Employee Update

Effective Supervision Class Led by Walt Havenstein



Walt Havenstein leads the first session of the Effective Supervision course, by sharing his guiding principles with the class.

GM's Guiding Principles

- We are in partnership with our customers and suppliers
- Trusting and empowering our employees and providing them with a safe and healthy work environment
- Relentless pursuit of performance improvement in every facet of our business
- Integrity and compliance, honesty in everything we do
- Respect: recognizing the value of those who work with us, the value of their ideas,

- the strength that comes with diversity
- Teamwork: working together to make all of our business areas even greater than the sum of their parts
- Quality: excellence and continuous improvement in what we do
- Innovation: developing products and services which meet the evolving needs of our customers
- Citizenship: help those in need, supporting schools, and serving as environmental stewards in our community.

Gueterman Leads Us to the Gold!

John Gueterman, this year's United Way campaign chairman, recently accepted the Gold Award for our Falls Church employee contributions to the 1998 campaign. "I am very proud of our employees," remarked John, "they displayed a very

giving spirit." Together we contributed over \$90,000, won the Gold Award for the first time—85 percent participation and per capita giving of \$50 or more, and won the first place award for the most effective display materials. See photo on page 3.

RSAT Recognizes the Efforts of the Mentorship Program

by Janet Gohman

This was the first year Raytheon Systems Company participated in the Thomas Jefferson High School Mentorship Program. The company is pleasantly surprised by its student, Chris Mailey. Chris, a senior at Thomas Jefferson, has spent 10 to 15 hours per week during his senior year working with the Intelligent Decision Support Systems Group under Remote Systems. He worked on the Research in Situation Assessment Technology (RSAT) program sponsored by Dr. David Johnson of the Office of Naval Research (ONR).

Under the mentorship program, students interview with prospective companies to work on a company program as part of their senior project. The purpose of the interview is twofold. The company, of course, has the opportunity to decide whether or not the student is suitable for the available project. Additionally, the student decides whether the availability within the company is a match for his/her future career goals. Chris chose Raytheon Systems Company because the RSAT project sounded appealing.

Chris' abilities have been a pleasant surprise to all those that have had the opportunity to work with him. Already experienced with software programming on UNIX systems, Chris has been an asset to the group since the day he arrived. Kevin Chapman was assigned to be Chris' mentor, and this turned out to be an excellent match. Under Kevin's direction, Chris accomplished a number of tasks associated with the RSAT project. When the mentorship program officially concluded, Chris fortunately agreed to work with the company as an intern. The current RSAT

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Buel Promoted to Segment Ethics Officer



Larry Buel

Larry Buel, manager of Ethics and Procedures at Falls Church since January 1996, has been promoted to Segment Ethics Officer for the Raytheon Training and Services Segment, head-quartered in Vienna, Virginia. The newly formed Training and Services Segment consists of over 17,000 employees world-

wide. Larry still maintains an office at Falls Church, but is noticeably on the road becoming aquainted with the Training and Services segment. Larry is currently receiving ethics calls from around the world. Good Luck, Larry!

John Gueterman, Vice President of Finance, is responsible for the Falls Church ethics program.

Tom Fioretti, Director of Quality Assurance, is responsible for Policies and Procedures.

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Segment Headquarters
ETHICS LINE
1-800-971-4888 TOLL-FREE

Falls Church ETHICS LINE 1-703-849-1577

Identities of callers will be held in the strictest confidence. Anonymous calls will be accepted.

Revitalizing CIWG

Are you the type who is constantly dreaming up cost-saving ideas at home or at work? Was one of your 1998 resolutions to continually improve your life? Are you unsure who to submit your great ideas to? If you gave any of these questions a second thought, then you should become active in the Continuous Improvement Working Group (CIWG). Whether you are interested in becoming a member of CIWG or whether you have recently discovered the perfect way to save Falls Church \$1,000 a year, this group is for you.

