An SBX Sourcebook, Volume II

Version of 2010-02-01

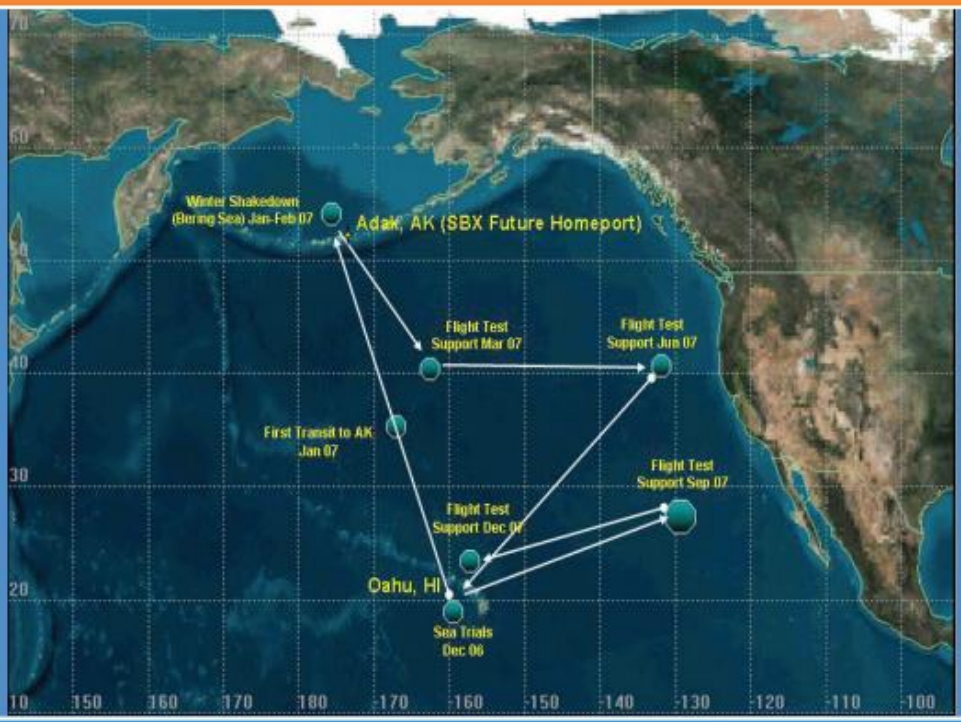
Contributions to this sourcebook would be welcome.
Please send them to thomsona@flash.net

SBX ballasted down in stable "semi-submerged" operating position

SBX-1 fully afloat and under way


BP THUNDER HORSE
MC 778A

Between 1 December 2007 and 1 April 2008, the SBX-1 traveled more than 4,000 nautical miles across the Pacific Ocean.



http://www.mda.mil/news/10news0001.html

MISSILE DEFENSE AGENCY
MDANEWS Release

www.mda.mil
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7100 Defense Pentagon
Washington, DC 20301-7100

Missile Defense Test Conducted

10-NEWS-0001
January 31, 2010

The Missile Defense Agency conducted a flight test today of the Ground-Based Midcourse Defense System.

A target missile was successfully launched at approximately 3:40 p.m. PST from the U.S. Army's Reagan Test Site at Kwajalein Atoll in the Republic of the Marshall Islands. Approximately six minutes later, a Ground-Based Interceptor was successfully launched from Vandenberg Air Force Base, Calif. Both the target missile and Ground-Based Interceptor performed nominally after launch. However, the Sea-Based X-band radar did not perform as expected.

Program officials will conduct an extensive investigation to determine the cause of the failure to intercept.

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http://www.alaskadispatch.com/dispatches/news/3714-wheres-adaks-radar-ship

Where's Adak's radar ship?

Joshua Saul
Jan 22, 2010
E-mail Print

One day in the next few weeks, the U.S. Missile Defense Agency (MDA) will test its ballistic missile defense system by shooting a missile from a tiny island in the Pacific Ocean towards the waters off California's coast and trying to blast it from the sky.

A radar ship floating in the central Pacific's balmy waters will spot the missile and transmit information about its flight to the interceptor missiles trying to shoot it down. The primary radar in the upcoming test, the billion-dollar Sea-based X-band Radar (SBX), will be thousands of miles south from the Alaska island that was once planned as its home base.

Although military officials announced in 2003 that the SBX would be based at Adak, a former naval base far out along Alaska's Aleutian chain, the radar has never actually visited the island since being completed in 2005, and military commanders are currently discussing where and how the radar will be deployed. And while Alaska's role in the nation's missile defense system is steady, the radar that was once seen as a potential boost to Adak's economy may never be seen by the island's 200 residents.

When the decision to place SBX at Adak was first announced, the radar was seen as a key to creating a new economy on the island. After Cold War hostilities dissipated, the Adak Naval Air Station closed in 1997, and in 2004, the Navy pulled out, turning the land over to Aleut Corp., an Alaska Native regional corporation. At the time, Aleut Corp.'s chief executive said that the scale of the SBX project amazed him, and then-Sen. Ted Stevens said the radar was a good thing for the people who had taken over after the military left Adak.

Rick Koso owns a liquor store on the island, and he agreed that the radar would be a huge boon to the local economy. "We were sure hoping it would be tied up in Adak by now because we can use all the economic help we can get," he said.

Even though SBX hasn't come to Adak yet, MDA spokesman Richard Lehner said that the island is still the radar's home base, and military commanders are discussing how the radar should be utilized. "We only have the one, so we have to be very fluid in how to best use it," he said.

Currently the SBX is controlled during testing by the MDA and during operations by three Combatant Commands (Pacific Command, Northern Command, and Strategic Command). SBX will transition to the Navy later this year, and at that time the Navy will become instrumental in deciding where the radar ship is based and how it is used.

The SBX is a mobile unit, and was never meant to spend all its time in one location. But no matter where SBX operates, it will send data about incoming missiles to interceptor sites like the one at Interior Alaska's Fort Greely.

In a lunchtime speech to Commonwealth North last week, Lt. Gen. Patrick O'Reilly, MDA's director, said that Alaska is important in the fight against a large number of the threats he's worried about, North Korea among others, and that he's planning on having Fort Greely operational thirty years out.

O'Reilly also referenced a $200 million upgrade to nearby Clear Air Force Station in his speech, and while that money has not yet been appropriated it's unlikely that the MDA's director would specify a number without the

idea being approved by the Pentagon. It seems probable that at least some of that money will be appropriated in the federal budget the President will propose in February.

But the radars at Clear and the SBX radar are different types. While the radars at Clear are part of the nation's early warning system and are scanning the sky at all times, the SBX has a fine beam that must be focused in a specific area, said Lehner.

A $26 million mooring was built for SBX during the summer of 2007 in Adak's Kuluk Bay. The mooring consists of steel chains that run from eight 75-ton anchors embedded in the ocean floor up to buoys floating on the surface. The SBX has been near Adak twice, but has never actually docked there.

About 85 people live and work on the ship that carries SBX, so if the radar were to dock at Adak, it would increase the island's population by about 40 percent.

Mike Swetzoff, Adak's mayor, said that it would be nice if the radar came and stayed because of the added people and the ripple effects on the local economy.

"Oh golly days, I bet my business would pick up by a third at least," said Koso, the liquor store owner. "It would be a heck of an economic boost to the community."

Contact Josh Saul at jsaul_alaskadispatch.com

http://www.defpro.com/news/details/9359/

U.S. Air Force Exercise Involves Missile Defense Elements

06:21 GMT, August 26, 2009 The Missile Defense Agency (MDA) successfully completed an exercise involving Ballistic Missile Defense System (BMDS) elements and emerging technologies, which gathered data during a routine operational test of a U.S. Air Force strategic missile from Vandenberg AFB, Calif., conducted August 23, 2009.

Participating MDA assets included the Sea-Based X-Band Radar (SBX), the transportable AN/TPY-2 X-band radar and the External Sensors Laboratory. Data collected during the exercise will be used to improve sensor capabilities and as risk reduction for future BMDS tests.

The Air Force test, called Glory Trip 195, was part of a continuing program to evaluate and demonstrate the operational readiness of our ground-based strategic deterrent force. The ability to utilize a target of opportunity allows MDA to conduct numerous important exercises and obtain extensive data without incurring the expense associated with launching a test-specific target missile.

http://www.starbulletin.com/news/20090619_Line_of_defense.html

Line of defense
Pacific forces are ready to react should North Korea fire a missile
By Gregg K. Kakesako
POSTED: 01:30 a.m. HST, Jun 19, 2009

[EXCERPT]

A key component of the missile defense system is the $900 million high-rise Sea-Based X-Band Radar, housed in a white dome that has become a familiar visitor to the islands since 2006.

The 28-story radar, mounted on a modified semisubmersible oil-drilling platform, left Ford Island on Wednesday *[2009-06-17]* for sea trials, according to a spokesman for the Missile Defense Agency in Virginia. The SBX floating radar platform, which is five stories taller than the Ala Moana Building, was in Hawaii for several weeks undergoing maintenance at the Pearl Harbor Naval Shipyard.

Bell said the floating radar platform, which is said to be able to detect an object the size of a baseball a continent away, will be available to be placed into service if needed. "It is ready and available," Bell added.

However, he declined to say where the radar platform is headed and how long it will be at sea.

http://www.latimes.com/news/nationworld/world/la-fg-gates-north-korea19-2009jun19,0,2004099.story

U.S. boosts missile defense amid reports of planned N. Korea test

Defense chief Robert Gates' remarks about shoring up Hawaii's defense may be aimed at deterring a test launch and signals that the U.S. is willing to act to prevent a successful test.

By Julian E. Barnes

10:17 PM PDT, June 18, 2009

[EXCERPTS]

Reporting from Washington -- Reacting to reports that North Korea may be preparing to test-fire a missile toward Hawaii, Defense Secretary Robert M. Gates said Thursday that he had ordered additional assets deployed to shore up defense of the islands.

Gates ordered the deployment of a powerful sea-based radar system that can help closely track the path of intercontinental ballistic missiles and also sent terminal-phase missile interceptors to Hawaii.

[deletia]

The sea-based radar system, known as the SBX, had been docked in Hawaii for maintenance and repairs and was not deployed when the North Koreans shot a Taepodong 2 rocket in April.

Missile defense experts said that if the system had been deployed, the U.S. would have been able to gather more information about that launch.

The SBX was due to deploy anyway to participate in planned missile defense tests this summer. But by linking the deployment to the prospect of another North Korean test, Gates appears to be sending a signal that the U.S. might try to shoot down a missile from Pyongyang.

http://www.defenselink.mil/transcripts/transcript.aspx?transcriptid=4435

U.S. Department of Defense
Office of the Assistant Secretary of Defense (Public Affairs)
June 18, 2009

Presenter: Secretary of Defense Robert Gates and
Chairman, Joint Chiefs of Staff Adm. Michael Mullen

Press Conference with Secretary Gates and Adm. Mullen

[EXCERPT]

Q Dr. Gates, I wondered what you thought about the report that North Korea might shoot a ballistic missile toward Hawaii, if you thought there was any accuracy to that. And if that was to occur, would that be a situation where the U.S. would use its missile defense system, to eliminate that test?

SEC. GATES: Well, we're obviously watching the situation in the North, with respect to missile launches, very closely. And we do have some concerns, if they were to launch a missile to the [sic - east], in the direction of Hawaii.

I've directed the deployment again of THAAD missiles to Hawaii. And the SBX Radar has deployed, away from Hawaii, to provide support. Based on my visit to Fort Greely, the ground-based interceptors are clearly in a position to take action.

So without telegraphing what we will do, I would just say, we are -- I think we are in a good position, should it become necessary to protect American territory.

http://www.starbulletin.com/news/20090618_island_images.html

POSTED: 01:30 a.m. HST, Jun 18, 2009

CRAIG T. KOJIMA / CKOJIMA@STARBULLETIN.COM

LEAVING HONOLULU: The Sea-Based X-Band Radar platform crossed paths yesterday *[2009-06-17]* with a container ship entering Honolulu Harbor. The domed, ocean-going platform, which resembles a golf ball, tracks, discriminates and assesses the flight characteristics of ballistic missiles, and can be positioned to cover any region of the globe.

http://news.google.com/news?pz=1&ned=us&hl=en&q=Sea-Based+X-Band+Radar

Alaska still has role in nation's missile defense program

by Jason Moore
Monday, June 15, 2009

ANCHORAGE, Alaska -- There have been more threats from North Korea about accelerating its nuclear bomb-making program.

And it's prompting more questions about why the U.S. Defense Secretary is cutting back the Missile Defense Program.

The cutbacks have implications for the program here in Alaska. But on Monday, the head of that program told businesses it will continue to play a role in national security.

Col. George Bond, the top officer of the Missile Defense Agency in Alaska, told the Anchorage Chamber of Commerce that Alaska will continue to play a key role in the nation's missile defense program.

"While we are not only ideally suited to intercept a missile out of North Korea, we can also block an ICBM fired out of the Middle East," said Bond.

The heart of the program in Alaska is at Fort Greely, where 16 interceptor missiles are sitting in silos waiting to take out a missile targeting the U.S.

Greely was ultimately supposed to have 40 missiles, but two months ago Defense Secretary Robert Gates slashed that number by 14 -- part of the $1.4 billion program cutback.

Critics of the cutbacks say it's the wrong time, as North Korea continues to test missiles and develop nuclear technology.

