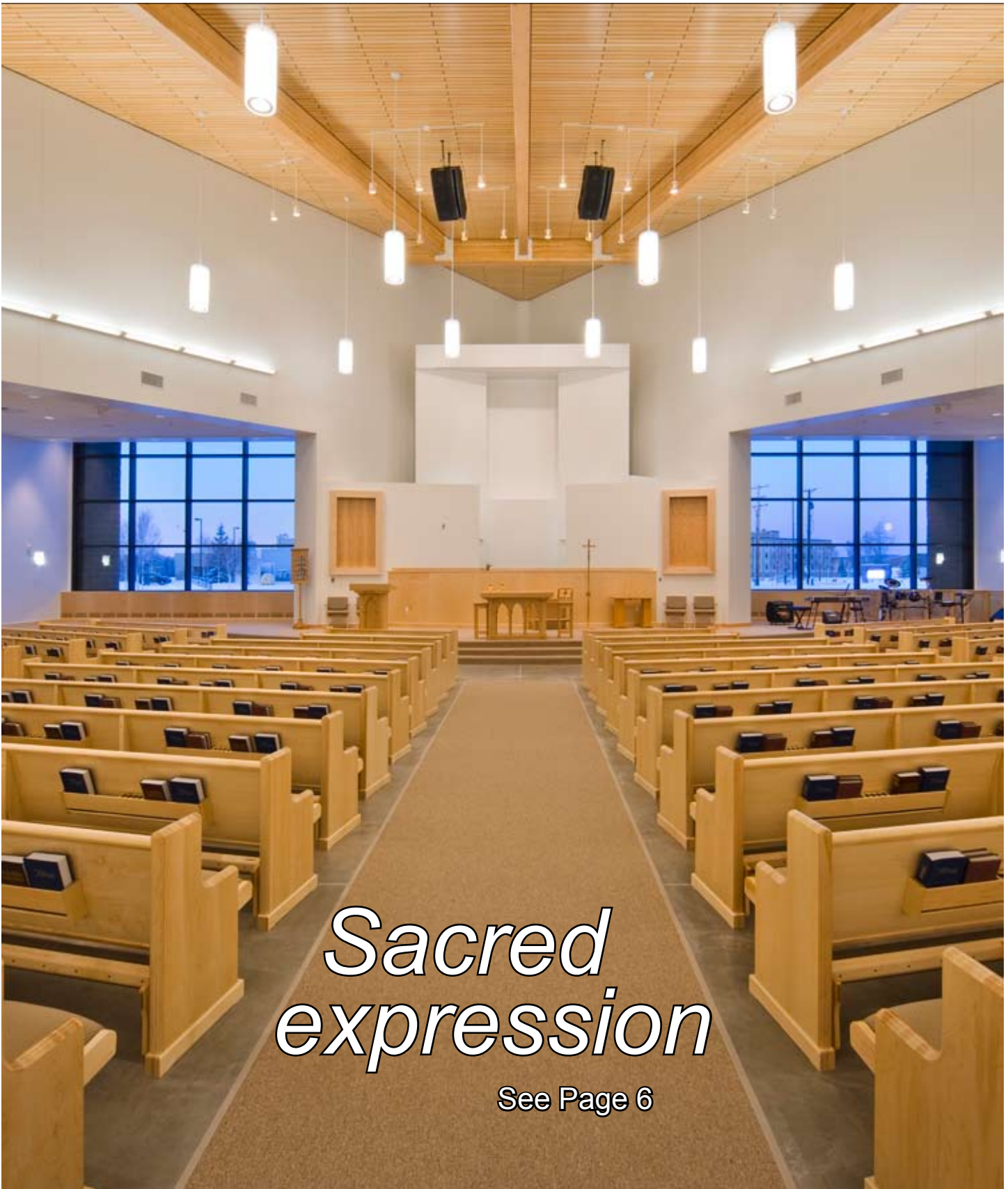




Arctic Engineer

"Building and Preserving Alaska's Future"



*Sacred
expression*

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Cover photo

The Eielson Air Force Base chapel sanctuary features a raised chancel and seating for 300-400 people, a blessed sacrament space, a multi-faith worship space to accommodate prayer rituals, a room for confessional and prayer, a sacristy and an immersion baptismal font. (Courtesy Photo)

Commander's Corner

Awards reflect quality of our people

The toughest words for a commander to hear are, "You're replacement is..."

It has been an honor and a privilege to serve as commander of the Alaska District for the past three years. As many of you know, this was my second assignment here, and it was as great as the first. As a captain, I was the Army program manager and assistant resident engineer in the Elmendorf Resident Office from 1992-1995.

It was exciting to return to The Last Frontier in my new role in 2006 and see the changes. What also was refreshing was learning what has stayed the same, particularly the quality of the people and all they do every day for the district, our customers, the state and the nation.

The Alaska District's mission is to provide a full-spectrum of quality engineering, technical and construction support services to assist peacetime and contingency operations in Alaska, the Pacific region and the world.

We can't be successful without dedicated employees. They are our most valuable asset and the foundation of our organization. Our technical expertise is the driving force of why we exist, and our knowledge, skills and abilities are not limited to engineering, but cover many disciplines.

Being responsive and accountable to ourselves and our customers leads to tremendous accomplishments, so it gives me great honor to mention those outstanding teams and individuals during my tenure.

Design is a common theme in the awards arena. In 2006, the district won the Chief of Engineers Award for Excellence in Design for the Battle Command Training Center (BCTC) at Fort Wainwright.

This is the first facility of its kind and is devoted to training forces to operate the Stryker vehicle as an effective tool in the Global War on Terrorism. The BCTC's mission has evolved since completion, and it is now more relevant than ever to the Army's mission.

At Elmendorf Air Force Base, our work on the C-17 Maintenance Complex earned the 2007 Pacific Air Forces Concept Design Award. Its interior circulation system is heralded for being optimal for Alaskan winters.

