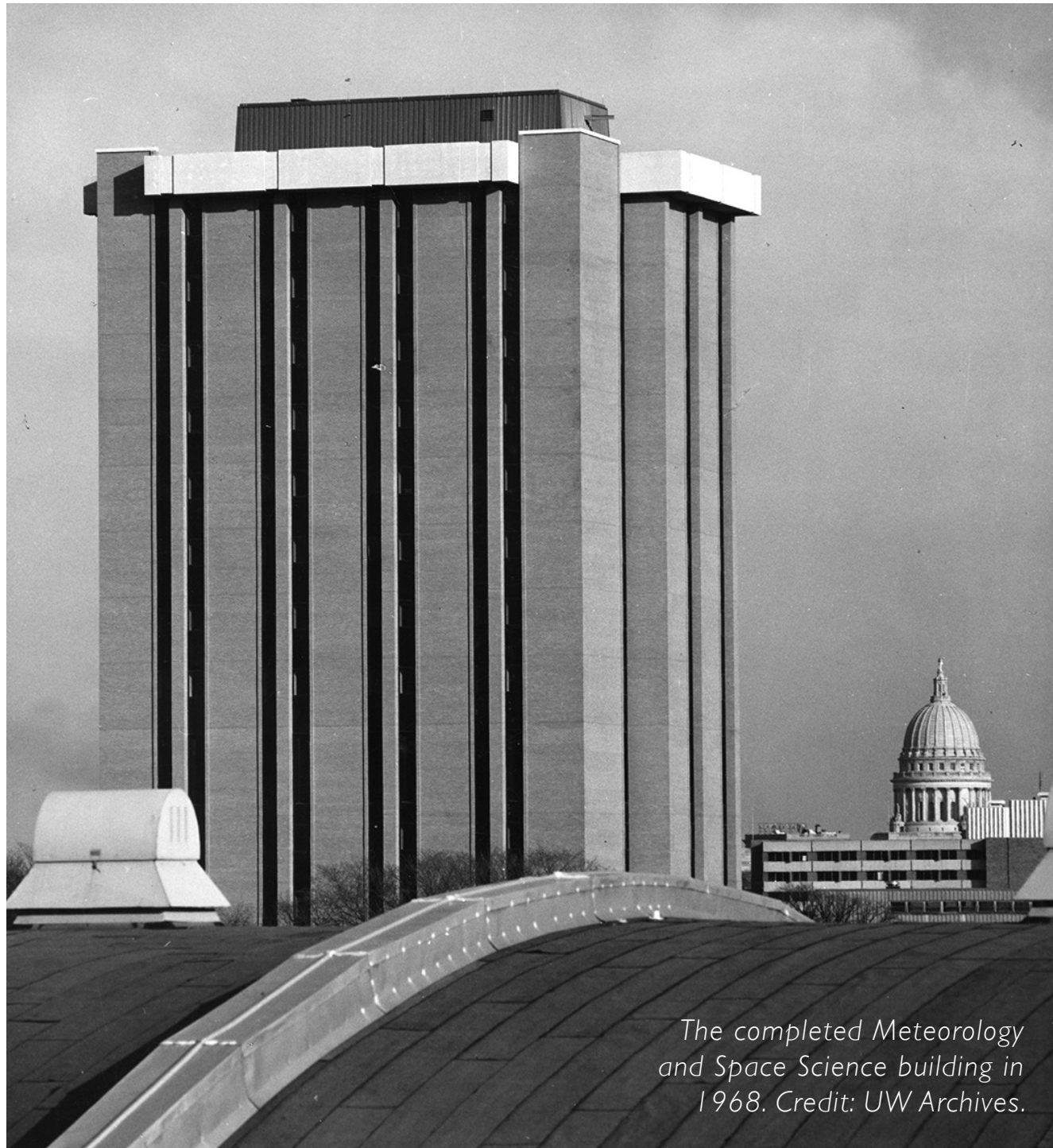


Space Science and Engineering Center
University of Wisconsin-Madison
50th anniversary: 1965-2015

Cover image, from left to right: Satellite imagery of Earth from ATS-1 in 1966, ATS-3 in 1967, GOES-15 in 2010, and Suomi NPP in 2012. Credit: SSEC.

Space Science and Engineering Center
University of Wisconsin-Madison
50th Anniversary: 1965-2015

50 years of research, discovery, and innovation



*The completed Meteorology
and Space Science building in
1968. Credit: UW Archives.*

CONTENTS

Introduction.....	02
Director's Note.....	03
Establishing SSEC.....	06
Speaker Reception.....	09
Oral History.....	11
Program.....	15
Program Reception.....	39
Moving Forward.....	43

*Contributors: Jean Phillips, Leanne Avila, Sarah Witman,
Jackie Lang, and Linda Hedges.*

*Unless otherwise noted, all photographs were taken by Bill
Bellon at the Wisconsin Institutes for Discovery building in
Madison, Wisconsin, on 10 September 2015.*



A 2015 computer graphic rendering of the Atmospheric, Oceanic, and Space Sciences building on the University of Wisconsin-Madison campus, which houses the Space Science and Engineering Center (SSEC). Credit: Hayden Klabunde.



INTRODUCTION

The Space Science and Engineering Center (SSEC) commemorated a half-century of inspirational leaders, groundbreaking research, and a pervasive “can-do” attitude at its 50th anniversary celebration on 10 September 2015. Speakers at the event paid tribute to the pioneering efforts of SSEC founder Verner Suomi, as well as his vibrant legacy that endures today.

In the days leading up to this special anniversary program, current and former colleagues shared their SSEC stories for posterity – whether in writing or through recorded interviews. Organizers also conducted an oral history focusing on instrument development at SSEC.

This commemorative volume captures these events in images and words. Page through to learn more about the people, innovations, and spirit that carried SSEC through its first 50 years. Follow along as that same essence inspires new people and new innovations that will lead us through the next 50 years and beyond.

DIRECTOR'S NOTE

This year marks the 50th anniversary of the Space Science and Engineering Center (SSEC) and 100 years since the birth of Verner E. Suomi. In recognition, our summer issue of *Through the Atmosphere* celebrates the pioneering accomplishments of SSEC during its first 50 years and foreshadows the innovations of the next 50.