"They have shown much of the capability needed to stage a long-range rocket, so the concern is that the North Korean technology is progressing rapidly," said Bond.

Bond said despite the announced cuts, the program will remain strong and that by next year, the Sea-Based X-Band Radar will be back in Alaska, based in Adak. It is a key part of the system.

He also said the cutbacks will not affect ongoing testing and research.

"Our test program will continue and we'll continue to test the ground-based interceptors against increasingly more challenging targets," said Bond.

All while navigating a political system where it needs funding for survival.

Ten more interceptors are still slated to come to Fort Greely, becoming part of a system they hope they never have to prove really works.

[deletia]

Contact Jason Moore at jmoore@ktuu.com

SBX at Ford Island, Pearl Harbor, Hawaii
2009-05-01
(private communication)

http://alaskareport.com/news39/x71235_defense_gates.htm

Murkowski: Defense Secretary Gates Affirms Strategic Importance of Fort Greely
From a Senator Lisa Murkowski press release:
May 21, 2009

Secretary of Defense Robert Gates says the Obama administration is committed to maintaining the Nation's missile defense assets at Fort Greely and will revisit the question of whether to expand the number of Ground Base Interceptors there in 2012 , according to U.S. Sen. Lisa Murkowski, R-Alaska. Gates also committed to deploy the Sea Based X Band Radar (SBX) radar in Alaska as soon as testing is completed.

Gates met with Murkowski, Sen. Mark Begich, D-Alaska, and several other Senators who are concerned with the Obama administration's proposed $1.6 billion cut to missile defense in the Fiscal Year 2010 budget document. Obama's budget would cut the ground-based missile program by $524 million, freezing the number of missile interceptors at Fort Greely at 26. It also means the termination of construction activities on Missile Field #2 on Fort Greely which was to house additional interceptor missiles. However, construction of a new power plant and security enhancements at Fort Greely would continue under the Obama budget.

Gates told the lawmakers that the military will continue to procure and test ground-based interceptor missiles through 2012, at which point a decision will be made whether to maintain the program and possibly increase the number of interceptors at Fort Greely or shut down the production line, permanently capping the number of interceptor missiles at Fort Greely.

During the course of the meeting Gates reiterated that he was a strong missile defense proponent, and has confidence that the ground-based midcourse defense system works. He committed to continued testing and enhancement of the Fort Greely based system. As a first step, some of the newer generation interceptor missiles which were planned to be installed in Missile Field #2 will be redirected to existing silos at Fort Greely.

"Contrary to the language in the Obama administration budget proposal, I came away from our meeting encouraged that Secretary Gates supports the protection of the U.S. homeland through continued enhancements to the ground-based midcourse defense system," Murkowski said. "With the threat of missile attack from North Korea and Iran, it's only smart that we continue to improve our interceptor capability."

Gates also told the senators that he hopes travel to Fort Greely in the near future to inspect the missile defense installation.

Gates reiterated that the floating missile defense radar rig, known as the Sea-Based X-band radar (SBX) currently undergoing testing and modifications in Hawaii, continues to show great capability and, as planned, will be based at Adak, in the Aleutian Islands.

As for the proposed missile defense cuts, Gates said the decision was made based on an assessment of risk rather than fiscal constraints.

http://blog.wired.com/defense/2009/04/why-gates-kept.html#more

Why Gates Kept the Giant Golf Ball from Spying on Kim's Missile

By Noah Shachtman

April 16, 2009 | 7:54:12 PM

NEWPORT, Rhode Island -- Yesterday, the Washington Times reported that Defense Secretary had nixed the use of one of the military's most advanced radar systems to monitor North Korea's recent missile launch - preventing "officials from collecting finely detailed launch data." Today, Robert Gates took issue with the report. "It really ticked me off," he told reporters at an informal gathering. The article implied that Gates kept the radar back, to keep from "provoking the North Korean." Gates responded that it was really just a matter of money.

Gates said his military advisors -- including Chairman of the Joint Chiefs of Staff Admiral Michael Mullen and Vice Chairman General James Cartwright -- had advised against using the Sea-Based X-Band Radar (SBX). The $900 million system has a powerful tracking and discrimination radar that can pinpoint tiny objects thousands of miles away. But the SBX -- sometimes referred to as the "giant golf ball" because of its bulbous, ten-story high radome -- is also notoriously fragile. In the weeks leading up to the North Korean launch, the SBX was undergoing repairs. Hauling it up to Alaska, to track Pyongyang's missile, would have cost "50 to 100 million dollars," according to Gates. That didn't seem worth the cash, he added, when "all the intelligence -- all the intelligence -- said it was a satellite launch."

http://washingtontimes.com/news/2009/apr/15/us-failed-to-use-best-radar-for-n-korea-missile/

EXCLUSIVE: U.S. failed to use best radar for N. Korea missile
Bill Gertz (Contact)
Wednesday, April 15, 2009

Defense Secretary Robert M. Gates denied permission for the U.S. Northern Command to use the Pentagon's most powerful sea-based radar to monitor North Korea's recent missile launch, precluding officials from collecting finely detailed launch data or testing the radar in a real-time crisis, current and former defense officials said.

Jamie Graybeal, Northcom public affairs director, confirmed to The Washington Times that Air Force Gen. Gene Renuart, the Northcom commander, requested the radar's use but referred all other questions to the Pentagon.

Pentagon spokesman Bryan Whitman said Mr. Gates' decision not to use the $900 million radar, known as SBX, was "based on the fact that there were numerous ground- and sea-based radars and sensors in the region to support the operational requirements for this launch."

SBX, deployed in 2005, can track and identify warheads, decoys and debris in space with very high precision. Officials said the radar is so powerful it could detect a baseball hit out of a ballpark from more than 3,000 miles away, and that other radars used by the U.S. would not be able to provide the same level of detail about North Korea's missile capabilities.

Retired Air Force Lt. Gen. Henry Obering, who until recently headed the Missile Defense Agency, said the SBX would have gathered data other U.S. systems could not.

"The sea-based X-band radar is clearly without a doubt the most powerful and capable sensor in all of our missile defense inventory," he said. "It is three or four more times powerful than other radars" in Asia, including Aegis-equipped ships, a Cobra Dane early warning radar in Alaska and a small X-band radar in northern Japan, he said.

Gen. Obering noted that the SBX was used by the U.S. Strategic Command to track a falling satellite and guide U.S. sea-based missile interceptors that destroyed it in February 2008.

Current and former defense officials offered other factors that likely affected the decision, ranging from the fact that the radar was undergoing maintenance about the time of the launch to concerns about provoking the North Koreans.

One current and two former specialists in strategic defenses said the administration rejected the request because it feared that moving the huge floating radar system would be viewed by North Korea as provocative and upset diplomatic efforts aimed at restarting six-nation nuclear talks.

Those talks do not appear likely to resume any time soon.

Reacting to U.N. condemnation of the April 4 launch, North Korea said Tuesday that it would "never participate in the [nuclear] talks" and would restart its plutonium-yielding nuclear reactor. The U.N. nuclear watchdog, the International Atomic Energy Agency (IAEA), said North Korea had ordered U.N. inspectors to leave the reclusive communist country.

According to a senior military official involved in continental missile defense, Gen. Renuart initially sought to use the SBX out of concern that the anticipated launch was aimed at the United States or allied territory.

However, Obama administration civilian policymakers accepted North Korea's claim that the rocket spotted by intelligence satellites being fueled at North Korea's Musudan launch complex was a space launcher with a satellite, and not a missile, the official said. He spoke only on the condition of anonymity because he was discussing internal deliberations.

In the end, the missile failed to put a satellite into orbit, although the missile traveled farther than in previous North Korean tests.

Former defense officials said the failure to use the SBX precluded the U.S. from gathering finely detailed intelligence and electronic signatures on the North Korean missile - information that could be useful in guarding against a future rocket launch aimed at the United States or one its allies.

Regardless of whether it was a missile or space launcher, "the technologies that overlap between a ballistic missile and a space launcher are incredible; everything you need for a ballistic missile can be tested out with a space launcher," one of the former defense officials said, speaking only on the condition of anonymity because the information he possesses about the SBX's capabilities is not public.

Another official with direct knowledge of the SBX's capabilities said that if it were deployed in New York harbor it could track a baseball hit out of San Francisco's AT&T stadium, some 3,000 miles away.

Prior to the April 4 test, military and Obama administration leaders issued conflicting statements on how the United States would respond to a test of the rocket that the Defense Intelligence Agency had identified as a long-range Taepodong-2.

Adm. Timothy Keating, commander of the U.S. Pacific Command, initially said the Pentagon was set to shoot down the missile using missile defense interceptors based in Alaska.

However, Secretary of State Hillary Rodham Clinton told CNN on March 25 that the United States had no plans to shoot down the missile but instead would raise the issue with the United Nations. "We're not talking about anything like that," Mrs. Clinton said when asked what circumstances would prompt the Pentagon to shoot down the North Korean rocket.

North Korea's government had declared - after stating that the rocket was a space launcher - that it would view the use of missile defenses against the rocket as an act of war.

The SBX radar, built on a large floating oil rig platform and normally based at the remote western Aleutian island of Adak, about 1,200 miles southwest of Anchorage, was undergoing maintenance in Hawaii in early March.

The senior military official involved in continental missile defense said it would have required suspending the work to get the SBX sailing "so we asked [for it to be moved] pretty early, and preparations were begun."

"As it became more clear that this was a space launch attempt and SBX would not have added any to the capabilities we needed to monitor a space launch, we canceled our request to allow refit to continue on timeline," the senior official said.

Defense officials said that in addition to monitoring the Taepodong-2 launch, Gen. Renuart wanted the SBX radar in place to provide a real-world test of the new missile defense system.

Missile defense critics have criticized the Bush administration, which began deploying the current system earlier this decade, for not conducting realistic testing of the system.

President Obama has said he wants to make sure that U.S. missile defenses work properly before continuing support for the program.

Philip Coyle, a former Pentagon weapons testing specialist who has been critical of missile defense testing, said the SBX is technically a better radar than any system in Japan.

However, Mr. Coyle said one problem with the radar is that its resolution is so fine it needs to be "cued," or directed where to look. That may be a reason it was not deployed, he said.

"Both the [Government Accountability Office] and my former office have questioned whether this radar can survive the maritime environment," said Mr. Coyle, now with the Center for Defense Information.

The administration's restrictions on missile defenses were disclosed as Mr. Gates announced last week that he is planning a $1.4 billion cut in missile defense funding.

Sen. Jon Kyl, Arizona Republican, and Sen. Joe Lieberman, Connecticut independent, wrote to Mr. Obama on April 6, urging him to reject the missile defense cuts.

The senators warned that the planned missile defense funding cut would undermine international cooperation with Japan, Israel and other states at a time when missile threats are growing.

http://blog.al.com/breaking/2009/04/missile_defense_radar_not_used.html

Missile defense radar not used to detect North Korea launch
Posted by Shelby G. Spires April 07, 2009 11:06 AM

HUNTSVILLE, Al -- Missile defense experts question why a $900 million advanced sea-based radar platform, developed and managed in Huntsville, was not used to monitor the launch of a North Korean rocket.

Missile Defense Agency managers decided to keep the Sea-based X-band Radar platform - essentially an offshore oil rig with a giant radar - in port at Pearl Harbor, in Hawaii during the North Korea launch to continue maintenance work, according to an agency spokesman.

"The radar was in Pearl Harbor for long-planned maintenance and repairs," said Rick Lehner, spokesman for the Missile Defense Agency. "It will be involved in a very heavy flight test schedule over the next several months. For health, safety and environmental protection, the radar cannot be activated while in port."

The radar is part of the Ground-based Mid-course Defense program and is used to gather information and help guide missile interceptors the Pentagon has in silos based in Alaska and California. Those interceptors are intended to destroy enemy missiles mid-way through flight, essentially at the edge of space.

Riki Ellison, a missile defense booster who runs the Missile Defense Advocacy Alliance, said not using the advanced radar is a lost opportunity.

"It was sitting in Pearl Harbor. This put our (ground based system) out of play here. It could've been at the least tested, but was not.

"My question is why do we pay for this huge asset and not use it?"

Charles Vick, a missile defense expert who worked in Huntsville, said the Pentagon probably had enough sensors pointed at North Korea to track the launch.

"There were five (advanced) destroyers there, plus satellite coverage, overflights of Unmanned Aerial Vehicles, and there is an X-band site in Japan," said Vick, who works as an analyst for GlobalSecurty.org. "It was probably deemed not necessary to float that platform into the Pacific."

http://www.foxbusiness.com/story/needs-protection-north-korea/

U.S. Needs Full Protection Against North Korea

Monday, March 30, 2009

WASHINGTON, March 30, 2009 /PRNewswire-USNewswire via COMTEX/ ----Riki Ellison, Chairman of the Missile Defense Advocacy Alliance informed the membership of MDAA that a letter has been sent to Secretary of Defense Robert M. Gates urging him to make sure all of our missile defense assets are in place to protect Alaska, Hawaii and regions of the United States prior to the North Korea "Space Launch" and missile test scheduled for later this week. The letter to Secretary Gates follows:

"Dear Secretary Gates,

As Chairman of the Missile Defense Advocacy Alliance representing 10,000 members nationwide with a 7 year consistent record of promoting the development and deployment of a robust missile defense capability for the United States, I am compelled to write to you regarding my concern for America's actions in the face of the growing North Korean missile threat. While I recognize the right of every sovereign nation to pursue a peaceful space program, I believe you would agree that the upcoming North Korean "space launch" could very well have military implications for the future and in the near term, threaten Alaska, Hawaii or other regions of the United States. Therefore, I urge that you to consider activating all available missile defense assets to the Pacific to protect against an errant space launch attempt or a ballistic missile launch that threatens the United Stares or our allies. By way of reference, I understand that the assets deployed for the successful intercept of a long range ballistic missile target this past December 5, 2008 can put the United States in the most effective posture to counter any North Korean action in the next few weeks.

