry and associated supply chain. Two recent milestones are of note, the launch of the public online Quantum Marketplace and the availability of an open-source suite of performance benchmark programs for quantum computing.

Quantum Marketplace Goes Public

QED-C launched a publicly available, first-of-its-kind online Quantum Marketplace (<https://quantumconsortium.org/quantum-marketplace/>) to help companies in this nascent industry that have quantum-related technology needs find suppliers, customers, and partners. Since launching early this year for QED-C members, the marketplace has made connections across the quantum industry.

Monthly Quantum Marketplace webinars focus on companies in a particular area relevant to the

commercialization of quantum technology. Recent webinars highlighted suppliers of lasers, sensors, cryogenic technologies, entangled photon sources, and technologies for timing. Technology providers and users present and then engage in panel discussions, sharing expert views on the state of the art and emerging applications and markets. Future webinars will cover such topics as electronic/radio frequency controls, test and measurement, and computing hardware and software.

“Presenting at the Quantum Marketplace provided exposure to new customers that did not know about our capabilities. This has led to sales of a large system, a joint white paper, and the beginnings of a strategic partnership with a large company,” said Scott Davis, CEO of Vescent Photonics and chair of the QED-C Enabling Technologies technical advisory committee, which came up with the idea for the marketplace.

“The Quantum Marketplace is helping raise awareness of the diverse companies—especially the small- to mid-size businesses that don’t have huge marketing budgets—that are developing solutions for the rapidly evolving quantum industry,” added Celia Merzbacher, Executive Director of the QED-C.

QED-C Introduces a Novel Approach to Measuring Performance of Quantum Computers

In October 2021, QED-C announced the public availability of an open-source suite of application-oriented performance benchmark programs for quantum computing. These quantum computing benchmarking tools were developed by

What Is Quantum Tech?

Quantum technology is an emerging field of physics and engineering that relies on the principles of quantum physics. Quantum computing, quantum sensors, quantum cryptography, quantum simulation, quantum metrology, and quantum imaging are all examples of quantum technologies in which properties of quantum mechanics, especially quantum entanglement, quantum superposition, and quantum tunnelling, are important.

Source: https://en.wikipedia.org/wiki/Quantum_technology

the QED-C Standards and Performance Metrics Technical Advisory Committee (Standards TAC) and are the result of a multiyear collaborative effort by QED-C member companies involved with the development of quantum computing technologies.

The novel approach executes familiar quantum algorithms and small programs over a range of problem dimensions to gauge how well—and how quickly—a quantum computer performs quantum operations. The QED-C approach complements other methods for characterizing the performance of quantum computers, such as randomized benchmarking or quantum volume.

“We designed this suite of benchmark programs to be as easy to use as possible and to be readily accessible through multiple application programming interfaces, such as Qiskit, Cirq, and Braket,” said Tom Lubinski of Quantum Circuits, Inc., who is chair of the QED-C Standards TAC. “This makes it possible for users and providers alike not only to gauge performance across different quantum hardware devices, but also to track improvements as hardware evolves over time.”

Celia Merzbacher, executive director of the QED-C, added that “this successful project stands out as an example of what a consortium, such as QED-C, can accomplish when like-minded individuals from diverse and sometimes competing organizations work together toward a shared goal benefiting the whole community and encourages adoption of quantum computing technology.”

The open-source code repository is available at <https://github.com/SRI-International/QC-App-Oriented-Benchmarks>. The Standards TAC also wrote a paper that provides results and details about the methodology used in this project, “Application Oriented Performance Benchmarks for Quantum Computing,” available at <https://arxiv.org/pdf/2110.03137>.

Sources:

Press releases:

<https://www.yahoo.com/entertainment/qed-c-goes-public-quantum-124700006.html>

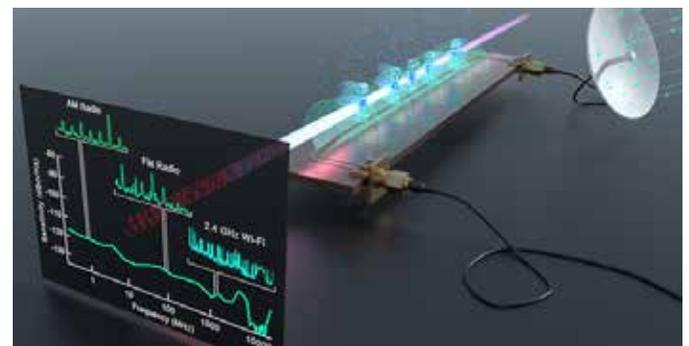
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Wikipedia: https://en.wikipedia.org/wiki/Quantum_technology

SRI to Participate in DARPA's Quantum Apertures Program

SRI is one of four teams selected to participate in the Defense Advanced Research Projects Agency (DARPA) Quantum Apertures (QA) program. The QA program's goal is to develop a fundamentally new way of receiving radio frequency (RF) waveforms to improve both sensitivity and frequency agility. Research will involve development of portable and directional RF antennas and RF receivers with significantly greater sensitivity, bandwidth, and dynamic range than any receiver available today.

SRI and other research teams will seek to address today's antenna limitations by advancing the current state of the art in quantum RF sensors—the Rydberg sensor. Rydberg sensors have the potential to sense electronic fields using highly excited Rydberg quantum states. These quantum states have a high quantum number (n) (in this case, approximately 100). High- n states have electrons that orbit approximately 10,000 times farther away from the proton than a ground-state atom, making them highly sensitive to electric fields, effectively acting like small antennas. The QA program will address the significant technical challenges in realizing the Rydberg sensor's potential.



“For DARPA Quantum Apertures, we developed and demonstrated a novel method to detect these lower radio frequencies that the customer sought to sensitively detect,” commented Kaitlin Moore, research physicist and program principal investigator in SRI's Applied Physics Laboratory. “We showed that we could detect RFs sensitively using our atomic antennas in a way that's likely different from what everybody else is doing.”

One of the metrics the SRI team will be addressing is the challenging RF transparency metric. Moore, together with Sterling McBride and Winston Chan, both also researchers in the Applied Physics Lab, will work to package these small sensors in a unique way such that they reach that transparency metric.

“Besides the expertise that SRI brings to the program, we are teamed with world-leading collaborators to execute on this program, including NIST [National Institute of Standards and Technology] and the Quantum Valley Ideas Lab,” said Moore. “SRI is looking forward to the future of DARPA’s Quantum Apertures program where we can develop these atomic receivers in an innovative way.”

Sources:

SRI press release: <https://www.sri.com/announcements/sri-international-selected-to-participate-in-darpas-quantum-apertures-program/>

DARPA press release: <https://www.darpa.mil/news-events/2021-08-04>

Parijat Bhatnagar Receives Prestigious DARPA Award



Parijat Bhatnagar, Ph.D., senior program director of SRI’s Cell-based Medicine, was awarded the Director’s Fellowship Option of the Defense Advanced Research Projects Agency (DARPA) Young Faculty Award (YFA). This prestigious award provides additional funds for Bhatnagar and his team to continue

developing cells that can be stimulated via extracorporeal devices to treat viral infections. Only top performers among the first phase of DARPA YFA awardees receive the Director’s Fellowship Option.

During the first phase of the project, the SRI team developed a genetic circuitry that can be used to trigger cells—via a stimulus delivered from outside the body—to regulate the synthesis of proteins with desired therapeutic properties inside the body. This is important because many proteins are toxic when systemically delivered in high quantities but are therapeutic when tightly regulated. Additionally, the team de-risked the feasibility of their approach by demonstrating that the cells they stimulate can synthesize proteins with antiviral effects.

With the Director’s Fellowship funding, the team intends to advance its cellular platform as a therapeutic agent that can universally target multiple viruses.

“This is a potentially transformative approach for controlling

and eliminating biological threats,” said Bhatnagar. “As we saw with COVID-19, the process of developing countermeasures for each new biological threat is time- and resource-intensive. If and when we face the next emerging infection, our cell-based platform could be immediately available, potentially saving lives by stopping a pandemic before it begins.”

Bhatnagar added, “It is an honor that DARPA has trusted our team to continue this work, which could protect our troops against unknown biological threats. It speaks volumes about the strength of our team and what we have accomplished together.”

The objective of the DARPA YFA program is to identify and engage rising stars; expose them to Department of Defense needs and DARPA’s program-development process; and provide funding, mentoring, and industry and Defense Department contacts to awardees early in their careers.

