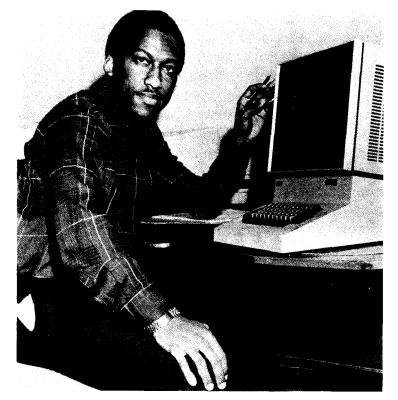
Deadline for Purchasing tickets for Sol Weiss's retirement party is April 3.t Party is April 13.t Call Sally Weland,t PAX 7143 for tickets.

Welcome to Lewis, new employees!

BY NAZHA 'NICKIE' FADIL



OTIS C. GOODEN

Otis C. Gooden, programmer trainee, Computer Services Division, recently earned a Bachelor's degree in mathematics from Cleveland State University. The young man in a hurry will also receive a degree this summer in electrical engineering from Cleveland State. And he also has begun work toward a Master's degree.

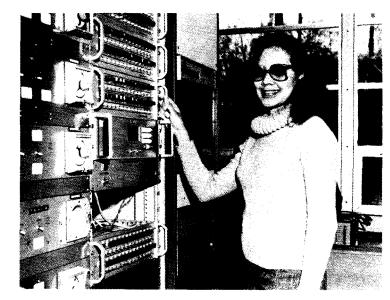
Otis cannot remember when he did not want to work at Lewis and intends to remain here and advance in his area of expertise.

He lives with a younger brother who is attending Cleveland State University and enjoys playing baseball and racquetball during his spare time. Rafael Sanabria and Olga Gonzalez Sanabria are husband and wife and are also engineers from Puerto Rico. Rafael, aerospace engineer, of the Engineering Design Division, is working on purchasing an actuator and installing it with the help of research and design engineers.

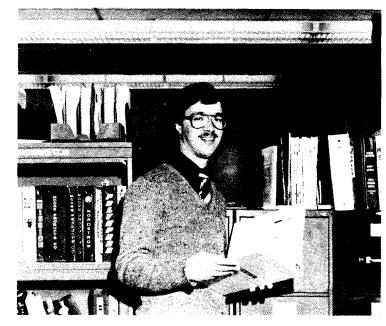
He won a scholarship to Massachusetts Institute of Technology, where he earned a Bachelor's degree in chemical engineering. Before his marriage last year he worked at General Electric in Schenectady, New York, employed in the energy systems program department.

Olga Gonzalez Samabria graduated from the University of Puerto Rico in 1978. She is a chemical engineer in the Solar & Electochemistry Division, working on research and development of batteries silver zinc and nickel zinc and on polymeric separators.

The couple met in Puerto Rico during summer jobs at Sun Oil Company, and are now living in North Olmsted. Lewis News 7 March 28, 1980



OLGA SANABRIA



RAFAEL SANABRIA

LEWIS NEWS

November 1, 1985

Saluting Our Tech Briefs HEY! HEY! HEY! Tali Spalvins



makes it 56* today

*Number of Lewis Staffers submitting approved Tech Briefs so far in 1985

The 55 others:

Richard DeLombard • John Smithrick • Michelle Manzo • Olga Gonzalez-Sanabria • Daniel Soltis • James Gauntner • Albert Kaufman • Walter Merrill • Ronald Steinke • Michael Mirtich James Sovey • Bruce Banks • Fredric Harf • Carl Daniele • Carl Lorenzo • Bonnie McBride • Irving Weinberg • Henry Brandhorst • Raymond Vannucci • Suzanne Gooder • Donald Schultz • Albert Weigand • Robert Cunningham • Sharon Rutledge • Eliseo DiRusso • Robert Frye • Bruce Steinetz • Stuart Lowenthal . David Ercegovic . Curtis Walker . Carl Norgen • Russell Jirberg • David Sagerser • Thomas Moore · Gary Roberts · Richard Lauver · Dale Arpasi · Jerrold Wear Robert Jones • Arthur Trout • Bonnie McBride • Robert Buzzard • Bernard Gross • George Succop • Edward Generazio Thomas Kascak • Donald Roth • Lorra Rieker • Mark Hoberecht • David Hull • Frank Zeleznik • Dennis Townsend · Erwin Zaretsky · Paul Aron and Herbert Scibbe.

Thanks to all from the Lewis Technology Utilization Office Dan Soltis (chief), Bill Waters, Steve Riddlebaugh

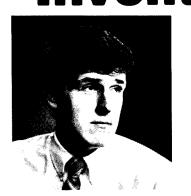
MS 7-3, PABX 3-5568, 3-5563, 3-5571



Bruce A. Banks



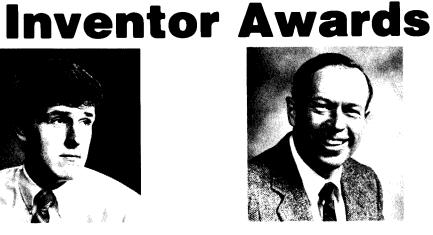
Ben T. Ebihara



James D. Cawley



David P. Fleming



Donald L. Chubb

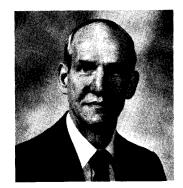


Randall F. Gahn

At recent Inventors Day Luncheon program award ceremonies coordinated by the Lewis Awareness Office, 32 Lab inventors who have had patents issued in 1985 were honored on behalf of all the Center inventors, including three Lewis Inventors of the Year-Randall F. Gahn and Norman H. Hagedorn of the Power Technology Division (who share a patent), and Leonard J. Westfall of the Materials Division. At the April 17 event, Chief Counsel William H. Brahms presented the inventors and Center Deputy Director John M. Klineberg offered congratulations and the award plaques and also discussed the importance of patents in providing a valuable national resource. Pictured here are the attending Inventors Day awarded patentees.



Robert E. Cunningham



Norman H. Hagedorn



Richard W. Lauver



Li Chen Hsu

Michael J. Mirtich





Ruth H. Pater





Warren H. Philipp





George C. Rybicki





Dean W. Sheibley



James L. Smialek



James S. Sovey

Olga D. Gonzalez-Sanabria



Stephan Stecura



Edward L. Warren



Leonard J. Westfall

3

376 Special Achievement Awards Granted In First Part Of FY 1988

A Special Achievement Award is a lump-sum cash award that can be given to NASA employees for sustained superior performance, a special act or service, or group achievement.

Since December of 1987, 18 Sustained Superior Performance Awards have been granted, and 65 Special Act or Service Awards have been issued to Lewis employees. In addition, 282 members of 35 teams received Group Achievement Awards.

The following individuals can take pride in knowing that they have substantially contributed to achieving Lewis missions.

2730

2770

2770

2780

2830

2840

2850

Office Of The Director

Administration And

Computer Services

Directorate

Aeronautics

Directorate

Loretta Shaw

Carol Mehallick

Dennis Conrad

Margit Comer

Dennis Dubyk

James Biaglow

Wojciech Rostafinski

Carole Demongeot

0173

1101

1110

1110

1350

1390

1730

1910

2420

2420

5250

7340

George Succop

Joseph Joyce

Office	Of The Director
0130	Jean Chapman
0155	Jon Wetherholt
0180	Alberta Gooden

Administration And Computer Services Directorate 1140 Leroy McCreary 1710 Beverly Sage Lorraine Davies 1730

Aeronautics Directorate

2610 Meng-Sing Liou 2750 Marcia Bellamy

Sustained Superior Performance Awards

Engineering Directorate

Directorate

5230

4000 Sharon Huber Deborah Volan 4110 4130 Nancy Baronie Carole Roskilly 4300

Aerospace Technology

Gerald Brown

Aerospace Technology

7460 Randy Malmfeldt **Space Station** Systems Directorate 8520 John Ewashinka 8600

Technical Services

Richard Gilmour

Helen Zitello

Johnny Napier

Gregory Blank

David Mount

Lloyd Egbert

Kent Jefferies

Space Station Systems

Directorate

Directorate

7230

7410

7430 7430

7440

7650

8510

Technical Services

Directorate

7010

Stacy Corban 8710 Richard Wulf

Lauren Yost

Special Act Or Service Awards 2420 Leo Franciscus Office Of The 2620 Robert Steinberg Comptroller 2620 Anthony Williams 3360 2630 Jose Sanz 3370 2640 Steven Hippensteele 2640 Chi Wang 2650 David Bittker 4010 2650 Roger Svehla 4120 2660 Robert Porro 4210 Linda Elonen-Wright 2700 Edward Willis, Jr. 4220 Lawrence MacFarland 2710 Roger Werner

Dorothy Goebel

Gary Podboy

Eugene Krejsa

Ronald Alexander Linda Trimmer **Engineering Directorate** Annie Easley Robert Post Scott Graham Donald Perdue 4230 Theodore Mockler 4230 Svbil Morren 4230 Raymond Lacovic 4320 Thomas Cressman id Petrarca Woloschak, Jr. Olsen

Direc	torate
5210	Carol Ginty
5220	Judy Krugman
5350	Neal Wingenfeld
5400	Harvey Bloomfield
5410	William Frey
5420	Olga Gonzalez-Sanabria
5420	Doris Britton
5420	John Smithrick
5430	Marjorie Fuller
5460	Roy Tew, Jr.
5470	Norman Grier
5630	Robert Romanofsky