CIWG is looking to expand its membership and increase employee suggestions. CIWG was established as a venue through which employees could submit suggestions, proposals for cost avoidance and cost reduction, and recommendations for re-engineering and streamlining the company's business processes; thus, it is a true asset to Falls Church. Members of the group provide a timely and responsive forum for evaluating and coordinating the

approval and implementation of good ideas and best practices. Meetings are scheduled on a regular basis to review employee suggestions. Generally, communication between committee members can easily be achieved via e-mail—leaving little delay in promoting continuous improvements throughout the organization.

Additionally, CIWG rewards employee suggestions. Depending on the nature of the suggestion and its prospective outcome, awards are granted to employees who propose improvements. Monetary awards for approved cost avoidance and cost reduction proposals are based on the total annual savings projected by the employee. With the authorization of the General Manager, it is possible to be awarded a cash payment up to ten percent of the first year's total projected annual savings. Other prizes have been one month's use of the CIWG parking spot, gift certificates to local shops, or company paraphernalia.

Continued on page 3

Ethics Corner by Larry Buel

In this third of a four-part series on intellectual property, I will focus on Raytheon proprietary information. Each of us plays a role in ensuring that our intellectual property is safeguarded and properly marked. Further, we must notify the company when we become aware of any situation involving the misuse, theft, or failure to protect any form of Raytheon's intellectual property.

Proprietary Information. Raytheon proprietary information is any type of intellectual property that is not generally known outside of Raytheon but which gives Raytheon an advantage over its competitors. Proprietary information includes business assets (e.g., trade secrets, copyrights, mask works, etc.) that take the form of information requiring protection; information or data, whether oral or written, that is developed or acquired at company expense and that is kept private within Raytheon; and all information pertaining to Raytheon's design, manufacture, purchase, or sale of its products, materials, or services—to the extent that such information is not generally known outside Raytheon, or has not been made available to others by/ Raytheon on an unrestricted basis. Raytheon proprietary information is marked in one of three categories: Company Most Private; Raytheon Proprietary; and Competition Sensitive.

Company Most Private. This designation is assigned to non-public, especially sensitive proprietary information, including technical proprietary information, which must be closely controlled and protected from its creation to its destruction. The company chooses to hold this information confidential because unauthorized disclosure could lead to the loss of competitive advantage in the marketplace and/or compromise Raytheon's business systems or management structures. This information is strictly limited to those within Raytheon with a "need to know." Examples of Company Most Private information include, but are not limited to, strategic business plans; financial forecasts and operating budgets; new product development and marketing plans; proposal review packages; and sensitive human resources and personnel information.

Raytheon Proprietary. This designation is assigned to non-public proprietary information that Raytheon chooses to hold confidential, but which is limited to those who

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RSC Surveillance and Control Systems Pass ISO 9001 Surveillance Audit by Larry Terry

During the first week in March, Mr. Mark Revett of National Quality Assurance, Raytheon Systems Company Surveillance and Control Systems' third party assessor, performed the facility's first Quality Management Systems surveillance audit for 1998. Among the quality elements reviewed were management responsibility, the quality system, contract review, design control, training, corrective and preventive action, and internal quality audits. Also, a review was performed on issues identified in previous quality assessments and what corrective action had been accomplished.

Accompanying Mr. Revett throughout the audit were representatives from the Quality organization. These included ISO Management Representative Tom Fioretti, ISO Internal Auditor Jim Coley, Jim Fowler, and John Umsteadt.

Results of surveillance audits are categorized in three classes: major non-compliance, minor non-compliance, and observation. During the exit meeting with Raytheon Systems Company Surveillance and Control Systems management representatives, Mr. Revett identified the existence of only seven minor non-compliances. Thanks to all the business organizations who supported this very successful audit.

It should be mentioned that in all the prior pre-assessments, assessments, and surveillance audits, the company has never received a major non-compliance. This is a result of the importance management has placed on gaining and maintaining its ISO 9001 certification.

United Way Campaign Takes Gold



United Way traveled to Raytheon Systems Company to photograph campaign organizers who helped to ensure the success of our 1997 Raytheon Systems Company United Way Campaign. Not only did Falls Church raise over \$90,000 for the United Way during its 1997 campaign, but also we earned United Way's gold award. Congratulations to all who helped to make the 1997 United Way Campaign a true success! Pictured from left: Walt Havenstein, Nancy Render, John Gueterman (holding the gold award), and Heather Hixson. Not pictured: Norma Lofgren.