Bhatnagar’s research is also supported by the National Institutes of Health Director’s New Innovator Award administered by the National Institute of Biomedical Imaging and Bioengineering and the Innovative Molecular Analysis Technologies program, a niche program in the National Cancer Institute that supports next-generation technologies for targeting cancer.

Source:

SRI press release: <https://www.sri.com/announcements/parijat-bhatnagar-receives-darpa-award-to-continue-research-into-engineered-immunity/>

Identifying Cybersecurity Issues in the Oil and Gas Industry

SRI led collaborative efforts to identify potential cybersecurity issues in industrial control systems (ICSs) that use safety instrumented systems. This work supported the Linking the Oil and Gas Industry to Improve Cybersecurity (LOGIIC) consortium and was conducted with the help of penetration testing experts.

LOGIIC is a public-private partnership between the U.S. Department of Homeland Security’s Science and Technology Directorate and multinational member companies from the oil and gas industry. SRI provides LOGIIC with technical project leadership through a contract with the directorate.

ICSs control the automated processes in manufacturing and industrial facilities and use safety instrumented systems

to monitor operations and automatically take actions to maintain safety when potentially hazardous conditions arise. With SRI's help, LOGIIC has conducted three projects examining various aspects of safety systems. Two earlier projects addressed safety instrumented systems controllers. The latest project focused on smart instruments, such as pressure sensors, that provide the inputs the controller needs to make decisions and on the instrument management systems.

LOGIIC wanted to understand if and how attackers could use smart instruments to compromise safety and how to prevent such attacks. SRI worked with LOGIIC members to understand their concerns and to design a project that would definitively answer their questions. SRI then worked with ICS and safety-instrument penetration testing experts from Secrabus and Dragos to execute the project.

This was the most complex LOGIIC project to date. It was highly collaborative and conducted with full cooperation from multiple safety system and instrument vendors and LOGIIC safety systems experts. The assessment team uncovered numerous recurring problems that can all be attributed to common exploitable design weaknesses included in the MITRE Common Weakness Enumeration database.

SRI's work on this project was funded by the U.S. Department of Homeland Security's Science and Technology Directorate under Contract No. HSHQDC-16-C-00034.

Sources:

SRI announcement: <https://www.sri.com/announcements/sri-leads-collaborative-effort-that-uncovered-cybersecurity-issues-in-industrial-control-system-safety-instrumentation-and-management/>

LOGIIC website: <https://www.logiic.org/project12.html>

LOGIIC Project 12 description: <https://www.logiic.org/project12.html>

Charting New Mexico's Economic Future

The New Mexico Economic Development Department contracted with SRI to conduct an assessment to form the outline for a 20-year comprehensive economic development strategy for short- and long-term economic recovery. The analysis was needed to help New Mexico recover from the near-term impacts of the COVID-19 pandemic and guide longer term efforts to diversify its economy and become more competitive. Assisted by the state's seven regional councils and other stakeholders, SRI analyzed the strengths, weaknesses, opportunities, and threats of nine target industries across the state and its regions. The nine key sectors were sustainable and green energy, aerospace and defense, sustainable agriculture, global trade, cybersecurity, film and television, intelligent manufacturing, biosciences, and outdoor recreation.

The SRI report identified six main impediments to New Mexico's economic growth, including misalignment between higher education and industry and public sector dominance in the state's innovation ecosystem. "They help us pinpoint what is actually holding us back so we can move forward," said Alicia Keyes, New Mexico Chamber of Commerce, Economic Development secretary.

With a 20-year plan now in hand, the New Mexico Economic Development Department is asking legislators for a substantial investment that its leaders believe will help the state diversify and bolster its economy.

The project was funded by a U.S. Economic Development Administration CARES Act grant.

Sources:

Albuquerque Journal news articles:

"New Mexico Economic Development Department Brings on SRI International to Chart the Future": https://www.santafenewmexican.com/news/business/new-mexico-economic-development-department-brings-on-sri-international-to-chart-the-future/article_76158b64-9d54-11eb-a8e2-b77abc33cdd1.html

"NM Unveils 20-Year Economic Strategic Plan": <https://www.abqjournal.com/2445127/nm-unveils-20year-economic-strategic-plan-ex-economic-development-department-to-see-huge-budget-increase.html>

Moving (with) a Radar

By Craig Heinselman

Minus 40 is cold. Really cold. Throw a cup of hot water in the air and have none of it hit the ground before evaporating cold. Minus 40 with aurora, on the other hand, is mesmerizing; definitely Robert Service territory. The difference between minus 30 and minus 40 is best measured with a stopwatch: It is the length of time it takes to notice that you can't feel your toes/nose/fingers while watching the aurora. I learned these, and many other things, in the first weeks of my tour as a site crew member at the SRI-built and -operated Chatanika Radar near Fairbanks, Alaska.

Backing up a bit, there I was, happily working away in the Systems Development Division (SDD) on SRI's Menlo Park campus. One fine day in the fall of 1981, Jim Hodges, who was also working in SDD at the time, introduced me to John Kelly (JK), principal investigator for the National Science Foundation (NSF) project to move the Chatanika Radar to Greenland. JK was looking for an engineer for the move and for operations afterward. The deal was that the new staff member would join the Alaska crew—Finn Steenstrup, Mary Lemmons, and Dewey (Dutch) Edgin—for the final months of operations there; learn enough to be useful (hopefully); help disassemble, pack, and ship the radar hardware; and then move as part of the equipment halfway around the world to a yet-to-be-fully-established outpost. The new location was near the Sondrestrom Air Base, at the inland end of a 100-mile-long fjord crossing the Arctic Circle on Greenland's west coast. Once in Greenland, of course, all that disassembly would have to be reversed, troubles shot, a few upgrades completed, and then the science could begin anew. Not for everyone, perhaps, but it sounded like a grand Arctic adventure to this 20-something!

The final measurements of the Chatanika Radar were made at the end of February, and then the serious work of taking things apart commenced in a flurry. Alaska roads have strict load limits once the ground thaws, so everything had to be out of Fairbanks by the first of April. Our dedicated and hard-working crew put in some very long days to get the job done on time. JK did give us a couple of days off for R&R during the month, however, which were very welcome!

Chatanika had (and still has, I believe) two very Alaskan hotel-like establishments, the Gold Camp and the Chatanika Lodge. Each spring they host a unique athletic event, starting at the former location and finishing at the latter a few kilometers away, as part of the Chatanika

Days spring celebration. This event has a few (marginally enforced) rules. Teams should consist of five people, at least two skis are considered normal, and at least one of the team members must remain seated on the throne for the duration of the event. I am, of course, referring to the Chatanika Days Outhouse Race. Yeah, it's pretty much like it sounds. Outhouses of various shapes and forms are attached to skis and dragged or shoved down a snowy path in a frantic display of utter mayhem. Someone from the radar staff was able to borrow an existing outhouse (including skis) and made a few minor modifications. We added a non-aerodynamic antenna to the roof (clearly the reason we didn't win!) and signed up. The throne occupant was Mary Lemmons, and the horsepower came from Dutch Edgin, Al Howlett, Hector Laria, and yours truly. The race started with a barely survivable steep downhill from the Gold Camp parking area, with a treacherous turn just as the outhouses were up to full speed. I still think Mary deserves a medal for staying in her place during this section—talk about putting your rear on the line for SRI's honor (so to say)! Not all outhouses did survive this turn, but by some miracle ours didn't end up on the casualty list. Once all that potential energy had been converted to kinetic energy and then to heat, the struggles began. There was a flat and soft section of snow beside the Steese Highway over to the Chatanika Lodge, and much groaning and cursing was required. Let's just say that a lighter outhouse might have been preferable on this part. At least we didn't have to push the even heavier but beautifully built all-aluminum outhouse that a group from the Poker Flat Rocket Range had constructed. In the end, I'm convinced that the only reason we made it was the promise of cold refreshments courtesy of Ron, the lodge's owner, because we were never contenders for the crown.



The intrepid SRI Outhouse Team of 1982.