Space Flight Systems

Directorate 6110 Robert Gunderman 6750

Group Achievement Awards

2600	Div Best Paper	PLF A	ctivation And	ASM I	International	Cente	r Reorganization	Comb	ustion Research
Autho	or Team For 1987	Duct/I	Ejector Tests	Mater	ials Week Booth	Move	Team		atory Support
2430	Felix Torres	2820	Richard Barth	5120	Joseph Stephens	1360	Karen Marstellar	7290	Danis Arthur
2640	Steven Hippensteele	2850	Benjamin Dastoli	5140	Talivaldis Spalvins	1390	Daniel Cica	7290	William Furfaro,
2640	Louis Russell	2750	Rudolph Grey	5160	Carl Stearns	1390	Phyllis Geffert	7290	Richard Gardin
		2750	Douglas Harrington	1910	Paul Kick	1710	Christopher Kennedy	7290	Pablo Gutierrez
Endw	all Heat				280	1710	Steve Lukac	7290	Daryl Hemminge
Trans	fer Team	Traini	ing Room Committee	1987	Aeropropulsion	Res.	Mona Shopoff	7290	James Kovach
2630	Robert Boyle	3200	George Barber	Confe	erence	Ret.	Andrew Pindor	7290	Louis Kren
2640	Louis Russell	3210	Mary Beranek	5110	John Gayda	CORT	Donna Petrosky	7290	Donna Miller
		3230	Susan Mills	5120	Pamela Brindley	BNDX	William Burke	7290	Robert Pelaez
Devel	opment Of	3250	Margie Joyner	5130	James Kiser	BNDX	Dave Kifer	7290	Edward Pluta
	Iz Testbed		8	5140	Harold Sliney	BNDX		7290	Robert Robinson
1330	Eileen Cox	Pricin	g Assistance Group	5150	Michael Meador	CORT	Mary Beth Bogdan	7290	Roger Scheman
1330	Jerri Mattingly	3360	Katherine Martin	5160	Carl Stearns	SVER	Bob Ditirro	7290	John Svoboda
1370	William Belter	3360	Erick Lupson			D-K	Joseph McMillen	7290	Melvin Thomas
7250	Gerald Hill	5500	Liter Dupson	SITE	Project Development	DA	vooepii menimen	7290	Robert Vanek
7250	Alfred Lajewski	Fngin	eering And Fab.		(Phase 1)	IDGE	Team	7290	Michael Zelek
7250	Joseph Yuhas	0	osite Rate Team	5630	Regis Leonard	7440	Robert Everett	1200	Sinemer Beren
7260	Shelton Beasley, Jr.	1340	Robert Harsany	5640	Kurt Shalkhauser	7440	Thomas VanNuyen	SPRF	Testbed
8810	George Kopasakis	1340	Melva Schwartz	5650	Joseph Harrold	/++0	monitas vanivayen		ip Team
8810	John Taylor	3110	William Jadacek	5650	James Budinger	Uvnor	sonic Models Team	0300	James Loew
8820	Irving Hansen	3110	Daniel Walker	5650	Elaine Daugherty	7440	Kenneth Guinta	7230	Gerald Bockmill
8820		3120		5650	. .	7440	Ronald MacTaggart	7230	Thomas Doeberl
	Frederick Wolff		David Hale		William Ivancic			7230	Leon Dozier
8830	Anastacio Baez	3130	Martin Jacob	5650	Ihor Kramarchuk	7440	Walter Hendricks		
8830	Kevin Carmichael	3210	Mary Beth Celebrezze	5650	Lawrence Nagy	NACE	F 1 1 01	7230	Eugene Farkas
8830	Michael Mackin	3250	Joseph Ferguson	5650	Mary Jo Shalkhauser		Forebody Sim.	7230	Gary Lorenz
8830	Theodore Wright	4020	Alex Pucci, Jr.	5650	Monty Andro		imental Program	7240	Roger Meredith
8910	Daniel Chrulski	4020	Earl Bloam	5660	Godfrey Anzic	7230	Thomas Cmarik		
8910	Wilbur Knapp	4020	Linda McAllister	5660	Martin Conroy	7230	Robert Kinas	ESCO	
8910	Thomas Vasek	7400	Charles Slauter	5660	Gene Fujikawa	7230	Robert McCluskey		ementation Tear
		D-K	Michael Hoyman	5660	Robert Kerczewski			1330	Susan Button
	d Testbed w/Solar	SVER	Luanna Katz	5660	Gerald Chomos		Redesigned Thrust	1330	F. Peter Michae
Dyna	mic Simulator	SVER	Jane Rowe	7260	Robert Brej		rement System	1330	June Thompson
8830	Raymond Beach			7260	Gerald Buchar	7230	John Cotter	1360	Robert Weigand
8830	Narayan Dravid		Station SEB	7260	John Calderon	7230	Larry Jones	1370	William Belter
8830	Marton Forkosh	Housi	ng Support Group	7260	Norman Melnyk			1370	Eugene Itean
8810	Gerald Sadler	3370	Angel Pagan	7260	Raymond Viancourt	Acryli	c Transition And	1370	Robert Kannenb
8820	Balazs Hatvani	3380	Florence Shiner	Ret.	Alan Saunders	Exhau	st Nozzle	1370	Leslie Kee
8910	Frank Gati	8000	Lois Wolfe	Ret.	Donald Ohlemacher	7430	William Young	1370	Walter Ponevacs
8910	Thomas Jett	8100	John Carpenter			7450	Randall Kwasny	1370	Joseph Rossoll
8910	Lawrence Trash	8100	Anthony Long	Direc	torate Survey Team	7450	Herbert Lawrence, Jr.	1370	Gayle Roth
		8730	James Calogeras	1701	Judith Dempsey	7450	Herbert Stannert	1370	Robert Setter
EEO C	Counselors		6	1701	Michael Csuti			2850	Dennis Fronek
1940	Pamelia Caswell	Arciet	Life Test Team	1701	Mary Moore			2850	Steve Gonczy
2710	Susan Johnson	5320	Terry Hardy						
5140	Wilfredo Morales	5330	Francis Curran						
5050	G G	5000							

	Group	Ach	iov
Martin Ginley			
Alvin Buggele	43	40	Eric
Robert Hanlon	43	30 .	John
Deborah Cotleu	ır 43	30	Davie

- rancis Currar
- 5330 Thomas Haag

750	David Francisco
6	
	Reorganization
	Team
360	Karen Marstellar
390	Daniel Cica
390	Phyllis Geffert
710	Christopher Kennedy
710	Steve Lukac
es.	Mona Shopoff
et.	Andrew Pindor
ORT	Donna Petrosky
NDX	William Burke
NDX	Dave Kifer
NDX	James Kriso
ORT	Mary Beth Bogdan
VER	Bob Ditirro
0-K	Joseph McMillen
DGE 1	Геат
	Robert Everett

8520 William Johnson 8520 Thomas Cahill 8830 Michael Mackin ch

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National Hispanic Heritage Week Honored Women's Contributions

National Hispanic Heritage Week was commemorated during the week of September 12-17. The Lewis Hispanic Advisory Group presented a program geared toward this year's theme, "Five Hundred Years of Hispanicr Heritage. . . the Women'sr Contribution."r

Two films, each produced to highlight struggles, successes, motivation, and culture were part of the program. Olga Gonzalez-Sanabria, of the Powerr Technology Division, was a panel member in the film "Hispanic Journal Part II," which queried eight career wormen about ther struggles and successes encountered in their chosen field.r

Lynn Bondurant, chief of the Educational Services Office, discussed services offered by his branch, and an overall view of student programs availabler through Personnel was presentedr by Eric Laubacher and Patr Zamaria. The focus of the presentations was to show Hispanic employees what Lewis has to offer to women. "Five Hundredr Years of Hispanic Heritage...the Women's Contribution" program is available on tape. Contactr Gilda Jacinto, chairperson, atr 3-6762.r

The Hispanic Advisory Group fully supports the goal of motivation, encouragement, and support of students—the next generation to enter the workforce. Ther group's objective is to advise and assist the Hispanic Employment program manager in achieving the objectives and goals of the Hispanic Employment Program at Lewis. New members are being sought. For more information, contact Gilda Jacintor (3-6762).r



Diana Centeno-Gomez presents a certificate of achievement to Deputy Director Larry Ross during a Hispanic Week presentation.r

GROUP ACHIEVEMENT AWARDS

from page 3

LST '88 Committee

5210 John Caruso 5220 Gary Halford 5230 Oral Mehmed 5240 C. Robert Ensign 5250 Bernard Gross

I.R.T. Blade Repair Team

7450 Daniel Gura7450 Michael Krinov7450 Robert Reminder7450 Herbert Stannert

FOMD Secretarial Team

7300 Theresa McKendry7300 Maureen Messich7300 Edna Schleich

Repair of Desi Heater Burner

7310 Augustine Cervelli 7310 Wayne Condo 7310 Peter Wheeler

MPD Facility

Development Group 5330 Thomas Haag 5330 Maris Mantanieks 5330 James Sovey 5350 Paul Raitano Cont. James Parkes

Design Team for Angular Resolved Secondary Electron Emission Experiment 5620 Ben Ebihara 5620 Isay Krainsky

IPV Task Team IR-100 Award 5420 Olga Gonzalez-Sanabria

5420 Michelle Manzo 5420 John Smithrick 5420 Lawrence Thaller

Refrigeration Bldg. Thermo Electrical Cir-

cuitry Installation Team 7202 Joseph Klebau 7202 Charles Ray 7310 Gary Loder 7310 Ronald Molosky 7310 Gregory Schade 7310 George Scott 7310 Leroy Walker 7310 Dale Wiersma 7430 Terry Ferrier 7430 Roger Meredith 7430 Chip Redding 7430 Donald Varga

Construction of Power

Systems Facility 1930 Donald Huebler 3370 Ronald Sepesi 4120 Ronald Chucksa 4120 Joseph Smail 4140 William Thomas 7610 Frances Kristofik 7620 Laszlo Zala 7630 Annette Bhatia 7630 Pedro Colon 7630 Lynn Irvine 7630 Paul Weisenbach 7630 Ronald Zurawski 7640 Jose Vega 7650 Leonard Homyak 7650 Patricia Marshall 7650 Charles Sako 7650 R. Christopher Themes 8910 Daniel Churlski 8910 Frank Gati