Software Engineering Process Training by Maria Sachlis

The Software Engineering Process Group (SEPG) presents a variety of regularly scheduled training on the software engineering practices established for employees at Falls Church. These courses are offered in addition to other lunch time training sponsored by the Training Department. There are currently 11 classes being taught, with five more classes planned within the next month.

This training provides an excellent introduction and education on how we do software engineering. If you will be working with software or on a software project, the company highly recommends that you take this training. The Software Process Overview should be taken first, then additional courses as you wish to further your understanding or to meet job responsibilities.

The classes are:

- · taught by peers;
- open to all personnel, regardless of job requirements;
- offered at lunch time, usually one and one-half hours long; and
- taken on your own time.

Lunch is provided by Raytheon Systems Company.

The SEPG prepared a recommended curriculum for the various software engi-

neering positions, with certificates awarded after completion of each curriculum level. However, you can take any course you wish. Curriculum levels are established for:

- Associate Software Engineers;
- Software Engineers;
- · Senior Software Engineers;
- Principal and Staff Software Engineers;
- Software Engineering Supervisors and Managers.

The course listing can be found on the company intranet by following this path from the Raytheon Systems Company Falls Church home page or by going directly to the address:

Working Groups → Software Engineering
PROCESS GROUP (SEPG) → TRAINING
http://sepgpc01.fcd.esys.com/sepg/training.htm

On the SEPG Training page you can select to view the course catalog and the course schedule, preview the presentations, sign up for training (soon!), and view the curriculum levels.

For more information, e-mail us at sepg@fc or call Chuck Eby (x2773), Sheila Avey (x4217), or Maria Sachlis (x4280).

REVITALIZING CIWG Continued from page 2

Submitting suggestions to the CIWG committee is simple. Employees can either e-mail suggestions to CIWG Chair Lois Wenzell at lwenzell@fc or place them in the suggestion box located in the cafeteria. If CIWG is not the right organization to handle a specific request, they will promptly forward it to the most suitable group.

The time has come to revitalize CIWG and implement the recommendations and process improvements generated by employees. For more information on becoming a member of CIWG, please contact Lois at extension 2274. And don't forget to submit your ideas.

Employees Honored for Excellence at 1998 Awards Banquet

Over 160 people attended the Excellence Awards banquet held on March 13 at the Fairview Park Marriott Hotel. The 76 employees who received Excellence Awards were congratulated by Walt Havenstein and the Excellence Awards Committee. Excellence Awards Committee members include: Stan Doran, Mike Dutchak, Gerald Ehlers, Pat Flanagan, Jim Fowler, Norma Francis, Larry Hartley, Terry Kennedy, Valerie Sherrer, and Fred Wahl. This year, Falls Church employees were eligible to win one or more of the six Excellence Awards. The award categories were: leadership, teamwork, continuous improvement, customer satisfaction, community service, and innovation. Congratulations to all employees whose efforts resulted in excellence. Additionally, a sincere thanks to those who took the time to nominate their co-workers and recognize their achievements.



Chuck Eby (left), Leadership award.



Paul Kuttner (left), Leadership award.



(From left) Hai Luong and Otto Czifra, Innovation award.



Ed Barr (right), Customer Satisfaction award.



Jack Jenkins (right), Leadership award.



(From left) Jane Gallagher and Lynn Byrne, Customer Satisfaction award.



Nathan Ward (right), Continuous Improvement award.



Bob Savage (left), Customer Satisfaction award.



Linda Frazier (right), Community Service award.



Carol Flynn (left), Continuous Improvement award.



Breaker RF Design Team, Team award: (from left) Eric Henry, Tim Glahn, Brian Thomas, Steve Grice, Bob Buxton, Dave Hairfield, Tim Boyd, Chad Podsednik, Phil Sica, Don Becker, Tom Butler, John Novak, Nick Halvis, Robert Jensen, Merrie Newlond, Phil Harvey, Ken Jackson, Yvonne Krayer, Allan Kaplan, Burl Pudleiner, Jack Lloyd, Brian Meigel, David Kutsmeda, Chris Sullivan, Andrew Tinney, James Zellner.



