

THE KWAJALEIN HOURGLASS

Volume 43, Number 18

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U.S. Army Kwajalein Atoll, Republic of the Marshall Islands



CMI-Gugeegue doors to remain shut through '03

By KW Hillis
Feature Writer

Instead of opening this fall, Gugeegue's College of the Marshall Islands education center won't open until the fall of 2004, according to officials this week.

The delay in reopening Gugeegue's CMI is due to a misunderstanding of what was needed to reopen an educational center versus a satellite or separate campus under the rules of the Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges or WASC, said Jonathon Cassel, Gugeegue CMI academics director. A Jan. 17 WASC letter outlined what the school

(See COLLEGE, page 3)

KRS takes over contract performance

By KW Hillis
Feature Writer

Kwajalein Range Services opened for business Saturday.

The company took over full performance from Raytheon of the now combined logistics and technical contracts on Kwajalein.

"I'm looking forward to improving the quality of life on the entire atoll -- Roi Namur as well as Marshallese communities," said Carmen Spencer, KRS president, adding with full performance came a sense of relief. "Now I can do strategic planning, prioritize everything that I want to accomplish over the next six months and now I have a complete staff of professionals, staff and workers to implement that plan. Basically, I've gone from staff of 50 to over 2,000."

Not only did the signs in front of each building on island change overnight from Raytheon to KRS, on Friday night there was a lot of transition activity up until midnight, said Travis Hensley Raytheon Transition Team manager.

Scheduled by the Finance Department, starting at 3 p.m., each community support operation closed out books, making the final deposits and turned over the operation and keys. Meanwhile Finance worked all night to 5 a.m. getting final reports out of KEAMS.

Information Technology people followed, changing the KEAMS system



(Photo by KW Hillis)

KRS President Carmen Spencer signs forms taking over nearly \$850 million in government property from Raytheon, Saturday, as KRS Contracts Manager Nick Perry looks on. The new contractor assumed full performance.

over to KRS, leaving a system for the closeout team to use.

"So that we could do our financials and our bill paying," Hensley said.

Raytheon officially handed over the proverbial keys for Kwajalein and trans-

ferred nearly \$850 million in government property to Kwajalein Range Services Saturday in the office of Earl Davis, RSE Supply and Transportation manager.

(See INVENTORY, page 9)

KRS opens new, safe era with full performance

By Carmen Spencer
KRS President

They say it is the beginning of a new era on Kwaj. Perhaps it is, but as KRS moves into full contract performance, it is probably an appropriate time to pause and reflect on where we have been and where we are going.

The last 16 months have been a real roller-coaster ride for almost everyone.

For those on the island, there has been anxiety, confusion and undoubtedly stress associated with trying to plan around a contract award which never seemed to happen.

While from my perspective, the excitement started when I was asked to lead and form a team to bid for the contract in September, 2000, 29 months ago. The Proposal Team has also experienced the anxiety of the delayed award, the short-lived elation of winning and mobilizing to Kwaj, only to be cut short by the protest.

Well, this roller coaster has certainly had its ups and downs. However, that is all behind us and today, 1 March, I'm excited but somehow humbled at the job ahead. Now is the time for KRS to really prove itself. Having said that I wish I could wave a magic wand and make everything



fine for everyone. However, many challenges lie ahead.

What do I see for the future? I see a period of adjustment, moving from a known organizational structure, to the "unknown" KRS. As with any new organization, there are opportunities to develop new roles, take up new challenges, acquire new skills and provide leadership to others. These are exciting times.

Now is the time for KRS to really prove itself. Having said that I wish I could wave a magic wand and make everything fine for everyone. However, many challenges lie ahead.

We are also seeking from you your ideas on how to make things better. We want to save the government and the tax payers' money by finding more efficient ways of doing business. Give us your ideas. In the next few days, we will be establishing a KRS Hot Line to listen to your ideas for making the entire atoll a better place to live, work and play.

For my part, I can promise a commitment to listen, to support, to provide stability, to facilitate continuous improvement, to make Kwaj the most sought after work location, improve the quality of Kwaj life and to expand the role of RMI citizens.

But commitment is not a one-way street and in return I ask something from you. What I need from you is a total commitment to personal safety. KRS can provide a safe work environment, training and personal protection equipment but if you do not make a personal commitment to safety, it will all be for nothing. In a small community such as Kwaj, we are all affected when "things go wrong." In order for this to be truly the best place to live and work in the world, it must also be safe.

Please join with me in committing ourselves daily to making Kwaj the best place to live and work!

Marshallese Word of the Day

bwe — why

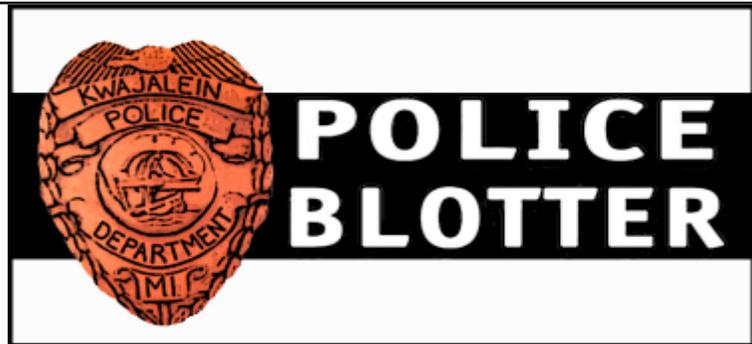
The Kwajalein Hourglass

Commanding Officer.....Col. Jerry Brown
Public Affairs Officer.....LuAnne Fantasia
Editor.....Jim Bennett
Associate Editor..... KW Hillis
Graphics DesignerDan Adler

The *Hourglass* is named for the insignia of the U.S. Army 7th Infantry Division, which liberated the island from the forces of Imperial Japan on Feb 4, 1944.

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Feb. 28

• 8:31 a.m. — Police responded to the Automotive CMP for a reported theft of a new 3.75 motor. An immediate search for suspects and or leads met with negative results. The investigation continues.

• 11 a.m. — Police responded and investigated a reported theft of various door signs at both the elementary and high school. The investigation is on-going.

• 7:06 p.m. — Police responded and assisted with traffic/crowd due to an electrical fire at the Coin Laundry Facility. The fire was due to a

faulty electrical outlet adjacent to one of the dryers. The fire was extinguished by the fire department and the facility was deemed safe to continue to operate. There were no reported injuries.

March 1

• 8:30 a.m. — Police responded to the vehicle gate adjacent to the Dock Security Checkpoint for a vehicle accident. Vehicle #1 failed to judge the proper distance while attempting to drive around vehicle #2, which was occupied and stationary. Minor damage was caused to vehicle #1 while vehicle #2 sustained no damages.