8910 Gordon MacKay 8910 Dennis Thompson

UNICOS Migration Team

1310 Rhonda Arterberrie
1310 Lamont King
1320 James Guptill
1350 Jay Horowitz
1370 Stephen Prahst
1380 Minna Chao
1380 Lucille Geyser
1380 Anthony Hackenberg
1380 Karen Pischel
1380 Charles Putt
4230 Rafael Sanabria

DGS User Group

3150 Thomas Burke
3310 John Mudry
3330 Bruce Shuman
3340 Jane Cochran
3350 Robert Firestone
3350 Linda Kendrick
3360 Erick Lupson
3360 Glen Williams
3370 Angel Pagan
3380 Florence Shiner

D-K Jean Klingbeil

Appropriation Realignment Study & Implementation Team 1340 Thomas Finnegan 1340 Harriet Gilbert 1340 Melva Schwartz

1340 Melva Schwartz
1340 Gail Wilkes
3100 Robert Fails
3110 George Kanya
3110 Daniel Walker
3110 Rosemary Weber
3110 Deborah Ryan
3110 Donald Sawyer
3200 George Barber

Automated Clearing House (ACH) Method of Vendor Payment Implementation Team 1340 Thomas Murray 3210 Joseph Kan 3220 Janice King 3220 John Morley D-K Mary Ann Hotchkiss D-K Laura Julian D-K Mary Ann Piskula SVER Peter Nofel SVER Cathy Petelin SVER Steve Ware SVER Randy Zak

ACTS Project Analysis Office

0120 Kent Stone
3140 George Novak
3140 Jack Herman
3140 Carl Suba
3340 Shirley Boyer
3340 Joanne Poe
3340 Leonard Schopen

Design Support Team for Swirl Augmentor Rig

4120 Joseph Smail 4140 Michael Del Regno 4140 William Thomas 4140 James Yager 4220 Mildred Arnold 4220 Ronald Dawson 4220 George Pinkas 4220 David Plachta 4240 Robert Horak 4330 Paul Trimarchi

Major Presenters for High
Resolution High Frame
Rate Video Workshop1605 Robert Ziemke4120 Robert Butcher4120 Michael Lewis4120 William Thompson

Steer Engineering Design Team

4210 Leland Anderson
4220 Mildred Arnold
4220 Sheldon Meyer
4220 Michael Stofcheck
4240 Robert Horak
4340 Francis Jasko

High Efficiency TWT Design Team 5620 Arthur Curren

5620 Dale Force5620 Raymond Palmer

ASIC Design

Implementation Team 5650 Monty Andro 5650 Susan Kerslake

PSF CoF Team

8910 Daniel Chrulski8910 Frank Gati8910 Gordon MacKay8910 Dennis Thompson

Parallel Processor Acquisition Team

1350 Gregory Follen
1380 David Remaklus
2670 Edward Milner
3320 Scott Marchewka
3360 Karin Huth
5230 David Janetzke

More Group Achievement Award winners will be listed in the December 23 issue.

Lewis Experiment A Success on STS-43

Continued from page one

For this experiment, the shuttle was positioned in a tail-to-wind orientation for 11 hours to provide TPCE extended data with the fluid positioned at one end of the tank. This orientation enhanced the data output and will make it easier to compare the results with axisymmetric computational models.

TPCE was the first flight project under IN-STEP, the In-Space Technology Experiments Program. This program is funded by NASA's Office of Aeronautics and Space Technology at NASA Headquarters. Olga Gonzales-Sanabria of the In-Step Technology Branch, Space Experiments Division (SED), serves as a focal point for all IN-STEP experiments managed at Lewis.

Project Manager, Richard Knoll of the CFTO, emphasized that the project's success was due to the dedicated teamwork of NASA personnel and Boeing Aerospace, the prime contractor for the experiment.

"We had excellent support from an Engineering Directorate design review team led by John Woloschak and Paul Trimarchi. Lou Ignaczak and personnel from the Flight Projects Branch (SED) were instrumental in helping us work through several technical problems encountered along the way. Ray Sotos and technical support from the Zero Gravity Facility assisted Boeing in the Lear Jet TPCE low-gravity flight tests at Lewis last year. During these tests, an engineering model of the TPCE, mounted in a GAS container, was flown through 24 low-g trajectories to provide a systems checkout and to resolve key performance issues."

Knoll also credits CFTO staff and other support service contractors for contributing to the overall success of the project. "I was fortunate to have all these experienced people on this project. This was truly a team effort."

In addition to meeting its stated experimental objectives, TPCE has provided an insight to other important phenomena that could have an impact on the eventual storage of cryogenics in a low-g environment.

"We are just starting to analyze the wealth of data acquired by TPCE," says Knoll. "The real fun is just now beginning."

Watch for the video on the experiment which will be released early next year. By Wilma Graham Sverdrup Technologies

Exceptional Service Medals NASA acknowledges Honor Award recipients

Twenty-eight Lewis employees were honored for exceptional service during the NASA Honor Awards Program on May 27. A total of forty-three Lewis employees were presented medals. Recipients are also featured on page four.





Kotlenz

Schwarze





Gonzalez-Sanabria



Boyd



Chucksa

Gura



Horansky



Kellv

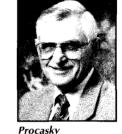


Lehota





Nieberding





Puthoff



Readus

Romanchok

H. Bruce Block, deputy chief, Aeropropulsion Facilities and Experiments Division. For outstanding leadership in conducting in-house testing and developing associ-ated facilities for the Lewis Aeropropulsion Program.

Gary Bollenbacher, Engineering Support Division. For innovations in software analysis and integration that contributed significantly to many successful launches of Lewis-managed launch vehicles. Gilbert M. Boyd, Office of Environmental Programs. For exceptional contributions to research, environmental protection, and worker safety at Lewis.

Ronald J. Chucksa, Electronic and Control Systems Division. For outstanding engineering management contributions in support of aeronautics research and the development of space experiments. Dianna H. Corso, chief, Computer Technology Branch, Procurement Division. For dedicated and effective procurement support to NASA and Lewis computer technology programs during a period of major changes in technology and procurement regulations.

Peggy S. Duchoslav, (posthumously), Technical Information Services Division. For consistently providing outstanding



Scudder

human resources development at Lewis and fostering employee involvement in total quality and multicultural work force

issues Daniel V. Gura, Fabrication Support Division. For valuable innovations in model fabrication and exceptional dedication in training apprentices and cooperative education students. Nancy A. Horansky, External Programs Directorate. For extensive knowledge and outstanding secretarial skills that

have contributed significantly to the efficiency and effectiveness of the new External Programs Directorate.

Regina B. Kelly, Test Installations Division. For outstanding technical management of the Facilities Operation and Test Support Services Contract. Pamela Kotlenz, Facilities Operations Division. For significant contributions to the security of the many diverse, automated information systems at Lewis and outstanding leadership in establishing security risk management processes. Douglas L. Lehota, Facilities Operations Division. For significant contributions to the safe and reliable operation of the high-voltage electric power system at Lewis.



Seeholzer Seng Ronald J. Romanchok, Engineering Support Division. For numerous outstanding contributions to the Engineering Directorate's state-of-the-art design projects supporting advanced aeropropulsion and aerospace research. Gene E. Schwarze, Power Technology Division. For enabling engineering accomplishments that achieved major

technical goals related to space nuclear power systems Larry R. Scudder, chief, Operations Division. For outstanding leadership of the government and contractor team that is defining and implementing the

operations and facility requirements for the Electrical Power System of Space Station Freedom.

Thomas L. Seeholzer, Structural Systems Branch. For creative engineering solutions for the structural systems of the Atlas/Centaur and Titan/Centaur launch vehicles, and for exceptional contributions to pyrotechnic separation systems. Gary T. Seng, head, Engine Sensor Technology Branch, Instrumentation and Control Technology Division. For outstanding leadership of the High-Temperature Electronics Research Program and the Fiber-Optic- Based Controls Research Program at Lewis. Dorelia Y. Sharp, Space Station Freedom Directorate. For sustained exceptional performance in support of the management and integration of Space Station Freedom.





Simon

Distinguished Public Service Medal

Simon Ostrach, Wilbert J. Austin Distinguished Professor of Engineering at Case Western Reserve University. For significant and



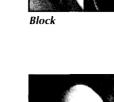
far-reaching contribu- Ostrach tions in guiding and conducting NASA space science research. \blacklozenge

Equal Opportunity Employment Medal

David Namkoong, Power Technology Division. For outstanding efforts and accomplishments in fostering multiculturalism in the Federal work-









service and innovative solutions to the many customers of the Technical Information Services Division.

Ronald E. Everett, chief, Space Systems Branch, Procurement Division. For exemplary leadership of procurement professionals and significant and innovative contributions to the success of major space programs for Lewis.

Wilson F. Ford, chief, Office of Mission Safety and Assurance. For successfully establishing and developing a highly professional, proactive, and collaborative Safety, Reliability, and Quality Assurance Program at Lewis.

Robert J. Frye, deputy chief, Systems Development and Verification Branch, Electrical Systems Division. For many outstanding engineering contributions to the development of space power electron-

Olga D. Gonzalez-Sanabria, Space Experiments Division. For outstanding contributions to the development and coordination of Lewis activities in the OAST In-Space Technology Experiments Program.