Proposal Support and Publications Team Award: (From left) Lois Wenzell, Malcolm Higgins, Ed Comitz, Doug Dreibelbis, Marilyn Dodson, Wade Gunn, Karl Samuels, Barbara Weaver, Kevin Droney, Mary Wohlford, Walt Havenstein (award presenter), and Lucy Murphy. Not pictured: Clarence Abercrombie, Joe Baran, and Brian Wagner.



Tier II Plus/CSG Mechanical Integration Team, Team award: (from left) John Gueterman, Patrick Crone, Michael Logan, Jim Lik, Milton Morales, Martin Miller, Ed Pineda, Walt Havenstein.



Breaker Architecture Team, Team award: (from left) Walt Havenstein, Bob Buxton, Paul Gardner, Rosemary LaFrance, Gary Dixon, Thomas Thompson, Paul Kuttner, Mikael Tierney, Shang Hsiung, Wiley Peck.



Kathryn Krenn (right), Continuous Improvement award.



Lois Wenzell (right), Community Serive award.



Breaker RF Team, Team award: (from left) Walt Havenstein, Kent Stewart, Bill Patience, Bob Smith, Loretta Warner, Joe Jiacinto, David Hansen (Breaker Architecture Team), Kevin Crouse.



Ellen Kaminsky (right), Community Serivce award.



Craig Price (center), Customer Service award, and his supervisor William Georgen (right).

Ensemble Completes First Major Project Milestone by John F. Masiyowski



Pictured are the DBR A team members who by their hard and dedicated efforts made DBR A a momentous success.

n March 5, the Ensemble project successfully completed its first major project milestone. This milestone represents a significant objective for the Remote Systems business unit and for Raytheon Systems Surveillance and Control Systems. Additionally, it was the first of four Demonstration Based Reviews (DBRs). DBR A marks the end of the first cycle (or build) of the software development effort, which included requirements analysis, design, code, test, and integration activities. DBR A follows the Breaker DBR 2 by four months. The goal of DBR A is to start integrating the Breaker sensor with the existing DGIF-2 ground system. Thus, DBR A is the first step in bridging functions from the DGIF-2 ground system to the next generation's airborne system. DBR A is the culmination of many people's work that took place over the last year.

DBR A provides basic command and control capabilities to the DGIF-2 ground system for the Breaker PME. These capabilities included the following: initial object framework, sensor, and operator work stations (OWS) proxies and selected Graphical User Interfaces (GUIs). So far, DBR A has produced approximately 48,000 lines of code. In addition, some high priority [risk] areas that are covered by DBR A are CORBA on IRIX, CASE tool code generation, and usage of sensor interoperability data link-based

interfaces. An interesting note is that the Ensemble project is following the same type of software development methodology as the Breaker Project (specifically, the use of the incremental/spiral development model with DBRs, COTS products, industry standards (such as CORBA), O-O methodologies, and CASE tools [such as Rational Rose]). DBR A starts to fold components and architecture of the SIGINT Object Model (SOM) into the DGIF-2 ground system. This new architecture introduces O-O, client-server distributed processing, dynamic GUIs, sensor/OWS proxies to DGIF-2. Future ensemble DBR(s) will expand on the basic capabilities provided in DBR A and include interoperability between DGIF-2 and heterogeneous airborne

Ken Williams and Paul Gardner the project director and software manager respectively stated, "The entire DBR 2 team deserves a job well done." To celebrate this major project milestone, the entire DBR A team was treated to a "happy hour" on March 6 compliments of the project management team.

The DBR A team consisted of the following team members: Connie Wilson, Don Wilber, Rich Wells, Greg Weidman, John Venable, Brian Schechter (phase I software lead), Thuan Nguyen, Issam Nanaw, Mark Murphy, Quynh Le, Russ Krayer, Charlotte King, David Johnson, Bill Galbraith, Necola Brookter, and Doug Auclair. Also, supporting the Ensemble DBR A team were members of the Breaker project team including Dave Gervasio, Tom Parker, and Tim Stratton.