College must submit report and pass inspection ...

(From page 1)

needs to do before it could reopen: an extensive report with restrictive submission dates and a required WASC team visit.

The letter also stated that the Majuro campus had been put on probation. Classes are currently in progress at Majuro's CMI campus and plans for the coming fall and spring semesters are in the works.

Although the delay looks like it will give Gugeegue more time to get the education center in order, the delay will cause problems, Cassel said.

A pool of teachers and dean candidates are now waiting and, due to the additional wait, may get other jobs, he said.

"They may not be available when we can hire them," Cassel said. "The immediate problem is if there are sufficient funds to keep [Gugeegue CMI] skeletally staffed so that the necessary substantive change report can be produced, so there can be sufficient representation of CMI to

the Gugeegue community and so that appropriate courses can be completed and analyzed for our needs of this community."

With the Majuro campus under probation, they are too swamped with their own needs down there to focus on Gugeegue's needs, he added.

The letter was received about the same time that the WASC team arrived at Majuro's campus to conduct a reaccreditation investigation, Feb. 15-21. At the end of their visit, WASC officials broadcast an unofficial report of their findings over the radio. The unofficial report, with 11 recommendations, reinforced the probationary measures levied on the school.

"WASC has ten standards," Cassel said. "They feel that standard nine, involving resources: financial planning, management and stability, is the biggest standard the school is currently deficient in ... Part of it is accountability of the school itself, but the thing most out of compliance is financial

resources."

An English curriculum along with student learning outcomes, allowing the school to know exactly where a student needs help, is the second largest deficient area, Cassel said.

Both problems were documented during WASC's 1997 visit to the school and had not been resolved by the school.

"We will remain on probation for the next two years or more with major reports required and site visits required every six months," wrote Dr. Wayne Schmidt in a Feb. 27 e-mail to the *Hourglass*.

Both Schmidt and Cassel believe that the school will survive, but it will take a lot of work.

"During the WASC visit, the team leader Dr. Robert Harris, told me that this institution as a whole cannot survive if there is not more community involvement or community support," Cassel said. "I believe that CMI needs to be very accountable and the government needs to have a larger education budget."

Bush speaks of American aid to Iraq

By Jim Garamone

American Forces Press Service

WASHINGTON - The safety of the American people depends on ending the threat that Iraqi weapons of mass destruction poses, President Bush said during his radio address today.

But beyond ending the threat, America will advance the cause of freedom and opportunity in the region, he said.

Bush said that Iraqi lives do not matter to Saddam Hussein, "but they matter to us."

While the president has not decided on whether to use force against Iraq, he spoke of what the United States would provide to help rebuild a post-Saddam country, and what a free and democratic Iraq would mean to the region and world.

If it comes to war with Iraq, the United States and its coalition partners stand ready to provide vital help. "We will deliver medicine to the sick, and make sure that Iraq's 55,000 food distribution sites, operating with supplies from the oil-for-food program, are stocked and open as soon as possible," he said. "We are stockpiling relief supplies, such as blankets and

water containers, for 1 million people. We are moving into place nearly 3 million emergency rations to feed the hungry."

In addition, Bush said, the United States and the United Kingdom would provide millions of dollars to the World Food Program, a United Nations group that calls itself "the frontline agency in the battle against global hunger," and UNICEF, a major worldwide U.N. children's support organization. The two countries will also work with the United Nations High Commissioner for Refugees.

The United States would lead efforts to find a destroy Saddam Hussein's stockpiles of weapons of mass destruction and ensure that groups do not take advantage of the chaos to further their own ends, he said.

Bush pointed out that rebuilding Iraq would require a sustained effort from many nations. If it comes to war, the United States will not stay in Iraq one day longer than it needs to. "America has made and kept this kind of commitment before - in the peace that followed World War II," he said. "After defeating enemies, we did not leave behind occupying armies."

Jeramon non kom

Jeramon non kom is the Marshallese way to say "Good bye and good luck, friends."

Chuck and Marlene Roberts departed March 1 after 15 years on island. They moved to Satellite Beach, Fla.

"It has been a wonderful 15 years of making great friends and a super workplace," they said. "We will miss the island and all of our co-workers. Kommol tata to our Marshallese friends for making this a special place. We are in the phone book in Brevard County if you're in the Florida neighborhood."



Space and Missile Defense remains a command

By Debra Valine

The Eagle, U.S. Army Space and Missile Defense Command

Secretary of the Army Thomas E. White announced Jan. 30 that the U.S. Army Space and Missile Defense Command will remain unchanged as a major Army command, or MACOM.

USAKA/RTS is an installation of SMDC.

The announcement is the result of continuing efforts by the Headquarters, Department of the Army Realignment Task Force that Secretary White established June 25, 2001. The Phase 2 and 3 task forces were established on Jan. 8, immediately following the announcement of the final Phase 1 decisions. The two task forces, consisting of about 30 senior civilians and military members of HQDA, looked at all aspects of Army agencies and MACOMs to include: acquisition, headquarters management, logistics, operations, training, intelligence, requirements development, resource management, external affairs and civil works.

While SMDC, as a major Army command, will remain unchanged, its missions and scope are changing.

"There is a lot of change out there on the horizon," said SMDC Commanding General Lt. Gen. Joseph M. Cosumano Jr. at the Jan. 24 U.S. Army Space and Missile Defense Association luncheon in Huntsville, Ala. "I have a new boss and he is no longer in Colorado Springs. He is Adm. James Ellis in Omaha, Neb. We are the Army component to U.S. Strategic Command."

STRATCOM, which is commanded by Ellis, is one of nine U.S. unified commands under the Department of

Defense. It was formed in October 2002 when the former U.S. Strategic Command was disestablished and the new U.S. Strategic Command was established through a merger with U.S. Space Command. U.S. Northern Command also was established in October 2002, for the first time assigning a combatant commander responsibilities for Homeland Defense, including the air and missile defense of North America.

STRATCOM is responsible for:

- A global strike capability, conventional or non-conventional; air, naval or ground forces; able to respond anywhere in the world within hours or days rather than weeks and month;

- Planning and integration of global integrated missile defense requirements and operations, offensive and defensive;

- Strategic information operations campaign planning and information operations requirements, as well as computer network operations;

- Space operations including launch and operations, satellite operations, as well as coordination and integration of space control and force application missions in support of other combatant commands.

- A globally focused command and control, communications and intelligence, surveillance and reconnaissance, or C4ISR, network will tie the missions together.