Farther north at Eielson Air Force Base, the team in charge of the new chapel took home the 2008 Pacific Air Forces Concept Design Award. Meanwhile, the renovated fitness center was also praised, taking the 2008 Pacific Air Forces Facility Design Award and 2009 Air Force Honor Award for Facility Design. Both projects are featured in this issue.

On a broader level, the district captured the 2006 Air Force Design Through Construction Agent of the Year Award, 2006 Air Force Design and Construction Honor Award for Landscape Architecture, Air Force Construction Agent of the Year for 2007 and 2008, as well as the Pacific Air Forces Construction Agent of the Year for 2008.

Project Delivery Teams (PDT) are a cornerstone of this organization. Our Southern Cross Army family housing project at Fort Wainwright earned not only the 2007 Corps of Engineers Excellence Award for Project Delivery Team of the Year, but also was recognized by the Northwest Construction Magazine for Best Project Management in 2007. This team accelerated the completion date without sacrificing exceptional quality.

Our Engineering Division's Civil Works Branch received the 2005 Corps of Engineers Outstanding Planning Achievement Award for the Port Lions Feasibility Study PDT. This team was

recognized for balancing the needs of harbor users with the protection of a delicate ecosystem.

The district's commitment to excellence is also demonstrated on an individual level.

Ivonne Drake, deputy for Small Business, was honored as the 2005 Chief of Engineers Award for Small Business Programs Specialist of the Year.

In 2006, Sara Gray, assistant district counsel in the Office of Counsel, received the Joseph W. Kimbel Award in recognition of the U.S. Army Corps of Engineers attorney who has demonstrated the highest potential for future legal achievement.

Cynthia Turenne, a civil engineer in the Engineering Services Branch, was honored as the 2006 Black Engineer of the Year for Modern-Day Technology Leader.

In 2007, Sharon Seim, project manager in the Fairbanks Field Office, was a top three finalist for the Don Lawyer Outstanding Regulatory Award. She represented the Pacific Ocean Division in the bi-annual competition.

While working in the Civil Works Branch, Chelan Schreifels was named by the American Society of Civil Engineers as a New Face of Engineering in 2007.

Mark Wallace was selected as the 2007 Pacific Air Forces Design Agent Civilian Project Manager of the Year, and Jeff Watts won both the Pacific Air Forces and Air Force award for 2008 Design Through Construction Civilian Project Manager of the Year.

Two employees—Ken Eisses, chief of the Hydraulics and Hydrology Section, in 2008, and Phil Hunt, former deputy for Programs and Project Management, in 2009—were chosen for the highest award granted by the Secretary of the Army to civilian personnel, the Army Decoration for Exceptional Civilian

Service, during ceremonies at the Pentagon.

At the Elmendorf Resident Office, Andy Sorum, project engineer, won the 2008 Pacific Ocean Division Construction Management Excellence of the Year Award, and Joel Spano, quality assurance representative, received the 2008 Pacific Ocean Division Hard Hat of the Year Award.

Also for 2008, Maj. Bryan Erickson, project engineer, was honored as the Army Corps of Engineers Federal Engineer of the Year (Military).

These successes show that we are developing the right leaders and shaping our technical competencies to meet ever-changing demands. The district has a 63-year history, and to mold our future, we must constantly learn from both our past and present.

It is my expectation that the Alaska District will do that and continue to serve the needs of a diverse state that provides significant strategic and economic value to our nation.

I know I probably missed someone or some project. As soon as we go to print, I will remember the individual or team I missed. The bottom line is that we serve our customers very well. We meet our challenges head on rather than shirk from them.

We continually improve our relationships with the state and our customers. The congressional delegation has a lot of confidence in our abilities.

As I inbrief Col. Rhino Koenig, I will be able to say with a high degree of confidence that he's getting the best engineer job a colonel can ask for.



Col. Kevin Wilson

A handwritten signature in black ink, appearing to be 'H. Sorum'.

Total workout

New features factor into fitness success at Eielson

By Curt Biberdorf
Editor

Fake grass is a real benefit for airmen using the improved Baker Field House at Eielson Air Force Base. Artificial turf is the flagship feature of the award-winning \$21.1 million fitness center renovation project completed in October, and is one of several upgrades designed to enhance physical training and quality of life for its users.

Managed by the U.S. Army Corps of Engineers-Alaska District and built by Alcan General Inc., of Anchorage, Alaska, the project renovated the existing field house that connects to a new 56,700-square-foot building. The addition houses a one-eighth mile suspended track around the perimeter with an 80-yard field in the middle below for indoor group sports or physical training.

These amenities are especially handy in the winter when snow and bitter cold temperatures make such activities impossible or to avoid rain-soaked summer fields.

"The customer is very happy and it gets a lot of use," said Jay Klaassen, Northern Area Office resident engineer. "Everybody is enamored with the track and playing field. The contractor made a conscious effort to minimize the alteration to spend more money on the addition."

Mondo Corp., with headquarters in Italy, provided flooring for the project, including an Olympic-quality rubber surface for the track.

Mondo also provided its highly-touted artificial turf system with an infill material that offers maximum safety and reproduces all the characteristics of a well-maintained natural grass playing field in good weather conditions.

In its fifth generation, the grass is a monofilament strand bonded to a super-tough backing, said James Glasgow, construction control representative at the Northern Area Office. A quarter inch of silica sand topped with another quarter inch of ground rubber result in a genuine grass feel. The facility also has grooming equipment needed to maintain the field.

"It's the latest in artificial turf used by college and professional football teams," Klaassen said. "I'm not sure



Courtesy photo

The Baker Field House project at Eielson Air Force Base renovated the existing facility that connects to a new 56,700-square-foot building. The addition was substantially enclosed before winter arrived and allowed the team to finish ahead of schedule.

there's another facility like it this far north."

No less important is the track that surrounds the field.

The base is now able to conduct regular physical fitness testing year-round without using an off-site facility during the winter, which is helpful with people changing stations, and writing enlisted and officer performance reports, according to Master Sgt. Susan Trejo, 354th Force Support Squadron fitness center director.