ETHICS CORNER Continued from page 2

require it in the performance of their jobs. If business considerations require transmission of such information outside Raytheon, a written Proprietary Information Agreement must be executed, or the information must be classified as Competition Sensitive (see below). Examples of Raytheon proprietary information include, but are not limited to, bid and proposal data; proprietary technical information (e.g., technical trade secrets); and certain human resources and personnel information.

Competition Sensitive. This designation is assigned to certain limited information that is to be transmitted to authorized persons outside Raytheon, from which it is

not practicable or feasible to obtain a written Proprietary Information Agreement (e.g., a foreign government). As is the case with other forms of proprietary information, disclosure of Competition Sensitive material to unauthorized persons or entities would likely cause substantial harm to Raytheon's competitive position. An agreement, in some form (perhaps only verbal), is required before this information can be transmitted outside Raytheon. In all cases, however, approval must be obtained from authorized company officials prior to release of the information.

Marking and Safeguarding Proprietary Information. Company Most Private, Raytheon Proprietary, and Competition Sensitive information must be protected by properly marking and safeguarding the material as set forth in General Policy and Procedure 38-0052-110.

Questions regarding intellectual property in general, Raytheon's intellectual property program, and employee accountabilities and responsibilities may be referred to your chain of leadership, to the General Counsel, or to the Business Ethics and Compliance Office.

Formation of Centralized Engineering Organization by Bruce Dautrich

n January 5, 1998, the Raytheon Systems Company Surveillance and Control Systems Engineering organization headed up by Kerry Rowe was officially launched at a sequence of all-hands meetings. Under this organization there would be three main segments to be led by directors. These areas would make up the new organization and consist of Systems Engineering headed by Syd Goldlust; Hardware Engineering headed by Larry Hartley; and Software Engineering headed by Bruce Dautrich. These individuals worked with the Surveillance and Control Systems organizational Integrated Process Team to define the complete engineering matrix. Each directorate then briefed its members on the structure and organization principles of the directorate before the end of January. The purpose of this article is to convey the mission statement and goals for the organization.

Surveillance and Control Systems Engineering Mission Statement

The mission of Engineering is to synergistically work with existing and emerging business area personnel to elevate Raytheon Systems Company, Surveillance and Control Systems, to the recognized position of the key Raytheon C⁴I operation, including the centers of excellence for COMINT Technology (Multi-INT Ground Control, Processing and Fusion Systems, and UAV Systems Integration). Toward this end, Engineering will provide both technical support to new business qualification and technical personnel for program execution in support of the Raytheon Systems Company business areas.

Surveillance and Control Systems Engineering Near-Term Goals

1. Provide employees with more opportunities to move between projects and

business areas to promote synergy between them.

- 2. Address staffing and technical management issues with ongoing programs, both by improving retention and hiring of employees.
- 3. Implement a mechanism to forecast manpower needs and track employee skills.
- 4. Develop and implement a technical career path for the engineering organization.
- 5. Define and improve our engineering processes to remain competitive and improve our competitive posture.
- 6. Collect technical metrics to measure the success of process efforts.

In summary, the Engineering organization has been designed to work with the business areas in the capture and execution of programs.

RSAT RECOGNIZES THE EFFORTS OF THE MENTORSHIP PROGRAM Continued from page 1

software detects the presence of modeled activities by matching activity models against input sensor reports. With continued ONR support, Kevin and Chris plan to enhance this current capability with the addition of an adaptive situation assessment engine that will allow the system to detect previously unseen activities and "learn" models for these activities.

Chris' previous work on the RSAT project focused on the development of a scenario generator to provide the simulated environment for the situation assessment system. Based on the user's specifications, Chris' scenario generator creates a real-time environment and allows other software systems to observe the kinematic features of entities in that environment. Chris completed his work on the RSAT scenario generator in late January. To fulfill the requirements of the Thomas Jefferson High School Mentorship Program, Chris also authored a research paper describing his efforts and constructed a display that will be presented at the high school's annual Technology Mentorship Fair in May.