The new mission areas are global in nature and include global strike, space operations, integrated missile defense, strategic information operations, and C4ISR.

"Our community had been dealing with missile defense and space technology," Cosumano said. "The operations are broader now. We have yet to define our responsibilities in our new missions. We are looking at the size of SMDC and Army Space Command, and looking at the types of organizations we need to migrate to. We have a full operational date of Jan. 1, 2004."

While operational missions grow, SMDC will continue its research and development, combat development, proponenty and other traditional missions.

"It is important to point out that our present RD&A and combat development roles will continue, in fact will probably grow," Cosumano said. "Over-

U.S. Strategic Command (all armed services)	
U.S. Army Space and Missile Defense Command	
U.S. Army Kwajalein Atoll and Reagan Test Site	

USAKA/RTS is an installation of SMDC.

sight of requirements and technology developments in the services is part of the STRATCOM mission, and keeping that synergy in place here at SMDC only makes sense. The SMDC technology base is key to developing state-of-the-art space and missile defense systems and will continue to be in any configuration SMDC takes."

Realigning the mission and scope of SMDC will not come without challenges.

Support to the nation's war on terrorism is a given, Cosumano said.

"Army Space Command and SMDC soldiers have been deployed since almost Day 1, and will continue to support the warfighters in the area of operations as well as from Colorado Springs," he said.

Stand-up of the Pacific Test bed capability, in coordination with the Missile Defense Agency and the other services, including the ground-based portion at Fort Greely, Alaska, will also proceed.

"This test bed will not only give us a more robust, realistic testing environment, but will also have an emergence operational capability, if needed, probably by the end of 2004," Cosumano said.

The Mobile Tactical High Energy Laser has progressed far enough, Cosumano said, that it is about to transition over to the Program Executive Office, Air and Missile Defense. And two major Advanced Concept Technology Demonstrations were approved for 2003, and both have promise as technologies that can support transformation.

"This test bed will not only give us a more robust, realistic testing environment, but will also have an emergence operational capability, if needed, probably by the end of 2004."

— Lt. Gen. Joseph M. Cosumano Jr.
SMDC commanding general

Looking Ahead

Commander outlines Strategic Vision

Introduction

A few months ago, at a Town Hall Meeting, I promised to get back to the community and explain my vision of the future for USAKA/RTS. Well, we've worked hard over the past few months refining ideas, validating them with our customers, and presenting them to our bosses, and all indications are that we are on the right track. I want to share this important vision of the future with all of you not only to provide information, but also to solicit your support for making the vision a reality. As I hope you'll see, challenging and exciting times lie ahead of us. So, pull up a chair, pour a cup of your favorite beverage, and join me on a journey into the future.

Our Vision

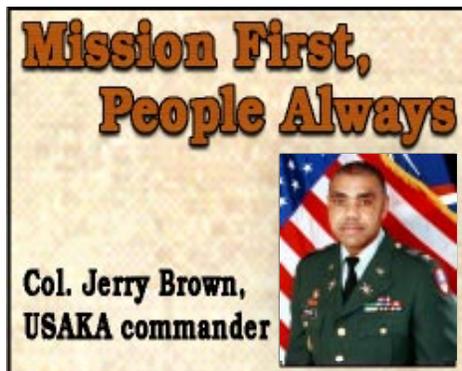
I'll give you the punch line up front. It's really quite straightforward. Our vision is to continue Kwajalein's heritage as the premier national test range providing full support to ballistic missile testing and space operations efforts. It includes significantly increasing our level of support in the three components of testing, training, and operations and maintaining our leadership in technology development to enable missile testing and space operations.

Our Mission

Any reasonable plan for the future begins with a good understanding of the starting point. Why are we here? What do we do? In the military, the answers to these questions are contained in the organization's mission statement. The USAKA/RTS mission is captured in four parts.

First, and foremost, our mission is to provide a comprehensive missile system testing environment for our RTS customer. This is the mission for which we are best known. We have a long history of making significant contributions in this area and we plan to maintain that tradition. However, we also believe there is an excellent opportunity to significantly expand our role and contributions in ballistic missile testing, but more about that later.

The second component of our mission, but certainly not second in terms of its importance, began in 1982. We provide Space Operations and Surveillance as the primary Army component in support of U.S. Strategic Command, or USSTRATCOM. We



also have some innovative ideas about how we can expand and improve our support in several areas of importance to our Space customer.

The third part of our mission is to represent the military commander of Pacific Command in the Republics of the Marshall Islands and Kiribati. Our goal is to develop a relationship of competent coalition partners with a mutual understanding of the defense and economic benefits accrued to both nations through the continued operation of USAKA/RTS in the Marshall Islands.

The final part of our mission is to operate a community of excellence and sustain a quality workforce. Let's take those in reverse order. Without exception, when I speak to customers and visitors to USAKA/RTS, they tell me that they come here to conduct tests because our people provide an unmatched capability. Experienced, competent, and professional are just a few of the characteristics that describe our workforce. These qualities extend to the community as a whole and are evidenced by the warmth and hospitality you extend to everyone. I've experienced it myself. The people here, you, are the most valuable resource we have. Technical competence, professionalism, and hospitality – a difficult combination to beat! The challenge we have as an organization is to create and maintain an atmosphere, or quality of life, that is attractive to people like you. We know that this last element of the mission is very important to the people who work at USAKA/RTS as well as their spouses and families and there are some exciting developments in this area of the vision.

Put quite simply, the first two components of our mission address the work we do and, to some extent, how we do it. The third element addresses our relationship with our neighbors in the

region, and the fourth element ensures that we attract and maintain the quality people we need to do the job. Our vision integrates the four mission parts into a complementary plan for the future.

A History of Technology in Missiles and Space

It's a fact. There is only one place to go for full-envelope, ballistic missile testing and unparalleled space surveillance support, USAKA/RTS. Why is that? I've already addressed the importance of the quality of our workforce. However, there is another aspect of our operation that sets us apart from other range operations – *technology development*.

Technology developments have been, and will continue to be, at the core of what we do best at USAKA/RTS. Our heritage of support for ballistic missile testing goes back more than forty years. During this period, RTS data on more than 500 reentry tests has been collected and analyzed, supporting the development of missile technology and our nation's understanding of the physics and engineering associated with ballistic missile defense systems and sensors.

Without going into the details, here are three examples of our technology development contributions. *Special ways that energy is transmitted* (radar engineers call these "waveforms,") by radars on the Navy's Aegis cruisers were first demonstrated and validated on RTS radars. *Target classifiers*, which use sensors and computers to identify incoming objects and which are essential components of any defensive weapon system, were developed and continue to be refined using data from RTS tests. Finally, *high resolution imaging technology*, first demonstrated at RTS, is now being built into the Theater High Altitude Area Defense systems and Ground-based Radar. These are just three examples of many advanced techniques and algorithms, or computer "recipes," developed and tested under live-fire conditions at RTS, that are being incorporated into the nation's newest defense systems.

