

2004 Forest Service *Engineer of the Year* Awards

Congratulations to the following winners of the 2004 *Engineer of the Year* awards:

- Managerial engineer—Jim Moe, Rocky Mountain Regional Office, Golden, CO
- Technical engineer—Warren DeBoer, Pacific Southwest Regional Office, Vallejo, CA
- Engineering technicians—R. Duane Swapp, Kaibab National Forest, Williams, AZ, and Patrick Lovejoy, Florida National Forests, Tallahassee, FL
- Engineering applications employee—Brad Quayle, Remote Sensing Applications Center, Salt Lake City, UT

Selected from a list of excellent candidates, the winners were honored at the U.S. Department of Agriculture 2004 Forest Service *Engineer of the Year* awards luncheon in the Secretary of Agriculture’s Dining Room in Washington, DC, on April 4, 2005. Before the luncheon, Natural Resources and Environment Under Secretary Mark Rey and Deputy Under Secretary Dave Tenny met with the winners to congratulate them on their achievements. The winners’ families joined them at the luncheon ceremony. Director of Engineering Vaughn Stokes presented a special plaque and cash award to the winners, commending them for their outstanding contributions. A summary of the winners’ accomplishments appears on the following pages.

Congratulations to the regional candidates for the 2004 Forest Service *Engineer of the Year* awards. The finalists in all categories include:

Managerial	Technical	Technician	Engineering applications
Joseph S. Bonn, R-1	Spring Rosales, R-1	Gary Coats, R-1	Jim Barber, R-1
Gordon L. Cates, R-3	Van H. Chanay, R-2	Kim Earney, R-2	Vicky Duvall, R-2
Bill Fodge, R-5	Sarah Baker, R-3	Ken Goddard, R-4	Thomas C. Mellin, R-3
Jerry Carlson, R-6	Renee F. Flanagan, R-4	Chuck Walt, R-6	Rod Madwell, R-5
Jeffrey D. Orr, R-8	Bill Shelmerdine, R-6		Arlene Foster, R-6
Steve Marchi, R-9	David Velez, R-8		James Ehrlich, R-8
	Gary Sonnenberg, R-10		Chris Hanrahan, R-9
	Alan Yamada, SDTDC		George Jackson, MTDC



Forest Service Director of Engineering Vaughn Stokes is flanked on the left by *Engineering Technicians of the Year* Patrick Lovejoy (far left) and R. Duane Swapp, and *Engineering Applications Person of the Year* Brad Quayle, and on the right by *Technical Engineer of the Year* Warren DeBoer and *Managerial Engineer of the Year* Jim Moe (far right).

Jim Moe, 2004 Managerial Engineer of the Year

Jim Moe is the deputy director of engineering in the Rocky Mountain Regional Office. Jim honed his management skills in engineering and recreation for more than 30 years in the Northern, Rocky Mountain, Eastern, and Alaska Regions of the Forest Service.

Seven awards highlighted Jim's tenure in Alaska. He initiated composite road construction and contractor design, road location, and road maintenance; used innovative contract administration and cross training to accomplish substantial top-quality work; and negotiated with tribal elders from all three southeastern Alaska Native Nations to develop the *Native Traditions* segment of Ketchikan's visitor center.

The Rocky Mountain Region recognized Jim for oversight of real property and for help in achieving the auditor's unconditional approval for its financial records. Awards cited Jim for his National Fire Plan logistics work in 2001, for outstanding work on the contracting and engineering staffs, for partnering with regional and forest fire organizations to establish new facilities and rehabilitate existing ones and to coordinate fleet equipment and fire engine orders, for ensuring that planned projects were funded and that allocated construction and maintenance funds were used, and for receiving the *Regional Forester Honor Award—Financial Excellence 2004*.

He ably managed and developed the region's Capital Improvement Program and budget formulation for the recreation and engineering staffs, and established forest and regional training. Jim also led the Rocky Mountain Region in selecting projects for health and safety and business needs.

Jim developed the road INFRA module, real property costing and inventories, and deferred-maintenance surveys. He spurred the region's reduction of structurally deficient bridges by nearly 50 percent in 5 years, reducing maintenance needs and helping the region meet national priorities, such as improved forest access for fuel reduction.