The serendipity that these two monumental milestones, 50 and 100, should take place in 2015 is appropriate for SSEC, the progeny of both national and international forces as well as Suomi's rare mind and personality.

At the 30th anniversary of Sputnik in Moscow, Suomi acknowledged that the stimulus for advancing spaceborne technology in the United States was fueled by the success of the first man-made satellite.

Hank Revercomb,
SSEC Director



“Spasibo Sputnik!” Suomi exclaimed, expressing his gratitude to our Soviet hosts. Yes, thank you for getting us motivated.

The first article in this issue, Noteworthy Beginnings, summarizes how Suomi and others “took their bravery pills,” using the resulting momentum to found SSEC and to convince the State of Wisconsin, NASA, and the National Science Foundation to support the 15-story building that has been SSEC’s home on campus for most of those 50 years.

Making the Center work required not only technical and scientific skills, but also the people-sense to marshal a diverse range of talents into an effective team. Vern always said, “Find good people, and get out of their way.”

The heart of this issue is a chronology of advances and applications that

characterize SSEC’s accomplishments over the decades. It is interesting to note that many of these activities have grown from Suomi’s own work: his early exploration into net flux measurements (studying the energy budget of a corn field for his PhD thesis), his extensive space-borne earth radiation budget observations with both spherical and flat-plate radiometers, his spin-scan camera imaging concept, geosynchronous time sequence imaging for wind measurements, and geostationary temperature and water vapor sounding for quantifying severe weather threats.

One thing often led to another. The desire to track clouds that were visible in satellite images led to advanced computer processing techniques, the direct acquisition of volumes of satellite data so necessary for research drove advances in data archiving, and efforts to improve the vertical

(continued)

resolution of satellite sounding products resulted in a new standard in accuracy for infrared radiances.

The technical capability developed for one program not only enabled other programs, but also often helped them to succeed.

This speaks to the strong, interdisciplinary nature of SSEC, which over the years has supported scientific successes in physics, astronomy, cosmology, and geology, in addition to atmospheric sciences.

The final article, *Imagining the Future*, summarizes some key concepts and approaches needed for continued success: For, as we know, the goal of providing society with better weather information remains a noble challenge.

So, congratulations! And I hope you enjoy reminiscing. I think our 2015 celebrations of the last 50 years will be inspirational and

help remind us that tackling the challenges facing us in the next half-century will be equally as exciting and very rewarding.

| Henry Revercomb, SSEC Director

Note: This article first appeared in a special anniversary issue of Through the Atmosphere, available at www.go.wisc.edu/30zr7j.

ESTABLISHING SSEC

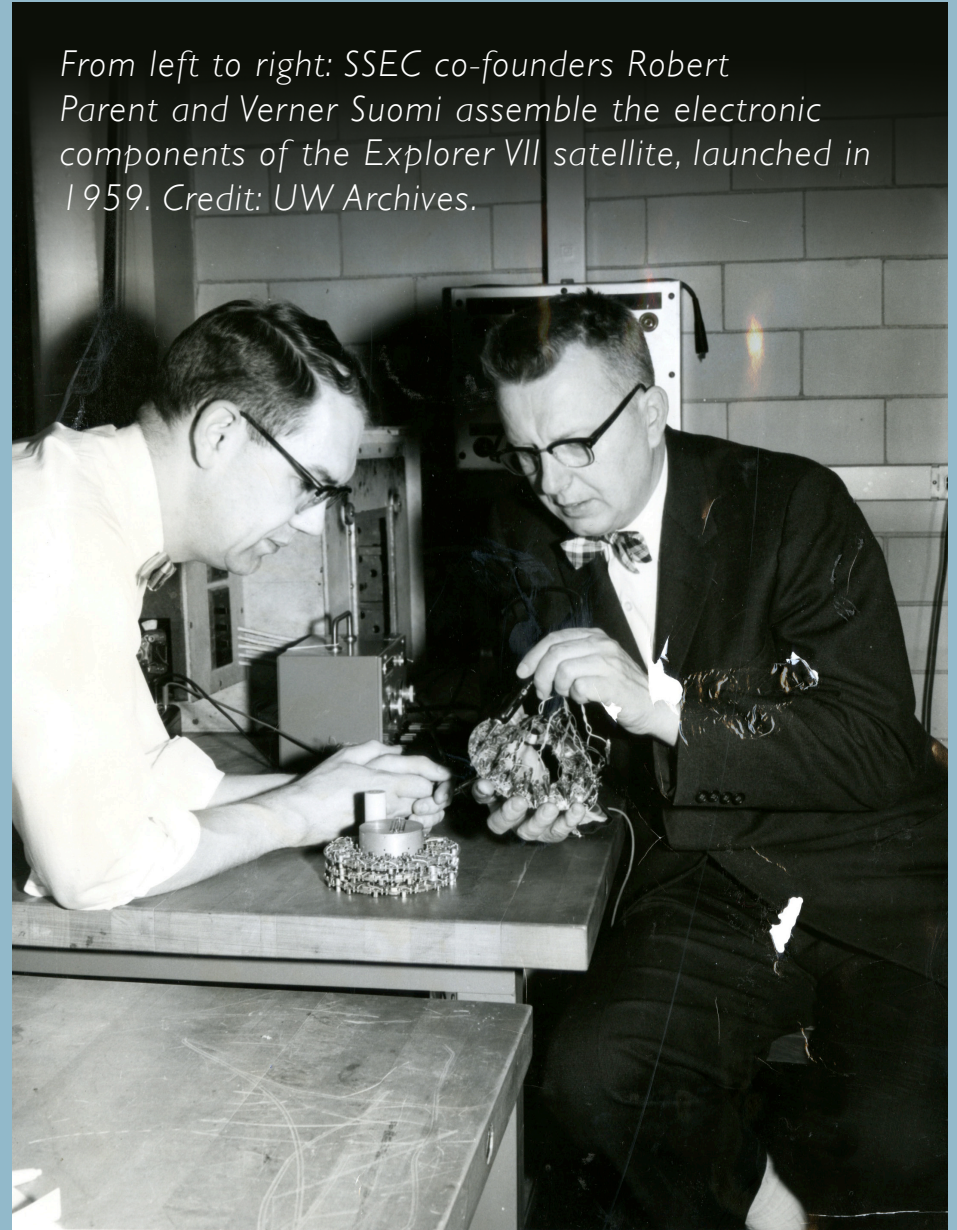
The science and technology of meteorology were very much in their infancy in the early 1950s, but two professors at the University of Wisconsin-Madison would emerge as key figures in this promising discipline.