It's important to understand the role that range instrumentation sensors play in technology development for weapon system sensors. Our sensors, especially the newly modernized ones, are inherently more flexible for installing and validating new technologies than

Looking Ahead

are the objective, or operational, weapon system sensors. Our sensors can host test beds, you'll also hear them called "sidecars," as resources for developing new technologies and algorithms. Once tested and validated under live mission conditions at RTS, new techniques and technologies can be fed into development and upgrade programs for the nation's weapon systems. A cornerstone of the USAKA/RTS vision is implementing these technology test beds.

The Changing Environment

Thus far, we've addressed the USAKA/RTS mission and history, what we do today and how we got here. You may be thinking, "Okay, we do important work for the nation, we have a quality workforce, and Kwajalein is a nice place to live. So, why disturb a good thing? Do we really need to change anything?" These are excellent questions. Consider the following:

The simple fact is that our environment is changing on many levels. The changes are everywhere. *On the local level*, many of you are bidding farewell to friends and co-workers as we work through the contract transition from Raytheon Range Systems Engineering to Kwajalein Range Services. This is yet another change in the environment. I'll point out that many military families maintain an interesting perspective on Permanent Change of Station. They consider it an opportunity to widen their circle of friends and acquaintances beyond the existing boundaries. I strongly encourage you to continue to extend your signature Kwajalein hospitality to new co-workers and their families and thereby widen your own circle of friends. Social relationships are an important part of the quality of life here at Kwajalein for both our workforce and their families. Organizations can provide the facilities and infrastructure necessary to enjoy a good quality of life and we will address those shortly. However, the people themselves provide the wholesome atmosphere, vitality and small-town spirit we enjoy at USAKA/RTS.

On a regional level, we also see the environment changing. The U.S. government is currently renegotiating the Compact of Free Association, the treaty between the governments of the Republic of the Marshall Islands and the U.S. The Compact determines how much grant assistance and other forms of financial aid are provided to the RMI. The intent is for the government of the RMI to set enough aside during this 20-year period in a self-sustaining trust

fund so that no further negotiations to the Compact will be required, and U.S. contributions to the RMI in the form of economic grants will cease after 2023.

The Military Use and Operational Rights Agreement, or MUORA, with the government of the RMI dictates the terms by which the U.S. Government maintains the right to operate RTS, including the determination of land payments. The current MUORA does not expire until 2016, but there is a proposal under consideration that would extend it to 2066, with options to extend it another 20 years beyond that to 2086. These actions signify stability and a long-term commitment from both parties. Renegotiations of such legal agreements have provided the opportunity to evolve the basis of our relations with our Marshallese neighbors.

**“To be the best:
a premier national
asset providing full
support to ballistic
missile and space
efforts ...
operations, testing
and training.”**

— USAKA Strategic Vision

Finally, *on the national level*, the changing environment is obvious on the evening news. Two of these changes are related to an increasing threat, missile (and weapons of mass destruction) proliferation and the growing concern for global terrorism. Missile proliferation continues to be a growing concern. In 1980, nine countries had a ballistic missile capability. By 2000, that number had grown to 28 and the number continues to grow. Perhaps more importantly, the capabilities of these systems have increased significantly. New delivery systems are being developed that extend the flight ranges and effectiveness of those systems and the recent situation with North Korea's nuclear capability clearly underscores the growing threat. In the area of space operations, the threat is also increasing. Electronic jammers and high-resolution imagery pose a

threat to our forces in the field. The capability to build and launch low-cost, capable, small payloads imposes additional requirements on surveillance sensors in the

form of increased sensitivity and resolution. RTS sensors can provide additional capabilities to mitigate these threats.

In response to these increased threats, the President has created a new government agency overseeing homeland defense, has directed the realignment of the DoD organization, and has withdrawn the U.S. from the 1972 Anti-Ballistic Missile Treaty. In his January 2002, State of the Union Address, President Bush stated, "The United States of America will not permit the world's most dangerous regimes to threaten us with the world's most destructive weapons."

In the area of space operations, this statement has led to the identification of activities in space as critical to national security and the economic well being of the nation. In time of conflict, U.S. freedom of action in space will be essential. A similar response from the Missile Defense Agency has given birth to the concept of the Ballistic Missile Defense System, or BMDS, Test Bed. Both of these responses contain a central requirement for an integrated and unified infrastructure to support the development of a robust testing environment.

Our future vision accommodates these environmental changes in a new and realistic way, exploiting and expanding our capabilities to support enhanced testing, training, and ultimately, to become a major operational contributor to our national defense.

Strategy

Our vision for the future is based on a strategy that keeps what is best at USAKA/RTS and evolves additional capabilities that are aligned with the new national priorities. Where possible, we are attempting to accommodate the challenges and transformations not only at USAKA/RTS, but also in the entire missile defense and space operations community. Accordingly, our vision involves transforming our space and BMDS support and growing our test capabilities. These changes require a major shift in our thinking to achieve a more integrated support organization.

To address how we get from where we are today to a desired end state, we use the streamlined acquisition model of spiral development. In this model, we continue to develop a system's capabilities while simultaneously using

the operational capabilities available at major incremental steps in the development. This may sound a bit complicated, but its really rather straightforward.

Consider the case of the BMDS. We understand that the desired end state for this system includes the global protection of the U.S., its allies, and its friends. If we set out from the start to reach the end state, we forego the potential use of incremental capabilities that may be available along the development path. For example, the technology may not be mature enough to support some function required of the end state system. Rather than have no operational capability, spiral development lets us take advantage of the technology as it becomes available to evolve a system's capabilities in an efficient and practical manner.

To provide for spiral development of the BMDS end state, the Missile Defense Agency, our customer, is establishing a Pacific Test Bed. We call the Test Bed an "enabler" because it facilitates evolution of the system toward the end state. The Test Bed will consist of an integrated set of components that are widely dispersed, primarily throughout the Pacific. Since the Test Bed will support evolution of an integrated, layered missile defense system that is effective against all threats, *it will require expanded test boundaries far beyond those of a single, existing test range.* Range sensors will need to be augmented by additional mobile resources to provide full mission coverage. Joint mission support and interoperability will be required. The Test Bed will provide for operationally realistic testing of prototypes of and surrogates for the BMDS elements, as well as the necessary command and control infrastructure. In this setting, we believe that USAKA/RTS can be a key element of the Pacific Test Bed and a leader in achieving the BMDS end state.