On a personal level and by the full support of my membership, I encourage you to place all of our Missile Defense assets in the Pacific region in the best position to counter the ambiguity that North Korea has historically demonstrated."

Ellison further elaborated on this letter in his statement is as follows:

One of the United States most valuable assets and the best discriminating and tracking sensor for ballistic missile defense, the Sea Based X Band Radar (SBX: 10.22, 0, 0%) has not been deployed and has been docked for the past several months at Ford Island, Pearl Harbor, Hawaii. The SBX was the main sensor in the recent successful long range ballistic missile intercept on December 5, 2008 providing the primary targeting information for the Ground Based Missile Interceptor (GBI: 8.83, 0, 0%) out of Vandenberg Air Force Base, Ca. that successfully intercepted a long range ballistic missile from Kodiak Island, Alaska.

The December 5th, 2008 test simulated a North Korean long range missile threat using the current U.S. missile defense deployed assets designed including for a long range ballistic missile intercept. The SBX was also successfully deployed and used with the Aegis Sea Based Missile Defense System for the February 21, 2008 successful NRO satellite shoot down which had a one in 45 chance of harming human life if not intercepted. The SBX is a self propelled X-band radar and has a sea speed of up to 10 knots per hour.

If deployed the SBX can begin to emit its sensor 50 or so miles from Hawaii and can become effective by providing sensoring information to the deployed long range missile defense system in place today. The SBX cost $950 million dollars to build and costs additional tens of millions of dollars to maintain and operate annually.

The azimuth or launch direction for an ideal space orbital launch from North Korea using optimal rotation of the earth is in the mid-80s which over flies the country of Japan and heads east towards the Pacific Ocean. The azimuth for a long range ballistic missile from North Korea to Hawaii is in the similar 80s degree range. North

Korea has declared two "clear zones" on either side of Japan for the first and second rocket stages accounting for the debris falling from their rocket or missile launch. The North Korea trajectory following that flight path would terminate close to Hawaii if the rocket failed to achieve orbit or was a long range ballistic missile launch.

The SBX is the most powerful and most capable sensor to discriminate the debris, payload and a possible reentry vehicle in detail from a North Korean long range missile or rocket launch traveling at extreme high speeds across the Pacific Ocean.

Riki Ellison is available for on-the-record interviews. Call Mike Terrill at 602 885-1955 to arrange.

SOURCE MDAA

http://www.missiledefenseadvocacy.org/

http://www.honoluluadvertiser.com/article/20090331/NEWS08/903310333/-1

Group urges U.S. to use 'golf ball' radar in watch

By William Cole
Advertiser Military Writer
Posted on: Tuesday, March 31, 2009

The head of a U.S. missile defense advocacy group is urging the Pentagon to deploy "all available" defensive assets in the Pacific, including the giant Sea-Based X-Band Radar docked at Ford Island, ahead of North Korea's planned rocket launch.

Advertisement

The Sea-Based X-Band Radar — more commonly known as the "giant golf ball" after its white bulbous dome — "is the most powerful and most capable sensor to discriminate the debris, payload and a possible re-entry vehicle in detail from a North Korean long-range missile or rocket launch traveling at extreme high speeds across the Pacific," said Riki Ellison, chairman of the Missile Defense Advocacy Alliance.

The alliance is a nonprofit organization that supports a missile shield for the United States. Ellison yesterday said he sent a letter to U.S. Defense Secretary Robert Gates urging the deployment of all available missile defense assets in the Pacific.

Ellison said North Korea has declared two "clear zones" on either side of Japan for the first and second stages for debris falling from the rocket launch.

"The North Korea trajectory following that flight path would terminate close to Hawai'i if the rocket failed to achieve orbit or was a long-range ballistic missile launch," Ellison said.

Gates said on Sunday that if there is "an aberrant missile — one that was headed for Hawai'i," a shoot-down attempt might be made.

Ellison said the Sea-Based X-Band Radar, or SBX, which he described as "one of the United States' most valuable assets and the best discriminating and tracking sensor for ballistic missile launches," remains docked at Ford Island.

"If deployed, the SBX can begin to emit its sensor 50 or so miles from Hawai'i and can become effective by providing sensoring information to the deployed long-range missile defense system in place today," Ellison said.

The 280-foot-tall radar platform is undergoing $34 million in repairs here. Officials with the U.S. Missile Defense Agency, which oversees the SBX, yesterday said work is continuing with scheduled shipyard activities. It referred all other questions to the Pentagon.

http://news.prnewswire.com/DisplayReleaseContent.aspx?ACCT=104&STORY=/www/story/03-23-2009/0004992783&EDATE=

Raytheon Awarded $27 Million for Missile Defense Support

[EXCERPT]

TEWKSBURY, Mass., March 23, 2009 /PRNewswire/ -- Raytheon Company (NYSE: RTN) has been awarded a $27 million contract by The Boeing Company to support the Ground Based Midcourse Defense (GMD) program.

This six-month bridge effort for the follow-on GMD Core Completion Contract allows for the continued evolution, maturation, test, and verification of the Raytheon-built X-Band Radar aboard the Boeing-developed Sea-Based X-Band Radar vessel, the Upgraded Early Warning Radars at Beale Air Force Base, Calif., and at Fylingdales, England, and the Cobra Dane Upgrade Radar at Shemya, Alaska, in support of the Ballistic Missile Defense System (BMDS).

"These upgrades and services will allow the GMD weapon system radars to remain operational in support of missile defense testing and real-world missions," said Pete Franklin, vice president, Raytheon Integrated Defense Systems' National & Theater Security Programs.

http://www.honoluluadvertiser.com/article/20090222/COLUMNISTS32/902220354/1315

'Golfball' seems at home here
By William Cole
Advertiser Columnist
Posted on: Sunday, February 22, 2009

By default, Hawai'i is turning out to be a much more hospitable port for the $900 million floating Sea-Based X-Band Radar than its intended home of Adak, Alaska.

It is now expected to head to Adak in the summer of 2010, the Missile Defense Agency said.

In 2003, Pearl Harbor and Kalaeloa were considered as home port possibilities, along with anchorages in California, Washington state, the Marshall Islands and two sites in Alaska, before Adak was selected.

Since the "giant golfball" arrived here in 2006 from Corpus Christi, Texas, for a temporary stay, it has spent 307 cumulative days in Pearl Harbor, and 791 days out in the Pacific for testing or operations, according to the MDA.

Has it ever pulled into port in Adak?

"No," the Missile Defense Agency said in an e-mailed response to questions from The Advertiser.

Did the SBX, as it is known, remain outside port in Adak?

"It loitered in the vicinity of Adak for two weeks in 2007," MDA said.

The SBX, part of the U.S. ballistic missile defense shield, is a powerful radar with 45,000 radiating elements within the pressurized dome.

The 280-foot-tall radar platform, big enough to accommodate 18 basketball courts, has been used in two ballistic missile defense flight tests, four missions using "targets of opportunity," ballistic missile ground tests, and two operational missions, MDA said.

Officials advertised at least a couple of times that the SBX was headed up to its home port of Adak.

In March 2006, Coast Guard District 17 commander Rear Adm. James Olson sent a letter to the MDA saying operations in the Bering Sea are inherently dangerous, with winds of 80 knots and gusts of more than 120 knots, and sea states in the SBX operations area exceeding 30 feet.

"I urge you to consider safety as your first priority in this hostile environment," Olson said, adding that he believed the SBX was not capable of "maintaining station."

In April 2006 the SBX returned to Pearl after a leak in the ballast piping forced it to abort the voyage.

It returned to Pearl Harbor again in June 2007 from the waters of the Aleutian Islands for $27 million in repairs and upgrades.

The SBX continues to be a work in progress.

Work proceeding now includes the addition of a second crane on the port side, improvements to the starboard crane, upgrades to the galley, and the addition of equipment to facilitate mooring, MDA said.

The current round of work is expected to be done in June.

MDA said the radar did not pull into port in Adak in 2007 because the Port of Adak couldn't support the SBX pierside and the mooring facility was not completed.

Is the Adak facility now completed?

"Yes, except for: the addition of office space in one warehouse, the addition of a fence in an outdoor storage area, and possible upgrade/repair of the existing pier," MDA said.

Asked about the SBX's comings and goings from Pearl after the latest round of work, MDA said, "SBX's possible return to Pearl Harbor for scheduled maintenance in the future cannot be answered at this time."

And how successful has SBX been in missile defense?

"SBX has successfully met every operational test requirement to date," MDA said.

Reach William Cole at wcole@honoluluadvertiser.com.

Aleut Corporation Annual Reports

[EXCERPTS]

http://www.aleutcorp.com/forms/pdf/annualreport2005.pdf

2005: "Future fuel sales may also be affected by the U.S. Missile Defense SBX radar platform to be home ported at Adak, which should arrive within the next year."

http://www.aleutcorp.com/forms/pdf/annualreport2006.pdf

2006: "Future fuel sales may also be affected by the U.S. Missile Defense SBX radar platform to be home ported at Adak, which should arrive within the next year."

http://www.aleutcorp.com/forms/pdf/annualreport2007.pdf

2007: "Future fuel sales may also be affected by the U.S. Missile Defense SBX radar platform to be home ported at Adak."

http://www.aleutcorp.com/forms/pdf/annualreport2008.pdf

2008: "Future fuel sales may also be affected by the U.S. Missile Defense SBX radar platform to be home ported at Adak in the future."

http://www.starbulletin.com/news/20090105_island_images.html

DENNIS ODA / DODA@STARBULLETIN.COM

TEED UP: The giant golf ball-like Sea-Based X-band Radar platform was back in Pearl Harbor as seen from Neil Blaisdell Park in Waimalu on Saturday. Sina Sataraka, 6, left, and her father, John Sataraka, rode their bikes on the path at the park.

["Saturday" = 2009-01-03]

http://www.odinjobs.com/Odin/jobs.jspx?l=&c=Chenega+Security

SBX-1 Armed Security Officer - Blue Team (2009-01-05)

Chenega Security **(Adak, AK)**

Chenega Security & Protection Services, LLC Job Description Job Title: Armed Security Officers Contract: Missile Defense Agency Sea Based X-Band Radar (SBX-1) Reports To: Shift Security Lead FLSA Status SCA Full-time Non-Exempt (60-day Rotations) Work Location: Sea Based X-Band Radar (SBX-1) vessel and **MONSTER**

http://www.marketwatch.com/news/story/Raytheon-Kill-Vehicle-Radars-Key/story.aspx?guid={0E54BE8C-AA69-40BE-A22A-8F78689EE618}

Raytheon Kill Vehicle and Radars Key to Ballistic Missile Intercept

Last update: 6:19 p.m. EST Dec. 5, 2008

TUCSON, Ariz., Dec. 5, 2008, 2008 /PRNewswire via COMTEX/ -- Raytheon Company components played key roles in the destruction of a ballistic missile target during the latest flight test of the Missile Defense Agency's Ground-based Midcourse Defense system. This was the eighth intercept for the GMD system.

During the Dec. 5 test, a Raytheon-built Exoatmospheric Kill Vehicle intercepted a ballistic missile target in space over the eastern Pacific Ocean. While communicating with ground sensors, the EKV detected, tracked and discriminated the target.

"This highly successful test of the GMD system once again demonstrates Raytheon's commitment to performance and reliability," said Dr. Taylor W. Lawrence, Raytheon Missile Systems president. "We continue to prove the maturity of our kill vehicle technology and our ability to provide this critical capability to the nation."

While in flight, the EKV calibrated its own position using the stars. The EKV then selected an aimpoint and maneuvered for a direct hit, intercepting the target at a closing velocity of more than 18,000 miles per hour.

The target was launched from Kodiak, Alaska, and the interceptor was fired from Vandenberg Air Force Base, Calif.

In the first demonstration of GMD integrated performance, Raytheon's AN/TPY-2 X-Band Radar acquired the target shortly after lift off. Operating in forward-based mode from Juneau, Alaska, the radar provided track updates to MDA's Ballistic Missile Defense System.

Raytheon's Upgraded Early Warning Radar, at Beale Air Force Base, Calif., tracked the target during its flight downrange. Raytheon's X-Band Radar, deployed aboard the Sea-based X-band radar, actively participated by tracking, discriminating and assessing the target.

"The UEWR, SBX and AN/TPY-2 performed as expected, demonstrating their missile defense capabilities," said Pete Franklin, vice president, National and Theater Security Programs for Raytheon Integrated Defense Systems. "This test confirms all three radars' ability to provide integrated information to the BMDS in support of an intercept."

http://www.mda.mil/mdalink/pdf/08news0090.pdf

08-NEWS-0090
December 5, 2008

Missile Defense Flight Test Results in Successful Intercept

The Missile Defense Agency announced today it has completed an important exercise and flight test involving a successful intercept by a ground-based interceptor missile designed to protect the United States against a limited long-range ballistic missile attack. The flight test results will help to further refine the performance of numerous Ballistic Missile Defense System (BMDS) elements able to provide a defense against the type of long-range ballistic missile that could be used to attack the nation with a weapon of mass destruction.