In 1957, meteorology professor Verner Suomi and engineering professor Robert Parent organized a small group of scientists, securing office space for the research group at 601 E. Main Street in downtown Madison. They were determined to revolutionize the ways in which we looked at the Earth and its atmosphere. The success of their thermal radiation experiment on Explorer 7 led to increasingly sophisticated sensors on ATS and TIROS.

We were no longer bound to observe the Earth from the ground.

(continued)

From left to right: SSEC co-founders Robert Parent and Verner Suomi assemble the electronic components of the Explorer VII satellite, launched in 1959. Credit: UW Archives.



The University of Wisconsin-Madison Board of Regents officially recognized the importance of this new area of research at their meeting on 20 August 1965. According to the minutes, “Chancellor R. W. Fleming reported on the establishment of the Space Science and Engineering Center [SSEC] and the appointment of [meteorology] Professor Verner Suomi as the Director of the Center.”

Thus, SSEC was formed and organized within the Graduate School to continue — and expand — its research and satellite experiments at the university. SSEC moved from its first home on Main Street to its campus location at 1225 West Dayton Street on 25 October 1968.

In the 50 years since, our scientists, engineers, and leaders have grown an organization with an international reputation for excellence, building on

that early vision to explore and monitor the Earth’s atmosphere using satellite technology.

Read more about our past, present, and future in a special anniversary issue of Through the Atmosphere, available at www.go.wisc.edu/30zr7j.

Minutes from the University of Wisconsin-Madison Board of Regents meeting, documenting the establishment of SSEC. Credit: UW Archives.

Chancellor Fleming reported on the establishment of the Space Science and Engineering Center and the appointment of Professor Verner Suomi as Director of the Center. He explained that Professor Suomi, who is a distinguished member of the Department of Meteorology, had been on leave during the past year to the U.S. Weather Bureau; and that he was one of the most distinguished men in the country in this area. Because of his ability and prestige in this area, Professor Suomi had been able to attract very large government grants from the National Aeronautics and Space Administration and from other governmental agencies. Chancellor Fleming reported that two of the very large grants had to do with establishing, within the Graduate School, this Space Science and Engineering Center. He explained that the center did not have a separate curriculum, but would be a coordination center operating out of the Graduate School and financed largely by grant money.

SPEAKER RECEPTION

This reception was held at the University Club in Madison, on the night of 9 September 2015, to thank guests and speakers who would present the following day at the anniversary program.

Top row, from left to right: Don Johnson, Dorothea Johnson, and John Young; Kay Revercomb, Eileen Hanneman, and Larry Sromovsky; Paul Menzel, Bill Smith, and Louis Uccellini; Peg Roberts and John Roberts.

Middle row, from left to right: Grant Petty and Antje Petty; Jenny Hackel, Dave Cismoski, and John Roberts; Steven Ackerman, Anne Pryor, and Mitch Goldberg; Kara Mulligan, Mark Mulligan, and Hank Revercomb.

Bottom row, from left to right: Jordan Gerth and Stephen Volz; Thomas Vonder Haar, Jean Phillips, and Nancy Jesse; Reinhard Menzel, Johannes Schmetz, and Dave Cismoski; Eric Suomi and Tony Wendricks.





SSEC 50TH ANNIVERSARY PROGRAM

Paul Menzel convenes program

- 2:00-2:05 Henry E. Revercomb
Director, SSEC, University of Wisconsin-Madison (UW-Madison)
Title: Welcome remarks from SSEC
- 2:05-2:10 Marsha R. Mailick (Steven Ackerman)
Vice Chancellor, Research and Graduate Education, UW-Madison
Title: Welcome Remarks from the Office of the Vice Chancellor for Research and Graduate Education
- 2:10-2:15 Wisconsin State Legislative Citation
Presented by Representatives Chris Taylor and Terese Berceau on behalf of the Offices of Senator Fred Risser and Representatives Taylor and Berceau
- 2:15-2:25 Stephen Volz
Assistant Administrator for Satellite Services, NOAA
Title: NESDIS: Suomi's Legacy
- 2:25-2:35 Michael H. Freilich (Paul Menzel)
Director, Earth Science Division, NASA
Title: NASA, the UW, and Research and Development

(continued)

Top, from left to right: Steven Ackerman and Henry Revercomb.

Bottom, from left to right: Chris Taylor, Terese Berceau, and Henry Revercomb; Paul Menzel and Stephen Volz.



PROGRAM PASSAGES

“It really is a pleasure for me to kick off this event celebrating 50 years of the Space Science and Engineering Center and 100 years since Vern Suomi’s birth. It’s kind of a special thing that the numbers worked out that way.”

| Henry Revercomb

“This is a remarkable anniversary celebration. Fifty years of continued scientific achievements is a rare accomplishment in the history of university centers. Speaking as a former center director where the latest celebration was for a mere 40 years, I salute SSEC and its 50-year longevity, enormous achievements, and bright future. New centers come and go, but centers that mark their lifespan in decades are unique. The scope of the science of SSEC and its importance for national policy sustains the significance of the Center over the many decades of its existence. ... It is a great privilege to work with each and every one of you.”

| Steven Ackerman

“We’re absolutely delighted to be here to celebrate this 50th anniversary of the Space Science and Engineering Center, which as you all know started in 1965 with two scientists who desired to know more, to explore more, and to figure out and observe the Earth’s atmosphere from space. What a remarkable way to start such a great group. And now, 50 years later, SSEC is at the forefront of some really cutting-edge research on Earth and space science and provides critical research and data that helps us understand our Earth better, helps us understand the atmosphere, helps us understand weather and climate.”