During Chris' mentorship at Raytheon Systems Company, he has contributed to the RSAT project through his software development work and by participating in several customer meetings and demonstrations of the RSAT software system. To recognize Chris' efforts, the RSAT customer visited Raytheon Systems Company on February 6 to discuss plans for the project's 1998 research effort and meet with Chris.

Chris will be attending Duke University in the fall and intends to major in Electrical Engineering. He believes his experiences at Raytheon Systems Company are invaluable and key to his acceptance into the Duke Engineering Department.



Dr. David Johnson comes to Raytheon Systems Company to meet with Chris Mailey. Pictured from left: Jim Hoh, ONR; Janet Gohman; Dr. David Johnson, ONR; Chris Mailey; Kevin Chapman; and Tom Harrold.

Movers and Shakers

Name

Promoted From

Promoted To

Frederick L. LaBar

SW Engineer

Sr SW Engineer

Eric M. Miller

Sr Systems Engineer

Prin Systems Engineer

Douglas D. Wasson

Sr SW Engineer

Prin Systems Engineer

Staffing Names in the News

New Hires

Welcome to all of the new hires that joined us since the last issue:

Name

Coming From

Title & Organization

Scott F. Allwine

Sheri L. Amos

lan M. Auld

Old Dominion University

Betac Corporation

Computer Associates

International Berry & Homer Inc.

Peter D. Cattaneo George W. Feild

ST Research

Joel R. Foster

CBSI

Mohan L. Goyal

U.S. Air Force

Wireless Products L.C.

Michael G. Hahn Andrea W. Heller

Arter & Hadden

Michael F. Henderson

Law Offices Garland ISSO

John F. Kelly

Garland ISSO

Sandra L. Mack

Central Missouri State Univ (student) Raytheon Electronic Systems

Dale A. Montgomery

AEGIS Research Corp

Pamela J. Nolan

Texas Instruments

Gary E. Parke

Jennifer L. Pennington

Jean Country

Deirdra M. Robinson

Kingsbury Elementary School

LaWanda A. Stewart

Vincent Tran

Honeywell Measurex

Erik E. Trickel

Garland Operation

JC Penney Life Insurance Co

Joseph W. Westhoff

Christina L. Wilkinson Woodward-Clyde

Assoc Test Engineer Manufacturing and Test

Training Specialist Pensacola Operations

SW Engineer

SW Engineering Network Analyst

Information Systems

Member of Technical Staff HW Engineerina

Technical Recruiter

Human Resources Principal Engineer

HW Engineering Sr Design Engineer

HW Engineering

Programmer SW Engineering

Sr SW Engineer

SW Engineering Sr SW Engineer

SW Engineering

Business Analyst Pensacola Operations

Prin SW Engineer

SW Engineering Proposal Administrator

Planning and Support Sr. SW Engineer

SW Development Center (Garland)

Administrative Clerk Supply Management

Training Specialist Pensacola Operations Prin Network Analyst

Information Services Assoc Test Engineer

Manufacturing and Test SW Engineer

SW Development Center (Garland)

Electrical Engineer HW Engineering

Staffing Support Specialist Human Resources

March 1998 Service Awards

Twenty Years

Natalie T. Goldberg Thomas R. Ireland Dorian C. Witcher

Fifteen Years

Sheila E. Ballou Iack G. Banks II Richard G. Beckman Ethel F. Harshman Angela V. Holland Sarah F. Lanham Paul W. Moore III James R. Putnam Darrell L. Schmitt Philip M. Sica Maureen C. Valdez

Ten Years

Sharon A. Ayers John T. Chrzastek Carolyn D. Frve Eric R. Henry David J. Macko Mark D. Newsome Daniel F. Nikolaus William L. Olson

Ronald L. Woodruff

Five Years

Judy C. Garrett Rose M. Thornhill Deborah D. Van Doren

Academic Applause

Duc V. Vu



Alan M. Gingras M.S., Computer Science George Mason University

Raytheon Systems Company 7700 Arlington Boulevard Falls Church, Virginia 22042-2900 Forwarding and Address Correction Requested

FIRST CLASS