The regional staff relies on Jim to execute the engineering and recreation programs, identify issues, and tap new funding sources. He spearheaded revisions to guidance for and delegation of authorities to improve regional engineering operations, ensuring that personnel had appropriate skills to accomplish work. Jim fosters communication among forests, where most project work occurs, visiting forests regularly, and encouraging effective project completion, development, and program delivery, despite budget shortfalls.

For new personnel, Jim is a mentor, confidant, and resource, notably on budget matters. His well-crafted budget tables, reports, and technical presentations are invaluable to field units.

Jim is a registered professional engineer in North Dakota and Alaska. He holds a bachelor's degree in civil engineering from the University of North Dakota and a degree in business administration from Boston University. He has completed coursework for a Michigan State University doctorate in resource economics.

Community service in Alaska earned Jim an *Emergency Medical Technician* award in 1989. He was an at-large representative at the University of Alaska and served on the Southwest Medical Council.

During his son's 4 years with the Green Mountain Marching Band, Jim was a fundraiser and supporter. His engineering expertise supported several Ketchikan churches and he continues to wield framing and construction tools to support Habitat for Humanity.

Jim Moe is recognized by his peers inside and outside the Forest Service for establishing partnerships that foster innovative solutions to critical problems, delivering high-quality services, overcoming budget and personnel constraints, and training others to follow in his footsteps.

Warren DeBoer, 2004 Technical Engineer of the Year

Warren DeBoer, regional mechanical engineer for the Pacific Southwest Region, has a history of pioneering innovative, cost-effective and reliable mechanical, architectural, and electrical systems for the Forest Service.

Warren earned awards for designing and constructing the Fresno Air Attack Base (1992) and Minarets Ranger Station (1996); for outstanding work in the engineering facilities program (fiscal year 1999); for consultation on the Mare Island water and heating, ventilating, and air conditioning (HVAC) systems (2002); and for correcting HVAC system glitches at the Forest Service Wildland Fire Training and Conference Center (2002). The region's forest engineers named Warren their top supporter in 2002. The Lassen National Forest supervisor recognized him for planning, designing, and implementing the Chester, CA, airtanker base reconstruction (2002) and for constructing the Susanville Interagency Fire Center (2003).

Some of Warren's innovations have been incorporated into California's energy and building codes, including locking out the outdoor air input to ventilation equipment during setback operation, sealing ducts with cloth-backed duct tape, and requiring a high level of duct insulation. He also helped pioneer inexpensive tropical HVAC systems in Hawaii.

Warren produced mechanical designs for regional facilities and helped develop national standard designs for district and supervisors' offices, airtanker bases, research facilities, laboratories, engine garages, barracks, air operations buildings, and emergency command centers. He conducted energy audits, designed efficient solar domestic hot-water systems, and simplified operation and maintenance instructions.

Warren designed facilities for the U.S. Department of the Interior Bureau of Land Management at the King Range National Conservation Area near Shelter Cove, CA, and for a joint State Department of Transportation and State Parks Department facility at Big Sur, CA. He also was a technical specialist on incident investigation teams. Warren overcame funding and regulatory constraints in designing all mechanical systems at a joint Forest Service-California Division of Forestry and Fire Protection facility.

He applies his expertise on State energy and building codes to expedite approvals in shared and leased facilities and to ensure that the region meets or exceeds all standards. He is a member of the International Code Council.

By employing new technologies, Warren has made many agency-owned and leased facilities more comfortable and energy efficient, while discouraging occupancy in buildings that cannot reasonably be improved. As a Government expert, his testimony has helped resolve contract disputes. His expertise has been distilled in classes and materials used to train facility engineers and maintenance personnel from several different regions and from different agencies.

As a leader in his community, Warren has served on the deacon board of his local church. He donated time and materials to family housing projects, volunteered at a summer camp for inner-city children, and served as school board treasurer. Warren coaches soccer and basketball teams and helps maintain playing fields. He works to improve city facilities.

Warren graduated with honors at the top of his class from California State University, Chico, in 1979 with a bachelor's degree in civil and mechanical engineering. He continues to attend courses and seminars regularly. He is a licensed registered civil engineer in California and holds a general contractor's license with A and B classifications. He is a past member of the American Society of Civil Engineers and of the Phi Kappa Phi Honor Society.