| Chris Taylor

“As director of NESDIS, I live in the world that Vern Suomi created, envisioned and created, on a daily basis. ... History never died here and you can see that and you’ll hear that when you hear the conversations from the older and the younger researchers who are present because they’re carrying on that legacy. ... So the vision that was created 50 years ago, and even more in the late ’50s and early ’60s, is really alive and well and you can see that in the work that SSEC does. And it’s paramount in what NOAA does. It’s broadly experienced in what NASA and the research center do. This kind of active participation in doing the same thing, asking what do I need to do next to understand better so I can make the world a better place for everybody else.”

| Stephen Volz

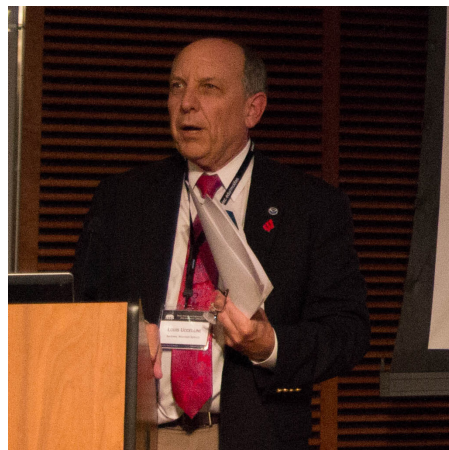
SSEC 50TH ANNIVERSARY PROGRAM

- 2:35-2:45 Thomas H. Vonder Haar
Distinguished Professor, CIRA, Colorado State University
Title: The Early Years at SSEC
- 2:45-2:50 David Cismoski
Research Coordinator, CIRA, Colorado State University
Title: The Early Years at SSEC (continued)
- 2:50-3:00 Louis W. Uccellini
Assistant Administrator for Weather Services and Director, National Weather Service, NOAA
Title: Vern Suomi's Influence on the NWS and its Director(s)
- 3:00-3:15 William L. Smith
Emeritus Professor, Atmospheric and Oceanic Sciences and Senior Scientist, SSEC, UW-Madison
Title: Professor Suomi: A View Along the Path from Student to Colleague
- 3:15-3:25 Donald R. Johnson
Emeritus Professor, Atmospheric and Oceanic Sciences, UW-Madison
Title: Special Remembrances of the Suomi Era

(continued)

Top, from left to right: Thomas Vonder Haar; Dave Cismoski.

Bottom, from left to right: Louis Uccellini; Paul Menzel and William Smith; Donald Johnson.



PROGRAM PASSAGES

“NASA has been an early and constant partner with Suomi and SSEC. ...This started with the pioneering work with Explorer 7, and we all know that we consider that to be the first remote sensing measurements of the planet Earth. And it continued heroically when Homer Newell, on very short notice, allowed Suomi to take his spin-scan camera and put it on ATS-1, 6 December 1965. Figure that out; that was on Suomi’s 50th birthday. ...They have continued to honor SSEC and Suomi; most recently, when they took the NPOESS satellite and renamed it the Suomi National Polar-orbiting Partnership, Suomi-NPP. And as far as I know that’s the only U.S. satellite that’s named after an individual. So we’re busting with pride right now.”

| Paul Menzel

“In considering naming of satellites, of course we know our astronomy colleagues have Hubble, Kepler, Chandra, we’re going to have James Webb, and so I suggested to Michael Freilich [of NASA] that we name one for Suomi. And cards and letters started coming in from across the country and around the world, and they all piled up on Michael’s desk. And, to his credit, he did the right thing; he formed a committee and they considered the question and unanimously Michael’s wish came through and the satellite was named Suomi.”

| Thomas Vonder Haar

“[Verner Suomi] was the heart and soul of SSEC. ... He was interested in my family. He was interested in me. How are you doing? Do you like your work? Is it challenging? That was his soul coming out. And those two aspects have transcended down over the years into SSEC. The creativity, the innovation, the interest in the people, their families, what they do. That’s an important part of developing an organization that is successful and produces things.”

| Dave Cismoski

“Vern’s connection with us was more than just science and technology; it was really profoundly personal. ... We’re all thankful to Vern Suomi for this end-to-end vision; not just what went up in space, but how to process the data and make it work operationally for the benefit of all mankind.”

| Louis Uccellini

“He [Verner Suomi] not only taught us how to be successful in life, but he also taught us how to depart this world both graciously and successfully. All of us who were honored to be associated with this giant of men miss him greatly.”

| William Smith

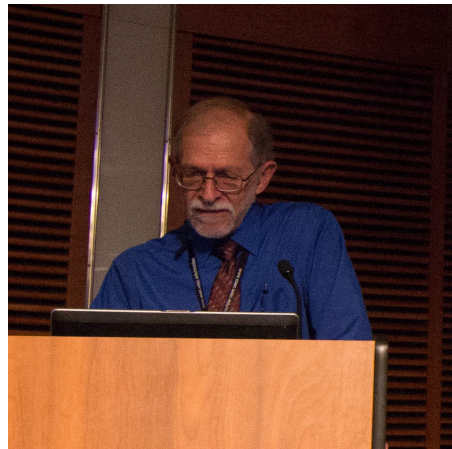
SSEC 50TH ANNIVERSARY PROGRAM

- 3:25-3:30 Mareda R. Weiss
Emeritus Associate Dean, Graduate School, UW-Madison
Title: Verner Suomi, Dean Bock, and Relationships with the Graduate School
- 3:30-3:35 John A. Young
Emeritus Professor, Atmospheric and Oceanic Sciences, UW-Madison
Title: Vern Suomi: Our Department's Creative Colleague and Catalyst
- 3:35-3:45 Break (Wayne Feltz reconvenes program)
- 3:45-3:55 Larry A. Sromovsky
Senior Scientist, SSEC, UW-Madison
Title: Planetary Atmospheres Research at SSEC, from Hot Venus Vortex to Ice Giant Storms
- 3:55-4:05 David A. Santek
Senior Scientist, SSEC, UW-Madison
Title: McIDAS: SSEC's Flagship Software for Satellite Data Visualization
- 4:05-4:10 Tony Wendricks
Retired CAD Specialist, SSEC, UW-Madison
Title: Anecdotes from the Drafting Table to the South Pole

(continued)