Translucent panels surround the running track and emit considerable natural light without excessive heat loss. Energy efficiency is enhanced in the addition with materials designed to insulate the rooms and bring in more light, especially during winter to lower heating bills, Glasgow said.

"When you're in a facility that large and can get all the daylight, it is really remarkable," Klaassen said. "Views when running around the track can also be spectacular on clear days."

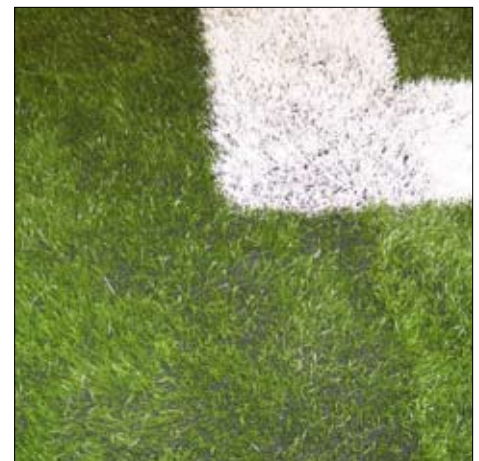
New strength and cardiovascular training equipment were purchased for the new addition and placed around the turf field. The only equipment not replaced was free weights.

The facility also has storage rooms, administrative space and a mechanical

room.

One new amenity is the Health and Wellness Center, with staff members on hand to instruct users on proper nutrition and a kitchen to demonstrate how to apply that knowledge, Glasgow said.

Besides the addition, the renovation involved cleaning, painting, new flooring and a new front entryway. Some ceiling tiles were removed to create a more open feeling. Slight changes were made to the swimming



Courtesy photo

The artificial turf uses a quarter inch of silica sand topped with another quarter inch of ground rubber that results in a real grass feel.

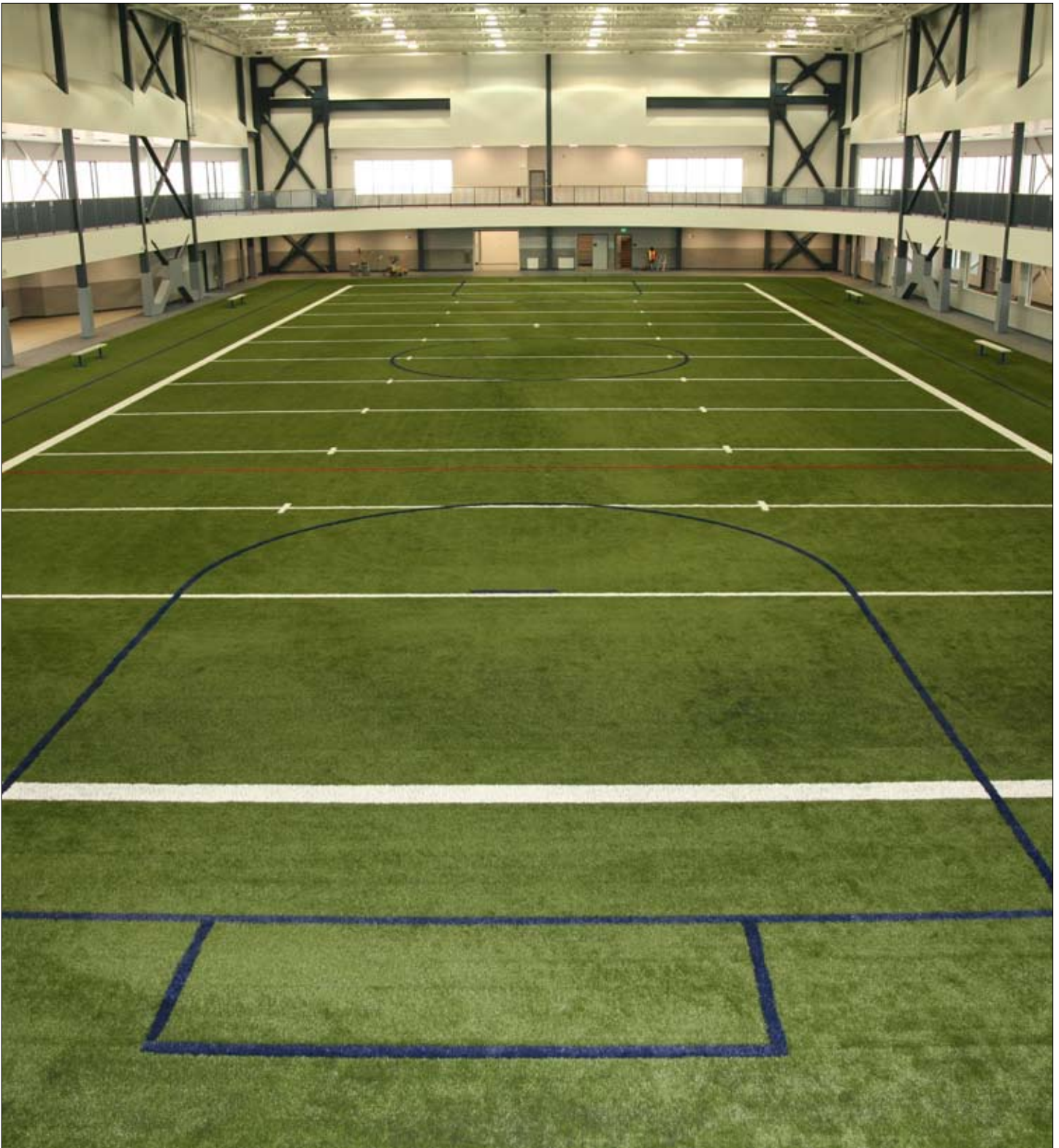


Photo by F.T. Eyre

The fitness center addition houses a one-eighth mile suspended track around the perimeter with an 80-yard field in the middle below for indoor group sports or physical training. The base is now able to conduct physical fitness testing year-round without using an off-site facility during the winter.

pool and locker room area.