There is an architecture being developed for space operations that brings together U.S. ground, air and space assets in a unified manner to enhance force protection and to address the growing counter-space threat to our nation's space assets. Our goal is to make USAKA/RTS a central component of the future space vision and to leverage our strategic location and world-class sensor capabilities to expand RTS support and contributions. We believe that RTS can play a more active operational role, particularly as the U.S. develops a counter-space

Looking Ahead

capability. Such a capability will require the conduct of joint exercises and simulations to demonstrate readiness. Satellite launch facilities at RTS could be employed in a counter-space role to launch payloads as part of an operational mission.

In both the BMDS and space operations areas, you may have noticed that we mentioned realistic training several times already, and it is certainly true that training capabilities must grow as U.S. defensive systems evolve to handle the increasing threat. Future training must be conducted as realistic, joint force exercises to assess mission readiness. Furthermore, inter-operability and battle management, or command and control, will become critical readiness elements.

A four-part mission

- Provide a comprehensive missile system testing environment
 - Support space operations and surveillance
 - Represent Pacific Command commander, in the Republics of the Marshall Islands and Kiribati
 - Operate a community of excellence and sustain a quality workforce
-

The challenge ahead is to more fully integrate our test assets, support agencies and the armed services. This, in turn, will lead to standardization of systems and processes, increased interoperability and the capability to support joint operations. The ultimate goal is to develop integrated systems capable of supporting multi-service testing, operations and training. This end state requires the addition of mobile assets and expanded communications.

Dismantling the "stove pipes" and barriers that have prevented a fully-integrated, inter-service testing environment in the past is a major challenge, one that will require advocacy and support at the highest levels of Department of Defense.

Are you still with me?

The Way Ahead

We've covered a lot of material to this point, so let's take a moment to recap. After a brief statement of our vision for the future, we reviewed the four parts of the USAKA/RTS mission, missile system testing, space operations, RMI interactions, and community of excellence and quality workforce. Then, we highlighted the changes in the environment at the local, regional, and national levels, that help to guide our vision of the future. Next, we reviewed the strategy for transformation from where we are today, to where we want to be in the future. In this section, we'll present some of the specific plans for the future. These plans include exciting changes that affect not only the technical parts of our mission but that also directly affect our quality of life here on Kwajalein.

Mission

There are many changes on the horizon that affect our technical operations at USAKA/RTS. Remember that because of the nature of the BMDS tests, the Pacific Test Bed we discussed earlier must be capable of supporting tests beyond the boundaries of a single test range, that is, multiple ranges must be able to work in a cooperative and coordinated manner to support the tests. The implications are clear. To provide full test coverage for the MDA Pacific Test Bed and ultimately, the BMDS, as a test community we must make significant strides in developing common systems and common processes. We have recently completed several technical projects that will be leveraged to make the transition to more standardized systems a reality. Other technical projects of this nature are ongoing. These modernization projects strongly leverage the concepts of automation, standardization, commonality, and consolidation, and could serve as prototypes for similar systems needed by other ranges that make up the Pacific Test Bed.

We have a new agreement with the Missile Defense Agency to provide funds for several long overdue Meck Island projects including upgrading the power system, replacing the fire station and correction of fire protection deficiencies. Our facilities on Meck Island provide our customers unique capabilities and we need to ensure that the infrastructure will be able to attract new initiatives.

One of the drawbacks associated with our remote location is our off-island connectivity, or bandwidth. Some of

Looking Ahead

you may remember the days when mission data was captured on a large number of data tapes and film reels, and subsequently flown off-island via couriers.

Long-distance phone calls had to be scheduled and there was no Internet connectivity. Thanks to satellite communications, those days are behind us. However, we are rapidly outgrowing our current off-island satellite bandwidth capacity. We are in the process of upgrading our satellite bandwidth to a DS-3 level of service next month. By comparison, this upgrade will provide 2.6 times the currently available total off-island bandwidth. This increased capacity opens the door to many other exciting opportunities. High speed Internet access is an enabler for many educational, medical, and entertainment services that have community as well as technical applications. For the long term, fiber optic cable connectivity is being explored as a follow-on upgrade.

Quality of Life

We have discussed our road ahead concerning the mission. Now let's address plans for our Marshallese neighbors and the Kwajalein community. In the area of relations with the RMI, we are pursuing the establishment of combined U.S. and RMI training and education programs. The development of organic RMI search and rescue capabilities, and the capability for RMI National Police to respond to disasters are being encouraged to promote self-sufficiency. The provision of goods and services by RMI businesses can potentially reduce costs to USAKA, increase self-sufficiency, add to the local job skills base, infuse money into the local economy, and improve our quality of life. In the future, we will see fresh fish and tuna in our stores on Kwajalein and Roi-Namur and more services typically found in small towns and cities. There are unique opportunities for us with the close relationship we've developed with our host nation and we plan to take advantage of these in the future. The Marshallese already export fresh fish and tuna to the U.S., Japan and other countries...why not Kwajalein?

Besides the increased availability of fresh food I just mentioned, our stores will have greater selections and much larger inventories at much lower prices. In fact, we intend to reduce the need for so much off-island shopping. Of course, my wife, Jane, tells me the spouses will always come up with a reason to go off-island to shop... I say maybe so, but I want them to have to use their imagination.

I am committed to ensuring our "Kwaj kids" receive an education comparable to the best schools on the mainland. I will look at the needs of our schools to ensure that they have all the supplies and equipment they need to include a vehicle for driver's education classes. Yes, I plan to bring back driver's education classes to the high school.

In the next few months, improved off-island connectivity will increase quality of life in two ways. Recently, we purchased equipment that will increase the television channel selection to up to 30 channels. You have seen the crews digging trenches in the housing areas that are part of a plan to provide high speed internet access in all our homes. With the DS-3 upgrade, we'll see

"Multiple ranges must be able to work in a cooperative and coordinated manner."

— Col. Jerry P. Brown on the proposed Pacific Test Bed

immediate improvement in internet access speed in just a few months.

As you bike around Kwajalein, it's easy to see many new projects underway or recently completed. Book fans are enjoying the addition to our library while bachelor residents will soon be trying out recipes at the new kitchen in the adult recreation center. While less visible, the \$800,000 repair to the airfield, splendidly executed by our in-house workforce, will tide us over until we need to overlay the entire runway in a few years. Even our canine friends will enjoy a new home as the working dog kennel is completed this month.