Debra L. Griest, chief, Development, Counseling and Management Services Branch, Human Resources Management Division. For outstanding performance in Regis F. Leonard, chief, Solid State Technology Branch, Space Electronics Division. For significant contributions and outstanding leadership in planning, guiding, and directing the Solid State Technology Program at Lewis. John J. Nieberding, chief, Advanced Space Analysis Office. For outstanding contributions to many NASA Expendable Launch Vehicle Missions and excellence in advanced mission planning and advocacy

Edwin R. Procasky, chief, Systems Engineering Office, Lauch Vehicle Project Office. For valuable innovations in system engineering and integration that have enhanced safe, reliable operations of our Nation's intermediate and large expendable launch vehicles. Richard L. Puthoff, chief, Solar Array Branch, Photovoltaic Power Module Division. For sustained superior performance in the design and development of solar array wings for the Space Station Freedom Electric Power System. George W. Readus, Jr., Test Installations Division. For outstanding technical support, leadership, and personal dedication in achieving key goals of research projects conducted in the Instrument Research Laboratory.

Frederick F. Simon, deputy chief, Heat Transfer Branch, Internal Fluid Mechanics Division. For many outstanding contributions to both pioneering research and multicultural understanding at Lewis. ♦

Exceptional Engineering Achievement Medal

Ben T. Ebihara, Space Electronics Division. For significant innovations in the design of vacuum electronics devices and experimental facilities, particularly those operating at temperature extremes. \blacklozenge

place and throughout the local community. ♦

Namkoong

Exceptional Scientific Achievement Medal





Rebecca A. MacKay, Materials Division. For exceptional contributions to the understanding of microstructure/property relationships in high-temperature alloys.

Edward J. Rice, Internal Fluid Mechanics Division. For conducting creative and pioneering studies of aeropropulsion system acoustics and developing an internationally used design method to reduce aircraft engine noise. ◆





Volume 30 Issue 16 August 13, 1993

Six chosen as Senior Executive Service candidates

To prepare for the large number of Senior Executive Service (SES) vacancies anticipated in FY 1994, NASA recently selected 58 employees, 6 from Lewis, to participate in the new Senior Executive Service Candidate Development Program.

Lewis candidates-Randall Furnas, deputy chief of the Thermal and Fluids Analysis Branch; Olga Gonzalez-Sanabria, Space Experiments Division; Karin Huth, chief of the Materials and Equipment Branch, Procurement Division: Robert Lawrence, chief of the Office of Equal Opportunity Programs; Lee Haeok, Propulsion Systems Division; and Jose Vega, deputy chief of the Facilities Operations Division-were chosen from among more than 1,000 applicants on the basis of their experience, education, training, accomplishments, and managerial skills.

"Only four candidates below the GS-15 level were selected Agency-wide, all four from Lewis," explained Cynthia Forman, Organization Development Branch, Office of Human Resources Development and coordinator of the program. "I think that speaks well for Lewis' efforts in recent years to develop leadership capacity early in people's careers and at every level in the organization." Lewis' candidates have backgrounds in engineering, technical, and administrative fields.

Candidates have been divided into

two subgroups. The first group began training in June and the second group will begin in December. All candidates will work with a designated SES mentor to prepare an individual development plan (IDP) designed to develop their executive competence.

"I'm looking forward to learning what goes on in other directorates through the eyes of a 'Director Of'," said Vega, a member of the first SES group. "My IDP will take me through three directorates at Lewis and Code RI at Headquarters."

While Vega works side-by-side with senior executives, other candidates will participate in assignments tailored to fit their individual interests, technical expertise, and development needs. However, all candidates will spend a minimum of 80 hours in formal training courses, approved by the Office of Personnel Management (OPM). In addition, candidates will spend approximately 120 days in developmental work assignments at other NASA centers, agencies, or related industrial organizations to broaden their experience and develop specified executive competencies.

Furnas, who over a nine-month period will spend about five months on executive development assignments at the Internal Revenue Service and TRW Corporate Headquarters, looks forward to the challenge of working executive-level assignments



Furnas



Huth

outside of NASA. "I hope to gain insight into why other organizations operate differently from us, or the same as us," he said.

Upon completing the program, each candidate's IDP record will be reviewed by NASA's Executive Resources Board (ERB) and with the board's endorsement the candidate's records will be sent to OPM's SES Qualifications Review Board for certification. Being selected for and completing this training program does not guarantee appointment to the SES, however, Forman explained.





Haeok



Lawrence



Vega

NASA will continue to have multiple paths of entry into the SES, and all career SES entry positions will continue to be filled through the SES vacancy announcement process as they have in the past.

"Though the career advancement benefits of the program are important, development opportunities are just as important if not more to me," said Haeok. "I'm looking forward to learning all I can about NASA and its management." ◆

March 31, 1995 Lewis NEWS

New executive officer named

OLGA Gonzalez-Sanabria recently joined the Director's Office as Executive Officer. She is responsible for assisting Director Don Campbell in planning, organizing, and managing institutional and technical programs.

In her 15-year career at Lewis, Gonzalez-Sanabria has served in a variety of technical positions. She has a broad knowledge of Lewis technical programs and has been highly involved in project development, as well as other institutional issues. She also has broad knowledge of NASA programs and policies through her one-year Career Development Program assignment at Headquarters. In addition, she recently completed the



Gonzalez-Sanabria

Senior Executive Service Career Development Program. ◆

April 14, 1995 Lewis NEWS

Lewis reports Zero-Base Review findings Center can save \$29.5 million through innovative activities

LAST December, Lewis began an intensive self-assessment aimed at streamlining and improving efficiency. On March 16–17, members of Lewis' Zero-Base Review Center Self-Assessment Steering Team presented its findings to a Headquarters panel. The panel will present those findings to Administrator Daniel Goldin in May. Administrator Goldin is expected to present a strategy to Congress for downsizing NASA on May 17.

While the entire report cannot be detailed in this article, the Lewis News spoke with Olga Gonzalez-Sanabria, executive officer to Director Don Campbell, to gain insight into the complex review and provide highlights for employees. According to Gonzalez-Sanabria, the review process (see Zero-Base Review Process box below) examined all aspects of the Center-our research, processes, and people. The Center's Zero-Base Review Team was also tasked to address statements relating to Lewis in the White Paper, a document drafted by a team of Headquarters personnel.

"The White Paper is not a mandate," Gonzalez-Sanabria explained. "It was intended to stimulate thinking for developing new and better ways of doing business. Lewis, as well as each NASA center, was asked to examine *White Paper* statements and provide feedback based on our findings." (See *White Paper* Statements/Lewis Proposed Options at the bottom of this page.)

The summary of findings from the Zero-Base Review Self-Assessment concluded that by FY2000, Lewis could save \$29.5 million and reduce its workforce while still maintaining most of its key research activities by concentrating on four issues:

- Re-engineering opportunities (see *Re-engineering spotlight story*)
- Eliminations (programs/personnel)
- Organizational consolidations
- Employee/supervisor ratio

Gonzalez-Sanabria said that workforce reductions will depend on which recommendations are implemented. She said there are alternatives being studied that may bring new work to Lewis. This work might mitigate workforce reductions.

"We're proposing transitioning some of Lewis' current research activities to local university consortiums and institutes," she explained. "Under

Zero-Base Review Process

• Steering Team — Led by Center Deputy Director, members included executives, managers, and unions.

• Directorate Review Teams — Led by Director of, members included

- budget, procurement, personnel, and technical experts.
 Contractor Review Team Led by Director of, members included
- budget, procurement, personnel, and contract experts.
- Steering Team developed set of guidelines for review.

• Review Teams spent four weeks gathering data on organizational structure, major products & services, employee/supervisor ratio, reengineering, non-value added work, eliminations & consolidations, priorities, and improvements in contract management.

• Each Review Team reported findings back to Steering Team and Executive Council.

- Steering Team consolidated data.
- Executive Council made decisions on identified savings.

SPACE

Microgravity Science

White Paper Statement: "Lewis Research Center is responsible for...microgravity science."

Lewis Proposed Option:

- Consolidate microgravity program at Lewis.
- Evolve to International Institute.
 Consider consolidation of microgravity and life sciences program at Lewis.

Expendable Launch Vehicles (ELVs)

this proposal, research can still take place and workers may still be employed locally."

Gonzalez-Sanabria stressed that the *White Paper* and the Zero-Base

Review are "options" for Lewis. Goldin will make overall decisions for downsizing and streamlining activities within Lewis after he examines Zero-Base Review findings from each Center. ◆

Re-engineering spotlight

University-Level Programs

One of the processes involved in Lewis' Zero-Base Review focused on reviewing the Center's higher education programs in the Office Of Educational Programs, Office of University Programs, Office of Equal Employment Opportunities, Office of Human Resources Management, and the Historically Black Colleges and Universities Grant Program. The 6-person committee looked at 17 education programs to determine which area within Lewis would be the best to oversee each program.

"We considered the primary and secondary beneficiaries for each program," said Dr. R. Lynn Bondurant Jr., Education Programs officer in the External Programs Directorate. "For example, Lewis research organizations benefit most from the Lewis/OAI Cooperative Fellowship Program, while university faculty members are secondary beneficiaries."

Guided by Headquarters' Educational Strategic Plan, the team suggested transferring four programs to the Office of Educational Programs and eight programs to the Office of the Chief Scientist. In addition, the team suggested revising the OAI Master Agreement to eliminate civil servant technical representatives and give administrative responsibility to individual service providers and have OAI work directly with the providers. The team concluded that the Center could save \$275,000 through their recommendations.

"By consolidating and realigning programs, Lewis will operate more efficiently and better meet NASA directives," Dr. Bondurant said.

The team consisted of: Dr. Sunil Dutta/0100, Dr. R. Lynn Bondurant Jr./ 9000, Dr. Frank Montegani/9100, Loretta Shaw/9100, Jo Ann Charleston/ 9200, and William Nyerges/9200. ◆

AERONAUTICS

Air-Breathing Propulsion

White Paper Statement: "Lewis Research Center is responsible for Air-Breathing Propulsion Technology and Engineering,..."