*Top, from left to right: Mareda Weiss; John Young;
Wayne Feltz.*

*Bottom, from left to right: Larry Sromovsky; David
Santek; Tony Wendricks.*



PROGRAM PASSAGES

“He [Verner Suomi] was going to teach physical meteorology, and that was quite an experience because, as they say, he never really was prepared but he was always ready. He’d come in and talk about this, that, and the other thing in a profound way. So it was not the traditional way in which courses were offered.”

| Donald Johnson

“I would just like to add my own personal congratulations for 50 years. I can hardly believe it’s been that long. ... And I just hope you keep on doing it.”

| Mareda Weiss

“He [Verner Suomi] was a person of steady ambition, and even, of course, impatience. It just had to go twice as fast as the laws of physics said it should go to get something accomplished. It was amazing. To do this, he therefore created a growing Space Science and Engineering Center. It’s been 50 years and it’s so healthy now; I am so pleased that it remains such a very, very important part of our field.”

| John Young

“Suomi liked to argue that the solar system is a giant laboratory running eight experiments simultaneously in atmospheric dynamics to determine what effects are produced by difference in spin-axis inclination, rotation rate, solar and internal heat fluxes, composition, and surface (or no surface) characteristics. It was thus not a surprise that Vern Suomi would expand the meteorological focus of SSEC beyond the Earth when the opportunity came. And he had a nose for opportunity.”

| Larry Sromovsky

“McIDAS [the Man-computer Interactive Data Access System], we think, is probably one of the oldest, if not the oldest, continually used and supported software package anywhere. And we’re expecting it to continue.”

| David Santek

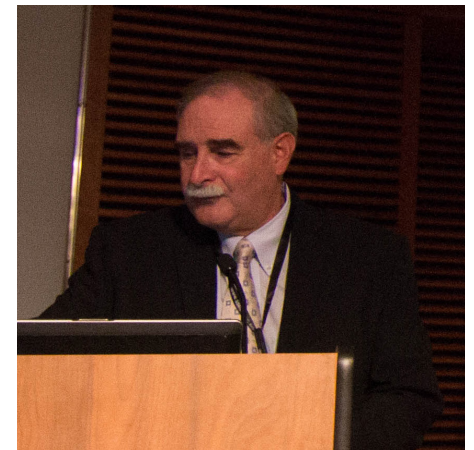
SSEC 50TH ANNIVERSARY PROGRAM

- 4:10-4:15 John P. Roberts
Emeritus Executive Director for Administration, SSEC, UW-Madison
Title: Professor Verner E. Suomi: A Bean Counter's Perspective
- 4:15-4:20 Fred A. Best
Executive Director for Technology, SSEC, UW-Madison
Title: Suomi's Last Project: The Skin-Layer Ocean Heat Flux Instrument
- 4:20-4:25 Evan E. Richards
Retired Engineer, SSEC, UW-Madison
Title: "Make it like an egg!"
- 4:25-4:35 Steven A. Ackerman
Director, CIMSS; Professor, Atmospheric and Oceanic Sciences; Associate Vice
Chancellor for Physical Sciences, UW-Madison
Title: CIMSS and our National and International Partners
- 4:35-4:45 Johannes Schmetz
Chief Scientist, EUMETSAT
Title: Professor Vern Suomi: A Catalyst for International Cooperation, The
Beginning of a Long-lasting Cooperation

(continued)

Top, from left to right: John Roberts; Fred Best.

Bottom, from left to right: Evan Richards; Steven Ackerman; Johannes Schmetz and Henry Revercomb.



PROGRAM PASSAGES

“Whatever it takes to get it done, the can-do attitude: That was the attitude that went on at Space Science in those days. Everybody digs in and just did what they had to do. ... It was a very exciting time to work there. We felt like we were part of the Space Program, and we were because we were making spaceflight hardware, but it came from the top down. Dr. Suomi had such enthusiasm for what he was doing and it just percolated to everyone in the place.”

| Tony Wendricks

“He [Verner Suomi] also had a lot of thoughts and lessons that remain with me and I’m sure with many of you to this day. My all time favorite – ‘The truth lasts a long time.’ Wow. I can’t think of a much more powerful or profound statement or life philosophy either. ... [Suomi said] ‘A good idea you can explain in a paragraph or two. A bad idea takes page after page after page.’ This also resulted in more than one Suomi proposal that I saw that was written over lunch, on a napkin.”

| John Roberts

“Vern Suomi did not entertain the thought that he could fail. ... Suomi was motivated by the fact that existing measurement techniques were either inaccurate or too complex to deploy. Throughout the early '90s, under Sea Grant and NSF funding, he developed a deceptively simple sensor to measure heat flux at the air-sea boundary. His implementation was a marriage of science and engineering, which, of course, permeated his entire career and the Center which he started. ... He went after a complex problem and he developed a very elegant solution. ... [In] the last paragraph in a proposal that Vern Suomi submitted to NOAA in 1993 to continue his development efforts, it says: The PI is approaching his 78th birthday. He can't last forever. However, as old as he is, he feels like a 16 year old boy with a new toy. Please let him enjoy.”

| Fred Best

“What was special about SSEC? Well, the expectations were extremely high. The standards were high: the professional standards, the ethical standards. The idea that we're not doing the minimum; we're going to really make this work. And the fact that the real mission and the importance of it was so well communicated. We all understood what we were trying to do and we all believed it was important. And that's a great thing.”

| Evan Richards

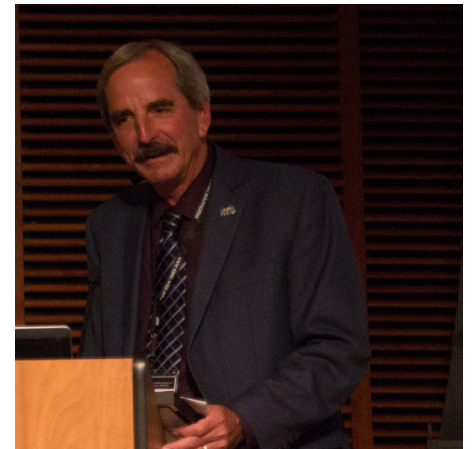
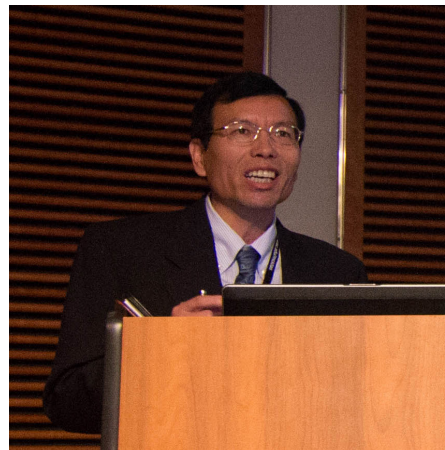
SSEC 50TH ANNIVERSARY PROGRAM