For this exercise, a threat-representative target missile was launched from Kodiak, Alaska at 3:04pm (EST). This long-range ballistic target was tracked by several land- and sea-based radars, which sent targeting information to the interceptor missile. At 3:23pm (EST)the Ground-Based Interceptor was launched from the Ronald W. Reagan Missile Defense Site, located at Vandenberg Air Force Base, Calif. The interceptor's exoatmospheric kill vehicle was carried into the target's predicted trajectory in space, maneuvered to the target, performed discrimination, and intercepted the threat warhead.

This was the first time an operational crew located at the alternate fire control center at Ft. Greely, Alaska remotely launched the interceptor from Vandenberg AFB. In previous interceptor launches from Vandenberg, military crews at the fire control center at Schriever AFB, Colo. remotely launched the interceptor.

The target was successfully tracked by a transportable AN/TPY-2 radar located in Juneau, Alaska, a U.S. Navy Aegis BMD ship with SPY-1 radar, the Upgraded Early Warning Radar at Beale Air Force Base, Calif., and the Sea-Based X-band radar. Each sensor sent information to the fire control system, which integrated the data together to provide the most accurate target trajectory for the interceptor. The interceptor's exoatmospheric kill vehicle is the component that collides directly with a target warhead in space to perform a "hit to kill" intercept using only the force of the collision to totally destroy the target warhead. Initial indications are that all components performed as designed. Program officials will evaluate system performance based upon telemetry and other data obtained during the test. This was the 37th successful hit-to-kill intercept out of 47 attempts against missiles of all ranges since 2001.

Operational Ground-Based Interceptors are currently deployed at Ft. Greely, Alaska, and Vandenberg AFB, protecting the nation, our friends, and allies against ballistic missile attack.

Post Event video feed will come to DoD Pool (CNN) at approximately 8:00pm (EST) via Streambox from VAFB.

News media point of contact is Rick Lehner, Missile Defense Agency, at (703) 697-8997 or richard.lehner@mda.mil.

http://www.marketwatch.com/news/story/Boeing-led-Missile-Defense-Team/story.aspx?guid={37596712-B26E-44D6-92EC-5A02376B02D7}

Boeing-led Missile Defense Team Intercepts Target in Most Complex Test to Date
Last update: 5:59 p.m. EST Dec. 5, 2008

VANDENBERG AIR FORCE BASE, Calif., Dec 05, 2008 /PRNewswire-FirstCall via COMTEX/ -- The Boeing Company, working with industry teammates and the U.S. Missile Defense Agency, today completed the successful intercept of a target warhead in the most challenging test to date of the United States' only long-range ballistic missile defense system.

"This test demonstrated that the Ground-based Midcourse Defense (GMD) system can defeat a long-range ballistic missile target," said Scott Fancher, vice president and general manager of Boeing Missile Defense Systems. "This intercept is further proof that GMD can provide our nation with an effective defense against the threat of long-range ballistic missiles."

The GMD system test began at 3:04 p.m. Eastern time when a long-range ballistic missile target lifted off from the Kodiak Launch Complex in Alaska. Military operators launched an interceptor from Vandenberg Air Force Base to intercept this threat-representative target.

As the interceptor flew toward the target, it received target data updates from the GMD fire control system, which collected and combined data from four different sensors, the most ever for an intercept test. The sensors were the Aegis Long Range Surveillance and Track system in the Pacific; the AN/TPY-2 radar temporarily located in Juneau, Alaska; the Upgraded Early Warning Radar at Beale Air Force Base, Calif.; and the Sea-Based X-Band Radar (SBX) in the Pacific. After flying into space, the interceptor released its exoatmospheric kill vehicle, which tracked, intercepted and destroyed the target warhead. This end-to-end test of the GMD system was the most realistic and comprehensive to date.

"Data gathered from multiple sensors gave us a clearer picture of the incoming threat, enabling GMD to achieve the shootdown of a complex target," said Greg Hyslop, Boeing vice president and GMD program director. "Integrating sensors separated by thousands of miles is a major engineering challenge, but we overcame this challenge by working together as a team."

"This test was an important milestone for the Sea-Based X-Band Radar, a powerful, mobile sensor developed by Boeing," said Norm Tew, Boeing's chief engineer for GMD. "This was the first intercept test in which data from SBX was combined with data from the other sensors to provide tracking data and guidance aimpoint updates to the interceptor."

http://www.honoluluadvertiser.com/article/20081109/COLUMNISTS32/811090337/1315/LOCALNEWSFRONT

Local News
Posted on: Sunday, November 9, 2008

[EXCERPT]

Giant radar ball on missile mission

For those who might have seen the Sea-Based X-Band Radar (the giant floating golf ball) sail out of Pearl Harbor recently, here's an update.

Chris Taylor, a spokesman for the Missile Defense Agency, said the SBX, as it's called, will participate in a missile defense flight test before the end of the year.

The ballistic missile defense system test will entail the launch of a target from Kodiak, Alaska, and an interceptor from Vandenberg Air Force Base in California.

The SBX will return to Pearl Harbor some time after the first of the year, Taylor said.

The SBX had returned to Pearl Harbor for scheduled biennial vessel surveys and inspections by the American Bureau of Shipping, and minor modifications and routine preventative maintenance, Taylor said.

Reach William Cole at wcole@honoluluadvertiser.com.

http://www.kodiakdailymirror.com/?pid=19&id=6963

Rocket motor arriving for possible December launch from Narrow Cape
Article published on Thursday, November 6th, 2008
DAILY MIRROR STAFF

A rocket motor and associated hardware will arrive at the Kodiak State Airport late Friday and be moved to the Kodiak Launch Complex at Narrow Cape early Saturday, according to a Missile Defense Agency news release.

The rocket motor and hardware will be used by the Missile Defense Agency in an upcoming test launch from KLC in December or January to target an interceptor launched from Vandenberg Air Force Base in California...

In a separate news release, MDA announced the arrival of an AN/TPY-2 radar unit in Juneau to support the upcoming test. The radar arrived at the National Oceanic and Atmospheric Administration facility at Lena Point, Wednesday, after being flown from the Pacific Missile Range Facility in Hawaii. This is a temporary deployment and the radar will be removed from the site shortly after the test is completed.

According to MDA, the AN/TPY-2 is a high-resolution X-Band radar used to detect ballistic missiles early in their flight. It can track, identify, and estimate the trajectory of a threat missile, and then feed that information to the command and control system used to develop intercept solutions. The AN/TPY-2 is a transportable unit that can be deployed around the world. Juneau was selected because its location provides an operationally realistic sensor picture for the simulated threat missile from Kodiak.

http://www.mda.mil/mdalink/pdf/08news0083.pdf

08-NEWS-0083
November 5, 2008

Missile Defense Elements Participate in Air Force Test

Air Force Lieutenant General Henry "Trey" Obering, Missile Defense Agency (MDA) director, announced today the successful completion of an exercise involving Ballistic Missile Defense System (BMDS) elements and emerging technologies which gathered data during a routine operational test of a U.S. Air Force strategic missile from Vandenberg AFB, Calif.

Participating assets included the Sea-Based X-Band radar and infrared detectors mounted aboard two F-16 aircraft from the Arizona National Guard Air Force Reserve Center Test Center. Data collected during the exercise will be used to improve sensor capabilities and as risk reduction for future BMDS tests.

The Air Force test, called Glory Trip 198, was part of a continuing program to evaluate and demonstrate the operational readiness of our ground-based strategic missile deterrent force. The ability to utilize a target of opportunity allows MDA to conduct numerous important exercises and obtain extensive data without incurring the expense associated with launching a test-specific target missile.

News media point of contact is Rick Lehner, Missile Defense Agency, at (703) 697-8997 or richard.lehner@mda.mil.

http://www.spacewar.com/reports/Missile_Defense_Elements_Participate_In_Air_Force_Test_999.html

Missile Defense Elements Participate In Air Force Test

Lieutenant General Henry "Trey" Obering.
by Staff Writers
Washington DC (SPX) Sep 02, 2008

Lieutenant General Henry "Trey" Obering, Missile Defense Agency (MDA) director, has announced the successful completion of an exercise involving Ballistic Missile Defense System (BMDS) elements while participating in a routine operational test of a U.S. Air Force strategic missile from Vandenberg Air Force Base, Calif. as a "target of opportunity," conducted on August 13, 2008.

Elements of the BMDS, including the Sea Based X-Band Radar, the Space-Based Infrared System Mission Control Station, and the Beale Air Force Base Upgraded Early Warning Radar, successfully detected and tracked the long-range missile.

Operational sensors provided acquisition and track data to the BMDS Command, Control, Battle Management and Communications (C2BMC) system using operational communications links.

Data collected by the BMDS elements will be used for extensive post-mission analysis to further characterize BMDS capabilities.

The Air Force test, called Glory Trip 194, was part of a continuing program to evaluate and demonstrate the operational readiness of our ground-based strategic deterrent force.

The ability to utilize a target of opportunity allows MDA to conduct numerous important exercises and obtain extensive data without incurring the expense associated with launching a test-specific target missile.

This is Google's cache of http://driver.guard.jobs.com/getjob.asp?JobID=74842427&AVSDM=2008-08-14+13%3A57%3A25&Logo=0&aj=driver+guard&pg=1&q=shift&sort=dt&sq=driver&guard. It is a snapshot of the page as it appeared on Aug 20, 2008 09:40:01 GMT.

monster

CHENEGA® SECURITY & PROTECTION SERVICES, LLC

Armed Security Officer - SBX-1 Blue Team (CSPS)

Company:	Chenega Corporation	**Location:**	HONOLULU, HI 96801
Status:	Full Time, Employee	**Job Category:**	Security/Protective Services
Occupations:	General/Other: Security/Protective Services;Security Guard	**Career Level:**	Experienced (Non-Manager)
Education Level:	High School or equivalent		

Job Description

Chenega Security & Protection Services, LLC
Job Description

Job Title: Armed Security Officers
Contract: Missile Defense Agency Sea Based X-Band Radar (SBX-1)
Reports To: Shift Security Lead
FLSA Status SCA Full-time Non-Exempt (60-day Rotations)
Work Location: Sea Based X-Band Radar (SBX-1) vessel and Adak, AK (including Kuluk Bay) and other locations as required

Company sponsored on-site training to be held in Moyock, NC beginning on or about September/October 2008.

Hourly Wage (after completion of training program): $42.56 per hour
Health & Welfare: $3.16 per hour up to 40 hours per week

Summary:
The Armed Security Officer provides security services for Missile Defense Agency (MDA) in support of government security requirements for the SBX-1 radar platform, and on-shore in Adak, AK, in support of PSB cargo handling and transfer operations and patrol boat operations when the vessel is moored in Kuluk Bay at Adak, AK. The Armed Security Officer will be capable of, and are authorized to, respond to Force Protection Conditions (FPCON) and Maritime Security (MARSEC) measures in accordance with the Statement of Work up to and including deadly force.

Supervisory Responsibilities:
None

Essential Duties and Responsibilities: Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions of this position.
• Will arrive at work prior to guard mount, in proper uniform and carrying needed, issued equipment. • Will be armed with a pistol and an automatic weapon and will be required to exercise force up to and including deadly force. • Will draw assigned weapon. • Will participate in Guard Mount, receive assigned post, and copy any extra instructions. • Will carry out general and special orders for post assigned. • Will communicate via radio, telephone and orally according to general and special orders. • Required to interact with public, contractor, and military personnel. • Required to operate effectively in a foreign nation environment, sensitive to cultural differences. • Will provide access control, and conduct walking and motorized security guard functions. • Will be responsible for cleanliness of uniform and equipment assigned. • Will follow applicable standard operating procedures and applicable regulations pertaining to security of weapons, buildings, personnel, government property and equipment. • Will not remove firearms from vessel, required to turn in after shift. • Successfully complete all training and have obtained all required permits, licenses, certifications and security clearances for the site. Required to follow all company personnel and safety policies, and perform all assigned duties in a safe work manner. • May be required to work other than normal duty hours, which may include evenings, weekends, and/or holidays. • Other duties may be assigned. •

Qualification Requirements:
To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.
Education and/or Experience:
• Must be at least 21 years of age.
• Minimum of a high school diploma or GED.
• Be certified and qualified in the use and handling of a 9mm handgun, 12 gauge shotgun, AR-15 assault rifles, deck-mounted / hand held M60 machine guns and deck-mounted 50 caliber machine guns, Baton / ASP, and Pepper Spray.
• Minimum 2 years experience with a civilian police force, military police force or civilian security guard organization. Must speak, read, write, and understand English.

Certificates, Licenses, Registrations:
• U. S. citizen
• Valid driver's license
• U.S. Passport
• Honorably discharged/retired from the military
• Must be able to meet any Federal and State requirements to work as an Armed Security Guard.

Clearance Level:
• Must meet DoD security clearance requirement for this contract.

[deletia]

Must pass physical agility test as prescribed by the government and be able to pass a maritime physical examination.