The project also involved the 354th Civil Engineer Squadron and the 354th Force Support Squadron in the planning, which worked out well, Klaassen said. With a short construction season, the project was substantially enclosed before winter arrived and allowed the

team to finish ahead of schedule.

“We had a great team and were very fortunate to have Alcan General,” Klaassen said. “The fact that we had a good contractor made the project go smooth. The end-user is pleased, and the facility is doing what the Air Force expected it to do.”

The accolades continued when the Air Force announced in March that the project won the honor award in the facility design category of the 2009 Air Force Design Awards Program.

Airman 1st Class Nora Anton of the 354th Fighter Wing Public Affairs Office contributed to this story.

House of worship

Chapel fulfills spiritual needs of Eielson community

By Curt Biberdorf
Editor

There is a season and a time for every purpose under heaven, the author in the Old Testament book of Ecclesiastes writes in chapter 3. In 2007, after 52 years of service in the old building, the time to start building a new chapel at Eielson Air Force Base had arrived.

Dedicated on Oct. 29, 2008, the \$12.9 million project managed by the U.S. Army Corps of Engineers-Alaska District is again fulfilling the spiritual needs of the Eielson community and will serve for generations to come with an award-winning design that may become an Air Force standard.

"This chapel is the latest and greatest. It's certainly unique," said Jay Klaassen, Eielson resident engineer, about the first Air Force chapel built in the past 26 years. "There's been some discussion in making it the de facto design for future Air Force chapels."

The project used the alpha contracting process to select a design-build contractor. It allowed the formation of a team consisting of the contractor,

Bristol Design Build Services, LLC of Anchorage, Alaska; designer Koonce Pfeffer Bettis, Inc. of Anchorage, Alaska; Alaska District; Eielson Air Force Base 354th Civil Engineer Squadron architect; and 354th Fighter Wing chaplain, to participate in the project planning from its inception.

The chapel won the Pacific Air Forces Top Concept Design Category Award for 2008.

"(The customer) really appreciates (the process)," Klaassen said. "They feel like they have a lot more control over the project. They can select items that fit within the available amount of money and are the best value."

Built at Central Avenue and North Street, one block away from its original location, the base was without a chapel during construction, making the construction schedule more pressing. Still, the end product was worth the wait.

The new chapel serves as a multi-faith worship center for a part of the world that experiences as few as two hours of daylight during the winter and experiences temperatures ranging from

66 degrees below zero to 95 degrees.

People new to these conditions frequently experience depression and isolation, and the chapel was designed to respond to those conditions. Siting of the building with one leg of the triangle facing south allowed use of clerestory windows to flood the narthex, nave and fellowship hall with daylight and provide outdoor views. Light, soft and natural interior colors bring a contemporary, cheerful feel to interior spaces. Furnishings are a light natural maple with gold and burgundy-patterned upholstery.

Moreover, by using interior windows in the back of the sanctuary, additional natural daylight reaches the worship space.

These "relites" on the south wall of the fellowship hall also take in daylight from the adjacent corridor.

Fluorescent lighting shines from full-spectrum bulbs that closely match natural light and have been shown to enhance living and working environments and promote positive effects on people's sense of well-being.



Courtesy photo

The chapel's low-maintenance concrete masonry walls and exposed timber structure stand apart yet fit with other buildings on base. The roof slopes from the low end on the south up to a high point on the north. This design feature also emphasizes the significance of the nave, as the pinnacle of the facility, reaching toward the heavens.

Besides lighting, the chapel has high-efficiency baseboard radiant heating units for those frigid months while tinted glass installed on the building's south side minimizes heat gain. Windows that open in the offices and classrooms naturally ventilate the rooms during summer.

Outside, the chapel's low-maintenance concrete masonry walls and exposed timber structure stand apart yet complement other buildings on base.

The north half of the building has gently curving walls meant to signify hands gathering the occupants together. Although no exterior religious symbols are used, the tower hints at the sacred nature of the building.

The triangle shape of the nave is projected to the exterior and beyond to identify the worship area of the building. Covered in highly-durable granite tile, it highlights the facility's uniqueness.

The roof slopes from the low end on the south up to a high point on the north. This also emphasizes the significance of the nave, as the pinnacle of the facility, reaching toward the heavens. The tower, suggestive of bell towers on traditional churches, is placed to mark the entrance to the facility, and works as a structural element to support the end of the covered walkway.

Inside, the worship areas north of the narthex include a sanctuary with a raised chancel and seating for 300-400 people, a blessed sacrament space, a multi-faith worship space to



Courtesy photo

Along with a pantry, the kitchen has two ranges, commercial-size refrigerator and freezer, dishwashing area and counter capable of serving a sit-down meal for 200 people in the adjacent fellowship hall.

accommodate prayer rituals, a room for confessional and prayer, a sacristy and an immersion baptismal font.

Rooms for multimedia control, administration, coats, choir practice, brides and crying children are also located around the nave.

South of the narthex are administrative and educational areas, including classrooms, library, offices, reception area with waiting space and conference room.

Along with a pantry, the kitchen has two ranges, a commercial-size

refrigerator and freezer, dishwashing area and serving counter capable of providing a sit-down meal for 200 people in the adjacent fellowship hall.

Allowing flexibility to accommodate present and future program changes, a movable wall at the back of the sanctuary allows the nave to be opened into the narthex area and additional seating to be placed there.

Another movable wall is located between the narthex and fellowship hall, which can be opened to place additional tables and seating in the narthex.

When both movable walls are opened, the three areas become one large functional worship area.

Classrooms also have movable walls to create classrooms of various sizes. Functional spaces throughout the chapel can be combined by using the interior multimedia communication and monitoring system, allowing services and functions to be televised into multiple or adjacent spaces.

The extension of the classroom and administration wings on the south side creates a courtyard that will be transformed into a meditation garden. However, if additional space is needed in the future, the classroom and administration wings can be extended to fill in that area.