Near the small boat marina, work has commenced on a new cold storage warehouse. Another Corps of Engineers project, renovation of the Ocean BQ, will complete the upgrade of all of our permanent party unaccompanied quarters. Work should begin this spring on a large refurbishment of the fuel pier. Renovation of our Navy Housing continues. This project transforms our 1950-era homes with needed repairs, central air-conditioning, a new bathroom, a covered lanai and a complete new kitchen. We will con-

tinue to invest about \$3M each year until all the Navy quarters are completed. Then we will begin to refurbish our "new" housing.

We haven't forgotten Roi-Namur. Projects recently completed include street light replacement and new water and fuel lines to the docks. We plan to repair both the Tradewinds Theater and the dock shelter at the end of the pier. We will install new water storage tanks and a special charcoal filter system later this year. A recent study indicated the need to repair or replace Roi's fuel pier and we are evaluating the options.

Even with these projects, we must invest more in our infrastructure. We have top-notch people and cutting edge technology housed in facilities that remind me of our bases in Europe in the 70's. I am confident we can leverage our mission to obtain the necessary resources to upgrade many of our rundown facilities.

I plan to start with the Pacific Bachelor Quarters, or PBQ, our infamous Building 708. In the short term, we will remove the scaffolding and seal the exterior to slow down further deterioration. Then, we will turn the PBQ into a multi-functional facility with modern transient billeting, office areas for many of our organizations that currently reside in failing structures and the new home for the USAKA Headquarters. The recent congressional staff delegation voiced support for this Multipurpose Command and Administration Facility.

We still have people living in trailers! This is unacceptable. They have served their purpose as temporary housing and we will replace them. I am excited about a private sector idea, similar to the Army's Residential Community Initiatives. Both Congress and entrepreneurs have discussed plans to build 200 new homes that would be leased by USAKA. They may be more domes or another type of innovative design. I know we have the congressional support to make this happen.

You can see that we have been focused on the plans and implementation necessary to make our vision a reality across all four parts of our mission. We will invest in our infrastructure so that Kwajalein is not only a great place to test... it is even a better place to live. I hope you sense and share my enthusiasm and excitement about the USAKA/RTS prospects for the future. We have a superb legacy of past success and the challenge of a rewarding future ahead of us. Please join me on the journey. Hooah!

Army to realign major commands, agencies

From the Army News Service

WASHINGTON — Five major commands will report directly to Department of the Army staff principals under a realignment announced earlier this year.

The realignment of major commands and field operating agencies will create a new position on the Army staff — the provost marshal general — and the Criminal Investigation Command, known as CID, will report directly to the new staff officer.

The Military District of Washington will become a direct reporting unit to the Office of the Army Chief of Staff.

Medical Command will become a direct reporting unit under the Army surgeon general.

The Intelligence and Security Com-

mand, known as INSCOM, will report directly to the Army's assistant chief of staff, Intelligence/G2.

The Army Signal Command will be realigned under the U.S. Army Network Enterprise Technology Command. NETCOM will report directly to the chief of Information Operations/G6.

U.S. Army South, or USARSO, will continue moving to Fort Sam Houston, Texas, from Puerto Rico and will continue supporting the joint U.S. Southern Command, officials said, although it will report to Forces Command under the realignment plan.

Preliminary decisions about the realignment of other MACOM headquarters have been made, officials said, but details will not be released until the

rate better business practices and organizational concepts that have proven successful in major corporations, White said, adding that it will optimize the use of technology.

The realignments are also designed to improve the control of resources and thereby provide tangible benefit to Army commands, installations and ultimately soldiers and their families, officials said.

Most of the initiatives, including those for FOAs, will be begun next fiscal year after the affected organizations develop and submit implementation plans for approval, Army officials said.

The approved initiatives are designed to streamline decision-making processes and achieve efficiencies, officials said.

Inventory accurate; RSE, KRS switch places ...

(From page 1)

KLS President Carmen Spencer, KRS Contracts Manager Nick Perry, RSE Site Manager John Wallace, RSE Contracts Administrator James McMahan, Davis and U.S. Army Space and Missile Defense Command Contracting Officer Carol Benton signed the documents transferring the accounts from one company to the next.

Since December, Davis and a large team from both RSE and KRS inventoried, researched and compiled the property listings. The total property was broken down into six different categories: KLS real property, \$533,680,645; IRE tagged equipment, \$125,796,983; IRE material, \$22,667,507; KLS tagged equipment, \$100,554,157; and spare parts for 1900D aircraft, \$484,916.

Davis, said the IRE and KLS physical inventory accuracy was 95.49 percent and physical location accuracy was 97.99 percent. Tagged equipment accuracy was 99.83 percent.

"With millions of dollars you can't get much better than that," said Davis, who was on the team accepting the government property when the contract was turned over to Raytheon eight years ago. "When the property was turned over eight years ago, it was only 34 percent accurate."

Signing completed, Davis unceremoniously handed the single master key to Perry, giving KRS access to 47 warehouses on island.

"On behalf of Raytheon I want to wish you guys the very best," Davis said. "I know that you will find the account in a fairly decent order."

Pleased with the inventory accuracy and the cooperation between KRS and RSE over the last few months, Spencer voiced KRS' appreciation.

"We were very, very pleased with the conditions of taking things over. We appreciate everything that you've done. It has been very difficult and stressful for all of us, on both sides, and we're very, very appreciative," he said.

Saturday was also a day for good-byes as 83 people PCSed, making a total of 190 over the last six weeks, Hensley said.

Meanwhile around 60 new residents have arrived and about 100 more are coming in over the month of March, Spencer said.

But there are still some people left on island, who will depart over the next few days to few months, according to Hensley.

"There are two kinds, the closeout team or roughly 30 people who will probably be here through May ... [and] people who would have gotten out March 1, but were detained because of a packout or some other issue," Hensley said. "There are 15 or 20 people who would have left earlier if we could have gotten them off."

The closeout team, led by Rick Grant, is responsible for financial matters such

as reports, closings, payroll, final billings and paying bills, he said. Also on the closeout team are Human Resource people, led by Jack Riordan, to help with travel arrangements, expense reports and worker's comp issues.

"It's just a myriad of things ... There are so many loose ends, it just goes on and on," Hensley said.

Some of the people who are seen around Raytheon offices won't be leaving.

"A lot of people are working for KRS and helping us on their off-hours as casual employees," he said.

KRS and Raytheon switched buildings too, with the closeout team moving to buildings 905 and 1762.

"It was all done in advance; it wasn't a two-hour switch," Hensley said. "Pretty much all day yesterday we were moving in and all day the day before they were moving out of here. That is kind of the way it was everywhere on island."