Patrick Lovejoy, 2004 Engineering Technician of the Year

Patrick Lovejoy is the civil engineering technician at Florida's Apalachicola National Forest in the Southern Region. He has served as a firefighter, crew boss, squad boss, helicopter crewmember, and tractor-plow boss in addition to his engineering duties. Pat has honed his engineering skills on three forests in three regions of the Forest Service since 1978, overseeing roads for timber sales and recreation areas; treating timber, concrete, and cable-suspended bridges; and engineering complex major culvert installations.

Pat earned an associate degree in civil engineering technology from Vermont Technical College. He is certified as a U.S. Department of Labor Occupational Safety and Health Administration inspector for buildings and administrative facilities and as a U.S. Department of Transportation Federal Highway Administration bridge inspector.

Pat's awards encompass engineering assistance for recreation development, timber sales, and special-use programs (fiscal year 2003); for the 98 ERFO Contract (2002); for an Office of Inspector General audit (2000); for road management (1990); for exceptional performance in fiscal years 1987 and 1988 and 1990 on the White Mountain National Forest; for designing a cost-saving rock bridge abutment (1990); and for preconstruction activities at trailhead parking areas (1982).

Forest personnel lauded Pat for supplying infrastructure data despite tight deadlines and heavy workloads (2000), for working on the Ocala National Forest's Burnt Out Bridge Road, and for assuming contracting officer's representative duties for the Osceola National Forest bridge replacement project (1999). Pat received superior performance awards from the Apalachicola National Forest (1996 and 1997), and for suggesting and implementing the videotaping of bridge and road reconstruction site surveys (1984) to record actual field conditions quickly and economically. The same forest commended him for 15, 16, and 21 accident-free years and safety commitment (in 1993, 1994, and 1999, respectively), and for Intermountain Region fire support (2000).

The Gifford Pinchot National Forest honored his engineering safety record from December 18, 1978, to October 1, 1990, for individuals and for motor vehicles (1991). In 1990, the New Hampshire Federal Executive Association gave Pat the distinguished *Government Service* award. Pat earned the Eastern Region *Primitive Skills* award (1989) for construction support of the Whiteface River Trail Bridge into the Sandwich Range Wilderness on the Saco Ranger District, White Mountain National Forest.

Pat fosters training and mentoring opportunities, spends extra time to perform duties as an inspector, explains drawings and specifications, sponsors hands-on work with contractors, and encourages thorough review of contracts to avoid costly changes.

Pat serves his community by volunteering at a neighborhood school to support athletic teams. He spends many hours mentoring Boy Scouts. Pat has been president and secretary/treasurer on the board of directors for his local homeowners' association and has served on the association's Architectural Control Committee.

Patrick Lovejoy is known throughout the Forest Service community and beyond for harnessing emerging technology to solve technical engineering problems, for successfully juggling many complex projects, for maintaining an enviable safety record, and for sharing his expertise and standards of excellence with his peers.

R. Duane Swapp, 2004 Engineering Technician of the Year

R. Duane Swapp has served as a civil engineering technician at the North Kaibab Ranger District since 1975 in the Southwestern Region. During his 30-year career, Duane has received numerous awards and uniformly excellent performance ratings for his outstanding contributions to and leadership of a high-quality and fast-paced engineering district program.

Duane earned awards for outstanding work in road maintenance contracting (1984) and for closing more than 50 roads ahead of schedule (1985). He was honored for safety leadership (1989) and commended for exemplary performance for support and inspiration to the para-archeological program (1990).

Recognition for outstanding contributions came to Duane for a variety of functions on different staffs: for packing and cooking for the Saddle Mountain Wilderness PIT project (1992), for supporting the district engineering program and the recreation and heritage programs (1993), and for alleviating difficult circumstances on the Bachelor Fire (1996). More citations touted Duane's efforts for the recreation capital improvements program (CIP), fire support, and for deferred maintenance and real property (2000); for exceeding the district program of work (2001); for implementing a complex district CIP program (2003); and for sustained leadership of a high-quality and substantial engineering program on the North Kaibab Ranger District (2003).

Throughout his district career, Duane has developed, applied, and shared his technical expertise and encyclopedic knowledge in many engineering and resource areas. He also has shared his commonsense approach to caring for and maintaining the district's resources and infrastructure as if it were his own with trainees, summer hires, volunteers, and coworkers.

Duane's contributions cover contract administration, facilities, roads, trails, and recreation sites. With his encyclopedic knowledge of the district, he is mentor, para-archeologist, wilderness packer, and heritage guide.