Project-wise, not everything went exactly as planned. At one point, a counterweight on the antenna was lowered more abruptly than one might have hoped (because of insufficient tension on the cable from the crane). Nobody was injured, but it was a near thing. The water well at the site was not quite up to the task of handling the size of the crew, so we made do with extremely cold porta-potties. There was an incident with an empty gas tank on a car full of SRI folks trying to get into Fairbanks one night (almost made it to the gas

station in the town of Fox, but it wasn't quite downhill all the way!). There was an extended search for some channel-locks (by someone who didn't know what channel-locks were), multiple trips to the local lumber yard that lead to a very curious Alaskan (What are you building??), and a hundred other small problems that needed solving. Fortunately, we had an industrious group of men and women who were up to the task. The last shipment left on time, and hardly any parts were broken in the process.



The disassembly crew hard at work.



Chatanika, Alaska. Radar disassembly 1 March to 1 April 1982.

Once on the road, the radar took a circuitous route from Alaska to Greenland. If I recall correctly, it went by truck from Fairbanks to Anchorage, container ship under the Golden Gate Bridge and back out again, through the Panama Canal and on to Germany, by rail from Germany to Denmark, onto another container ship from Denmark to Greenland, and, finally, the most treacherous section, from the container ship up to the (soon to be established but not yet named) site in Kellyville, Greenland. I took a much more mundane route that included four months of work in Menlo Park.

When we arrived in Greenland in September, the site contained the empty shell of a transmitter building, a circular antenna foundation (at a spot that had been excavated to bedrock the year before), and not much else. The container ship was just about to arrive at the Sondrestrom Port (an optimistic name for where the landing craft came ashore), and a small portable generator was being carted around to power a few tools. That situation was soon to change!

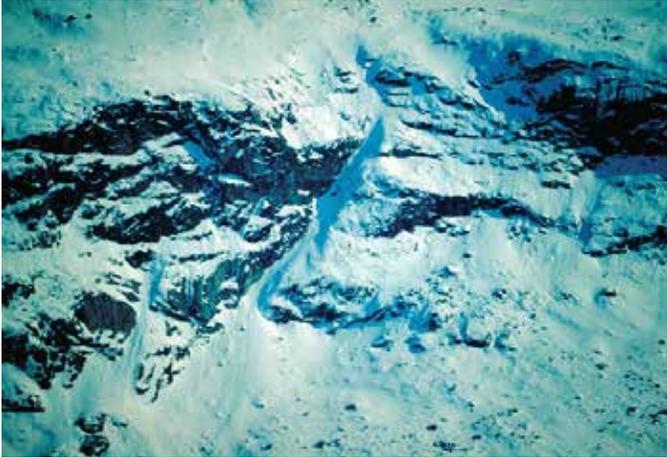
In addition to all the radar hardware, the ship brought in a crane for the assembly. The rental for the crane was expensive, so we needed to get the major part of the assembly job done in a hurry and then had to get the crane back on a ship for another job at another location...before the last ship left and the fjord froze over for the winter. Nothing like a bit of time pressure to motivate folks!



Some assembly required.

Outdoor assembly of the radar hardware proceeded at a frantic pace, and, in the nick of time, the crane work was completed. That left a fair amount of indoor work to be completed more deliberately by the permanent site crew and with frequent visits by staff sent over from Menlo Park.

The most direct access to Sondrestrom Air Base was via military transport from New Jersey, and, as a result, JK collected an impressive number of frequent flier “points” on the C-141 airlifts from McGuire. During one of his visits, JK and I took a day to enjoy the outdoors. I had been very impressed by a cliff on the opposite side of the fjord—so impressed that I asked the truck driver who delivered the mobile homes to tweak the orientation of mine so the cliff would be visible from the living room window. This being winter time, the fjord was frozen solid so we marched off from the port toward the cliff with warm clothes, ropes, ice axes, and a sense of determination. It was a crisp, chilly day of some -20° F or so, but our pace kept the frost at bay. The route up the cliff turned out to be very doable (though the climb down was a bit sketchy), and we had a very fine day out. When we got back to the site we discovered a slight disadvantage to facial hair. While I enjoyed a well-deserved Tuborg to celebrate our success, JK found himself frozen into his balaclava by his beard. I sometimes wonder if he ever forgave me for the taunting.



Crag across the fjord from Kellyville. Climbing route goes up the obvious ramp.

In the end, the radar did indeed get put back together, and, despite some challenges, the system was up and running again in February 1983, less than a year after being turned off in Chatanika. Also, much to NSF’s delight, the project came in under budget! This led to more than three decades of interesting and important progress in understanding the Earth’s near space environment.

The final report for the move took the form of a time-lapse movie, which can be viewed at <https://heinselslug.smugmug.com/Professional/Greenland/Greenland-Movies/>.

Editor’s notes:

For more about the radar move, please see the December 2020 newsletter issue for “The Sondrestrom Radar – A Brief History” by Mary McCready.

For more about the Sondrestrom Research Facility and SRI staff experiences in Greenland, please see the December 2020 issue for “My Greenland Adventure” by Tom Lovelace and the April 2021 issue for “Memories of Greenland” by Rachel and Clay Ross.



Greenland radar assembly from September 1982 through February 1983.

Editor's note: Barry Minkin, as a member of the General Management Consulting Group, had the opportunity to work with many of the specialty groups and people across SRI and with clients all over the world. This excerpt from his autobiography, Playing With Dust, is a memory of working with Joe McPherson in Venezuela. We reprint it with permission of Barry Minkin.

Banana Fever

By Barry Minkin

With the help of Joe Grippo, I was introduced to Joe McPherson and became a member of the Innovation Search team along with Nick Gudicci. McPherson had been a psychologist with Dow Chemical and had developed a unique methodology for increasing creativity in organizations worldwide. The appendix on page 247 in my book *Econoquake* discusses some of the lessons learned.

One of the most interesting projects was for the oil industry in Venezuela. The Dutch had controlled and managed the refinery and rigs located around Lake Maracaibo until they were nationalized. The large former Royal Dutch Shell refinery, called Largoven, was concerned that the Venezuelans would be in charge when they had just taken orders from the Dutch. The question was could they be as innovative? They hired SRI, and Dr. McPherson and I would spend a few months in Venezuela, helping them understand the creative process and how innovative they already were.

With many days of 100% humidity, a temperature over 100 degrees and air and water pollution, Lake Maracaibo, according to the CIA manual, was one of the unhealthiest places on Earth. So it was great when we would start our project sitting around the pool at an upscale hotel in Caracas, meeting the client team. I was impressed with the management group's knowledge of current popular business programs and practices. However, sometimes I was surprised by the lack of fundamental knowledge about certain business principles. I had to remind myself that some of these bright young managers had been living in shacks without phones or electricity just five years ago.

Indeed, when I admired some four-foot-round, widely colorful wall hangings with geometric or jungle scenes in a store, one young woman on the team volunteered to drive me out through the sandy, pine shrub-covered country around Cardon to a native enclave where these hanging

circular works of art were being woven by natives. I bought a geometric and a nature scene wall hanging piece that decorated our family room in Palo Alto.

It was good to bring gifts home to the wife and kids since my travel was having an impact on our relationship. SRI was aware of the problem of long assignments apart and arranged a break for Dr. Joe and myself to meet our wives in Mexico City. It was fun playing doubles against Joe and his lovely wife on the rooftop of our hotel, though the air pollution was so bad it limited us to just one set.

We would eat at a restaurant at the refinery for lunch and the standard fare was lobster and shrimp, two of my favorites. It seems that tons of shrimp and other fish in the lake clog up the mesh covering the large outtake pipe that releases heated process water, which was used for cooling back into the lake.

Since the leftists had been kidnapping executives, our cabins were guarded by soldiers carrying long rifles, some from revolutionary time. One night, coming back to my cabin from the refinery cinema, I realized that the guard was drunk and he was trying to point his rifle at me. I moved side to side and yelled, "Soldado, esta bien!" ("Soldier, it's ok!") as he tried to home in on me. I eventually turned away and found one of the workers to talk the soldier down.

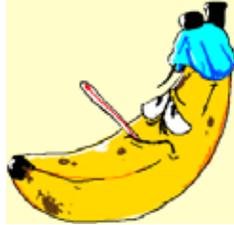
One day, after giving one of our seminars, I was not feeling well. I noticed a yellow tinge in my fingernails and in the whites of my eyes. I kept feeling weaker and more uncomfortable and mentioned it to the team, who seemed to ignore my plight. They discussed which restaurant we were going to in the small local town of Cardon that night. Eating was always a very big event. It was where they would have a chance to practice their English. However, I rarely got the chance to practice my Spanish. Eating at 10 at night was never something I could get used to.