Run 1.5 miles (2.41 km) in 17.30 minutes

Execute 21 pushups in 2 minutes (from the toes)

Execute 29 sit-ups in 2 minutes

Sprint 300m in 81 seconds

Work Environment:
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The employee may occasionally work in a temperature-controlled office environment.
The employee will regularly stand duty at a gate control guard station. The employee will regularly be exposed to extreme heat or cold weather conditions, and unpredictable crisis situations. Will be occasionally exposed to fumes or airborne particles, toxic or caustic chemicals, and loud noise.

Chenega Corporation is an EOE/AA/F/D/V. Native preference under PL 93-638.

~cj

Active DOD Secret Security Clearance,DD214 Honorable Discharge,Driver's license,High School diploma/GED

http://www.tradingmarkets.com/.site/news/Stock%20News/1770338/

Raytheon Radars Play Key Role in Missile Defense Test
Monday, July 21, 2008; Posted: 08:00 AM
[EXCERPT]

TEWKSBURY, Mass., July 21, 2008, 2008 /PRNewswire via COMTEX/ -- Three missile defense radars built by Raytheon Company performed successfully in the latest flight test conducted by the Missile Defense Agency July 18.

"The FTX-03 mission successfully demonstrated the integration of missile defense sensors required to support an interceptor engagement," said Pete Franklin, vice president, Raytheon Integrated Defense Systems National & Theater Security Programs. "Raytheon's radars operated with other Ground-based Midcourse Defense (GMD) components and collected valuable mission data, significantly reducing risk for future flight tests."

During the mission, which demonstrated a simulated intercept of a live target, the AN/TPY-2 radar at Juneau, Alaska, acquired a boosting target launched from Kodiak, Alaska, using a cue based on data generated from satellite sensors. The AN/TPY-2 tracked the target during its initial boost phase through ballistic flight, cued the Upgraded Early Warning Radar (UEWR) at Beale Air Force Base, Calif., and demonstrated interoperability with multiple Ballistic Missile Defense System elements.

The UEWR successfully acquired, tracked and classified the target system, providing data to the GMD system and achieving all mission objectives.

The Raytheon-built X-Band Radar (XBR), aboard the Boeing-developed Sea-Based X-Band Radar (SBX) vessel, acquired the target complex via a cue formulated from the AN/TPY-2 and UEWR radar data and provided track and discrimination data to the GMD system, which directed the simulated engagement.

The XBR success in this mission was critical preparation for the FTG-05 flight test to be conducted later this year in which XBR will be the primary radar for all engagement decisions.

Raytheon Company is the prime contractor for the AN/TPY-2 radar, which provides a common capability enabling both a forward-based mode and a terminal mode in support of the Ballistic Missile Defense System. The AN/TPY-2 is a phased array, capable of search, threat detection, classification, discrimination and precision tracking at extremely long ranges.

Developed by Raytheon, the UEWRs add missile defense capabilities to the Raytheon-developed PAVE PAWS and Ballistic Missile Early Warning System radars, while continuing their missile warning and space surveillance missions. XBR, built by Raytheon Company, provides missile tracking, discrimination and hit assessment to the GMD portion of the BMDS.

The Boeing Company is the prime contractor for the GMD element of the BMDS and the SBX and UEWR at Beale Air Force Base.

http://starbulletin.com/2008/05/30/news/story07.html

It's Back!
By Gregg K. Kakesako
Honolulu Star-Bulletin
May 30, 2008

DENNIS ODA / DODA@STARBULLETIN.COM

The Missile Defense Agency's Sea-Based X-Band Radar, a 28-story structure that resembles a giant golf ball sitting atop a platform, has returned to Pearl Harbor for three weeks of maintenance. As seen yesterday from Neal Blaisdell Park in Pearl City, a plane approaching Honolulu Airport appeared to be attached to the radar's platform.

A frequent island visitor -- the 28-story, Sea-Based X-Band Radar -- is back in the islands for three weeks of maintenance work on its crane.

The floating platform, which holds two large radar domes resembling giant golf balls, docked at Pearl Harbor's Bravo Pier on Wednesday [2008-05-28], a Navy spokesman said.

In September a target missile was successfully tracked by the Sea-Based X-Band Radar and the Pearl Harbor-based destroyer USS Russell. The target missile was launched from Kodiak, Alaska. The ground-based interceptor missile was fired from Vandenberg Air Force Base near Los Angeles 17 minutes after the target missile was launched.

During that missile intercept the radar, with its domed radar housing, was located in the northern Pacific between Alaska and California. The Navy declined to pinpoint the floating platform's location. The fifth-generation, twin-hulled platform is self-propelled.

That test marked the sixth successful downing of a target in 10 tries since 1999 as part of the Missile Defense Agency's $43 billion program.

In January 2007 the sea-based radar left Hawaii for its home port of Adak, Alaska, at the end of the Aleutian Chain.

It returned again in July, and reporters were give a rare glimpse into the radar domes that house the radar. A Missile Defense Agency official said the floating radar system can pinpoint a pingpong ball 3,000 miles away and 250 miles above sea level.

The radar plays a critical role in U.S. missile defense, tracking and identifying incoming missiles and warheads and relaying the information to interceptor bases in Alaska and California.

http://www.honoluluadvertiser.com/apps/pbcs.dll/article?AID=/20080602/COLUMNISTS32/806020337/1315/LOCALNEWSFRONT

Radar 'golf ball' back at Pearl Harbor

Monday, June 2, 2008

The Sea-Based X-Band Radar, the 28-story "golf ball" on an oil platform, is back in Pearl Harbor for three weeks for maintenance on a crane and other systems, the Missile Defense Agency said.

The work is being down after the radar, called the "SBX," tracked a ballistic missile on May 22, and before a ballistic missile tracking event planned between mid-July and mid-August.

The Missile Defense Agency said the SBX has been at sea since Jan. 11, doing radar testing and conducting regular maintenance. At-sea maintenance included the first major overhaul of a diesel engine.

Another interesting ship used by the Missile Defense Agency that's on its way back to Pearl Harbor is the Mobile Launch Platform, the 603-foot former amphibious assault ship USS Tripoli.

The mobile launch platform is used to launch test targets to support Aegis ballistic missile defense and Terminal High Altitude Area Defense testing at the Navy's Pacific Missile Range facility on Kaua'i.

The launch platform is en route to Hawai'i, under tow via Navy tug from the San Francisco area, the Missile Defense Agency said. It will participate in upcoming tests in Hawai'i and return to the West Coast after September.

http://www.honoluluadvertiser.com/apps/pbcs.dll/article?AID=/20080609/COLUMNISTS32/806090335/1315/LOCALNEWSFRONT

Domed 'SBX' radar not to blame for interference in Isles

By William Cole
June 9, 2008

The towering Sea-Based X-Band radar, back in Pearl Harbor for a few weeks of work, can track a baseball-sized object on the East Coast from waters as far away as the West Coast.

Inside the domed top of the $900 million behemoth is an octagonal array studded with 45,000 radiating elements delineated in Aztec-like geometry.

The "SBX," as it's called, has a lot of radar power, and maybe it's not surprising that some think it's also causing some electronic voodoo here on O'ahu.

Some have called or written in to say their car remote locking devices are temporarily disabled when the SBX pulls into port.

Here's the response from the Missile Defense Agency, which operates the SBX:

"The Sea-Based X-Band radar (SBX) is currently berthed at Pearl Harbor Naval Shipyard for routine maintenance checks and will be in port for approximately three weeks. The large X-Band radar will not be used for any tracking while in or near Pearl Harbor, so there will not be any high power radio-frequency emissions.

"Navigation radars used for entering or leaving port and radio communications while in port are the same as systems used every day in Pearl Harbor and at Honolulu Harbor, so no interference is expected, and none has been identified in past visits. Coordinated testing in 2006 with Naval Region Hawai'i and the Honolulu Federal Aviation Administration looked for interference, but didn't identify any.

"When the large X-Band radar is operated offshore, safety interlocks are installed and procedures are followed to ensure the radar is operated safely. Extensive safety and environmental studies as well as radio frequency power surveys have been completed and have found that the radar will cause no damage to people or the environment with these safety features."

http://armed-services.senate.gov/statemnt/2008/April/Obering%2004-01-08.pdf

Lieutenant General Henry A. Obering III, USAF
Director, Missile Defense Agency
Missile Defense Program and Fiscal Year 2009 Budget
Before the
Senate Armed Services Committee
Subcommittee on Strategic Forces
April 1, 2008

[EXCERPT]

The Sea-Based X-band radar (SBX) completed crew training and testing off the coast of Hawaii and transited to the North Pacific to conduct a cold weather shakedown off Adak, Alaska, where it will be home-ported in 2009.

Raytheon Awarded Two Task Orders Worth $28.3 Mln To Operate And Sustain X-band Radars [RTN]

3/17/2008 10:44:30 AM Raytheon Co. (RTN) on Monday announced that it has been awarded two task orders worth $28.3 million as part of a Missile Defense Agency indefinite delivery-indefinite quantity contract to operate and sustain the agency's X-Band radars as part of the Consolidated Contractor Logistics Services program. The company noted that the contract has a potential value of up to $1.9 billion over 10 years.

The first task order which is valued at $1.2 million provides management services for the operation and sustainment of the Raytheon-developed X-Band radar or XBR aboard the Sea-Based X-Band radar or SBX vessel and subsequent task orders. The second task order has a value of $27.1 million and covers day-to-day management, direction and control, and operations and sustainment of the XBR on the SBX.

The company said that this contract was structured to include a five-year base period worth $756 million and five one-year options bringing the total potential value of the award to $1.9 billion. The goal is to reduce the total cost of ownership over 10 years.

The company added that this contract award signifies a long-term partnership with Missile Defense Agency to consolidate operations and sustainment of the agency's Raytheon-built family of X-Band radars in a flexible and efficient manner.

www.midpac.navy.mil/MAJOR%20COMMANDERS%20CONF%20PPT/BMD%20Brief.ppt

Major CDRs Training Symposium

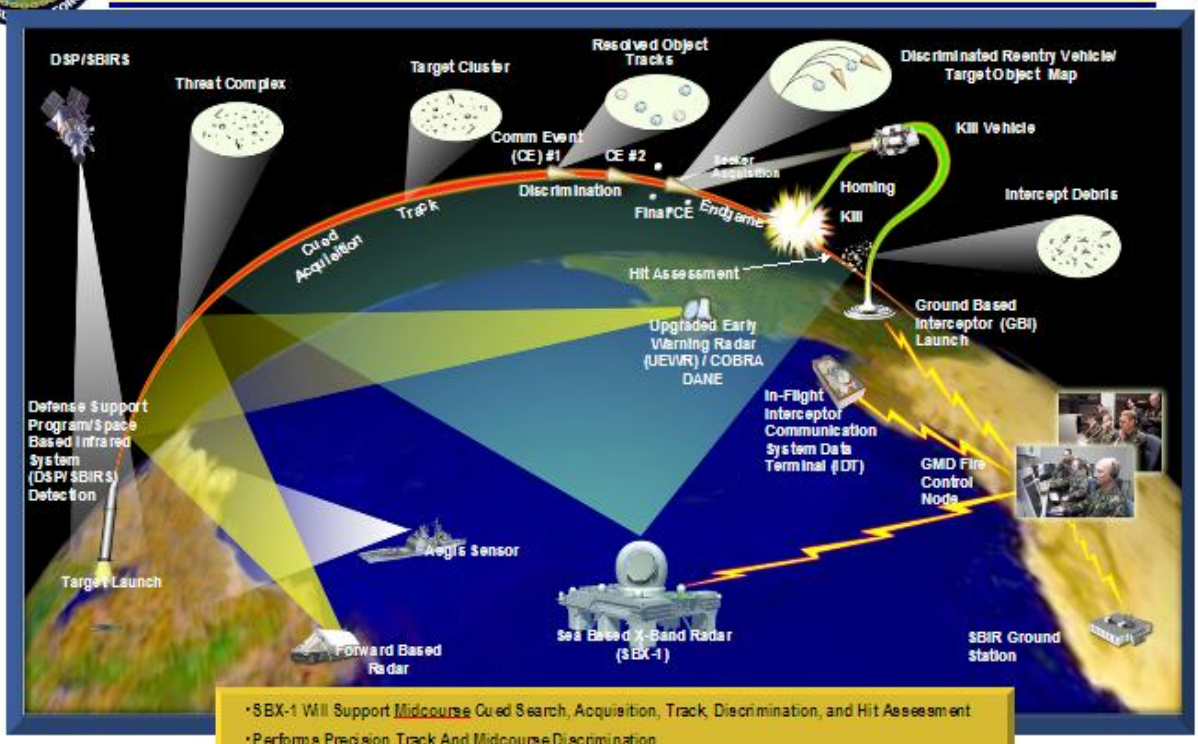
Ballistic Missile Defense

CAPT Joe Horn

SBX

- High-power X-band radar on mobile oil rig
- Two purposes
  - Operational BMDS asset
  - MDA test event support
- CNO letter to LtGen Obering: Navy will accept Lead Service
  - Contingent upon budget-based TOA transfer of O&S funds
  - Maritime Component Commander to exercise C2
- Navy SBX Lead Service Implementation Team (N86 Lead)
  - OPNAV N3/5, N4, N8
  - DASN(IWS)
  - NAVSEA (05)/PEO(IWS)
  - USFFC (N8, N4)
  - MSC
- Targeting FY08/09 for transition
  - Potential Congressional involvement in TOA transfer