- 4:45-4:50 Jun Li
Senior Scientist, CIMSS, SSEC, UW-Madison
Title: SSEC and Me
- 4:50-4:55 Elaine M. Prins
Consultant in Remote Sensing Studies and SSEC/CIMSS Contracting Scientist
Title: Verner Suomi: Scientific Mentor and Life Coach
- 4:55-5:00 Jordan Gerth
Researcher, CIMSS, SSEC, UW-Madison
Title: Reflections of Verner Suomi within SSEC Today
- 5:00-5:10 Stephen J. Suomi
Chief, Laboratory of Comparative Ethology, National Institutes of Health,
Department of Health and Human Services
Title: "Father Knows Best"
- 5:10-5:20 Henry E. Revercomb
Director, SSEC, UW-Madison
Title: SSEC, Then and Now

Reception

Top, from left to right: Jun Li; Elaine Prins.

*Bottom, from left to right: Jordan Gerth; Stephen Suomi;
Henry Revercomb.*



PROGRAM PASSAGES

“We’ve heard some great stories about Suomi, but I also want to acknowledge, of course, everybody in this room because you all took those ideas, the challenges, and you made them happen. You did the work that took SSEC from being a concept, a thought, to an institution that has international reputation and admiration. It is a Center that has played, and continues to play, a critical role in advancing satellite remote sensing of Earth for the benefit of all. ... These achievements and traditions established over these first 50 years will guide us into the future. And the next generation of leaders are sitting out there. It’s encouraging and inspiring to know that through your research, through your commitment, you’re going to take us into the next 50 years. So thanks for that.”

| Steven Ackerman

“Congratulations from all of us at EUMETSAT. SSEC is a leader and you are a stimulus in satellite meteorology for the rest of the world. ... Best wishes for a prosperous future. And we’re pretty sure that Space Science will maintain the leadership, because you lead the science, and also very, very important, you nurture the young talent, the young people. ... Last, but not least, thanks very much to Professor Suomi, wherever he is. The way he led us, he paved the way for satellite meteorology, and certainly speaking for EUMETSAT, for Europe, he helped us develop in the right direction. And that’s important.”

| Johannes Schmetz

“SSEC has a long history of connections to the international community. ...Twenty years ago at SSEC, I came here as a visiting student and became a scientist. My experience tells me that SSEC is open, inclusive, sharing, innovative. I am the example, actually.”

| Jun Li

“His [Suomi’s] vision for satellite meteorology was to make maximum utilization of the U.S. satellite program and satellites around the world. He didn’t know any political boundaries in that sense, and so that shaped the students that he had, and as they progressed in their careers and moved to other places it affected them in those locations. ... His greatest gift, I think, to all of us here and his students, was his collaborative focus that people take with them to other institutions.”

| Elaine Prins

PROGRAM PASSAGES

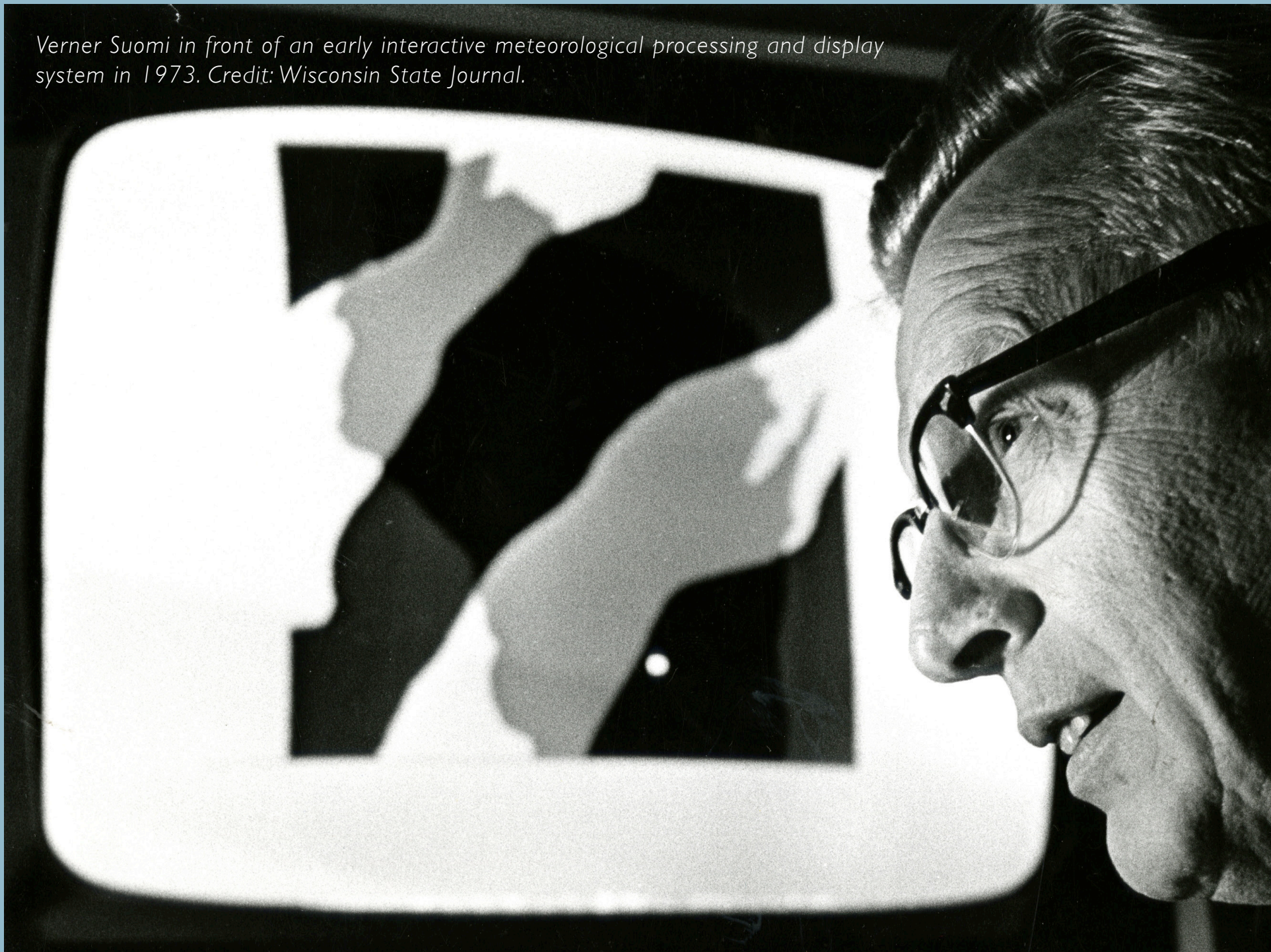
“Vern Suomi had many strengths, and his appeal to me comes from his ability to approach problems pragmatically and apply science to the real world. That really spoke to me. I never met him, but from his leadership decades earlier, I believe he has really been a contributor in my early career successes. ... What makes [SSEC’s] culture so admirable? I think it’s the collegiality and the sense of belonging. You are respected and heard, regardless of experience, and there’s room for everyone to contribute to very meaningful projects.”