Over dinner, I was so uncomfortable; I kept thinking that I was about to die. I felt like my head was about to fall into my dinner plate. I was quiet as the group and Joe were drinking, eating and having a great time, while continuing to ignore me. Finally, on cue after dessert and coffee, they said, "Now it's time to take you to the clinic."

The night shift doctor noticed my yellow fingernails, gave me a series of tests and, continuing in Spanish, told my interpreter to bring me back at 4 PM the next day. The following day the team now seemed obsessed with what my mysterious illness was while I was thinking about my will.

We arrived at the clinic and one of the day shift doctors, holding my test results, greeted us. The anxious management team interpreter asked in Spanish what was wrong with me. The next thing I remember is that he was laughing so hard that he literally almost fell over the examination table. Stunned, I yelled, "What did he say?!" Trying to compose himself, he told me that the doctor said there was nothing physically wrong with me. However, the "Gringo thinks he is yellow like a banana."

The following day everyone at the refinery knew about my "banana fever" and overt and covert smirks greeted me everywhere I went. Joe McPherson loved telling the story. I was embarrassed, but just thought it was a misdiagnosis by an unqualified jungle doctor.



We were given a few days off and flown, as we always were, in the company's private plane to our fancy hotel in Caracas. We noticed more street demonstrations as the left wing was trying to seize power and control of the refineries. After the R&R, we flew back to Maracaibo. It was always an experience taking off in Caracas in our private jet, because we were able to look into the high rise apartment windows that surrounded the small airport.

Our project ended with a "feel good" innovation fair, highlighting examples of creative solutions that refinery workers and management had implemented. While looking at one of the exhibits, a man approached me and asked how I was feeling. I said, "I feel fine," and he said, "I thought so." It turns out it was the doctor who diagnosed me with banana fever. I did feel better after the Caracas visit.

To celebrate our project, we were invited to a large dinner party at the general manager's home. We spent some time meeting the manager's wife, a pediatrician, and their teenage daughter in the afternoon. Joe could not wait to share the banana story, but the response was not as expected. The pediatrician said it was a very real problem that she had been observing and studying in her patients. She continued that she believed it was caused by heavy metal that gets into the water and food supply. I was feeling vindicated as I told the others about her findings. At the same time, a large iguana dropped from the tree above and marched across the large buffet table.

When America Was Truly Great

By Peter Weissbuhm

I first became aware of the existence of people called Americans as a 5-year-old in 1943, in my home town in what today is the Czech Republic. Being under German occupation, we were bombed by British and American planes. I knew nothing else about these people, except that their planes also dropped streamers of aluminium foil to confuse the Germans' radar. We kids played with the tinsel. But then, one day in early 1945, they dropped no bombs but leaflets urging the population to rise against the Nazi regime and to welcome, not resist, our "liberators." As these "liberators" in our area would be the Russians, that was a request we ignored. But these flyers were accompanied by cellophane-wrapped sweets, a great surprise. And even though the regime's propaganda warned us not to touch them, as they were "poisonous," our immediate tests had already shown them to be safe and a wonderful treat at a time of shortages.

My next encounter with Americans came in May '45, after the war's end, when the Russians had overrun us and

occupied our country. I have written about that experience in *Memories of a Young Refugee*, so will not repeat it here. It was clear that life under the Russians would be impossible, so we had to flee westward, to Bavaria, in the American-occupied sector. Having run past an armed Russian border guard at night we felt free. But then two American soldiers in a Jeep patrolling their side of the border picked us up to take us back to the Russians. They relented when my mother insisted on meeting their superior to ask him if he wanted us killed.

Refreshed from his afternoon nap, Major Wilson ordered his soldiers to drive us to a nearby refugee camp operated by the Red Cross, who provided food and shelter. The food was sugared, soggy cornflakes in milk. But after the scarcity of food in recent days, this was one of the best meals of my life. I learned that Americans were people with heart, which I never forgot.

By late 1945, my family had settled in Ludwigsburg, near heavily bombed Stuttgart. It is there that we experienced the extraordinary generosity of the American occupying forces and of their Marshall Plan. It must surely be unique in the history of warfare for the victors to provide the starving

vanquished with the massive and sustained assistance in getting on their feet again as we received then. It was a miracle not to be repeated any time soon, if ever. Just writing this brought tears to my eyes. Many of our meals over the next year were prepared with the freeze-dried potatoes, peas, and carrots plus the powdered milk and eggs the Americans donated in large containers.

At my primary school, a Jeep arrived every Thursday at noon with milk churns full of thick corn soup that was ladled out to us kids. And with that came a roll of those multi-coloured Life Saver candies with a hole in the middle. At Christmas, we were taken to the American PX, where there was a Disney film and a bag of goodies for us: tinned turkey

and Christmas pudding, a bar of Hershey chocolate, a pack of chewing gum—an interesting novelty—and another roll of Life Savers.

My parents had not been in the Nazi Party, which they despised, so they were able to obtain Marshall Plan financing to buy an old riding stable, in which they laid the foundation of a successful business manufacturing wallpaper and paper bags for the food industry. Our company, like thousands of others, owed its early success to the Marshall Plan and the assistance from the local American administration.

To me, those years will always be a time when America was truly great.

CREDIT UNION NEWS

Holiday Schedule

Dec 24, 2021 at 11:00 am

Lobby closes for holiday shutdown

Dec 25, 2021 & Jan 3, 2022

Lobby closed

Dec 29th and Dec 3rd

Limited office hours

call 650.800.5434 Email connect@srifcu.org Visit www.SRIFCU.org



SRI Federal Credit Union



*Seasons
Greetings
from the
SRI Alumni
Association!*

Wanted: Your Submissions

We welcome articles and shorter items from all Alumni Association members to be considered for publication in the newsletter. Have you done something interesting or traveled to interesting places? Received any awards or honors? Your fellow alumni want to know! Please send items to steering-committee-alumni@sri.com.



The SRI Alumni Association welcomes new members:

Sharon Dickson
Rick Doe
Arthur Lee Gilbert
John Kelly
Melissa O'Connor
Carlton Rosengrant
Rachel Ross
Richard Schledewitz
Darrell Stoehr
Chris Terndrup

We look forward to your participation in the Alumni Association and hope to see you at our next group event.

Directory Addendum

The enclosed directory addendum (covering the period August 1 to November 30, 2021) contains new members and corrections. Please add it to your 2021 Directory.

Dean Babcock*

Dean Babcock, a 63-year resident of Portola Valley, California, died at home with his family around him on May 11, 2021. He was 96 years old.

Dean was born and raised in Minneapolis. He attended the University of Minnesota, earning a B.S. in electrical engineering. He enlisted as an officer in the U.S. Navy during World War II and served as radio officer on the USS *Earle* in both the Atlantic and Pacific theaters. After his service in the Navy, Dean worked for the Collins Radio Advanced Projects Division in Burbank, California. While at Collins Radio, he also pursued a graduate degree in electrical engineering at the University of California, Los Angeles. There he met and married Agnes Bierman. They moved to Portola Valley in 1958 when Dean was offered a position at SRI, where he would spend the rest of his career.

At SRI Dean and his lab researched and developed some of the most advanced radar technology in the world. That technology and practical applications greatly increased the safety of air travel worldwide and aided our troops wherever they were deployed.

Dean was always civically engaged. In 1958 Portola Valley was an unincorporated part of Menlo Park. Dean joined a group of farsighted individuals in developing a plan and undergoing the lengthy process of creating a new town, the Town of Portola Valley, which was incorporated in 1964. A central mission of incorporation was the autonomous maintenance of Portola Valley's rural character, and Dean remained active in the planning and regulation required to sustain this mission.

Dean was passionate about everything he did, whether for work or for pleasure. He had an intense love of the outdoors. Skiing was his greatest passion. He moved from the Midwest to California to live near mountains. He and Agnes first met as members of the UCLA Ski Club. After moving to Portola Valley, Dean became a member of the National Ski Patrol. He began teaching his children to ski by the time they were 3 and 4 years old. Dean and Agnes also loved exploring the West by camper with their four children and one very large dog. Through all they did with their children, Dean and Agnes were both forever learners and forever teachers.

Dean was a devoted husband; a dedicated father to Cecile, Frank, Carl, and Meg; and a beloved grandfather to five grandchildren.

Based on an obituary published online at Lasting Memories.