Lewis Proposed Option: Lewis will continue to be the Center of Excellence in Air-Breathing Propulsion.

Hypersonics

White Paper Statement: "Lewis will no longer be responsible for Hypersonic Propulsion,..."

Lewis Proposed Option: Current hypersonic lead and sublead roles and missions implement the *White Paper* recommendation.

-Langley is the lead center.

—Lewis will provide support in turbine engines and propulsion systems integration areas where expertise exists at Lewis.

Program Aircraft

White Paper Suggestion: "Dryden should prepare to receive Program Aircraft from other NASA centers."

Lewis Proposed Option:Central management of aircraft by Dryden.

White Paper Statement: "Lewis will no longer be responsible for...launch services (Expendable Launch Vehicles)."

Lewis Proposed Option:

- Phase out ELVs after completion of remaining firm NASA missions (FY2000).
- Employ new ways of doing business to dramatically reduce workforce.

Communications

White Paper Statement: "Lewis will no longer be responsible for... communications spacecraft research and management (Advanced Communications Technology Satellite) or any applications."

Lewis Proposed Option:

- Consolidate communications program at Lewis.
 - ---Management, systems engineering & advocacy.
 - ---Technology development & demonstration.

• Support commercial communications satellite in national/global information infrastructures.

Power and Propulsion

White Paper Statement: No direct statements regarding Lewis; however, in discussion of Langley role, it is stated "All space technology will be put at the space engineering centers."

Lewis Proposed Option:

Space Power

- Consolidate national space power technology activities at Lewis.
- Use innovative mechanisms to strengthen direction & infusion.
- Goal is to transition to Space Power Institute(s).

Space Propulsion

- Phase out large chemical propulsion (transportation).
- Strengthen on-board propulsion at Lewis (satellites).

- Phase out all Lewis research aircraft by FY97 except DC-9 (microgravity) and icing aircraft.
- Base DC-9 (microgravity) and icing aircraft at Lewis and maintain with minimal support staff (10 civil servants).
- Determine most cost effective hangaring option.

FACILITIES

Plum Brook

White Paper Statement: "Close Plum Brook Station."

Lewis Proposed Option: Continue current status: keep facilities closed (shutdown) when not needed, but available for use on fully reimbursable basis.

-Presents the least risk to scheduled NASA Space Station testing.

-Keeps the world class facilities available for NASA, other government agencies, and the private sector.

Propulsion Systems Laboratory & Rocket Test Facility

White Paper Statement: "The Propulsion Systems Laboratory will be shut down and the Rocket Test Facility will be canceled."

Lewis Proposed Options:

Propulsion Systems Laboratory

This statement has been retracted by the *White Paper* Committee. The facility will continue operation.

Rocket Test Facility

New Construction of Facilities work has been discontinued; however, existing testing is still in progress.

LewisNEWS December 1995

What Do You Think?

Question: Do you celebrate a special holiday tradition?



Olga Gonzalez-Sanabria Office of the Director

"We celebrate Three Kings Day on January 6. It's a day for giving gifts to children to commemorate the gifts given to the new born Savior by the Wise Men. In our family, the children gather grass the evening before and put it under their bed for the camels to feed while the Three Kings deliver their presents. When the children awaken they find presents under their beds."



Alberta Gooden Office of Equal Opportunity Programs

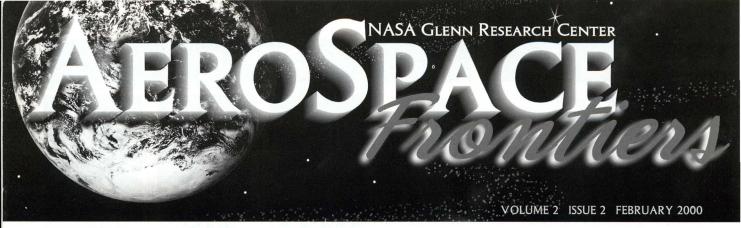
"The Gooden's have a spaghetti dinner on Christmas Eve. We have done this for 20 years as a result of unexpected guests, a Christmas Play that I was directing, and two cranky babies. The unplanned dinner was so wonderful that we all decided to get together every year for the same treat—minus the cranky babies and the play."

Photos by Quentin Schwinn



Grace Scales Administration and Computer Services Directorate

"During Kwanziaa (Dec. 26 through Jan. 1) — an African-American holiday embracing seven principles that promote unity and history of African-Americans—our family and friends gather at my house to share food, exchange homemade presents, and reflect on the seven principles."



Center Performance Review yields high marks

BY DOREEN B. ZUDELL

DOES Glenn keep its commitments?

According to reports at the first annual Center Performance Review, which measured the Center's effectiveness and efficiency in executing Agency programs and processes, Glenn met 80 percent of its milestones on time, schedule, and budget and 93 percent were met within 3 months in FY99.

On November 30, 1999, members of Glenn's Director's Leadership Team gathered for the day to assess how the Center measures up in the areas of Investments, Budget Execution, Institutional Performance, Program Management, and Business Management Systems. Bob Fails, chief Financial Officer; Jose Vega, deputy director of Engineering and Technical Services; Bob Kozar, chief, Plum Brook Management Office; Sasi Pillay, chief Information Officer; Olga Gonzalez-Sanabria, chief, Plans and Programs Office; Jeffrey Haas, ISO program manager; and the institutional office chiefs provided overviews in these five areas.

"We were very specific about what we were looking for and how to present the data," explained GonzalezSanabria, who coordinated the review process. "It all came down to this: are we meeting our commitments in relation to cost, schedule, and performance?"

The review concentrated on assessing Center performance with respect to commitments made as part of the Center's Strategic Implementation Plan and the Agency's performance measures, which are specified in the NASA Performance Plan and specific organizational metrics.

On the Program side, Glenn discovered that the Center has a good record of delivering on its commitments. This is partly due to early identification of issues so that management can resolve challenges quickly and effectively.



Reported during the Center Performance Review, the Supercooled Large Droplet Icing Flight Research program met its NASA Level 1 milestone. Data from the program is helping the FAA develop a better understanding of severe icing conditions, and enabling meterologists to develop better icing weather forecasts.

CONTINUED ON PAGE 10

INSIDE

SUDDEN IMPACT Glenn's new Ballistic Impact Lab opens in Building 49.

5

Y2K SUCCESS STORY A team of experts at Glenn waged a 3 1/2-year war against the Y2K bug.

9

FLIGHT SAFETY AWARDS Three employees were recognized with prestigious Flight Safety Awards.



"Excellence does exist in our workforce"

CONTINUED FROM PAGE 1

Three examples sited in the review of Center contributions to the Agency performance measures were: an electric ion propulsion system with the specific impulse 10 times greater than chemical propulsion systems; improvement of predictive capabilities of soot processes by at least 50 percent through analysis of MSL-1 data; and characterization of the Supercooled Large Droplets (SLD) in an icing environment to determine icing's effect on aircraft performance.

Glenn's institutional areas also fared well during FY99 by meeting almost all of the cross-cutting performance measures, identifying lessons learned, and corrective actions for continuous improvements. Gonzalez-Sanabria sited three examples. In education, Glenn established 10 Aeronautics Education Laboratories (AEL), exceeding its goal by 7 sites. In the safety arena, Glenn's loss of time rate was .24, which is substantially below the Agency metric of .32. The Center exceeded the Agency goals for socioeconomic procurement with over 38 percent of R& D dollars going to small disadvantaged businesses.

The investments (people, facilities, and information technology) and budget performance areas also reported high performance. They demonstrated savings in cost of information technology and high customer satisfaction rates in the facilities area.

"The Center Performance Review process will serve as a valuable tool in helping organizations establish new metrics to measure their future performance and raise dialogue on continuous improvement," Gonzalez-Sanabria said. "It will also provide a vital mechanism for us to communicate progress and accomplishments to our customers."

The results of the review will help management make informed decisions about changes to the near and long term implementation and strategies in support of Glenn's mission and Agency programs. The fundamental goal of this process, however, is to ensure that the Center provides its customers with excellent products and services in the most cost-effective and timely manner.

"Excellence *does* exist in our workforce, and is demonstrated through our performance," Gonzalez-Sanabria said. "The FY99 Center Performance Review affirms that we do deliver on our commitments to our customers." ◆ For a more complete report on the Center Performance Review, Glenn employees may access the website at: http://www.lerc.nasa.gov/www/0170/ GRCperf.html



Clubs help build comraderie

CONTINUED FROM PAGE 7

Not all Center-based clubs/organizations exist outside of the realm of employees' jobs. The Society of Hispanic Professional Engineers and the Business and Professional Women's Organization (BPW) nurture professional development. In addition to regular meetings, special programs, and outreach activities, both organizations host or support scholarship programs for Glenn employees.

"Since 1994, BPW has awarded 8 career advancement scholarships to women in the GRC community," said Diana Centeno-Gomez, Computer Services Division.

Throughout this Center's 58-year history, teamwork has always been an important aspect of the culture. Many employees feel Center-based social activities offer opportunities to further nurture this fellowship and team building. Ultimately this contributes to employee efficiency, welfare, and morale. ◆

For a listing and further information on Glenn's clubs, check out the website at: www.lerc.nasa.gov/Doc/clubactv.htm

National Engineers Week

Glenn's Office of Educational Programs is collaborating with the Cleveland Area National Engineers Week Committee in an educational outreach program during National Engineers Week, February 20-26, 2000. Trained in the latest speaking techniques and some of the most exciting grade appropriate hand-on activities, Glenn scientists, engineers, retirees, and other volunteers will visit local schools to demonstrate how math, science, and engineering help improve the quality of life and to introduce students to a variety of technical careers.