The U.S. Army Space and Missile Defense Command announced in September that KRS had won the contract award, beating Raytheon and Northrop Grumman. KRS officials arrived on-island in early October, shortly before Raytheon and Northrop Grumman both protested the win. The General Accounting Office settled the protest in favor of the Army award in January, setting up Saturday's transfer date.

USAKA currently has the following job vacancies. For application information and announcement paperwork, call Cris Foster, USAKA Civilian Personnel, 54417.

GENERAL ENGINEER, GS-0801-13. Directorate of Public Works. 24-month overseas tour. Closes March 20.

TELECOMMUNICATIONS SPECIALIST, GS-0391-13. Directorate of Information Management. 24-month overseas tour. Closes March 20.

GENERAL SUPPLY SPECIALIST, GS-2001-12. Directorate of Logistics and Community Activities. 24-month overseas tour. Closes March 20.

WANTED

DONATED PLANTS for BQ garden project; white or green plastic lounge; tent awning with trellis on the corners. Call 54826 and leave a message.

TRAILER for kayak or windsurfer. Call John, 51704, or leave a message.

FOLDING SEAT/BED FRAME for single-size futon. Call 56871.

8'-12' DINGHY or boat to be used with a small outboard motor to bottom fish in the lagoon. Will pay premium for a nice rig. Call 53382W or 53670H.

LOST

AUTUMN'S HAT, crocheted off-white cotton with pink trim and flower, a family favorite; two pairs of flip-flops, size 27-28, "Havianas," one pair pink, one white. Call 53489.

FOUND

SILVER NECKLACE at Emon Beach. Call 52357.

WATCH near high school MP room. Call Sarah, 53740W or 51713H.

PATIO SALES

TOMORROW and Thursday, 8:30 a.m.-12:30 p.m., Qtrs. 126-C. Final PCS sale. A little bit of everything. Come get it before we pack it out.

FOR SALE

GEORGINA, 36' MacGregor catamaran, 22+ knots, full complement of good sails including spinnaker with chute and pole, 10 hp Nissan, fresh water shower, close-in mooring, water ready but now on the hard with mooring for inspection at lot #20, current bottom paint still excellent if relaunched soon. Perfect for partnerships. \$15,000. Call Swatek, 53750.

LA-Z-BOY blue rocker/recliner with massager, less than one year old, \$450; small microwave oven, \$10; electric Craftsman weed wacker, \$25; Sun aluminum

Small Arms Range Notice

The small arms range will be in operation tomorrow, 8 a.m.-noon. Avoid the hazard area shown below.

All watercraft must observe the red flags on the southwest end of the island.



adult bicycle, \$60; Hoover upright self-propelled vacuum cleaner, \$50. Call 54377.

PIANO, \$250; light blue recliner, \$100; blue recliner, \$200; leather recliner, \$300; tan sleep sofa, \$400; bookcases, \$10-\$15; TV tables, \$10; weight set, \$150; grill, \$75; fishing gear: 9/0 standup, 10/10 standup; complete Scuba Pro dive set. Call 51546.

WOMEN'S SHORT internal four-speed bike with new shifter, \$80; men's tall internal four-speed bike, \$100 or best offer. Available March 7. Call 53750.

12" BOY'S bike, good condition, like new, \$25; Radio Flyer reproduction tricycle, very good condition, kept inside, \$25. Call 52262.

METAL FRAME queen-size futon sofa, \$250; fence, \$150; Jackson electric guitar with hardshell case, \$300; solid wood entertainment center with lights in top section, smoked glass shelves, \$250; black halogen CD holder lamp, \$20; black halogen lamp, \$10. Call 54553.

LOVESEAT, two recliners, entertainment center, computer desk and chair, bookshelves, TV, rugs, microwave, work bench, Rubbermaid storage shed, patio furniture, plants. Call 52115.

FINAL PCS SALE. Plants, bread machine, food processor, cassette deck, dishwashers, microwave, king-size sheets and bedspread set, valances, blinds, ceiling fan, TV cart, beach chairs, suitcase, snorkel gear, iron, halogen bulbs, indoor spotlights, VCR, CD player, receiver. Call 51361, days, or 51175, evenings.

PANASONICS-VHS Hi-Fi stereo VCR, only used a few times, all original items in box, \$60; music stand, metal, pro model, adjustable height, non-folding, \$20. Call 53368.

KWAJ BIKES: 26" ladies' bike with basket, \$10; boy's 20" bike with basket, \$10; two-drawer metal file cabinet, \$10. Call 52589.

PC E-MACHINE, 1.3 Ghz plus CDRW, 17" Dell monitor and Cannon printer, new, still in boxes, \$800 or best offer; 20" Sony TV, \$150; Sony VCR, \$75; microwave, \$75; Sony surround sound system, \$150; 9' x 12' blue area rug, \$50. Call 52574H or 51799W.

PLANT STAND; double-wide jogging stroller. Call 51919 or 51946.

BOAT #222, KAINALU, 27' Yamaha boat with twin Honda 90 hp engines, perfect for diving, fishing, long-distance and overnight trips, includes boat house and all contents, freezers, refrigerators, air-conditioning, loads of fishing equipment, tools,



DoD show featuring the magic of Eric Anderson and the music of Arthur Lee will be March 15, 7 p.m., at the Richardson Theater

In the spotlight

March 16, Roi-Namur, 7 p.m.,
in Tradewinds Theater

Marshallese Cultural Center will hold an open house for Ebeye workers Friday, 11 a.m.-1:30 p.m. A light lunch will be provided by the Marshallese Cultural Society.

dive gear. Boat house and overhead structure recently restored/painted. Call Trudy, 52245.

27" GE COLOR TV with remote, \$200; JVC VCR picture-in-picture, \$175; solid oak upright TV/VCR entertainment unit, TV opening 29" wide x 22" high, \$275; Fisher Price doll house with accessories, \$40. Call 53276.

COMMUNITY NOTICES

VOLUNTEER TAX personnel are: Annette Barnhill, 51508; Marlene Elliot, 50779; Carol Ehart, 53340; Tien Pham, 52223; Bill Riley, 50079; Chris Hansen, 51419; Kent Duncan, 51462.

HIGH SCHOOL Choir and Band Concert will be Thursday, March 13, 7 p.m., in the MP room.

AUTOMOTIVE SERVICES is providing island wide shuttle service for GT-32PA mission personnel. The service will provide transportation to all areas of Kwajalein. Shuttle support is available immediately 24 hours per day, seven days per week until the end of the mission. For service, call 53341, 6 a.m.-9 p.m. After 9 p.m., call 59669.

DURING FORCE PROTECTION Bravo, badges must be

worn at all times when outside your quarters. They must be visible at all times. They are not to be kept in backpacks, purses or wallets.