Bill Richard Baker

Bill Baker, age 86, of Redwood City, California, died of aspiration pneumonia on January 6, 2020.

Bill was born, in Lone Tree, Iowa, to Edith Marie Johnson and Richard Huskins Baker. As a young man, Bill worked on his father's farm in Tipton, Iowa, where he discovered a passion for machinery and the outdoors. That early exposure led to Bill's impressive skills and focus for engineering and mathematics.

Bill attended Iowa State University, earning Carr and Stobler scholarships, and received his B.S. and M.S. in mechanical engineering in 1956 and 1957, respectively. Bill then attended Stanford University, having earned National Science Foundation (NSF) and Bell Telephone fellowships. He was the member of Tau Beta Pi and Sigma Xi and received his Ph.D. in mechanical engineering in 1959.

Bill loved his career. His first job was as a research mathematician at Lockheed Missiles and Space Company in Palo Alto, California, until 1962. At Lockheed, he attended Technische Hochschule in Munich, West Germany, as an NSF postdoctoral fellow. He then worked at SRI from 1964 to 1970 as a program manager for Applied Mathematics. During those years, he went to Moscow University, USSR, from 1967 to 1968 to complete a postdoctorate in applied mathematics.

From 1970 to 1979, Bill worked at Ampex Corporation in Redwood City, California, as a senior staff engineer while completing an M.S. degree in computer engineering at Stanford in 1971. He worked at Shugart Associates in Sunnyvale, California, from 1979 to 1980. While at Memorex Corporation in Santa Clara, California, from 1980 to 1985, he completed a postdoctorate in magnetic recording at Professor Iwasaki's Institute at Toboku University, Japan, in 1984. He worked at Stanford Linear Accelerator Center from 1985 to 1987, guiding development of the Stanford Linear Collider Large (SLD) Central Drift Chamber; at Helios from 1990 to 1992 as director of Software Engineering; and

as an independent software development consultant from 1987 to just years before his death.

During his more than 50-year career, he published approximately 30 journal articles, some of which were in Russian, and 13 patents.

Bill's personal life was marked with tragedy and loss. He endured the untimely deaths of the three sons he helped to raise. The unexpected teenage death of his youngest, Tom, deeply impacted the family. Bill's other sons, Dan and Jim, died in their mid-30s and -40s, respectively.

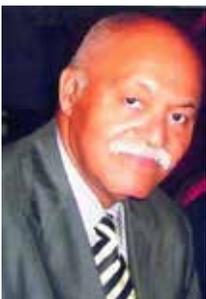
Bill had enjoyed times with his sons, and his relationships with his four San Francisco Bay Area granddaughters were subsequently shaped and influenced by the early deaths of their fathers. Later in his life, it was a joy for him to connect with his daughter, Julie, when she was in college. A special gift in Bill's life was his relationship with his third wife, Yoko Okudo. Although they divorced, they remained close friends until her death.

Bill had varied interests and was highly innovative and independent. Among other activities, he enjoyed making his own furniture, folk dancing, backpacking, and even learning technical rock-climbing. Later in his life, he had fun playing pickleball at his local YMCA. Bill cared deeply about natural conservation and the environment and for those who were less fortunate than he.

Bill was preceded in death by brother Kenneth Lee Baker, nephew Gregory Lee Baker, and sons James David Baker, Daniel Eric Baker, and Thomas Alan Baker. Bill is survived by his daughter, Julie Elizabeth Baker-Nolan, and son Lauren Edgar Crane; five granddaughters; two grandsons; one great-grandson; and two great-granddaughters.

Based on an obituary published online by The Daily Journal.

William Allan Burt



Allan "Al" Burt died October 18, 2021, at the age of 80.

Al was born in Wheeling, West Virginia, to Ellen Wilson Burt and William Latane Burt. He attended Linsly Military Institute, Wheeling, and graduated from Salisbury School, Salisbury, Connecticut. He received

a bachelor's degree in aerospace engineering from Virginia Polytechnic Institute and later his M.B.A. from George Mason University.

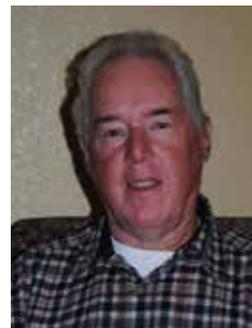
His career in aerospace engineering began at SRI and continued with General Electric Corporation, which was a subcontractor with Project Apollo at the National Aeronautics and Space Administration, Cape Canaveral, Florida, where he was on various teams for the Apollo launches.

Those who knew Al loved his creative sense of humor and quirky personality. He enjoyed traveling, hiking, biking, watching airplanes, solving equations, and sailing his beloved Sunfish. Al also enjoyed and was a huge supporter of the U.S. National Parks.

Al is survived by his sister, Sydney Goodwin; his two children, David Burt and Anne Kilbourne; and by his seven grandchildren.

Based on an obituary published online by The Intelligencer (Wheeling News-Register).

George Robert Chambers III*



George Chambers died July 30, 2021, of end-stage Lewy body dementia. He was 92 years old.

George was born in Oakland, California, the son of Natalie Wright Chambers and George Robert Chambers Jr. He graduated from Piedmont High School in 1947, where he lettered in diving and earned his Eagle Scout Badge. George received his bachelor's degree in physical sciences from Stanford University in 1951, after which he was drafted into the U.S. Marine Corps, where he became an instructor in electronics. In 1953 he joined Eitel-McCullough, Inc., in San Bruno, California, where research and development in the field of electronics became George's work focus. While working at Eitel-McCullough, George returned to Stanford University for a degree in electrical engineering. It was an exciting time for George and the work he was involved in because it led to what would later become the Silicon Valley, farther down the Peninsula.

In 1954 George married Cathleen Cayford, of Oakland, whom he had met on a family vacation in 1949. Cathleen was newly graduated from University of California, Berkeley, and even though they were from rival schools, they were very happily married for 67 years. A daughter and son completed their family.

In 1956 George returned full time to Stanford to earn his M.B.A. degree and, on completion, went to work for SRI in Menlo Park, where he spent the bulk of his career, retiring as a senior industrial economist. SRI assigned George to a newly opening office in London in 1971, and the family was there for three-and-a-half years. They returned to live in Palo Alto and purchased a vacation home in Bear Valley.

George retired in 1987 to pursue his many hobbies. George was an avid bicyclist his whole life. Several times, he rode from Palo Alto to Bear Valley in one day. For many years, George was active in the Bicycle Adventure Club of America (BAC) and participated in 10 of their tours of Europe, especially in the Alps and the Pyrenees. He went on to be a tour leader for several two-week tours for the BAC in Northern California.

George was also an accomplished photographer, cook, and woodworker. When the Chambers moved to their Forest Meadows, California, home in 1991, they added 1,000 square feet to the house, including a professionally equipped home theater.

George instigated and saw to the completion of the home delivery of mail in Forest Meadows, building and installing many of the mailboxes himself. When he retired, George took up the role of family chef and was known among his friends for several special dishes.

George was preceded in death by two sisters, Kathryn Butt and Natalie Ralston. He is survived by his wife, daughter, and son.

Based on an obituary published online by the Calaveras Enterprise.

Marjorie Elkind Cutler



Marjorie "Maggie" Cutler died at age 77 on July 23, 2021, after a short battle with cancer.

Maggie was born in New York City, New York, to Clara Elkind Sumpf and Aaron Elkind. After studying classics at Hunter College, Johns Hopkins University, and the University of Chicago, Maggie moved to California with her husband, Robert (Bob) Cutler, where Bob joined the faculty of Stanford University Medical School and Maggie worked as a technical editor at SRI and IBM, while they raised their son, Aaron.

In the 1990s, Maggie and Bob moved to their beloved ranch in the hills above Livermore, California. After Bob died in 2004, Maggie stayed on the ranch where she loved everything about ranch life, including hiking, gardening, riding horses, growing grapes, and keeping a few chickens, sheep, and cows. She also became an expert in California native plants, and for a while operated Mines Road Natives, advising others on the art of landscaping with native plants. During the last 16 years, Maggie shared the hard work and joy of the ranch with her companion, John Hohn.

Maggie was a devoted mother and grandmother and loved Aaron and his family more than words can say. In addition to Aaron's family and John, Maggie is survived by her sister, Nancy Elkind, and many, many friends.

Based on an obituary published online by The Independent.