Although new from the ground up, the chapel has not lost all ties to the previous building. Pieces of stained glass were reinstalled in the new center and several mementos are stored in a display case.



Courtesy photo

Movable walls were designed to create classrooms of various sizes. Functional spaces throughout the chapel can be combined by using the multimedia communication and monitoring system, allowing services and functions to be televised into multiple or adjacent spaces.

Real Estate covers property needs

By Curt Biberdorf
Editor

Before the U.S. Army Corps of Engineers-Alaska District could build a rock revetment to protect Unalakleet, an eroding coastal village nearly 800 miles northwest of Anchorage, realty specialists in the Real Estate Division contacted 25 owners to buy the piece of land.

Some of the original owners are deceased and have heirs, 14 in one family, but all parties needed to agree with the property sale before construction could begin.

Finding those multiple owners is one example of the difficult but rewarding mission at the Alaska District Real Estate Division, a modestly-staffed full-service realty office for the largest district in the Corps covering 570,374 square miles of land.

"In addition to its beauty, all of the challenges and diversity of real estate activity in Alaska makes this a great place to work," said Veronica Hiriams, chief of the Real Estate Division.

Capable crew

The Real Estate Division serves as the real estate agent for the Army in Alaska and agent by choice for the Air Force.

"You can't even walk on any real estate whether it's for military or civil works purposes without permission," Hiriams said. "We are the people who make the arrangements and negotiate the costs and other terms of agreement."

Hiriams manages a staff of 16-18 employees. Most of them are realty specialists, with the others being an appraiser, program analyst, cartographer and administrative assistants. The Office of Counsel provides legal staff support.

Realty specialists commonly have business or legal backgrounds. They research legal documents, construction plans and specifications, work with multiple agencies, learn property laws and negotiate contracts for leases and other agreements.

"It takes years to learn the business," Hiriams said. "To be diverse, you have to know so much to be good at this."

Realty specialists in Alaska must know various laws and policies, including those unique to Alaska Native lands. Staff members monitor changes and maintain proficiency

by participating in real estate subcommunities of practice to share knowledge and ensure technical competence.

Multiple services

Key Real Estate services are appraisals, land acquisition for permanent or temporary use, and management and disposal of nearly two million acres of property under military control for military, civil works, and International and Interagency Services customers, such as the National Weather Service and Federal Aviation Administration.

The appraiser values all military and private properties as well as mineral and mining claims. Although appraising land in remote areas can be challenging, particularly in the winter, it can also be fun, Hiriams said.

When the district needs access to land for exploration or construction, Real Estate becomes a right-of-entry agent. Realty specialists this year completed more than 70 rights-of-entry for the district administration of the Defense Environmental Restoration Program and other environmental assessment programs. The activity involves identifying current owners and acquisition of real estate interests necessary for study of selected sites and actual site restoration.

Sometimes buying land is necessary. For civil works projects, Real Estate coordinates with district project offices to acquire property to support project placement and construction.

"They can plan and design projects, but I still have to get an easement, acquire land-use rights and/or acquire land itself," Hiriams said of federally-funded projects, such as flood reduction measures for coastal communities.

When full federal acquisition is unwarranted, Real Estate assists the local sponsor in determining the required interest for the civil works projects that the district is authorized to construct. Then Real Estate certifies that adequate interests are acquired and are in compliance with relocation assistance laws and regulations. Real Estate has certified more than 1,000 linear feet of land for shoreline protection in the last year alone.

Hiriams said most of the recent activity has been acquiring land under a unique Alaska authorization for projects to assist communities, such as Unalakleet, affected by coastal erosion. The timing of meeting with villagers often can be tricky.

"You might catch (the owners) when everything's frozen," she said. "Spring and summer are good times to look at the land but not a good time to talk with our stakeholders because they're out fishing or gathering for subsistence."

On the military side, construction support occurs when projects for the Army require a permit on Air Force lands or vice versa, according to Hiriams. The Army and Air Force jointly use ranges and ice bridges, and Real Estate facilitates the land-use permits.



Courtesy photo

As the executive agent for the Department of Defense recruiting and domestic lease program, Real Estate manages leases for 21 recruiting facilities across Alaska for the Army, Air Force, Navy and Marines. Shown above is the Dimond Center station.

Renting real estate is another major responsibility. As the executive agent for the Department of Defense recruiting and domestic lease program, the division manages several leases for 21 recruiting facilities across Alaska for the Army, Air Force, Navy and Marines.

Real Estate also arranges leases for Regulatory Division field offices in the state, including the newest offices in Wasilla and Anchorage, bringing district services to the public.

Beyond recurrent leases for these facilities, realty specialists are called upon to provide leasing in special cases. They leased nearly 150 single-family housing units in Fairbanks beginning in 2006 to support the influx of soldiers and their families at Fort Wainwright while the Army finished construction of military housing units on post.

“Although complicated and short-term, the office worked with the Fairbanks rental community to meet the needs of the military,” Hiriams said. “I was grateful for their support.”

When Real Estate is not spending, the division is earning.

Real Estate manages between 350-400 outgrants, which permits the use of military land or facilities by outside businesses and non-profit organizations. They are arranged when the military ultimately needs to retain ownership of the land.

When the military no longer needs the land, Real Estate disposes it.

The district’s realty specialists are skilled in disposing of property of



Courtesy photo

Disposals, such as this one involving a tract of land near the Port of Anchorage, are completed when the military no longer needs the property.

varying sizes, from regular disposal activities, such as the reduction in the footprint of the Army National Guard sites in remote areas of the state to interagency transfers, such as the 352 acres given to the Air Force by the Army for an Air Force privatized housing project. An example of a legislative disposal is the proposed Army transfer of land to the Port of Anchorage for their expansion project.

“You have to know how to negotiate for equity with entities and ensure that the military is getting or paying fair market value,” Hiriams said. “We’re looking for fair and reasonable value for property and work with willing buyers and sellers.”