OPTOMETRIST will be on island March 25-April 8. To make an appointment, call 52223 or 52224.

INNERTUBE WATER polo managers' meeting will be Thursday, 6 p.m. at the family pool. Bring registration fee of \$150 and team roster. Anyone wishing to be an official or scorekeeper should attend. Questions? Call 52847.

NEW BASKETBALL registration format. Teams must register at Community Activities March 11-21. Bring the \$150 fee and team roster, sponsor names and information when registering. Managers' meeting will be March 26 in CRC room 6. This meeting is for teams pre-registered by March 21 only. The season starts April 8. Questions? Call 53331.

BICYCLES should not be ridden more than two abreast on the streets.

JUNIOR HIGH SCHOOL Choir and Band Concert will be Thursday, 7 p.m., in the MP room.

YOUTH T-BALL/baseball/softball registration for age 3-grade six will be through March 15 at Community Activities office, Tuesday-Saturday, 7:30-11:30 a.m. and 12:30-4:30 p.m. Coaches are needed. RMI team sponsors should contact Erika, 53331, by March 11.

ALL LADIES of Ebeye and Kwajalein are invited to the Ebeye United Church of Christ Friday, March 7, 6

p.m., to participate in this year's World Day of Prayer. This year's service was written by Christian women of Lebanon and is entitled "Holy Spirit: Fill Us." For more information, call Lora, 54186.

YOKWE YUK Women's Club Kaleidoscope of Music, a musical variety show featuring local talent, will be Monday, March 16, 7-10 p.m., in the MP room. Proceeds will benefit high school scholarships. Tickets are \$10 each. Call Denise, 54630, or Eileen, 52244.

CRAFT CLUB will be Friday, March 7, 3:30-4:30 p.m., at the Youth Center. All in grades 1-6 are welcome. Create your own monster moonwalker marionette. Questions? Call Erika, 53331.

THERE WILL be a meeting for parents and community members to have an opportunity to comment on both the proposed language arts and industrial technology curricula Friday, March 14, 7 p.m., in the high school library. Copies of the proposed curricula can be checked out from the high school principal's office or the elementary school principal's office for review before the meeting. Questions? Call 52011.

BOATING ORIENTATION will be Wednesday and Thursday, 6-8 p.m. All individuals wanting to obtain a boating license should register and pay for the class at the Small Boat Marina or Community Activities during work hours. Questions? Call 53643.

OPSEC REMINDER: Providing our military forces with uncompromised defense systems is necessary to minimize risks and enhance our potential for the successful termination of a conflict. Apply OPSEC.

Bargain Bazaar



BARGAIN BAZAAR hours are:
Monday, 11 a.m.-1 p.m.; Tuesday, Thursday and Saturday, 1-3 p.m.; Wednesday, 5-7 p.m. Donations will be picked up on Mondays. For pickup, call 53686, during store hours, or 54691, after hours.

Town Hall Meeting
with Col. Jerry Brown



- ◆ Kwajalein: Friday, 6 p.m., MP room
- ◆ Roi: March 14, 6 p.m., Tradewinds
- ◆ Focus will be on USAKA/RTS mission, strategic vision and goals for the range's future

See you at the movies!

Wednesday

City By The Sea (2002, R) A detective learns his estranged son is the prime suspect in a police murder, and races to save him.

Adult Recreation Center, 7 p.m.

Saturday

Tuck Everlasting (2002, PG)

A young woman runs into the woods to escape her life, only to fall in love and face a choice over everlasting life.

Richardson Theater, 7:30 p.m.

Road to Perdition (2002, PG-13) After a gangster's professional life hits home, he and his son go on the road for revenge.

Yokwe Yuk Theater, 7:30 p.m.

My Big Fat Greek Wedding (2002, PG-13)

A 30-year-old woman searches for more in life beyond her loud, Greek family, when she meets a non-Greek, Ian.

Roi-Namur, C Building, 7 p.m.

Sunday

Blue Crush (2002, PG-13) A woman must overcome her personal demons to find love and win the Pipe Masters competition on Oahu's North Shore.

Richardson Theater, 7:30 p.m.

Knockaround Guys (2002, R) Sons of gangsters get tired of running errands, and convince their elders to give them a shot at the big time.

Yokwe Yuk Theater, 7:30 p.m.

One Hour Photo (2002, PG-13) Robin Williams plays a man who develops more than film.

Roi-Namur, C Building, 7 p.m.

Monday

Tuck Everlasting (2002, PG)

Richardson Theater, 7:30 p.m.

Road to Perdition (2002, R)

Yokwe Yuk Theater, 7:30 p.m.



(Photo by Jim Bennett)

Nothin' but Net

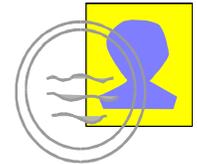
Community Activities' Ned Choban, left, and Sotin Maie install a new net on the CRC basketball rim as part of a two-day, in-house refurbishing project. Crews repainted the stands, attached new padding around the gym walls and power cleaned the floors, to name a few jobs, in anticipation of basketball season. Registration runs March 11-21, and the season starts April 8.

Letters to the Editor

Keep letters to less than 300 words, and keep your comments to the issues. This would be a no-libel zone. Letters must be signed. We will edit for AP style and, if you exceed the word limit, space. Please limit yourself to one letter every 30 days to give other readers a chance to write.

Send your letter to:

The Hourglass, P.O. Box 23, Local; or
jbennett@kls.usaka.smdc.army.mil.



WEATHER
Courtesy of Aeromet

Tonight: Partly cloudy with slight chance of showers.

Winds: Northeast at 16-22 knots.

Tomorrow: Partly sunny. Slight chance for showers.

Winds: East-northeast to east at 14-20 knots.

Temperature: Tonight's low 79°
Tomorrow's high 86°

March rain total: 0.02"

Annual rain total: 5.13"

Annual deviation: -3.06"

Call 54700 for continuously updated forecasts and sea conditions.



Sun • Moon • Tides



	Sunrise/set	Moonrise/set	High Tide	Low Tide
Tuesday March 4	0702/1900	0744/1956	0510, 5.3' 1720, 5.8'	1110, 0.5' 2330, 0.5'
Wednesday March 5	0701/1900	0822/2040	0540, 5.4' 1750, 5.6'	1140, 0.5' 2400, 0.5'
Thursday March 6	0701/1900	0859/2124	0600, 5.3' 1810, 5.4'	1210, 0.6'
Friday March 7	0701/1900	0936/2208	0630, 5.3' 1840, 5.1'	0020, 0.7' 1230, 0.9'