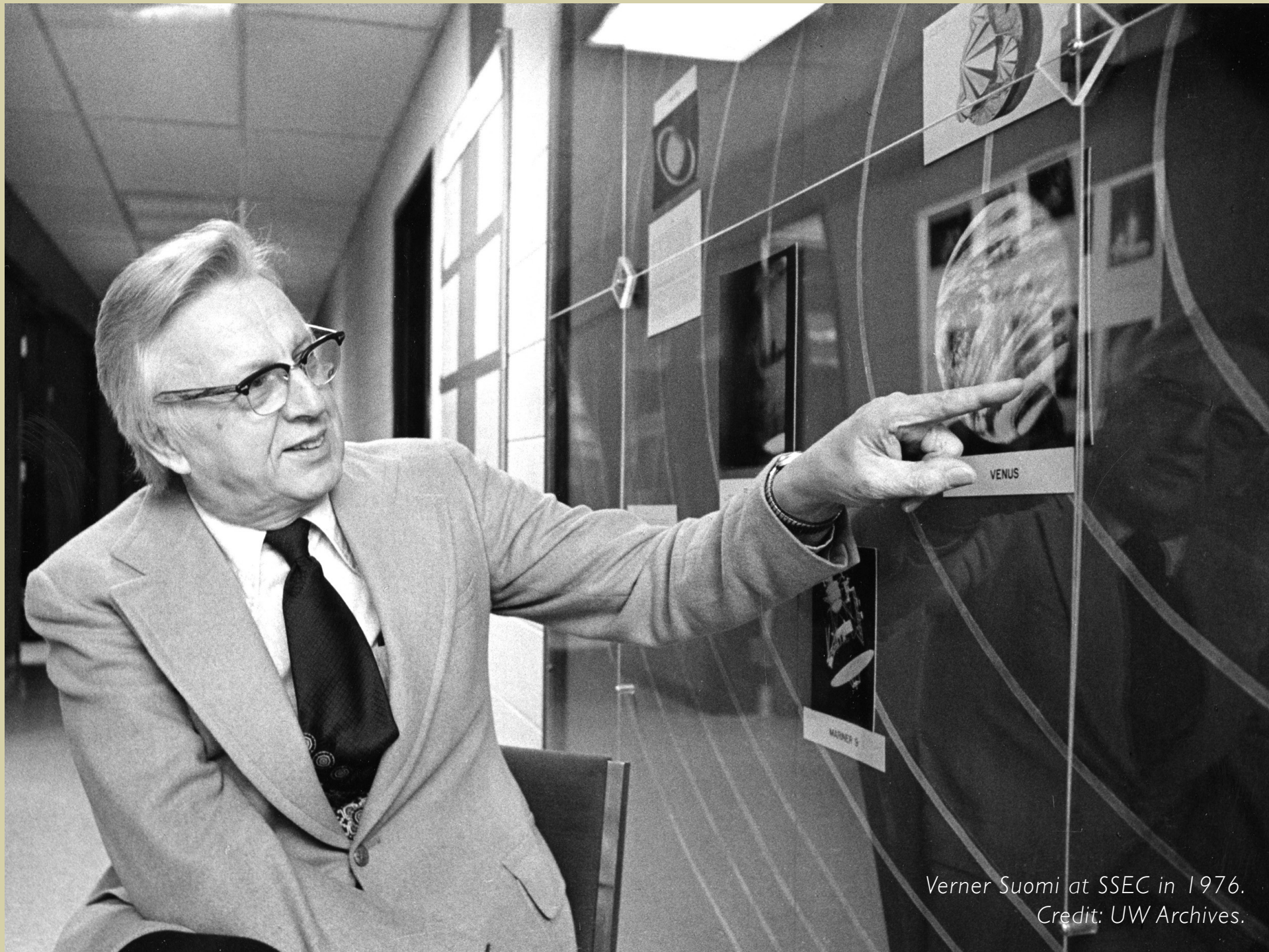
| Jordan Gerth

“He had just gotten the insight on how to show, depict the cloud moving under the satellite, a fundamental aspect of the geostationary satellite, watching a damn football game. I’m trained as a psychologist and we’ve all heard of the eureka moment. That was a eureka moment. And the wonderful thing is, it wasn’t the only one. That’s what life with father was like.”

| Stephen Suomi

Verner Suomi in front of an early interactive meteorological processing and display system in 1973. Credit: Wisconsin State Journal.





Verner Suomi at SSEC in 1976.
Credit: UW Archives.

Program speakers...

Back row, from left to right: Jun Li, Wayne Feltz, Dave Santek, Fred Best, Larry Sromovsky, Hank Revercomb, Thomas Vonder Haar, Jordan Gerth, Tony Wendricks, and Paul Menzel.