Jacqueline Ann Drew



Jacqueline "Jackie" Drew died peacefully on October 5, 2021, at age 99, in Billings, Montana. Jackie always attributed her long life to lots of chocolate and a drop of scotch now and then. But her friends and family knew that it was her sparkling intelligence, curiosity about the world, volunteer work, and great sense of humor

that kept her in good health.

Jackie was born in 1922 in the village of Silver Creek, Nebraska. Her father was a doctor and her mother a nurse. The family moved to Billings in 1937. She followed in her

parents' footsteps, graduating with a nursing degree from Philadelphia Episcopal Hospital in 1945. She completed a B.S. degree in nursing in 1948 from Montana State University in Bozeman and subsequently helped establish the nursing program there by recruiting students. She went on to work as a nurse at Billings Deaconess Hospital, before moving to San Francisco, California, in 1956, where she joined the staff of SRI as a researcher in public health. Jackie did postgraduate work at Stanford University and in 1968 earned a Master of Public Health degree from the University of California, Berkeley.

Jackie became a senior research analyst at Blue Shield of California in San Francisco. She enjoyed her daily hour-long commute on the train from Menlo Park into the city. Fellow commuters became such good friends that they would celebrate birthdays along the ride with cake and gifts. She was the family hipster aunt who drove a beloved 1963 powder blue convertible Triumph Spitfire for many decades. Jackie traveled worldwide, including to France, Australia, New Zealand, Mexico, Morocco, and South America. She volunteered at the Palo Alto UNICEF shop and was a firm advocate of the United Nations.

After retiring, she volunteered nearly full time for many years at her local public library. As a library "mole," she directed the Menlo Park Library's annual Book Fair, helped the library raise tens of thousands of dollars over the years, and established the Mystery Readers Group. Her "Colloquium" was a group of older women who gathered monthly to share their original papers on a variety of topics. These endeavors kept Jackie engaged and happy. At the age of 94, she decided to move back to her hometown of Billings.

Jackie is survived by her sister, Donna Forbes, of Billings and many loving nieces and nephews.

Based on an obituary published online by the Remington Funeral Chapel.

George Everett Ganschow*



George Ganschow died May 7, 2021, at the age of 90 in Lincoln, California.

George enlisted in the U.S. Army in 1951 and served in the Korean conflict until he was wounded and then served the remainder of his enlistment at one of the Nike Missile sites around the District of Columbia. George met his wife to be, Hope Tucker, on a blind date in 1952, and they were married the next year. On completion of George's enlistment, in 1954 they moved to California where they raised a family.

Most of George's work life was spent at SRI in Menlo Park, where he was in high demand because of his ability to work in all manufacturing modes and materials. He supported research teams in the design of prototype equipment; material selection and testing; design of experiments including instrumentation, data collection, and analysis; design and manufacture of proof-of-concept models and associated test fixtures; and development of specialized techniques for construction. With his security clearance, he also managed a classified machine shop for government projects.

George was an active father to his two boys: He volunteered as Scout Master for his sons' troop and their campouts and ensured the boys learned to repair their bicycles and the family car when they began to drive. In addition to restoring two Ford Model A cars with his boys, in the 1960s George flew his family to Florida and Maryland in his 1946 Stinson aircraft and later flew his Bonanza to the East Coast during retirement.

George was an active church member and helped maintain the churches; he made sure his sons understood the value of a work party. In his retirement, he was involved in exterior and interior building projects at the churches. He also enjoyed attending Sons in Retirement and American Legion Post 119 activities in Placerville, California.

George is survived by brother Donald Ganschow and sister Eileen Barrett, sons George and Mike, four grandchildren, and one great-grandchild.

Based on an obituary provided by Mike Ganschow.

Marjorie Arthumae Haley Griffin*

Marjorie Griffin died peacefully on October 25, 2021, at the age of 97.

Marjorie was born to Clifford Ann Stark and Robert Murphy Haley, Jr., in Santa Monica, California. The family relocated to Northern California when Marjorie was young. Her natural curiosity was nurtured in the San Mateo schools including Turnbull School, San Mateo High School, and the College of San Mateo. In 1945, she married Otis B. Griffin and together they raised three children in a postwar environment that welcomed ambition and diversity.

Marjorie worked for more than 40 years as an office administrator at SRI in Menlo Park, retiring in 1994.

Marjorie was passionate about the arts, particularly music, the theatre, and dance. She was an accomplished musician and played the organ at Shoreview Baptist Church from 1957 to 1969.

As a member of the Congregational Church, Marjorie was active on the Deaconess Board, the Stewardship and Missions Committee, and the Altar Guild. More than anything, Marjorie enjoyed raising a loving, active family and helping others.

Marjorie was preceded in death by her husband in 1987. She is survived by her children, Robert Griffin, Otis Griffin, and Anne Baker; seven grandchildren; seven great-grandchildren; one great-great-grandchild; and a host of loving friends.

Based on an obituary published online by Legacy.

Marlyn Ahlenius Johnson*

Marlyn Johnson, a longtime resident of Menlo Park, California, died on August 22, 2021, in Phoenix, Arizona, at the age of 90.

Marlyn spent her early childhood in northern Minnesota with her parents, Uno and Helen, brother, Roger, and a large extended family. During World War II at the age of 12, Marlyn and her family moved to the San Francisco Bay Area and settled in Menlo Park. The birth of her sister, Julie, completed their family. Menlo Park was Marlyn's home base for the next 75 years. Twenty-four of those years (1980-2004) were spent employed at SRI.

Marlyn attended Sequoia High School (class of 1948) and San Jose State (class of 1952). In college, she was a member of the Alpha Omicron Pi sorority and, later, the Palo Alto Alumnae group. Marlyn taught primary grades at Van Auken and Barron Park schools for seven years, married, and raised three children, all the while volunteering for local schools, alumni groups, and the City of Menlo Park.

A bicyclist for most of her adult life, Marlyn was often spotted around town running errands, commuting to SRI and the Book Rack, attending her children's sporting events, and volunteering in the community. A cherished place in her later years was Little House, where she shared lunch, conversations, and bus trips with friends. Marlyn traveled to visit family and friends and had especially fond memories of her trips to Norway and Maui. She did live outside Menlo Park in 1956, when she worked as the Romper Room teacher "Miss Lynn" in Winston-Salem, North Carolina.

Being a positive force in this world seemed to come naturally to Marlyn. She was loving, accepting, and encouraging to so many. And she especially loved to bake to express those feelings! She attended Stanford University sporting events, cared for her aging parents, and thoroughly enjoyed retirement.

Marlyn's final two years were spent in north Phoenix near her daughter Barb and her family.

Marlyn is survived by sister Julie; children Natalie, Barb, and Doug; five grandchildren; and two great-grandchildren. She was preceded in death by brother Roger in 2004.

Based on an obituary published by The Almanac Online.

Donald J. Lyman



Donald Lyman died at home on November 8, 2020, at the age of 94.

Donald was well-known for innovative biomedical polymer science and analytical characterization, blood-contacting materials, and protein interfacial science. Throughout his long and distinguished career in industry, research institutes, and academia, his love of science was palpable and infectious—a love first sparked by *The Microbe Hunters* by Paul De Kruif, which he read as an adolescent. That book introduced him to a world of inexhaustible discoveries, one that he would explore through chemistry.

Donald began his research career at the Pioneering Research Laboratory of E.I. du Pont de Nemours after receiving his Ph.D. in organic chemistry from the University of Delaware in 1952. At DuPont, he studied polymer synthesis and structure/property relationships under the direction of William Hale Charch. Thereafter, Maurice Higgins invited Donald to join his team at SRI. Joining SRI in 1961 was a turning point in Donald's life.

Soon after arriving at SRI, Donald attended a lecture at Stanford Medical School by Belding Scribner describing the first 15 patients kept alive on chronic dialysis using an arteriovenous shunt Scribner developed at the University of Washington. This form of dialysis was a breakthrough technology that became known as the "Scribner shunt." After the talk, Donald approached Scribner with ideas about membranes to remove toxins during dialysis. This led to Scribner's funding Donald's first year of membrane research. Donald also began working on the effects of polymer structure and surface properties on the coagulation of blood. This research to synthesize thrombo-resistant polymers was supported by the National Heart Institute. One of the polymers developed, a new copolyether urethane urea, was later used in fabricating the first generation of the Utah artificial heart designed by Clifford Kwan-Gett.