Outgrants bring in around \$500,000 annually for the district, and both land disposal and outgrants draw billions of dollars worth of money and in-kind services to Real Estate offices nationwide.

Two additional services are no less important than the others, Hiriams said. When employees move, Real Estate reviews claims for reimbursement of real estate expenses and recommends the total reimbursable amount. During natural disasters and military contingencies, Real Estate provides alternate housing, administrative or warehouse space. It also acquires industrial facilities or essential land use permits.

Valuing real estate demands detective’s approach

By Marjorie Bellringer
Contributing Writer

Appraising real estate in Alaska, like the state itself, is often an adventure.

As a nondisclosure state, buyers and sellers are not required to record real estate prices. This forces appraisers and other real estate professionals to become resourceful and network to research and compile comparable sales data from various private and public sources.

Moreover, many local realtors and appraisers who have this information won’t share their databases of comparable sales because of their investment of time and effort spent researching and compiling the data.

Consequently, finding this information sometimes takes legwork, assuming an appraiser can even get there.

Because most of Alaska’s 365,039,104 acres of land is inaccessible by road or rail, traveling to view property is accomplished by small airplane, helicopter, boat, off-road vehicle, snowmobile, dog sled or on foot. Alaska’s ice-free summer season lasts three to four months, limiting the usefulness of boats and floatplanes.

Another complication of researching public records is rooted in the way Alaska’s municipal government is organized into cities and boroughs. Alaska’s constitution requires that the entire state be divided into organized or unorganized boroughs. Organized boroughs encompass about 43 percent of Alaska.

State law mandates that the part of Alaska outside of organized boroughs comprise a single unorganized borough. Unlike cities and organized boroughs, the unorganized borough is a unit of state government.

As now configured, the unorganized borough encompasses 374,843 square miles, which means Alaska property assessors are stretched too far to have adequate and readily available information.

A mere 25 Alaskan cities or boroughs levy a property tax. Some remote areas are not in either a city or borough, so no property tax is levied. Consequently, no assessor’s office is available to provide the helpful land information that appraisers typically rely upon.

It all adds up to a job that takes tenacity to accomplish. *Marjorie Bellringer is a former appraiser in the Real Estate Division.*

New rule emphasizes, reaffirms wetland mitigation sequence

Alaska's 15 million miles of potentially-navigable waterways, three million lakes and 33,904 miles of coastline on top of 220 million acres of wetlands and other waters present ample opportunities for the U.S. Army Corps of Engineers-Alaska District Regulatory Division to assist customers.

The second largest in the Corps, the division has more than 60 scientists and staff who administer the program in Alaska. They evaluate hundreds of permit actions annually from the main office in the district headquarters as well as from field offices in Anchorage, Fairbanks, Juneau, Kenai, Sitka and Wasilla.

The Corps regulatory program dates back to the Rivers and Harbors Acts of 1890 and 1899. The program

first served to protect and maintain the nation's navigable waterways. Then in 1972, the Clean Water Act was signed into law, and the Corps was directed to administer Section 404 of the Clean Water Act to ensure that the physical, biological and chemical quality of the nation's water is protected.

Three years later, the Corps jurisdiction increased by court order to include wetlands as part of its definition of waters of the United States. Under Section 404, the Corps regulates the discharge of dredged or fill material into waters of the United States.

Wetlands are areas that are periodically or permanently inundated by surface or ground water and support vegetation adapted for life in saturated soil.

They are regulated because they

serve as food chain production, habitat, nesting, spawning, rearing and resting sites for aquatic and land animals. They also provide protection from waves and erosion; storage areas for storm and flood waters; natural recharge areas where ground and surface water are interconnected; and natural water filtration and purification.

Alaska encompasses about 375 million acres with majestic mountains, abundant wildlife and various ecological regions. It's also home to 63 percent of the total wetland acreage in the nation, excluding Hawaii. Because of the prevalence of wetlands, the Regulatory Division's job of regulating waters in Alaska is complex, and compensatory mitigation requirements have not always been consistent.

The mission of the Regulatory Division is to serve the public interest in Alaska, providing responsive and quality service by balancing protection and reasonable use of aquatic resources through professional administration of the regulatory program.

Although individual alterations of wetlands may constitute a minor change, the cumulative effect of numerous changes could result in major damage to wetland resources.

Permit requests in Alaska vary from projects to construct boat docks and roads to retail stores and large-scale mines. Each project is evaluated by the Corps to weigh public benefits vs. detriments taking into account all relevant factors. No permit is granted if the proposal is found to be contrary to the public interest.

New rule

On April 10, 2008, the Federal Register published a new rule entitled "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule." It became effective June 9, 2008. The rule reaffirms and emphasizes the sequence to be followed for mitigating impacts to aquatic resources that result from work authorized by permit under the Corps regulatory program.

All practicable steps to avoid, minimize or do both to aquatic resources must be taken before proposing compensatory mitigation to offset project impacts. The rule establishes



Courtesy photo

Mary Lee Plumb-Mentjes, project manager in the Anchorage Field Office, tries to determine how surface water moved in Connors Bog to establish hydrologic connectivity with clearly regulated water bodies as required by Supreme Court cases.

standards and criteria for all types of compensatory mitigation, including mitigation banks, in-lieu fee mitigation, and permittee-responsible mitigation to offset authorized unavoidable impacts to waters of the United States, including wetlands.

Mitigation types

A study of the success of different types of mitigation across the country led to the following general compensatory mitigation sequencing preference: first for use of mitigation banks, then in-lieu fee programs, and finally for permittee-responsible mitigation. Compensatory mitigation can be accomplished through one type of mitigation or a combination of types.

Mitigation banks are a site or suite of sites where resources, such as wetlands, streams or riparian areas, are preserved, restored, enhanced and/or established for the purpose of providing compensatory mitigation for impacts authorized by Department of the Army (DA) permits.