SBX Radar Role in BMDS Architecture



- SBX-1 Will Support Midcourse Cued Search, Acquisition, Track, Discrimination, and Hit Assessment
- Performs Precision Track And Midcourse Discrimination
- Provides Discriminated Reentry Vehicle To GMD Fire Control (GFC)
- Provides Data on All Target Complexes to Help Develop Target Object Map
- Can Be Optimally Positioned To Maximize Threat Coverage

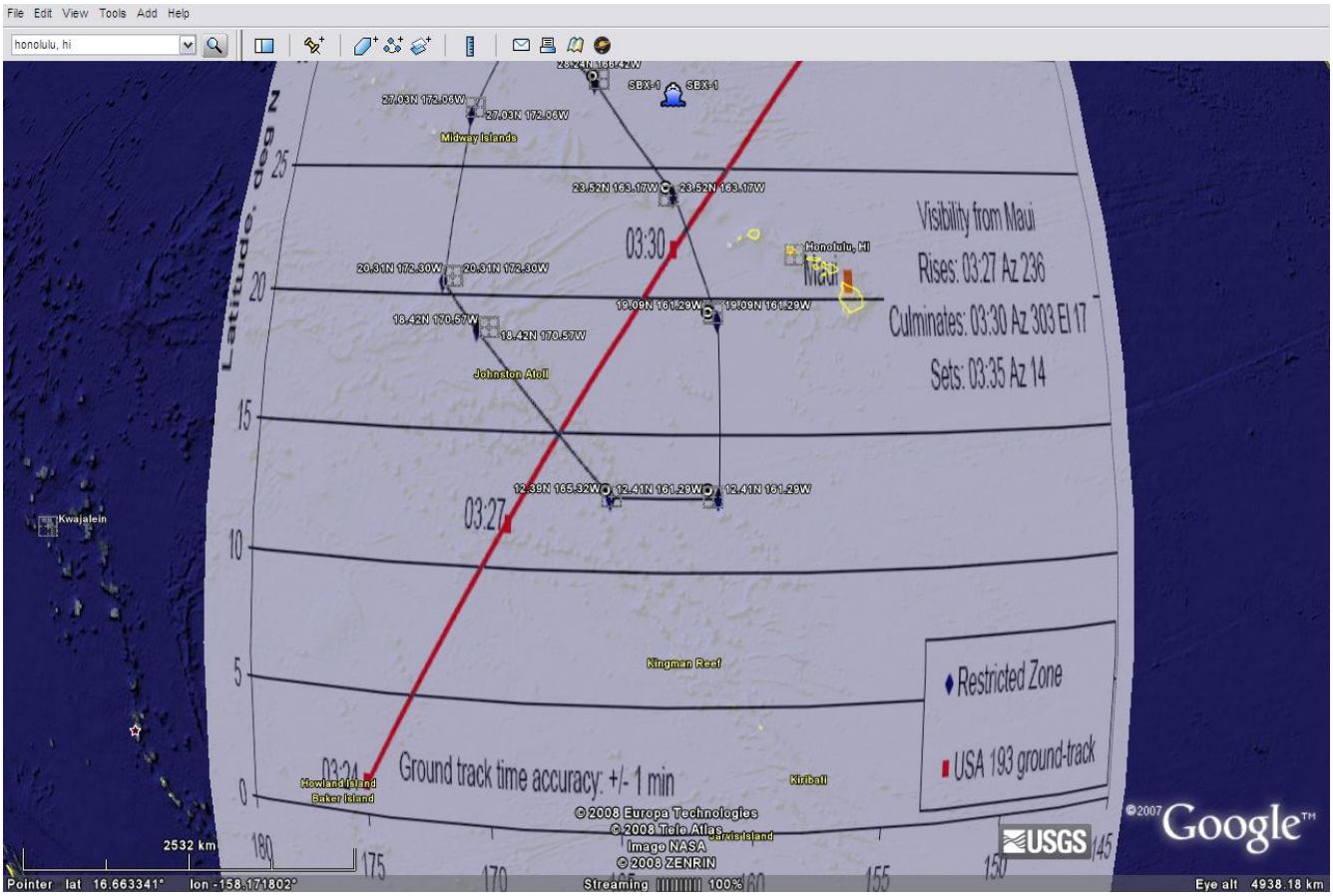
Raytheon Missile and Radar Played Critical Roles in Satellite Intercept

Monday, Feb. 25 2008

WALTHAM, Mass., Feb. 25, 2008, 2008 /PRNewswire-FirstCall via COMTEX/ -- Raytheon Company technology played a pivotal role in the Feb. 20 successful intercept of a non-functioning satellite.

The company's Standard Missile-3 was specially modified for this unique operation, performing beyond its intended capabilities to intercept the target 153 miles over the Pacific Ocean. Much engineering and technical expertise went into modifying the software on three SM-3 missiles for this one-time mission. Throughout the process, Raytheon engineers worked closely with their customers to ensure mission success.

At the same time, the Sea-Based X-band radar, designed and built by Raytheon, tracked the satellite prior to the missile engagement and performed the hit assessment afterward. The radar performs the critical functions of cuing, tracking and, discriminating a target. Its homeport is Adak, Alaska, located approximately midway along the Aleutian Islands chain.



Groundtrack of USA-193 and NOTAM restricted zone, 2008-02-21 UTC

NOTAM: A0601/08 - QXXXX SBX-1, A SURFACE VESSEL TESTING A HIGH POWERED X BAND RADAR SYSTEM WILL BE OPERATING IN THE VICINITY OF 2700N/16300W. THE VESSEL ALSO HAS A SEARCH RADAR ON BOARD FOR DETECTING AIRCRAFT WITHIN APPROXIMATELY 81NM OF THE VESSEL. IF AIRCRAFT ARE DETECTED WITHIN 8.5 NM OF THE VESSEL TESTING OF THE HIGH POWERED RADAR SYSTEM WILL BE SUSPENDED. WIE UNTIL 05 MAR 23:59 2008. CREATED: 11 FEB 13:55 2008

http://www.cnn.com/2008/TECH/02/15/spy.satellite/

Attempt to shoot down spy satellite to cost up to $60 million
From Jamie McIntyre
CNN
updated 56 minutes ago
[Accessed 2008-02-16T02:35Z]

WASHINGTON (CNN) -- The attempt by the U.S. Navy to use an anti-missile missile to shoot down a potentially hazardous satellite will cost between $40 million and $60 million, Pentagon officials told CNN on Friday *[2008-02-15]*.

The missile alone costs almost $10 million, Lt. Gen. Carter Ham said at a Pentagon briefing. He declined to give an overall cost estimate.

"I think we're working with all the parties to [find] how much did it cost to modify the missiles, the fire control, that kind of business," he said.

Pentagon officials argue the effort is worth the expense because of the slim -- but real -- chance that the satellite's unused fuel, 1,000 pounds of toxic hydrazine, could land in a populated area.

Because the super-secret spy satellite malfunctioned immediately after launch in December 2006, its fuel tank is full, and it would probably survive re-entry and disperse harmful, even potentially deadly fumes over an area the size of two football fields.

The missile will carry no warhead; the objective is to break the satellite apart through the force of impact alone, defense officials said. Learn more about the mission »

One Pentagon official -- who spoke on condition of anonymity because the planning for the operation remains classified -- told CNN that since early January, a Navy team, including 200 industry experts and scientists, has been working furiously to modify its sea-based Aegis missile defense system so it can shoot down a satellite in low orbit.

Among the challenges is modifying sensors designed to detect the heat from an incoming warhead so they can spot the much-cooler satellite, which has no heat source and is warmed only by the sun's rays.

In addition, the official says, a floating X-band radar has to be modified to track the satellite's trajectory, and the "fire-control" systems on the Navy ships also needed modification.

No attempt will be made to shoot down the satellite until after the U.S. space shuttle lands next Wednesday.

"The window will open when the shuttle is on the ground," Ham said.

Pentagon officials say three missiles have been modified for the mission, so in theory, the Navy may get three shots at the satellite, although only one at a time.

"They want the period of a day or two to assess the effect of the first missile ... to probably get an orbit or two, to get an understanding of what effect the first intercept had on the satellite before launching another interceptor," Ham said.

The Aegis cruiser USS Lake Erie was chosen for the mission. It's fully equipped with sea-based missile defense systems, has long been the Navy's primary ship for the sea-based missile defense program and has the technology needed for the operation, officials said.

It will be accompanied by two destroyers --- the USS Decatur and the USS Russell -- at an undisclosed location in the Pacific Ocean north of the equator. The Decatur will feed trajectory information to the Erie, and the Russell will back up the Decatur.

Defense officials say the ships' radars and software were modified to track targets much faster than the ballistic missiles they were designed to track.

A host of ground-based radars, telescopes and sea-based radars will help determine if the satellite was hit. The Air Force also will have a plane in the air that can detect the release of hydrazine gas.

The USNS Observation Island, a ship that uses telemetry to monitor objects in space, will collect information on the satellite both before and after the missile launch.

The Navy will use its $9.5 million Standard Missile 3 in the shoot-down. The combined speed of the missile and satellite at impact is expected to be about 22,000 miles per hour.

The government started thinking about how to approach the satellite problem in December. And on January 4, President Bush and various senior officials agreed to begin planning for the shoot-down.

On Tuesday, the president approved the plan.

http://www.defenselink.mil/comptroller/defbudget/fy2009/budget_justification/pdfs/03_RDT_and_E/Vol_2_MDA/19_PE-0603907C-SBX.pdf

Missile Defense Agency (MDA) Exhibit R-2 RDT&E Budget Item Justification						Date: February 2008
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)			R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)			
COST ($ in Thousands)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total PE Cost	0	165,243	0	0	0	0	0
XX46 Sea Based X-Band Radar (SBX) Sustainment	0	165,243	0	0	0	0	0

Note: The FY07 effort is captured under the Ground Based Midcourse Defense Program Element (0603882C). FY09 effort continues in Project XX11 under the BMDS Sensors Program Element (0603884C).

A. Mission Description and Budget Item Justification

A.1 System Element Description

As part of the effort to develop a Ballistic Missile Defense System (BMDS), the Missile Defense Agency (MDA) has developed and deployed a large BMDS Sea-Based X-Band (SBX) Radar. The SBX provides the capability to the Combatant Commanders to engage ballistic missiles in the midcourse phase of flight.

The SBX consists of four major operating systems: vessel; X-Band Radar (XBR); In-Flight Interceptor Communications System (IFICS) Data Terminal (IDT), and the Ground-Based Midcourse Defense (GMD) Communications Network (GCN). The vessel is a commercially designed, self-propelled, semi-submersible oil drilling platform that was modified to meet the functional requirements of the SBX. The vessel has a dynamic positioning capability to enable precision station keeping in potential adverse sea states and weather conditions. The XBR is a phased-array system that also features a mechanical slewing capability in azimuth and elevation. The XBR operates in the X-Band portion of the frequency spectrum and represents the world's largest X-band radar. When fully integrated with the GMD system, it will become a primary midcourse discrimination sensor for Ballistic Missile Defense. X-band technology provides this midcourse sensor with the ability to perform high resolution cued search, acquisition, tracking, and target discrimination. To perform this effort, highly sophisticated algorithms are designed to enhance target acquisition and discrimination of more complex and off-nominal threat sets and targets.

A.2 System Element Budget Justification and Contribution to the Ballistic Missile Defense System (BMDS)

The SBX provides the capability to the Combatant Commanders to engage ballistic missiles in the midcourse phase of flight.

Missile Defense Agency (MDA) Exhibit R-2 RDT&E Budget Item Justification	Date: February 2008
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)

A.3 Major System Element Goals

- Complete integration of XBR Software Build 2.2.1.x.
- Participate in GTD-02. Acquire performance information to support an Emergency Capability Delivery (ECD) decision for SBX incorporation into the GMD System
- Participate in FTG-04, which demonstrates the functionality of GBI engage on SBX using XBR Build 1.6.1.x Software
- Participate in GTI-03. Acquire performance information to support a Partial Capability Delivery (PCD) and Full Capability Delivery (FCD) decision for SBX incorporation into the GMD System
- Participate in GTD-03
- Participate in FTG-05 which demonstrates the functionality of GBI engage on SBX using XBR Software Build 2.2.1.x.
- Participate in DoD Targets of Opportunity as available for viewing by the SBX
- Complete Phase I and Phase II Operational Enhancement to the vessel
- Complete required 5-Year mid-cycle American Bureau of Shipping (ABS) special survey of the vessel

A.4 Major Events Schedule and Description

Major Event	Project	Timeframe	Description
Flight Test			
Flight Tests			
FTG-04	XX46	3Q FY 2008	• Demonstrate the functionality of GBI engage on SBX using XBR 1.6.1x Software
FTG-05	XX46	4Q FY 2008	• Participate in FTG-05 which demonstrates the functionality of GBI engage on SBX using XBR Build 2.2.1.x. Software.
Ground Test			
Integrated/Distributed Ground Tests			
GTD-02	XX46	1Q FY 2008	• Acquire performance information to support an Emergency Capability Delivery (ECD) decision for SBX incorporation into the GMD System.
GTI-03	XX46	3Q FY 2008	• Acquire performance information to support a Partial Capability Delivery (PCD) and Full Capability Delivery (FCD) decision for SBX incorporation into the GMD System.
GTD-03	XX46	4Q FY 2008	• Participate in this test.