Because of his work at SRI, Donald was elected in 1964 as a member of the American Society for Artificial Internal Organs. At the time, Donald was among only a half dozen or so Ph.D.s among a sea of M.D.s. There he met Willem Kolff, a pioneer in hemodialysis and artificial organ research and the scientific director of Artificial Organs at the Cleveland Clinic.

On Kolff's recommendation, Keith Reemstma, who assembled the team that eventually developed the first artificial heart, invited Donald in early 1969 to join the University of Utah, offering him research and teaching appointments in both the College of Medicine and the College of Engineering. Attracted not only by the opportunity to work with Kolff, but also by the atmosphere of excellence and cutting-edge research, Donald embarked on a 20-year stint at the University of Utah, where he became professor emeritus of Materials Science and Engineering and Bioengineering.

Donald's continued interest in the synthesis and characterization of polymers and the broader applications of polymers as implants led him to pursue his own research programs, especially on biomaterials. One of his long-range goals was to develop polymer implants that would repair injury in the acute phase and then function as scaffolding to promote healing and ultimately reduce or replace the body's reliance on the implants. He eventually established and became director of the university's Biomedical Engineering Center for Polymer Implants. A team of leading researchers in different specialties was brought together to work on multiple implant areas, including vascular graft, ureter, esophageal, and nerve repair. The center was the first of its kind in the United States.

In addition to his research, Donald taught undergraduate and graduate courses in biomaterials and chemistry throughout his tenure. His research attracted graduate students, postdocs, fellows, and visiting professors domestically and internationally. As faculty advisor to over two dozen masters and doctoral students, Donald was both demanding and approachable. He also trained surgical residents on research methods through the surgery department. He was generous with his time and spared no effort to help his students achieve their goals.

Donald retired from the University of Utah in 1989 after holding appointments in four academic departments—Materials Science and Engineering, Surgery, Bioengineering, and Chemistry.

From 1994 to 2003, Donald was the director of polymer chemistry at the Hope Heart Institute, a research institute in Seattle, Washington, founded by the late Lester Sauvage, a world-renowned heart surgeon.

Donald's last research interest took him into an entirely new area of study—using Fourier transform infrared spectroscopy

to study the molecular changes that breast cancer appeared to initiate in the morphology of hair. His last two papers reported his findings in this field.

Donald's achievements are many. He was author or coauthor of nearly 170 scientific papers and book chapters, held several patents, and was the recipient of many awards and honors, including University of Utah's Distinguished Research Award for 1982–1983, the Clemson Award for Basic Research (Society for Biomaterials) for 1982, visiting professorships, and invited lectureships. He served on editorial boards, think tanks, and steering committees. He was also a founding member of the Society for Biomaterials.

These achievements would not have been possible were it not for the many colleagues, students, staff, and friends, too many to name, but the list would not be complete without mentioning Dominic Albo, professor of surgery with whom Donald began working immediately on arriving in Utah and whose friendship helped sustain him during trying times.

Based on the following:

- *An obituary published by the Department of Materials Science & Engineering, University of Utah.*
- *The history of dialysis, an article available online from Fresenius Medical Care.*
- *Keith Reemtsma biography available online.*

Dorris Carmichael Miller*



Dorris Miller, age 90, died July 7, 2021, at her home in Palo Alto, California.

Dorris was born in Mesilla Park (a small town now part of Los Cruces), New Mexico, to Thomas Cobb and Daisy Miser Carmichael. She graduated from high school there in 1949 and then attended

New Mexico College of Agriculture and Mechanical Arts (now New Mexico State University) at Los Cruces, where she studied mathematics, graduating in 1953. In college she became a member of Chi Omega sorority and met her future husband, John (Jack) W. Miller. They were married in October 1953, after she graduated.

Dorris and Jack moved to Palo Alto in the early 1960s. Dorris worked at SRI in the Communications Laboratory and the Radio Physics Laboratory from 1962 to 1999 as a mathematician and senior scientific computer programmer. Her work was highly regarded by the engineers with whom she worked.

As lovers of nature, Dorris and Jack enjoyed visiting the San Francisco Zoo and hiking and camping in the national parks. Their interest in other cultures led them to travel to Australia, New Zealand, Tasmania, Fiji, Spain, Portugal, and Morocco. Dorris continued to travel after Jack died, visiting Italy, Greece, Turkey, and other countries. She enjoyed Mexican food and culture.

Dorris and Jack were active in the Barron Park neighborhood of Palo Alto where they lived. Dorris even functioned as an “auxiliary grandmother” for one neighbor couple and attended an elementary school Grandparents Day with their children. She loved music and had a contagious laugh and a wonderful sense of humor. Dorris cared about other people, including her many close friends.

Dorris was preceded in death by husband Jack, brother Richard T. Carmichael, and half-brother John Carmichael. She is survived by her niece, Bronwyn C. Meredith; nephew, Philip Carmichael; great-nephew, Wes Neal; and great-niece, Kristen Graves.

Based on an obituary published by The Almanac Online.

William Patrick Opsahl

William Patrick “Bill” Opsahl died of cancer in Roseville, California, on July 24, 2021. He was 67.

Bill had worked at SRI for 17 years; he left in May 2010. Bill was a member of the SRI Golf Club for years and had formed many friendships because of his upbeat and cheery personality.

Based on information provided by Sandra Hinzmann.

Donn B. Parker*

Donn Parker, a long-time resident of Los Altos, California, died September 16, 2021, at the age of 93. Donn, a pioneer in the field of computer and information crime and security, was among the first to recognize, research, and document computer crime.

Donn received a master of arts degree in mathematics from the University of California, Berkeley in 1954. In that year, he joined General Dynamics Corporation as a programmer, eventually becoming manager of programming in computer operations. In 1962 Donn went to work for Control Data Corporation as a manager of computer services and computer research.

In 1969 Donn joined SRI as the director of computer resources. Donn remained at SRI for the next 30 years, researching, collecting information, and writing about national and international computer abuse/crime incidents and trends until his retirement. Starting in 1997, Donn served as a senior management systems consultant (retired) for the computer security program at SRI Consulting, which changed its name to AtomicTangerine in 2000.

Donn served for many years as member, officer, and Fellow of the Association for Computing Machinery (ACM), Distinguished Fellow of the Information Systems Security Association (ISSA), and trustee of the Charles Babbage Foundation for the History of Information Technology, working to achieve the safe, crime-free use of information technology. He enjoyed his reputation as a contrarian in his concepts of information security.

Donn wrote seven books during his 60-year career in information technology. His first two books on computer crime and security, published in 1976 and 1983, were *New York Times* best sellers and formed the definitive literature on computer crime. Donn testified before several U.S. Congressional committees and assisted in developing the first computer crime statutes for the U.S. federal government, several U.S. states, and the United Kingdom. He trained the first computer crime detectives for New Scotland Yard, Finland, Norway, and Japan. As an information security consultant, he performed security reviews for more than 250 of the largest businesses worldwide and formed the International Information Integrity Institute (I-4) at

SRI in 1986. I-4 continues today to provide confidential information security advisory services.

Donn's professional awards include the 1992 Award for Outstanding Individual Achievement from the Information Systems Security Association, the 1994 National Computer System Security Award from U.S. NIST/NCSC, The Aerospace Computer Security Associates 1994 Distinguished Lecturer award, and the MIS Training Institute Infosecurity News 1996 Lifetime Achievement Award. In 1999 *Information Security Magazine* recognized Donn as one of the five top infosecurity pioneers. He was inducted into the Information Systems Security Association's Hall of Fame in 2000 and the SRI Alumni Association Hall of Fame in 2002. He was recognized as a certified information systems security professional. In 2003 the International Information Systems Security Certification Consortium [(ISC)2] presented him with the Harold F. Tipton Lifetime Achievement Award in "recognition of his sustained excellence throughout his Information Security career and his contributions to the industry and support of (ISC)2."

Donn deeply loved his family. He served as an elder at Trinity Lutheran Church, Palo Alto, for many years. He enjoyed downhill skiing in the Sierra and Rocky Mountains, water skiing in San Diego, sailing, running, and hiking. After his retirement, Donn traveled extensively with his beloved wife, Lorna, researched family history, and as often as possible performed a comedy monologue of his favorite stories and jokes.