Mitigation banks started in the 1970s but were not used until the 1980s. By 2000, nearly 300 banks had been constructed or proposed nationally, but were not proposed or used in Alaska until the past few years.

All mitigation banks must have an approved banking instrument signed by the sponsor and the district commander before being used to provide compensatory mitigation for DA permits. Development of a mitigation bank requires site identification in advance, project-specific planning and significant investment of financial resources.

When permitted impacts are located within the service area of an approved mitigation bank, and the bank has the appropriate number and resource type of credits available, the permittee's compensatory mitigation requirements may be met by securing those credits from the sponsor.

An In-Lieu Fee (ILF) program involves the restoration, establishment, enhancement and/or preservation of aquatic resources through funds paid to a governmental or nonprofit natural resources management entity to satisfy compensatory mitigation requirements for DA permits.

All ILF programs must have an approved instrument signed by the sponsor and the district commander before being used to provide compensatory mitigation for DA permits.

Similar to a mitigation bank, when



Courtesy photo

Mary Leykom, project manager in the Regulatory Division, stands on a tidal mud flat while measuring the location and amount of eel grass at a proposed dock site in Petersburg.

permitted impacts are located within the service area of an approved ILF program, and the ILF has the appropriate number and resource type of credits available, the permittee's compensatory mitigation requirements may be met by securing those credits from the sponsor.

Permittee-responsible mitigation is an aquatic resource restoration, establishment, enhancement, and/or preservation activity undertaken by the permittee, or an authorized agent or contractor, to provide compensatory mitigation for which the permittee retains full responsibility.

Permittee categories

Permittee-responsible mitigation is divided into the following four categories.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Rehabilitation: The manipulation of the physical, chemical or biological characteristics of a site with the goal of repairing natural or historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: rehabilitation and re-establishment.

Re-establishment: The manipulation of the physical, chemical or biological characteristics of a site with the goal of returning natural or historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

This article was written by the Regulatory Division staff. Visit <http://www.poa.usace.army.mil/reg> to learn more about permits, or call 907-753-2712 or 800-478-2712.

Employee spotlight

Diverse mission attracts project engineer to Corps

All Andy Sorum wanted to do out of high school from his hometown in Minnesota was “jump out of airplanes” when he enlisted in the Army in 1994. Little did the former airborne infantryman realize that his decision would lead to a civilian career where he now serves as a project engineer in the Elmendorf Resident Office for the U.S. Army Corps of Engineers-Alaska District.

So far, his Army career path has included a tour with the 82nd Airborne Division at Fort Bragg, N.C., postsecondary education at the U.S. Military Academy at West Point, N.Y., and several assignments with the Corps as an Army officer and civilian employee.

As a project engineer, Sorum is responsible for providing support to the resident engineer with contract administration and quality assurance for military construction projects on Elmendorf Air Force Base.

“We have challenging work going on, and we try to be in the field a lot to monitor the progress of the work and talk to the construction representatives,” he said. “I learn so much when I stand next to those guys.”

He enjoys the attitudes, ethics and shared goals of his teammates while working the complicated, fast-paced projects required by a retooling Air Force customer.

Recent projects on Sorum’s list of responsibilities are the C-17 Maintenance Complex, C-17 Large Airframe Maintenance Hangar and Alaskan Command Headquarters. It was his outstanding work on these projects that resulted in him receiving the 2008 Pacific Ocean Division Construction Management Excellence of the Year award.

Although he started his Army career as an infantryman, Sorum was drawn to the Corps of Engineers when it came time to choose a branch of service before being commissioned as an officer.

“I really admired the image of flexibility and adaptability of the Army engineer. That mission diversity is what first led me to become a member of the Corps of Engineers,” he said.

After attending a summertime training assignment at Fort Greely as a cadet, Sorum was compelled to

select Fort Richardson as his first duty station, where he served in a variety of assignments leading engineer soldiers.

It is that diversity that attracted Sorum to stay in the Corps after leaving military service, too.

“I really feel that being in the Corps of Engineers, the opportunities are nearly limitless,” he said. “The projects are diverse, the career field is diverse,

the importance of your mission is there. It impresses me that we recognize the value of moving people around and getting new experiences.”

Off duty, he takes full advantage of outdoors activities in Alaska with his wife, Margo, and daughter, Abigail, 4.

Captivated by Alaskan summers, the Sorums can’t imagine living anywhere else.



Photo by Curt Biberdorf

Andy Sorum, project engineer in the Elmendorf Resident Office, stands in front of the C-17 Maintenance Complex at Elmendorf Air Force Base. Sorum received the 2008 Pacific Ocean Division Construction Management Excellence of the Year award for his outstanding work on that project as well as the C-17 Large Airframe Maintenance Hangar and Alaskan Command Headquarters.

ACTIVE IN ALASKA



Bobby Davis, civil engineer technician in the Southern Area Office, pulls a sockeye salmon from the Copper River on a dipnetting trip.



Mike Insko, park ranger at the Chena Project, and his wife, Leah, show a mountain goat he hunted on Kodiak Island Sept. 26, 2008.



Mike Volsky, construction representative in the Northern Area Office, displays a bull moose he bagged north of Livengood.



Chuck Livers, a civil engineer in the Construction Operations Division, finishes a downhill run at Hillberg Ski Area.



Ron Broyles, supervisory engineer in the Engineering Division, pulls ahead of his co-workers while go-karting in Eagle River.



Gordy Osgood, an environmental engineer in the Engineering Division, readies to bolt from the gate while Dan Bonney takes a turn as the starter atop Hillberg Ski Area on Elmendorf Air Force Base during a race night Feb. 13.

Ski racer

District team turns up speed, tests skill on Hillberg slope

Story and photos by Curt Biberdorf

“Racer in the gate. Racer ready!” shouts the starter. Intensity builds as he begins his countdown, and then the competition begins.

Tripping the clock at the starting gate, skiers and snowboarders take their turns carving a path around the course gates in a flurried yet controlled descent to reach the finish line in a run that lasts no longer than 20-30 seconds.