Missile Defense Agency (MDA) Exhibit R-2 RDT&E Budget Item Justification	Date: February 2008
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)

B. Program Change Summary	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008 PB)	0	0	0
Current President's Budget (FY 2009 PB)	0	165,243	0
Total Adjustments	0	165,243	0
Congressional Specific Program Adjustments	0	166,300	0
Congressional Undistributed Adjustments	0	-1,057	0
Reprogrammings	0	0	0
SBIR/STTR Transfer	0	0	0
Adjustments to Budget Years	0	0	0

FY08 increase of $165.243 million includes the Congressionally specific transfer of the SBX program and associate $166.3 million in FY08 funding to a unique PE and a portion of the MDA Congressional undistributed reduction.

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification						Date: February 2008	
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)				R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)			
COST ($ in Thousands)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
XX46 Sea Based X-Band Radar (SBX) Sustainment	0	165,243	0	0	0	0	0
RDT&E Articles Qty	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification

The Sea-Based X-Band (SBX) Radar consists of four major operating systems: vessel; X-Band Radar (XBR); In-Flight Interceptor Communications System (IFICS) Data Terminal (IDT), and the Ground-Based Midcourse Defense (GMD) Communications Network (GCN). The vessel is a commercially designed, self-propelled, semi-submersible oil drilling platform that was modified to meet the functional requirements of the SBX. The vessel has a dynamic positioning capability to enable precision station keeping in potential adverse sea states and weather conditions. The XBR is a phased-array system that also features a mechanical slewing capability in azimuth and elevation. The XBR operates in the X-Band portion of the frequency spectrum and represents the world's largest X-band radar. When fully integrated with the GMD system, it will become the primary midcourse discrimination sensor for Ballistic Missile Defense. X-band technology provides this midcourse sensor with the ability to perform high resolution cued search, acquisition, tracking, and target discrimination. To perform this effort, highly sophisticated algorithms are designed to enhance target acquisition and discrimination of more complex and off-nominal threat sets and targets.

The SBX will operate from various locations in the Pacific Ocean in FY08 continuing its integration into the Ballistic Missile Defense System (BMDS) through support of system flight and ground tests. Additionally, the SBX is scheduled to spend time at the Pearl Harbor shipyard to implement enhancements to the SBX vessel that resulted from recommendations of an Operational Viability Assessment (OVA) panel. Security surrounding the SBX is a vital part of the operations of the SBX.

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date: February 2008
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)

B. Accomplishments/Planned Program

	FY 2007	FY 2008	FY 2009
Sea-Based X-Band Radar Development	0	43,643	0
RDT&E Articles (Quantity)	0	0	0

The X-Band Radar is a phased-array radar mounted on a mechanical slewing capability in azimuth and elevation. The XBR operates in the X-band portion of the frequency spectrum and is the world's largest X-band radar. The XBR is affixed to a commercially designed, self-propelled, semi-submersible oil drilling platform that was modified to meet the functional requirements of the SBX. The SBX consists of four major operating systems:

- The Vessel (self-propelled, semi-submersible oil drilling platform)
- The X-Band Radar (XBR)
- In-Flight Interceptor Communications System (IFICS) Data Terminal
- The Ground-Based Midcourse Defense (GMD) Communications Network (GCN)

When fully integrated with the GMD System, it will become the primary midcourse discrimination sensor for Ballistic Missile Defense. The XBR has the ability to perform high resolution cued search, acquisition, tracking, target discrimination, and debris assessments.

The SBX will operate from various locations in the Pacific Ocean in FY08 continuing its integration into the Ballistic Missile Defense System (BMDS) through support of system flight and ground tests. Additionally, the SBX is scheduled to spend time at the Pearl Harbor shipyard to implement enhancements to the SBX vessel that resulted from recommendations of an Operational Viability Assessment (OVA) panel.

FY08 Planned Program:

- Software development and maintenance
- System Engineering and Program Management
- Discrimination and Algorithm development
- Enhancement of Liquid Conditioning Control System (Radar Cooling)
- Certification of Mooring for SBX in Kulak Bay, Adak, AK

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date: February 2008
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)

	FY 2007	FY 2008	FY 2009
SBX System Integration	0	28,200	0
RDT&E Articles (Quantity)	0	0	0

The XBR in coordination with the other SBX payloads functions as the primary BMDS midcourse sensor. The SBX program requires management and oversight of the overall SBX System, which includes integration of these on-board major sub-system payloads to successfully operate as designed within the overall BMDS. The principle payloads are: the X-Band Radar (XBR), the In-Flight Interceptor Communications System Data Terminal, a GMD Communications Network (GCN), and an Embedded Test (ET) node on the SBX marine platform. Functions in the system integration efforts include: vessel payload modification and integration, testing and operability verification efforts, and coordination and support of BMDS flight and ground test efforts. Integration efforts address the respective BMDS operational component requirements and the Warfighter/USER concept of operations. Additionally, preparations will continue for the transition of SBX from MDA to the U.S. Navy.

	FY 2007	FY 2008	FY 2009
System Force Protection	0	6,200	0
RDT&E Articles (Quantity)	0	0	0

System Force Protection for the SBX in FY08 is divided into two functions: On-board protection of the vessel, and portside security for the SBX vessel and its Off-Shore Support (OSS) vessel, currently the Motor/Vessel (M/V) Dove while docked. On-board protection security functions include: on-board visitor control, access control to sensitive areas, protection against hostile boarding of the SBX, inspection and control of incoming personnel, supplies and equipment, and deterring of vessels encroaching into the SBX's restricted zone. Portside security functions include: inspection and control of all supplies and equipment being readied for transport onto the SBX, access control of the docking area, and visitor control to the SBX and M/V Dove.

	FY 2007	FY 2008	FY 2009
SBX Vessel Operations and Support	0	52,200	0
RDT&E Articles (Quantity)	0	0	0

Operations and Sustainment (O&S) of the SBX vessel refers to the general O&S functions associated with the SBX platform, its support vessel, and land-based support facilities. The maritime functions of the SBX include the vessel maritime crew which provides safety at sea functions, navigation and propulsion of the vessel, lodging and food services/provisions, vessel maintenance (spares and repair parts), and fuel procurement and power generations for both the vessel and mission equipment. The support vessel operations include operation the Motor/Vessel (M/V) Dove. The functions

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification	Date: February 2008
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)

of the M/V Dove include: SBX maritime and mission equipment crew transport and transfer, fueling of the SBX, provision re-supply, transport and transfer of all equipment and hardware to and from the SBX, anchor handling, and when necessary, towing of the SBX. Logistical shore facilities are also required to support the SBX mission. There are two shore sites associated with the operations and support of the SBX: the Primary Support Base (PSB) located in Adak, Alaska (the home port for the SBX), and the Operational Support Site (OSS) located in Anchorage, Alaska. The PSB provides the functions of fuel coordination, environmental response capabilities, and is the shipping/receiving point for personnel and supplies to/from the SBX-1. The OSS manages SBX schedules, provides administrative and logistical support, and is the primary coordination point with Combatant Commanders (COCOMs) and MDA Test Schedules.

	FY 2007	FY 2008	FY 2009
XBR Operations and Support	0	35,000	0
RDT&E Articles (Quantity)	0	0	0

The X-Band Radar (XBR) aboard the SBX is the primary midcourse sensor for the BMDS. Operations and Support (O&S) efforts for the XBR include: manpower for operating and maintaining the radar, spare and repair parts procurement, and hardware maintenance. The on-vessel XBR personnel perform the functions of 24/7 radar operations, calibration of the radar and support/test equipment, maintenance and repair of the radar associated equipment, and system test planning and post mission analysis for radar specific and BMDS tests. Spares and repair parts procurement includes the supply chain management, quality inspection of the spares, repair part logistics tracking, and procurement of spares and repair parts. Hardware maintenance functions include the repair, at the contractor's site, or replacement of hardware components necessary in the operation of the XBR.

C. Other Program Funding Summary

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost
PE 0207998C BRAC	0	103,219	159,938	61,931	8,724	0	0	333,812
PE 0603175C Ballistic Missile Defense Technology	183,849	108,423	118,718	115,234	120,152	127,012	130,358	903,746
PE 0603881C Ballistic Missile Defense Terminal Defense Segment	1,082,454	1,045,276	1,019,073	795,659	719,847	548,283	439,752	5,650,344
PE 0603882C Ballistic Missile Defense Midcourse Defense Segment	2,985,140	2,243,213	2,209,262	2,276,848	1,385,258	946,437	1,103,532	13,149,690
PE 0603883C Ballistic Missile Defense Boost Defense Segment	622,218	510,241	421,229	423,927	652,642	799,792	991,839	4,421,888
PE 0603884C Ballistic Missile Defense Sensors	514,989	586,121	1,221,143	1,184,280	1,099,649	1,077,632	823,583	6,507,397

Missile Defense Agency (MDA) Exhibit R-2A RDT&E Project Justification							Date: February 2008	
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)				R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)				
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Cost
PE 0603886C Ballistic Missile Defense System Interceptors	341,358	340,107	386,817	500,966	708,803	815,433	553,136	3,646,620
PE 0603888C Ballistic Missile Defense Test and Targets	584,615	621,861	673,691	672,976	690,938	708,991	719,209	4,672,281
PE 0603890C Ballistic Missile Defense System Core	425,889	413,934	432,262	482,947	605,219	561,947	571,498	3,493,696
PE 0603891C Special Programs - MDA	347,377	196,892	288,315	304,234	538,050	818,136	786,349	3,279,353
PE 0603892C Ballistic Missile Defense Aegis	1,125,426	1,126,337	1,157,783	1,234,220	1,078,539	1,066,712	1,102,542	7,891,559
PE 0603893C Space Tracking & Surveillance System	311,402	231,528	242,441	266,509	560,130	735,727	938,191	3,285,928
PE 0603894C Multiple Kill Vehicle	133,615	229,943	354,455	488,294	649,632	708,582	879,385	3,443,906
PE 0603895C BMD System Space Program	0	16,552	29,771	41,638	56,199	133,915	157,548	435,623
PE 0603896C BMD C2BMC	249,179	447,616	289,277	287,194	270,762	256,767	259,159	2,059,954
PE 0603897C BMD Hercules	46,268	52,462	55,955	55,289	56,400	51,902	52,784	371,060
PE 0603898C BMD Joint Warfighter Support	49,833	49,394	69,982	73,997	77,205	80,168	81,948	482,527
PE 0603904C Missile Defense Integration & Operations Center	104,389	78,557	96,404	100,437	100,366	101,512	102,840	684,505
PE 0603905C BMD Concurrent Test and Operations	21,870	0	0	0	0	0	0	21,870
PE 0603906C Regarding Trench	0	1,986	2,978	4,964	4,963	8,933	8,933	32,757
PE 0605502C Small Business Innovative Research - MDA	142,510	0	0	0	0	0	0	142,510
PE 0901585C Pentagon Reservation	15,527	6,019	19,734	5,040	5,284	5,370	5,456	62,430
PE 0901598C Management Headquarters - MDA	93,350	80,392	86,453	70,355	69,855	69,855	69,855	540,115

D. Acquisition Strategy

The SBX will continue to follow the Missile Defense Agency's capability-based acquisition strategy that emphasizes testing, development and evolutionary acquisition through the use of MDA's new block structure and spiral development.

Missile Defense Agency (MDA) Exhibit R-3 RDT&E Project Cost Analysis	Date: February 2008
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)	R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)

I. Product Development Cost ($ in Thousands)

Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	FY 2009 Award/ Oblg Date	Total Cost
Sea-Based X-Band Radar Development								
SBX and XBR Development	SS/CPAF	Boeing/ AL/AK/AZ/CA/CO /HI/MA/TX/VA	0	43,643	2/3Q	0	N/A	43,643
SBX System Integration								
SBX Systems Integration	SS/CPAF	Boeing/ AL/AK/AZ/CA/CO /HI/MA/TX/VA	0	28,200	2/3Q	0	N/A	28,200
Subtotal Product Development			0	71,843		0		71843

Remarks

II. Support Costs Cost ($ in Thousands)

Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	FY 2009 Award/ Oblg Date	Total Cost
Sea-Based X-Band Radar Development								
System Force Protection								
Systems Force Protection	SS/CPFF	ALUTIIA/ AK/VA	0	6,200	3Q	0	N/A	6,200
SBX Vessel Operations and Support								
SBX Operations and Support (Vessel)	SS/CPAF	Boeing/ AL/AK/AZ/CA/CO /HI/MA/TX/VA	0	52,200	2/3Q	0	N/A	52,200

Missile Defense Agency (MDA) Exhibit R-3 RDT&E Project Cost Analysis								Date: February 2008
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)					R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)			
Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	FY 2009 Award/ Oblg Date	Total Cost
XBR Operations and Support								
XBR Operations and Support	SS/CPIF	Raytheon/ AL/AK/HI	0	35,000	3/4Q	0	N/A	35,000
Subtotal Support Costs			0	93,400		0		93400

Remarks

III. Test and Evaluation Cost ($ in Thousands)

Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	FY 2009 Award/ Oblg Date	Total Cost
Subtotal Test and Evaluation								

Remarks

IV. Management Services Cost ($ in Thousands)

Cost Categories:	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award/ Oblg Date	FY 2009 Cost	FY 2009 Award/ Oblg Date	Total Cost
Subtotal Management Services								

Remarks

Project Total Cost			0	165,243		0		165,243

Remarks

Missile Defense Agency (MDA) Exhibit R-4 Schedule Profile

Date: **February 2008**

APPROPRIATION/BUDGET ACTIVITY: **RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)**

R-1 NOMENCLATURE: **0603907C Sea Based X-Band Radar (SBX)**

Fiscal Year	2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Flight Tests																												
FTG-04							△																					
FTG-05								△																				
Integrated/Distributed Ground Tests																												
GTD-02					▲																							
GTI-03							△																					
GTD-03								△																				

Legend

▲	Significant Event (complete)	△	Significant Event (planned)
★	Milestone Decision (complete)	☆	Milestone Decision (planned)
◆	Element Test (complete)	◇	Element Test (planned)
▼	System Level Test (complete)	▽	System Level Test (planned)
▲——▲	Complete Activity	△——△	Planned Activity

Missile Defense Agency (MDA) Exhibit R-4A Schedule Detail						Date: February 2008	
APPROPRIATION/BUDGET ACTIVITY: RDT&E, DW/04 Advanced Component Development and Prototypes (ACD&P)			R-1 NOMENCLATURE: 0603907C Sea Based X-Band Radar (SBX)				
Schedule Profile	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Flight Tests							
FTG-04		3Q					
FTG-05		4Q					
Integrated/Distributed Ground Tests							
GTD-02		1Q					
GTI-03		3Q					
GTD-03		4Q					

www.legis.state.ak.us/pdf/25/M/HASC2008-02-121308.PDF

ALASKA STATE LEGISLATURE
JOINT ARMED SERVICES COMMITTEE
February 12, 2008
1:08 p.m.