Because district engineering support at the Coconino and Kaibab National Forests Supervisors' Office is about 3½ hours by car from the North Kaibab Ranger District, Duane works independently. He plans and implements a program of work

for the care and maintenance of the district infrastructure (more than 3,000 miles of roads and 115 buildings), as well as providing engineering support to other disciplines. Duane uses force accounts, contracts, volunteers, and other methods to accomplish the most work for the fewest dollars. His dedication is reflected in one of the best-maintained units in the district.

Duane consistently accomplishes his annual work program and more, completing district capital improvement projects successfully on or ahead of schedule. His effective and efficient obligation of funds for district engineering projects often supports initiating extra work because he knows the district, knows the issues, and knows the needs.

Duane is a graduate of Southern Utah University. He and his wife run a small ranch out of Fredonia, AZ. He is certified in most engineering categories in Utah. Duane has served the local community as a member of irrigation, utility, and water boards; as chief and training officer for the Fredonia fire department; and as a member of the local resource conservation district.

R. Duane Swapp has built a reputation for outstanding engineering and recreation contributions and leadership, for dedication to caring for the land and serving people, and for sharing that ethic with his associates inside and outside the Forest Service.

Brad Quayle, 2004 Engineering Applications Employee of the Year

Brad Quayle is a remote sensing/geographic information system (GIS) specialist for the Remote Sensing Applications Center (RSAC) in Salt Lake City, UT, who has been instrumental in developing and expanding the Forest Service Moderate Resolution Imaging Spectroradiometer (MODIS) Active Fire Mapping program into Canada.

The Utah State University College of Natural Resources, where Brad earned his bachelor's degree in geography, honored him for alumni professional achievement (2004) and the National Interagency Fire Center commended him for fire mapping to support wildland fire suppression (2003). The U.S. Department of Agriculture lauded his development and support of the MODIS program (2002); geospatial analysis, cartographic mapping, and publication production of the Roadless Area Conservation project (2000); and his development of Geospatial Service and Technology Center (GSTC) map graphics and products (1999 and 2000).

The U.S. Army Corps of Engineers (COE) honored Brad for developing and teaching a Wetland Assessment course (1998), implementing strategies to fight the Midwest floods (1997 and 1993), achieving the Omaha District mission (1996), preparing GIS data/mapping briefings for Wyoming's Twin Lakes Reservoir (1994), working on the Readiness Management System (1993), and for participating in the

Oahe Dam Safety Exercise (1992). He received a U.S. Fish and Wildlife Service award for brokering a cooperative agreement with the COE.

During Brad's 1992 to 1998 COE tenure, he implemented and managed a large-scale GIS program, developed resource inventory, mapping, and geospatial analysis applications; implemented high-accuracy reference networks for the global positioning system inventory; and assessed the flood risk of nesting sites for endangered bird species on Missouri River projects. He helped the region assess the cumulative impacts of permit actions by integrating GIS and COE permit data and helped the region assess and manage wetland resources through GIS/remote sensing modeling and analysis.

From 1999 until 2001 at GSTC in Salt Lake City, Brad automated national and center GIS mapping and data processing, including extensive geospatial data for the Roadless Area Conservation project. As an authorized ArcView GIS instructor, Brad trained and provided technical support nationwide to Forest Service personnel on the GSTC National Geospatial Help Desk.

Since 2001, Brad has managed RSAC's MODIS Active Fire Mapping program—the agency's first fully automated satellite image-based wildland fire detection system. He coordinates RSAC's data collection for wildland fire activity in the Western United States with the National Aeronautic and Space Administration and other agencies and universities that collect data for the rest of the United States and Alaska. In 2004, Brad was instrumental in helping Canada implement its own version of the MODIS program. Near real-time wildland fire data and mapping products are posted to the Internet (<http://activefiremaps.fs.fed.us>), to the National Incident Information Center, the public, and the media to help monitor wildland fire activity and plan effective firefighting strategies.

Brad shares his expertise by writing and coauthoring articles, preparing conference posters and presentations, and mentoring student employees on his current remote sensing and geospatial work. He is a member of the American Society of Photogrammetry and Remote Sensing and the American Institute of Aeronautics and Astronautics.

Brad Quayle continues to successfully apply, enhance, and integrate innovative remote sensing and GIS technologies to improve ecosystem and resource management.