Friday nights from mid-January to mid-March are race nights for a group of U.S. Army Corps of Engineers-Alaska District employees at Hillberg Ski Area, located on the north side of Elmendorf Air Force Base, less than a 5-mile drive from the headquarters building.

District members participating in the 2009 Hillberg Intramural Alpine Ski Racing season have turned out to be a major part of the team, said Mike

Hancock, a race director and volunteer since 2002.

A mix of servicemembers, civilian employees, retirees and family members, teams have risen to as many as 25 people through the past few years, but this year the number hovered around 10.

“(The Corps) has been heavily involved. The Corps has most of the fast skiers and has been dominating the competition,” Hancock said.

Lt. Col. Bobby Stone, deputy district commander, as part of the Health and Wellness Committee, invited employees to join the team this year. He has led the Hillberg Youth Ski Team on Saturdays for several years.

Hillberg’s allure is multifaceted. He said other skiing locations in the area, such as Alyeska Ski Resort in Girdwood or Hilltop Ski Area in south Anchorage,

have limited beginner terrain and are crowded. Chair lift lines are longer and move slower.

“This place is fantastic. The staff and volunteers are great in helping us set up early, they’re well-staffed and run an active ski patrol,” Stone said. “These ski teams are exciting. They get you outside during these long winters, and you can ski as a family.”

Skiers and snowboarders can join the team with any level of experience. The number of racers is unlimited and is divided into teams based on ability or who the individuals want on their team. Ultimately, the races are about measuring an individual’s performance against the clock, said Hancock.

Although Hillberg has a modest 236-foot vertical drop, for the advanced skier, competition is a way to make a smaller hill fun, he said.

Fun is the whole purpose of the league, as noted in the team's bylaws. With different skill levels represented, each skier has somebody to compete with to shorten course times. Slower racers are encouraged to seek advice on tactics and techniques of faster racers.

"One of the reasons I came out here is to get better at turning," said Robert Kaye, an architect in the Engineering Division, who is mostly a backcountry skier at Hatcher's Pass.

He added that the wide and gentle slope at Hillberg gives skiers a good chance to hone their skills. Of course, there can be a little more to it than refining techniques.

"I can get some bragging rights," Kaye said with a smile. "Generally, it's a chance to get out with people I work with but not in an office environment."

He only wishes Hillberg were open more days. The 2008-2009 season hours were Friday through Sunday from noon-8 p.m. and some holidays, but the facility is closed when temperatures fall below minus 20 or if the Chinook winds stir a midseason thaw.

Intramural races are held Fridays from 5:30-7 p.m. After a few practice runs, three-person teams based on

ability level complete two timed runs on a slalom, giant slalom or super giant slalom course, the discipline rotated every two weeks. Elapsed times are displayed on a digital clock near the lodge.

"It's always fun and relaxing, and a good way to end the week," said

Chuck Livers, a civil engineer in the Construction Operations Division, who grew up skiing but whose participation has declined in the past few years. "It's a chance to be a fantasy ski racer. It's also good to know that I'm improving with the helpful assistance of the coaches."

Hillberg full of winter recreation

Hillberg Ski Area is one of the leisure activity centers the 3rd Services Squadron provides to active duty military members and their families as well as Department of Defense civilians at Elmendorf Air Force Base.

Besides beginner and intermediate slopes with a dual-chair lift, T-bar lift, ski tow and a half pipe terrain park on the south side, the north side of the hill is designated for sledding and tubing. Summit views are expansive with Cook Inlet spread to the west as well as renowned mountains poking into sight on clear days, including Mount Redoubt volcano and Mount McKinley, North America's highest mountain peak.

At the base of the hill, a spacious lodge houses a lounge with a fireplace, hot beverage and snack bars, pro shop and ski rental section, which rents a full package of ski or snowboard items as well as ice skates. Ski lessons are available by appointment based on instructor availability.

An ice skating rink, 2.5-mile groomed trail for cross country skiing or snowshoeing with equipment rentals at the Outdoor Recreation Center, ice fishing for rainbow trout and landlocked salmon at Hillberg Lake, snowmobile trails and occasional dog sled rides are all available in addition to downhill activities.

Hillberg's season lasts from late November to late March.—CB



Lt. Col. Bobby Stone, deputy district commander, turns past a gate during a Hillberg Intramural Alpine Ski Team race at Elmendorf Air Force Base Feb. 13. Three-person teams based on ability level complete two timed runs on a slalom, giant slalom or super giant slalom course, with the discipline rotating every two weeks during the eight-week season.



U.S. Army Corps of Engineers file photo

District flashback

Twenty years have passed since the tanker Exxon Valdez ran aground on Bligh Reef in Prince William Sound, less than two hours from the Valdez oil terminal, with a full load of crude oil March 24, 1989. The Exxon Valdez spilled nearly 11 million gallons of Alaskan crude oil into the sound. The resulting oil slick spread west across Prince William Sound and into the Gulf of Alaska. Oil patches from the spill were eventually sighted in the Shelikof Straits more than 300 miles from Bligh Reef. The Alaska District became an operational element of Joint Task Force-Alaska, which was mobilized to assist in the spill's cleanup. The task force formed a crisis management team and opened the Emergency Operations Center (EOC) April 6. Oil collected by small skimmers and fishing boats was contained in circles of boom material nicknamed "doughnuts." Oil and contaminated solids from the doughnuts were then pumped aboard two Portland District dredges—the Essayons and Yaquina—brought up in mid-April where the oil was stored in the dredges until it could be unloaded into barges. Neither dredge was equipped to work with oil, so drag heads were modified by reversing them to pull in oil from the surface of the water instead of using them in the traditional way of vacuuming up from a channel bottom. The dredges recovered nearly 380,000 gallons of oil, and the Essayons also stored and transported 180 cubic yards of contaminated solids collected from Shelikof Straits shoreline. The EOC operated for 65 days, most of the time staffed 24 hours per day, from April 6 to June 9, 1989.

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