Culminating the week's events will be the awards banquet to recognize engineering professionals and students who have excelled in their fields. The banquet will be held February 25 at Landerhaven in Mayfield Heights, Ohio. Glenn's Dr. Sheila Bailey, Photovoltaics and Space Environment Effects Branch, is the keynote speaker, who will discuss "Engineering for Mars Exploration."



Glenn's women shine in "Women of Color" awards

BY BARBARA KAKIRISo

FEMALE contributions to scientifico fields were celebrated when two women from Glenn were recognized during the Fifth Annual Women of Color Technology Awards Conference on September 28 in Atlanta, GA. The conference, which is the premiere event for highlighting the achievements of underrepresented women in science and technology, involved over 6,000 of the nation's brightest minority women.o

Olga Gonzalez-Sanabria, chief, Plans and Programs Office, received the award for Career Achievement. Gonzalez-Sanabria was selected for technical, managerial, and organizational accomplishments including her nickel-hydrogen battery design for the Space Station (which won her an R&D 100 Award) and managing various space technology experiment projects.o

Dr. Jih-Fen Lei, chief, Instrumentation and Controls Division, received the award for Technical Innovation in Government. Lei was selected for being one of the world's leading authorities on high-temperature sensors for engine applications as well as for technical achievements including three R&D 100 Awards.o

"Olga and Jih-Fen provide excellent examples of women who have achieved significanttechnical accomplishments and have excelled in many areas. They are both outstanding members of NASA Glenn's high-caliber workforce," said Center Director Donald J. Campbell.

The Women of Color Awards areo designed to focus attention on women's contributions to the nation'so economic growth due to the unprecedented technological possibilities thato exist in the United States. Career Achievement and Technical Innovationo are the only categories in which Women of Color Awards are given to government employees.

For more information on the Womeno of Color Technology Awards Conference, please visit: http://www.blackfamilynet.net/soon/ press.htmo

For more information on the Women ofo Color Technology Awards recipients, please visit: http://www.blackengineer.com/women/

wocwinners.htmo





Gonzalez-Sanabria

Dr. Lei

Kakiris is a public affairs specialist in Glenn's Community & Media Relations Office.

A REAL PROPERTY AND A REAL PROPERTY A REAL PRO

Aerospace Frontiers: August 2002

People

SES appointments



Cikanek



González-Sanabria

Harry Cikanek III has been appointed chief, Space Transportation Project Office. Cikanek has superior knowledge and understanding of the programmatic, technical, and business challenges that must be addressed to achieve the goals of the Space Transportation Program. Cikanek is an effective communicator and builder of coalitions with other organizations, centers, and agencies, including the Department of Defense. He has a proven record of delivering high-quality products that meet technical, schedule, and cost requirements.

Olga González-Sanabria has been appointed director, Systems Management Office. González-Sanabria has more than 20 years of experience in research and development/project management, and implementation of institutional programs and processes. Her demonstrated leadership ability to promote a learning environment within her organization has maximized opportunities for employees to contribute to the organization's mission and Glenn's Key Values of a model workplace through commitment to Diversity, Quality, Integrity, and Openness.

Library. She has held the positions of human re-sources administrator and labor relations officer with the City of Cleveland. Editor's Note: AeroSpace Frontiers will talk with Gordon about her new position in a future issue.

Aerospace Frontiers: October 2002



A warm welcome

Employees throughout the Lab gathered in the Main Cafeteria on August 13 to congratulate and welcome Dr. Julian Earls as Glenn's deputy director. The humorous "Toast and Roast" consisted of a series of speakers including Olga González-Sanabria, director of the Systems Management Office (pictured with Earls) who reminisced about Earl's past experiences at Glenn and pledged support in the future.

Changes enhance Center BMS

THE New Year brings changes for the Center's Business Management System (BMS) in a number of areas, including a new registrar, a revised ISO 9000 standard, changes in the internal audit process, and improvements to the Corrective and Preventive Action Reporting System (CPARS).

In April, National Quality Assurance (NQA), USA, becomes Glenn's new ISO 9000 registrar. NQA will first conduct a site visit and document review, then follow up about a month later with a pre-assessment audit to evaluate the Center's readiness for the revised ISO 9000 standard. In August, a certification audit will be conducted, as the 3-year certification the Center earned in September 1999 will expire. This will involve multiple auditors over multiple days.

"The revised standard does not remove any requirements of the previous version; however, it imposes some new requirements," said BMS/ ISO Technical Lead Karen Meinert. "Additional requirements in leadership, customer focus, and continual improvement now make the standard similar to other national quality management awards such as the Malcolm Baldridge."

Changes in the internal audit process



will incorporate lessons learned rom last year d the additional

iocus areas of the

new standard. Among the upcoming enhancements to CPARS is the integration of the Employee Suggestion Award Program, which will be coming early this year. Users should find the web-based system more convenient.

"I see all of these changes as having positive effects in improving the BMS and in fulfilling the commitments of our Center Quality Policy," said Olga González-Sanabria, senior management representative for the ISO project.

AUGUST 2002



Senior Executive Service Appointments Harry A. Cikanek, chief, Space Transportation Project Office; Olga D. González-Sanabria, director, Systems Management Office; Dr. Dhanireddy R. **Reddy**, chief, Turbomachinery and Propulsion Systems Division;;;;; Dr. Gary T. Seng, director, Aeropropulsion Research Program Office; and Jaiwon Shin, deputy director, Aeronautics.

Aerospace Frontiers: April 2003

News and Events



SES reception

Center Director Donald Campbell hosted a reception for Center employ-ees to meet and greet Glenn's recently selected senior executives and scientists on March 10. In welcoming remarks, Campbell respectfully noted the high level the new executives and scientists have reached and how they inspire others. He also stressed the diversity among the group, which he said is reflective of the Glenn workforce. He enthusiastically noted that a senior scientist pin, collaboratively designed by he and Rick Bailer (0400) has been adopted by the Agency. Senior executives recognized were Harry Cikanek III, Daniel Gauntner, Olga González-Sanabria, Dr. Anita Liang, Dr. Dhanireddy Reddy, and Dr. Jaiwon Shin. Senior scientists recognized were Dr. Howard Ross and Dr. James Smialek. Pictured, left to right, are Smialek, Connie Smialek, Dr. Gary Halford (5000), and Gauntner.

Photo by Marvin Smith

NASA's legislative victories

Continued from page 1

suggestions submitted required legislative change. Consequently, the F2M team helped introduce legislative proposals into the FY03 process that resulted in five legislative amendments that resolved several F2M impediments.

Some of the provisions under these amendments center on such areas as em-

ployment flexibility, which now enable Centers to maximize their ability to hire the best candidates, as well as remove

certain restrictions that limit voluntary separation incentives. Another provision eliminates certain limitations on appropriations for travel amounts. For a summary of the F2M legislative actions, visit http://www.internal.grc.nasa.gov/WWW/ 0170/f2m/.

"These provisions are far reaching," said Glenn's F2M Point-of-Contact Olga Gonzalez-Sanabria, director of the Systems Management Office. "We're proud that F2M is making a difference. More proposals will be introduced in the FY04 and FY05 process."

In an F2M update session in May, Gonzalez-Sanabria provided an overview of the program, touching on such topics as scope of the issues, points of contact, and status of overall suggestions.

"With nearly 1000 suggestions to date, much progress was made quickly

to address these concerns," she explained. "In February, however, the F2M task force effort was put on

hold to address the Space Shuttle *Columbia* investigation. Work resumed in May, as the task force focuses on re-evaluating the closure process and developing metrics."

Gonzalez-Sanabria noted several userfriendly enhancements that are being developed for the F2M Web site, *http:// f2m.nasa.gov*. The site serves as the primary feedback mechanism for providing status and results to employees who have submitted suggestions.



People





Charleston

González-Sanabria

ATHENA award

Jo Ann Charleston, chief of Glenn's Educational Programs Office, was recently honored with a 2003 ATHENA award presented by Cleveland's *Inside Business* magazine in partnership with Akron's ATHENA Foundation. The ATHENA Award programs recognize individuals on the local, national, and international level for their professional excellence, community service, and assistance in helping women to attain their full leadership potential.

Hall of Fame

Olga D. González-Sanabria, director, Systems Management Office, and **Dr. Sheila Bailey**, senior physicist in the Photovoltaic and Space Environments Branch, joined nine other women inducted into the 2003 Ohio Women's Hall of Fame. Governor Taft and First Lady Hope Taft hosted the 25th annual induction ceremony at the Ohio Statehouse on October 7.

The Ohio Women's Hall of Fame was established in 1978 to create public recognition for the outstanding contributions Ohio women made to their state, the Nation, and the world. Its members come from all walks of life, but each has demonstrated an extraordinary commitment to excellence, achievement, and service to others.

González-Sanabria was lauded for technical contributions including Long Cycle-Life Nickel-Hydrogen Batteries, used to power International Space Station power system, which earned her an



Dr. Landis

Dr. Bailey





Dr. Lytle

Zala

R&D 100 award. She is the only female member on the Center's Strategic Management Team and Glenn's first Hispanic female to achieve the rank of Senior Executive.

Bailey was recognized for her pioneering work as technical lead in Quantum Dot Solar Cell technology for Advanced Concepts in the Power and On-Board Propulsion Technology Division. Bailey has authored or coauthored over 114 journal and conference publications and five book chapters. She will be the General Chair of the 4th World Conference in Photovoltaic Energy Conversion in 2006.

Hugo Award

Dr. Geoffrey Landis, Photovoltaic and Space Environments Branch, has received the prestigious Hugo Award in the category of Best Short Story of the Year for his "Falling onto Mars." The award is determined by popular vote from members of the World Science Fiction Society and presented at the Society's annual convention, held this year in Toronto, Canada. Landis was a 1992 winner in the same category for his short story, "A Walk in the Sun."