Front row, from left to right: Elaine Prins, Johannes Schmetz, Bill Smith, Dave Cismoski, Evan Richards, Louis Uccellini, John Young, Stephen Volz, Steven Ackerman, and Mareda Weiss.



ORAL HISTORY

SSCC, McIDAS, HSP, VAS, HIS, WIYN.

These and many other instruments — their development, their scientific significance, and their intricate relationships to one another — are described in a video oral history covering the half-century of hardware programs at SSEC.

Taking a chronological walk through the instrumentation of SSEC's past — and into its future — SSEC executive director for technology Fred Best moderated an oral history panel in conjunction with SSEC's 50th anniversary. The innovative ground-based and space-based programs described in the video first took shape under the leadership of SSEC founder Verner Suomi and continue today under the leadership of director Henry Revercomb.

"The focus of this [oral history] will be

how we got into our hardware projects, how we conducted them, and what kinds of interesting problems we ran into along the way," explained Best.

Oral histories have long been recognized for their unique historical value, as a way to capture — in audio or video format — interpretations, perspectives, and stories of the interviewees. Moreover, documenting these personal accounts deepens institutional memory, offering today's insight into past events. The stories and reflections are commonly used by scholars undertaking biographical or historical research, but they may also be effectively used for modern purposes geared toward the public eye, such as exhibits, commemorative materials, documentaries, or public relations campaigns.

Instrument Development at the Space Science and Engineering Center was

recorded at the Wisconsin Institutes for Discovery on 10 September 2015. In addition to Best, the panel included Henry Revercomb, retired engineers Evan Richards and Kenneth Walker, and honorary fellow Tony Wendricks.

The oral history video and its transcript will become part of the Schwerdtfeger Library digital collections. The video is also available at www.go.wisc.edu/qislf5.



ORAL HISTORY PASSAGES

On the most important aspects of the Space Science and Engineering Center that have contributed to its long term success...

“It’s high standards. ... I think the Center really implements this thing we call The Wisconsin Idea, where you take knowledge, and advance that knowledge for the benefit of mankind. Look at what’s happened with weather forecasting and how many people have so much more valuable information... High standards, great team, high expectations, and The Wisconsin Idea: It’s an unbeatable combination.”

| Evan Richards

“I think it’s taking on problems that are important for society and important for science and getting a good team of can-do people to work together. And it’s that teamwork that does a lot. ... That probably does make us somewhat different from most research organizations, that we tackle end-to-end things that go from the idea to building something and then applying it. ... A lot of these things we’ve mentioned we’re still doing are threads that go back to Vern’s early science questions with new technology and new perspectives, but, really, it’s a continuation.”

| Henry Revercomb

“Primarily, I believe it’s the fusion between the engineering and the science, which is really built in from the way Vern Suomi structured the Center. ... Also, during the development process, you find a solution by making trade-offs with the whole group, not just dictating a solution because you want to do this. It’s a marriage of the science and the technology. And secondarily, I think it’s because we’re involved with the entire process of an instrument design. From the scientific idea to designing the instrument, building it, testing it, calibrating it, deploying it, getting the measurements, analyzing the data. It’s a cycle and that creates the next generation of successful instruments.”

| Fred Best

“It’s this idea of getting back to the culture of saying it has to be done. And wanting to do it. The principal investigators and engineers and so on are just fantastic people to be involved with on a project.”

| Kenneth Walker

“Well, I think it’s a reflection on the brilliance of the people who organized it [SSEC]: Professor Parent, Professor Suomi. And how it was organized and the way they assembled a team and they passed that on to the next generation and it continues. It just continues. The attitude of whatever it takes to get done. It just continues. And it’s self-perpetuating.”

| Tony Wendricks

RECEPTION

A reception, held at the Wisconsin Institutes for Discovery, immediately followed the anniversary program.

Top row, from left to right: Jun Li; Jessica Gartzke, Bob Knuteson, and Tom Skilling; Jerrold Robaidek, Scott Lindstrom, Tommy Jasmin, and David Santek.

Middle row, from left to right: Bob Aune, Bill Smith, and Louis Uccellini; Marlene McCaffery and Amanda Thorton; Steve Wanzong, Tom Whittaker, and Endre Doeringsfeld; Kathy Strabala, Elaine Prins, Eva Borbas, and Joleen Feltz.

Bottom row, from left to right: Tony Wimmers; Sharon Best, Fred Best, Pat Fry, Eileen Hanneman, Larry Sromovsky, Jun Li, Hank Revercomb, Wayne Feltz, and Geoff Cureton; Linda Hedges, Sarah Witman, Jackie Lang, and Laura Dobor; Thomas Vonder Haar, Ken Walker, Tony Wendricks, and Jim Sinclair.





RECEPTION

Top row, from left to right: Ralph Petersen, Louis Uccellini, Bill Smith, and Bob Aune; Scott Nolin, Endre Doeringsfeld, Steve Wanzong, John Lalande, Paul Czerniak, Scott Bachmeier, and Dan Thielman; Wayne Feltz; Elaine Prins and Matthew Lazzara.

Middle row, from left to right: Thomas Vonder Haar and Johannes Schmetz; Steven Ackerman and Tom Achtor; Cara Cavin, John Cavin, and Gary Cannalte.

Bottom row, from left to right: Zach Schmidt, Colin Friedel, and Adam Schmidt; Deanna Deslover, Dan Deslover, Lori Borg, Graeme Martin, and Melissa Steinl; Tom Haig, Terri Gregory, and Eva Borbas; Maria Vasys.





MOVING FORWARD: OUR LEADERSHIP INTO THE FUTURE

From left to right: SSEC Director Henry Revercomb, SSEC Executive Director for Technology Fred Best, CIMSS Director Steven Ackerman, SSEC Executive Director for Science Wayne Feltz, SSEC Associate Executive Director for Technology Mark Mulligan, and SSEC Executive Director for Administration Jenny Hackel.



GOES-R, next-generation geostationary satellite scheduled to launch in 2016. Credit: NASA.



*Space Science and Engineering Center
University of Wisconsin-Madison
1225 W. Dayton Street, Madison, WI 53706
ssec.wisc.edu | Fall 2015*