Donn was preceded in death by his wife, Lorna; brother, Richard Parker; nephew, Bob Parker; and son, David S. Parker. Donn is survived by his daughter, Diane Wisdom; six grandchildren; three great-grandchildren; and a nephew and niece.

Based on an obituary published by The Los Altos Town Crier and the Donn B. Parker Papers published online by the University of Minnesota Libraries.

Willis W. Shaner

Willis "Bill" Shaner, 94, of Fort Collins, Colorado, died July 21, 2021.

Bill was born to Willis and Elnora Shaner in New York City. In high school, he excelled at football, earning an honorable mention as an offensive guard, and went

on to play at Iowa State University where he received his B.S. in engineering.

Bill met his wife Victoria (Vicky) in Maracaibo, Venezuela, where she was visiting family and he was employed as an engineer for Creole Petroleum. A month later, they married and remained happily so for 65 years. Not content with a career as an engineer for an oil company, Bill decided to further his education and pursue a career in economic development.

After receiving his M.B.A. from Harvard University and a Ph.D. from Stanford University, Bill, employed by SRI, traveled with his family to Madrid for four months, followed by five-and-a-half years in Addis Ababa, Ethiopia. Securing what would eventually be a full professorship with Colorado State University, he moved with his family to Fort Collins in 1972, teaching at the university and working abroad as an economic advisor. Bill's remarkable career took him and Vicky to numerous countries, from Peru to Swaziland, Jordan, Yemen, Pakistan, Indonesia, and elsewhere.

Bill and Vicky were both excellent golfers, and later Bill discovered the wonders of scuba diving. Having loved literature from a young age, Bill became an avid reader of the classics on retirement, tackling everything from Joyce's *Ulysses* to *Don Quixote* and the novels of Salman Rushdie.

Bill was preceded in death by his wife, Vicky; daughter, Becky; and son Paul. He is survived by sons Tim and Mike.

Based on an obituary published online by The Coloradoan.

Gary Lloyd Stieger



Gary Stieger died suddenly on April 6, 2021, at the age of 71.

Gary was the second child of Mary Evelyn (Robbins) and Bernhard Frederick Stieger of Cedar Rapids, Iowa. At Polk Elementary School, he was elected the student body president—as a fifth-grader! In high school, basketball was his passion, and he eventually became a point guard for the Washington Senior High School Men's Varsity Basketball team in Cedar Rapids. The next step was a basketball scholarship to William Penn College in Oskaloosa, Iowa.

Gary received his B.A. in business administration from Florida Atlantic University in Boca Raton. Then Gary enrolled in pregraduate studies in urban planning and econometrics at the University of California, Santa Barbara, where he designed the first open space plan for Isla Vista, California, that still exists today. Thereafter, he completed his M.A. in urban planning from San Jose State University in California, where he also taught econometrics to his fellow graduate students.

Gary began his professional career as an urban planner for the City of Mountain View, California. Then Gary became a social scientist and policy analyst at SRI in Menlo Park, California, for 8 years. His next endeavor was director of research at Research and Decisions, Inc., in San Francisco, California, which soon after became The PBN Company. There Gary supported the democratization of the former Soviet Union after the coup of 1989, through a partnership with USAID that The PBN Company accepted at the request of President Mikhail Gorbachev (from 1985 to 1991).

Gary traveled in the former Soviet Union, going from Moscow to Chisinev and beyond to gather transitional information from politicians to private citizens and complete the first public opinion survey in the history of Russia conducted without censure.

Gary went on to create GLS Research, Inc., a market research and analysis group in San Francisco. There he applied his talents in many private and public arenas including the gaming and tourism industry, premiere advertising and marketing firms, and Native American nations.

Gary's nonprofit achievements include the development of groundbreaking HIV/AIDS research for the Shanti project and critical homelessness information for the San Francisco Union Square Business Improvement District.

Gary's joy in being a San Francisco Giants baseball season ticket holder was even greater when he shared his seats with family members and the lifelong friends he made during his many endeavors and worldwide travels.

Gary avidly followed Northwestern University's men's basketball team, which his nephew, Chris, has been coaching for the last 8 years, and treasured times spent with his niece, Kelly, and her family.

Gary was unapologetically kind, caring, patient, funny, supportive, optimistic, the ultimate knower of all things sports, and the best husband Doris could ever wish for.

Gary is survived by Doris, his wife of 42 years; brother Steven Stieger; sisters Kathy Ann Collins and Lana Joy Stieger; nephew Christopher Ryan Collins; niece Kelly Ann Collins Romanczuk; and many kind and wonderful cousins and friends.

Based on an obituary published online by The Cedar Rapids Gazette.

James M. Swartz



James “Jim” Swartz, 73, died June 6, 2021, at his residence.

Jim was born in Youngstown, Ohio, son of Dr. Marvin and Martha (Myers) Swartz.

Jim graduated in 1965 from Canfield High School in Ohio, received his B.A. from Muskingum University, and earned his master’s degree from The Ohio State University. In June 1970, Jim married Carol L. Platek.

Jim was the chief information officer for 25 years at S.A.I.C., then at SRI and at Sybase, all located in California. Jim retired in 2013.

Jim loved spending time with his family, especially his grandchildren. He owned horses and enjoyed riding with his daughter, Jen, throughout the western states. Jim was proud of being an Eagle Scout, and he was also a Mountie at the Henry Coe State Park in California.

Jim was preceded in death by his wife, who died December 12, 2019. He is survived by his daughter, Jennifer Cox; his brother, John Swartz; and his four grandchildren.

Based on an obituary published online by Lane Funeral Homes.

Virginia Van Derveer Trask



Virginia “Gina” Trask, a resident of San Mateo County for more than 50 years, died August 3, 2019, from lung cancer at the age of 74.

After attending Cubberley High School in Palo Alto, California, Gina graduated summa cum laude with a degree in English literature from Mills College in Oakland.

After completing a master’s degree and teaching credential from Stanford University, Gina taught English at Hillsdale High School in San Mateo County for 12 years, inspiring students with her creative and innovative teaching style. After a job hiatus, she joined SRI in Menlo Park as an editor and researcher, assisting in several projects including work with weather station positioning and remote viewing.

Always passionate about causes, Gina embraced feminism and women’s rights, was a staunch environmentalist, and developed a special interest in native plants. In her later years, she also became an ardent cat rescuer, with many furry feral felines having better lives because of her efforts. Friends remember Gina as an extraordinarily caring person who would go out of her way to help friends or cats in need, as a night owl who was always late, and as someone with a lively interest in a wide range of topics.

Gina is survived by her sisters, Barbara K. Van Derveer and Dena S. Van Derveer; good friend and former husband, Robert Trask; nephew, Cameron G. Gillespie; and niece, Casey A. Gillespie.

Based on an obituary published online by Ever Loved.

*Member of the SRI Alumni Association

Please consider joining the SRI Alumni Association. The association was founded in 1996 to provide former staff members the opportunity to keep in touch with SRI and their colleagues, to support the institute in a variety of ways, and to help perpetuate SRI’s traditions and values.

SRI Alumni Association members enjoy many activities and services:

- **Alumni Association Newsletter**—Published three times a year, giving news about SRI programs, Alumni Association activities, and individual members (see past issues at <https://alumni.sri.com/newsletter.html>).
- **Membership Directory**—A regularly updated resource of contact information for association members.
- **Annual Reunion Meeting**—An opportunity for:
 - Socializing with other Alumni Association members.
 - Viewing the Alumni Hall of Fame Induction ceremony.
 - Hearing a prominent SRI speaker describe an important SRI project or organizational development.
- **Spring Fling**—A picnic or visit to a Bay Area point of interest; past trips have been to the Computer History Museum, the Hiller Aviation Museum, NASA-Ames, and the California Academy of Sciences.
- **SRI Archives**—Association members maintain and catalog SRI’s photographic and nonproject archives.

We encourage you to participate in the SRI Alumni Association. Your first year’s membership is free. Your membership thereafter will be \$25 per year. By completing and returning the application below, you will be enrolled and will receive future issues of the newsletter and invitations to all alumni events. Please indicate how you would like your information to appear in the Membership Directory. If you prefer that some or all of your contact information not be published in the directory, please indicate your preference below. Also, please indicate whether you would prefer receiving the newsletter as an electronic copy (PDF, which saves the association printing/ mailing costs) or as a hard copy. If you prefer to complete an application online, please do so at <https://alumni.sri.com/join.html>.

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