Promotions

Dr. Paul Angel has been selected as the Propulsion Technology Roadmap manager in the Special Projects Office. Angel comes to this position from the Environmental Durability Branch within the Materials Division. He brings considerable materials expertise as well as demonstrated leadership in project management and intercenter and interagency technology development activities. He has received numerous performance awards including the NASA Exceptional Achievement Honor Award.

Michael Goin, who previously worked in the Organizational Development and Training Office, has been selected to be executive director of the Cleveland Federal Executive Board (FEB). Goin provides a full range of staff services to the chairperson and members of the board. The FEB functions as a focal point for coordinating and sharing available information and expertise among Federal agencies through activities of its committees, and serves as a major point of contact between the private sector and government in areas of local and Federal concern. Goin replaces Judy Montfort, who retired from this position earlier this year.

Mark Manthey has been selected chief of the Space Systems and Grants Branch in the Procurement Division. Manthey's extensive experience in procurement, both in research and development and services and construction, prepare him well for this new venture. Manthey served a 1-year term at NASA Headquarters and Office of Management and Budget's Office of Federal Procurement Policy for the Professional Development Program; completed the Executive Potential Program with a detail as an acting High Speed Research subelement program manager; and demonstrated leadership in many Source Evaluation Board-level procurements and other activities.

Awards

Olga González-Sanabria, director of the Engineering and Technical Services, has received the Women of Achievement award from the Young Women's Chris-





Dr. Angel

Goin





Manthey

González-Sanabria

tian Association (YWCA). Established in 1977, this award is one of the most prestigious honors for women in Cleveland. It recognizes women who demonstrate outstanding leadership qualities, as well as excellence, accomplishments, and commitment in their careers and communities. Women chosen to receive this award are role models and mentors. They have played significant roles in helping other women achieve their goals. The award recipients must also exemplify the YWCA mission of empowering women and eliminating racism.

Honors

As a part of an annual celebration of National Business Women's Week, three employees were recognized for their contribution within NASA Glenn's Business & Professional Women (BPW) organization and the Glenn community on October 9, at the BPW Region 3 Meeting in Akron. BPW Honoree Anita Alexander, Office of the Director, was recognized for her "innovative membership programs," being the first to collaborate the BPW club with diversified groups at NASA. BPW Honoree Kimala Laster, Research Testing Division, was recognized for "overcoming barriers for women"

through her active role as a mentor and promoting education for women. Community Honoree Olga Gonzalez-Sanabria, Engineering and Technical Services Directorate, was recognized for "empowering others to follow their dreams" by her leadership and as a role model for Hispanics.

Pictured, left to right, Laster, Alexander, and Gonzalez-Sanabria.

Aerospace Frontiers: November 2004

Aerospace Frontiers: December 2005

People

Honor

Glenn's Dr. Marla Perez-Davis, chief, Electrochemistry Branch, and Olga Gonzalez-Sanabria, director, Engineering and Technical Services, were honored as Distinguished Alumni during the University of Puerto Rico-Mayaguez (UPR) 2005 Alumni Association Ceremony held October 16. Both graduates of the UPR School of Engineering were among seven alumni of various disciplines who were recognized and presented with a plaque. The plaque reads: "for their professional endeavors for the benefit of our society, for serving as a role model for our youth, and for their legacy to future generations, is an affirmation of the prestige and academic excellence of our alma mater and its vital contribution to Puerto Rico."

Photo by Raphael Sanabria



Gonzalez-Sanabria and Perez-Davis

Aerospace Frontiers: April 2006

People

Honor

Engineering and Technical Services Directorate Director Olga Gonzalez-Sanabria is one of 12 Latino engineers to be featured in the book "Av Mija, Why Do You Want To Be An Engineer?" written by Edna Campos. In addition to Gonzalez-Sanabria, two other NASA employees are featured: Laurie Carillo (Johnson) and Debbie Martinez (Langlev). The book discusses the engineers' childhoods and shows students how they can serve as role models in pursuing degrees in engineering. The target audience is third-through fifth-graders. The book is endorsed by the Society of Hispanic Engineers (SHPE), with portions of the proceeds going to the SHPE scholarship fund.



Gonzalez-Sanabria

Hernandez Shares His Inspirational Story

Astronaut Jose M. Hernandez's motivational account -from his childhood as a member of a migrant farming

family and finally realizing his dream of becoming an astronaut -- drew a standing ovation at Glenn's 2006 Hispanic Heritage Month Observance on September 25.

"I excelled in math, even before I could speak English, because it was universal to all languages. My teachers recognized and nurtured my talent with advanced instruction, so by the



Astronaut Jose Hernandez, center, chats with Dr. Ruben DelRosario, chief, Facilities, Management and Planning Office, and Gonzalez-Sanabria at the reception following the program. Credit: NASA/Michelle Murphy

time I reached high school I was already interested in science and engineering," Hernandez recalled, "When I heard of NASA's selection of Franklin Chang-Diaz, the first Hispanic astronaut, it was to me as if a flood gate swung open to my career possibilities, including becoming an astronaut."

Olga Gonzalez-Sanabria, director of the Engineering and Technical Services Directorate, kicked off the festivities that supported this year's theme: "Hispanic Americans: Our Rich Culture Contributing To America's Future." The celebration included cultural performances such as capoeira, the art of defense through dance, performed by Hispana Group, and the lively performance of Joya de Mexico, a mariachi band.

The Office of Equal Opportunity Programs and the Hispanic Advisory Council sponsored the event.

Presidential Rank Presented to Three Managers



Wessel





Dr. Blankson

Sanabria

Three Glenn managers were among an elite group of federal employees who President George W. Bush recently conferred the Presidential Rank Award -- the highest award reserved for civil servants.

Associate Director Vernon "Bill" Wessel has received the Presidential Rank of Distinguished Executive. Wessel was recognized by NASA Executive Management, including the Administrator and the Chief of NASA's Safety and Mission Assurance Office, as the model of leadership for Safety and Mission Assurance in NASA. His innovative ideas, continued implementation of quality and dedication to the development of world-class technical and management staff at NASA has been vital in developing, supporting and implementing agency initiatives throughout NASA.

Director of Engineering and Technical Services Olga Gonzalez-Sanabria and Senior Technologist, Dr. Isaiah Blankson, Research and Technology Directorate, have received the Presidential Rank of Meritorious Executive.

Gonzalez-Sanabria has been recognized for planning, organizing and directing a full range of integrated services including engineering, fabrication, testing, facility management and aircraft services for Lewis Field and at Plum Brook Station. She is also recognized for her efforts in implementing the systems management flow-down process established in NASA's policies, guidance and Strategic Plan.

Blankson is an internationally recognized hypersonics expert, having authored and co-authored numerous cutting-edge technical papers in hypersonics and related fields. Prior to his current assignment, Blankson managed the agency's Generic Hypersonic Program at NASA Headquarters. During this time, he initiated a flight program that led to NASA's X-43 Hypersonic Scramjet-Engine successful flights at Mach 7 and 10.

The U.S. Office of Personnel Management administers the Presidential Rank Award Program, which is determined through a rigorous selection process with final approval by the President.

Aerospace Frontiers: January 2007

Center Says Aloha to Deputy Director

By Katherine K. Martin and Doreen B. Zudell

NASA Glenn bid "aloha" to its "Big Kahuna," Deputy Director Richard S. Christiansen, who retired on June 1. During a cake and coffee reception in the Administration Building Auditorium and Foyer on May 30, and a luau at the LaCentre in Westlake on May 31, NASA employees and retirees, colleagues and friends gathered to thank Christiansen for 27 years of service to NASA.



Engineering Directorate Director, Olga Gonzalez-Sanabria, left, and Deputy Director of the Safety and Mission Assurance Directorate, Rafael Sanabria, right, join Christiansen at the Hawaiian-themed buffet table during the luau in May.

Christiansen served as the Deputy Director

since November 16, 2003, sharing responsibilities for planning, organizing and directing center activities, first with Dr. Julian Earls (Director, 2003-2006) and recently with Dr. Woodrow Whitlow Jr. (2006-present).

During his time at NASA Glenn, he led the efforts in formulating and implementing a strategy to secure a better position for the center within the agency. He was instrumental in building partnerships throughout the agency and recently with Glenn and the space flight centers, resulting in significant recognition and responsibilities for the center in space exploration systems development.

"Rich, who I convinced to leave the sunny climes of California and join the Glenn team as my deputy, became my go-to leader as Glenn and NASA were faced with the numerous challenges," said Dr. Earls, who now serves as Executive in Residence at Cleveland State University. "These challenges were especially critical for the research centers. Not only was Rich the right person at the right time, he brought a degree of enthusiasm that was contagious. The results of his competence and dedication speak for themselves. Rich's service to NASA was exemplary. I am proud to have worked with him and that he is my friend as well as former colleague."

Prior to his assignment as Deputy Director, Christiansen served as the Associate Director for Planning at NASA's

Dryden Flight Research Center, Edwards, Calif. He was responsible for overseeing the development of the center's long-range strategic management plan and creating a vision for the future of flight research.

Christiansen began his career with NASA in 1980 at Ames Research Center, Moffett Field, Calif., where he was responsible for conducting systems analysis and largescale aerodynamic and propulsion wind tunnel tests of vertical or short take-off and landing concepts. Much of his early research has been used in development of current U.S. military aircraft.

Christiansen has held increasingly responsible positions during his NASA career. From 1997 to 1998, Christiansen served as Acting Associate Administrator of the Aeronautics and Space Transportation Technology Enterprise in Washington D.C. One notable thread has been consistent throughout these responsibilities: his involvement and dedication to making new technologies and concepts flight worthy. By his account, he has been involved with well over 40 research, experimental, demonstrator and developmental flight projects. At least 29 of them have gone on to fly.

"This has not been a normal aerospace engineer's career," Christiansen said, adding, "but then, I have never tried to be normal."

Christiansen has received numerous honors and awards including two Exceptional Performance Awards; a Superior Accomplishment Award; two Group Achievement Awards; the NASA Outstanding Leadership Medal; and, since becoming a member of the Senior Executive Service, has twice earned the Presidential Rank of Meritorious Executive. He is an Associate Fellow of the American Institute of Aeronautics and Astronautics.

"I have known Rich since very early in our careers and always have valued his advice and counsel over the years," said NASA Glenn Director Whitlow. "We have had the opportunity to work on many projects for the agency and have impacted NASA's directions on several fronts. At Glenn, he has been instrumental in changing the culture of the center and in helping to define a role in the area of space flight systems development while ensuring excellence in aeronautics and space research."

In his farewell message to Glenn employees, Christiansen noted that his most cherished memories are about "the many people I have known. Any success I have had has been merely a reflection of the people whom I have been surrounded by."

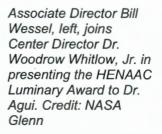
Christiansen called "retirement" a journey "on to my next set of adventures."

Aerospace Frontiers: November 2007 Hispanic Engineer National Achievement Awards

Gonzalez-Sanabria celebrates with husband Raphael Sanabria, NASA Safety Center deputy director, at the awards ceremony.



director of Glenn's Engineering Directorate, was honored with a 2007 Executive Excellence award during the 19th Annual Hispanic Engineer National Achievement Awards Conference (HENAAC) held October 11 - 13 in San Diego, Calif.. Gonzalez was recognized for her leadership in managing a workforce of more than 400 engineers, technicians and support personnel, who provide a full range of integrated services including engineering, fabrication, testing and facility management for NASA and industry.



Recognized as one of NASA's rising stars and

an inspiration to future generations pursuing careers in technology, **Dr. Juan Agui**, Microgravity Fluid Physics and Transport Branch, was among the HENAAC Luminary Honorees. Agui is the project scientist for the International Space Station experiment, Investigating the Structure of Paramagnetic Aggregates from Colloidal Emulsions - 2 (InSPACE-2). The experiment will gather data on magnetorheological fluids (fluids that change properties in response to magnetic fields) that can be used to improve or develop new brake systems and robotics.





September 2008

DIRECTORATE NEWS

Engineering Directorate

Engineering Model Guides Glenn's New Business Practices

NASA Glenn has been assigned major space flight hardware development responsibilities integral to NASA's implementation of the Vision for Space Exploration. To meet these responsibilities, center management created the Engineering Directorate by knitting together elements of four directorates. This structure enables the center to successfully undertake space flight projects while continuing to provide engineering for aeronautics projects. While this structural change gave us needed resources, it did not give us another key ingredient to success: a common method of working together.

A common method is critical because of the centerwide scope and complexity of the projects. It is also needed because of the checks and balances that are established by the "Technical Authority" concept in agency governance to assure space flight development success. Through its history, Glenn operated under several models for organizing engineering, and each of the four ancestor directorates had their own way of doing business. To create a common method for performing engineering development projects at Glenn, however, we developed what we call the

Olga

Gonzalez-Sanabria **Director of Engineering**

"engineering model." This model governs how we conduct engineering on the center's many and varied projects.

Under this model, the Engineering Directorate populates project teams with commonality in engineering structure, functions and responsibility as defined under our Technical Authority Implementation Plan. Project managers can hold the Engineering Directorate responsible and accountable for the quality of engineering and the delivery of an integrated product, even when a contractor performs the work. Furthermore, we are committed to open and effective communications, a path for independently elevating engineering issues, and appropriate checks and balances from the highest to the lowest level of the organization to ensure project success.

As we approach delivery of Ares I-X hardware to NASA Kennedy, we can reflect on how we overcame and met all the challenges. I'm confident we will find that much of the success is based on effective implementation of the Glenn engineering model. We also know that we can be confident it will fly successfully, based on the sound engineering principles and rigor we applied throughout its definition, design and development.

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Find this article at:

http://www.nasa.gov/centers/glenn/news/AF/2008/Sept08 GuestED.html





Forum Addresses Cultural Improvement Activities

On January 22, Center Director Dr. Woodrow Whitlow Jr., members of senior management and the Employee Feedback Group chairs led an All Hands Cultural Improvement Forum to update employees on activities underway that would help build a stronger, healthier work environment.

Associate Director Bill Wessel, Glenn's Cultural Steering Committee chairman, opened the forum with an overview of center processes and activities adopted to address issues relating to cultural shortcomings that were identified in the 2007 Glenn Cultural Survey. Center Director Whitlow followed Wessel with some specifics on the work his leadership team is doing to address survey findings, including partaking in the 4-D assessment process and attending Lean Six Sigma training.

As part of the process toward cultural change, directorate heads provide quarterly status reports to the Culture Steering Committee on the processes, key issues, barriers, actions and milestones in their

plans. Olga Gonalez-Sanabria, director of the Engineering Directorate, reported



Steering Committee *Left to right: Wessel, Sivic, Gonzalez*on the processes, key *during the Cultural Improvement Forum. Inset photo: Dr.* issues, barriers, actions *Whitlow pledges his commitment to cultural change.*

her team established a comprehensive and systematic engineering model Continued on page 2

Glenn Women Highlighted in Air & Space Exhibit

The International Women's Air & Space Museum, located at Burke Lakefront Airport in downtown Cleveland, will be celebrating the 100th anniversary of women in powered flight with an exhibit devoted to women from Ohio who have made contributions in aviation and space. The 100 Ohio Women in Air & Space will feature biographies, photographs and over 50 artifacts highlighting women in all facets of aviation and space, including pilots, flight attendants, astronauts



and engineers. Glenn employees Kim deGroh, Tammy Harrington, Dr. Yolanda Hicks, Dr. Jih-Fen Lei, Adabelle Narvaez-Legeza, Ann Over and Olga Gonzalez–Sanabria are featured in the exhibit. The exhibit is scheduled to run April 24, 2010 to January 2, 2011.

Aerospace Frontiers: February 2012



Native American Journeys >

Richard Heller, a former NASA scholar who is now an engineer at Sandia National Laboratories, and Brian Hammill, an Army veteran ranked among the top 10 hoop dancers in the world,



C-2011-4908

offered a diverse bill of fare at the annual Native American Observance ther "Food for Thought." Heller (inset photo), a member of the Chickasaw Nation, shi highlights of his career inspired by culture, educational opportunities and las relationships at NASA. Hammill (pictured with hoops), a member of the Ho-Ch Nation, demonstrated intricate hoop maneuvers, while sharing the symbolism relevance in Native American culture. His flute playing was an added treat.

Senior Leader Retirement Celebrations



C-2012-210



C-2012-198



C-2011-5012

NASA Glenn employees expressed best wishes to senior leaders Vernon "Bill" Wessel, associate director, and Olga Gonzalez-Sanabria, director of engineering, during recent retirement receptions. Colleagues, family and friends shared personal and professional anecdotes and thanked the leaders for their significant contributions. Pictured are Wessel and Gonzalez-Sanabria with framed collages. Above: Gonzalez-Sanabria and husband, Rafael Sanabria, NASA Safety Center deputy director, with granddaughter, Dahlia. Left: Wessel and his wife Cynthia cut his retirement cake.

Photos by Michelle Murphy and Marvin Smith

Two Senior Level Managers Retire

Vernon "Bill" Wessel, associate director, and Olga Gonzalez-Sanabria, director of engineering, retired on Dec. 31, 2011. Both individuals have made significant contributions to NASA's Glenn Research Center.





Wessel

Gonzalez-Sanabria

Wessel began his NASA career in 1981 at NASA Langley following a professional career with Northrop Corporation, where he managed technical tasks at NASA Marshall and subsequently LTV Corporation at Langley. Well respected for his knowledge of safety issues, he joined Glenn in 1987 as director of Safety and Mission Assurance. He was appointed associate director in 2006 and served two directors.

During his tenure at Glenn, Wessel received two NASA Exceptional Service Medals, the Senior Executive Service Meritorious Presidential Rank Award and Senior Executive Service Distinguished Presidential Rank Award. His integrity and genuine compassion for others made him an inspirational and approachable leader, well respected by peers and subordinates alike.

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Aerospace Frontiers

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Wessel and Gonzalez-Sanabria Made Significant Contributions

Continued from page 1

After taking January to relax, Wessel willbeworking with ARES Corporation in extending their presence in the defense and aerospace communities, with emphasis on the Midwest.

Gonzalez-Sanabria joined the NASA workforce in 1979 as a chemical engineer supporting the Power Technology Division. Her work led to subsequent promotions, including project manager, executive officer to the center director and chief of Glenn's Plans and Programs Office.

While working her way through the ranks to become a senior manager, Gonzalez-Sanabria became a mentor, role model and advocate for women, and especially Latinos. She was appointed director of Engineering in 2006. Prior to this appointment, she served as director of Engineering and Technical Services, and director of the Systems Management Office. During her tenure at Glenn, she earned the Senior Executive Service Meritorious Presidential Rank Award and NASA's Outstanding Leadership and Exceptional Service Medals. Other honors included the YMCA Women of Achievement Award, Hispanic Engineer Executive Service Award, Women of Color in Technology Career Achievement Award and a R&D 100 Award. She was inducted into the

Ohio Women's Hall of Fame in 2003. She is a patentee and has authored/ co-authored over 30 technical reports and presentations for journals and conferences.

Gonzalez-Sanabria's combination of talent, hard work and persistence enabled her to break through the proverbial "glass ceiling" to become a well respected woman of NASA. After retirement, Gonzalez-Sanabria said she plans to have fun, enjoy life and spend time with her family, especially her grandchildren.

-By Doreen B. Zudell