MEMBERS PRESENT

Senator Bill Wielechowski, Co-Chair
Representative Nancy Dahlstrom, Co-Chair
Senator Bettye Davis
Senator Charlie Huggins
Senator Gary Wilken
Representative John Coghill
Representative Bob Lynn
Representative Bob Roses
Representative Andrea Doll

WITNESS REGISTER

LIEUTENANT GENERAL DOUGLAS FRASER, Commander
Alaskan Command
Alaskan North American Aerospace Defense (NORAD) Command Region 11th Air Force and Joint Task Force - Alaska

POSITION STATEMENT: Provided a presentation titled "Alaska's Military: Changing Times."

BRIGADIER GENERAL THOMAS KATKUS
Alaska Army National Guard
POSITION STATEMENT: Provided a presentation on the Alaska National Guard.

BRIGADIER GENERAL MCMANUS
Alaska Air National Guard
POSITION STATEMENT: Offered remarks regarding the National Guard

[deletia]

Turning to the slide titled "Sea-Based X-Band Radar (SBX)," Lieutenant General Fraser informed the committee that the SBX visited Adak in February to perform a Shakedown cruise. He noted that although SBX will be home ported in Adak, it will be deployed, as needed, around the Pacific to support missile defense activities. The SBX is expected to return to Adak in early 2009 after receiving modifications and subsequently supporting the Missile Defense Agency tests in the Pacific.

[deletia]

www.mxak.org/home/news/news_docs/**sbx**.pdf

Maritime Security Levels

The Coast Guard has a three-tiered system of Maritime Security (MARSEC) levels. They are related to the Department of Homeland Security's Homeland Security Advisory System (HSAS). However, the two operate independently from each other and either can increase in level or decrease without affecting the other.

MARSEC levels reflect the prevailing threat environment to the marine elements of the national transportation system, including ports, vessels, facilities, and critical assets and infrastructure located on or adjacent to waters subject to the jurisdiction of the U.S. They can be applied broadly to an entire area or to a specific port.

MARSEC Level 1: Minimum appropriate security measures shall be maintained at all times. Generally applies when HSAS Threat Condition Green, Blue, or Yellow are set.

Examples of control measures would include: Facility's piers and fuel dock will be inspected for unauthorized personnel or vehicles and suspicious packages prior to and during the regulated vessel's arriving.

MARSEC Level 2: Appropriate additional protective security measures shall be maintained for a period of time as a result of heightened risk of a transportation security incident. Generally corresponds to HSAS Threat Condition Orange.

In addition to the security measures in MARSEC Level 1, an example of control measures would include: Declaration of Security (DoS) for vessels will be reviewed and signed prior to commencing regulated cargo transfer operations. The Facility Security Officer (FSO) shall ensure that the conditions agreed to in the D0S are complied with for the duration of the cargo operations.

MARSEC Level 3: Further specific protective security measures for a limited period of time when a transportation security incident is probable, imminent, or has occurred. MARSEC 3 generally corresponds to HSAS Threat Condition Red.

Control measures would include: In addition to the security measures in MARSEC 1 and 2 in MARSEC 3: All cargo operations immediately suspended until approval is granted by FSO. Essential movement only, conduct 100% inspections of pedestrians, baggage, vehicles, cargo, etc. entering restricted areas.

Contact Adak Harbormaster or SBX Shore Security Officer for current MARSEC Level.

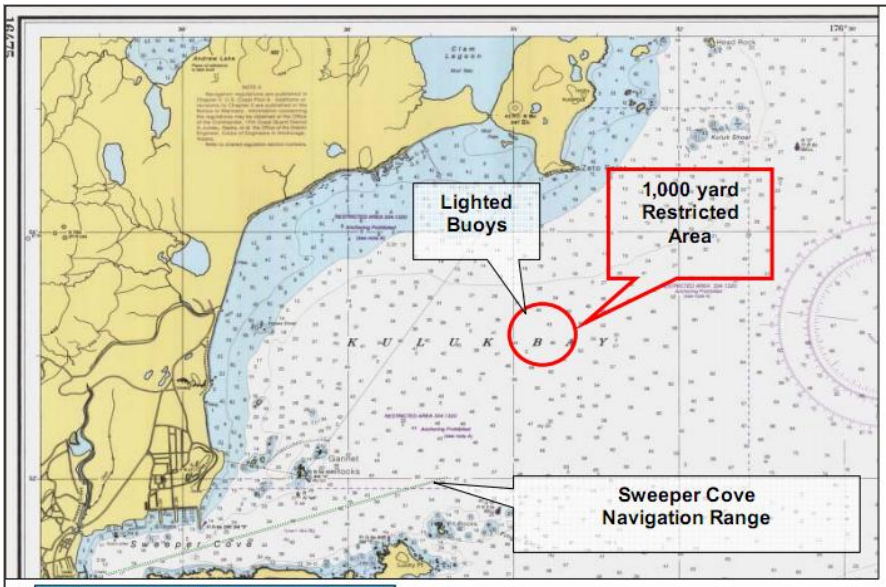
DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

For More Information:

- **Adak Harbormaster: (907) 592-0185**
- **MDA Security Operations Center: (907) 592-0622**
- **MDA Public Affairs: (907) 384-1424**
- **US Coast Guard Public Affairs: (907) 271-2660**

SBX Information for Mariners Entering Kuluk Bay Adak, Alaska

Approved for Public Release
08-MDA-3248 (7 FEB 08)



Entering Kuluk Bay

- There is a restricted area established around the SBX mooring in accordance with 33 CFR 334, Danger Zones and Restricted Area Regulations. This restricted area is publicized in Notice to Mariners and in updates to navigation publications and charts.
- No vessel, person or other craft can enter or remain in the restricted area except those authorized by Missile Defense Agency. This restriction is in effect whether or not the SBX is present at the mooring.
- The Restricted Area extends 1,000 yards from the mooring area center point (51°53'10" N, 176°33'39" W). It will be marked by a ring of eight (8) lighted navigational buoys marking the perimeter of the Area. The buoys will be approximately 800 yards out from the SBX-1 mooring and will be marked by a white light flashing at ten (10) second intervals. Vessels, persons or other craft must stay at least 200 yards out from the buoys.
- At times the restricted area is patrolled by 33' patrol boats operated by the Missile Defense Agency. The patrol boats monitor marine channel 16.
- The restricted area is clear of the Sweeper Cove Navigation Range and will not affect vessels traveling into Sweeper Cove.

Harbor Security

On Adak island, the Missile Defense Agency (MDA) shore-based security force protects people and equipment in transit to the Sea-Based X-Band Radar (SBX). The security forces also provide access control onto the Offshore Support Vessel (OSV) when authorized personnel and equipment need transportation to the SBX and during refueling operations. MDA security personnel also maintain physical security of MDA assets located on the Port of Adak.

Prior to the OSV arriving at the Port of Adak, and in coordination with the Harbormaster, Facility Security Officer (FSO), the MDA security officers will establish a temporary restricted area and will erect a temporary line of demarcation while the OSV is docked at a pier and an Access Control Point (ACP) will be established to control access to the temporary restricted area. Only authorized personnel will be allowed past the line of demarcation.

The MDA Security Officer in Charge has been designated the SBX Shore Security Officer. She/he can be reached at (907) 592-0622. Her/his office is located on the Port of Adak in the MDA Security Operations Center.

Offshore Support Vessel (OSV)

http://gen.doh.hawaii.gov/sites/EnvNotice/Shared%20Documents/2007%20Environmental%20Notice/2007-10-23.pdf

The Environmental Notice

A semi-monthly periodic bulletin published by the Office of Environmental Quality Control pursuant to Section 343-3, Hawai'i Revised Statutes

October 23, 2007

[EXCERPT]

(1) U.S. Coast Guard Security Zone for U.S. Forces Vessel SBX-1

Federal Action: Federal Agency Activity

Federal Agency: U.S. Coast Guard

Contact: Dr. Dennis Mead, 541-2129

Location: Waters extending 500-yards around the vessel.

CZM Contact: John Nakagawa, 587-2878, Electronic mail: jnakagaw@dbedt.hawaii.gov

Proposed Action: The U.S. Coast Guard proposes to establish a permanent 500-yard moving security zone around the U.S. Forces vessel SBX-1 while it transits within waters off of Honolulu, Oahu, to Pearl Harbor for repairs at least once each year. The security zone would be automatically activated for enforcement whenever the vessel is in U.S. navigable waters within the Honolulu Captain of the Port Zone, and includes all waters extending 500-yards in all directions from the SBX-1, from the surface to the ocean floor. The security zone would move with the SBX-1 while it is in transit and would become fixed whenever the SBX-1 is stationary.

Comments Due: November 6, 2007

http://www.mda.mil/mdalink/pdf/07news0050.pdf

Missile Defense Agency to Conduct Ground Test Exercise
07-NEWS-0050
26 October 2007

As part of our continuing emphasis on operationally realistic testing, the Missile Defense Agency will conduct a comprehensive distributed ground test (GTD-02) involving the Ballistic Missile Defense System, to include all fielded sensors, command and control, battle management and communications, and interceptor locations.

Ground Tests are an operationally realistic yet cost-effective means of exercising the entire Missile Defense System, via numerous "real world" scenarios to demonstrate and evaluate overall system performance, along with tactics, techniques and procedures.

The exercise will begin next week, and is scheduled for completion within two weeks. In addition to U.S. MDA assets (elements and personnel from U.S. Strategic Command, U.S. Northern Command, U.S. Pacific Command, the Army, Navy and Air Force), British and Canadian elements and personnel will also participate.

BMDS elements will include the Cobra Dane radar at Shemya, Alaska; the Sea-based X-band radar, now in the Pacific Ocean; Ground-Based Midcourse Defense fire control nodes at the Missile Defense Integration and Operations Center in Colorado Springs, Colo. and Fort Greely, Alaska; and interceptor missile sites at Fort Greely and Vandenberg AFB, Calif. Radars aboard U.S. Navy Aegis ships will also participate in the exercise as well as interceptor fire control systems aboard the ships.

News media point of contact is Rick Lehner, Missile Defense Agency, at (703) 697-8997 or richard.lehner@mda.mil

http://cgmix.uscg.mil/PSIX/VesselResults.aspx?VesselID=722205

Vessel Information:

Vessel	*VIN*	*Hull Number*	*Flag*	*Call-Sign*	*Year Built*
SBX-1	8765412		UNITED STATES	AAMD	

Vessel Particulars:

Service	*Length*	*Breadth*	*Depth*	*Alternate VINs*	*IMO Number*
Unclassified	389.0 ft	0.0 ft	0.0 ft	CG722205,	8765412

Service Information:

Service Status	*Out of Service Date*	*Last Removed from Service*
In Service	N/A	N/A

Tonnage Information:

Deadweight	*Gross Tonnage(GRT)*	*Net Tonnage(NRT)*	*Gross Tonnage(GT ITC)*
			32690

Cargo Authority

Vessel Documents and Certifications:

Document	*Agency*	*Date Issued*	*Expiration Date*
International Load Line Certificate	ABS	August 23, 2005	January 23, 2006
Stability Letter	ABS	August 23, 2005	
SOLAS Cargo Ship Safety Construction Certificate	ABS	August 29, 2005	August 28, 2010
Classification Document	ABS	August 29, 2005	January 29, 2006
SOLAS Cargo Ship Safety Equipment Certificate	ABS	August 29, 2005	August 28, 2010
International Oil Pollution Prevention Certificate	ABS	August 29, 2005	August 28, 2010
Certificate of Inspection - Amended	USCG	August 29, 2005	August 29, 2010
Certificate of Inspection	USCG	August 29, 2005	August 29, 2010

http://www.nok-schiffsbilder.de/modules/myalbum/photo.php?lid=3367

DOVE & SBX-1
Beschreibung:
USA 2006/L.: 279ft; 12000hp; Support Vessel für die SBX-1 Anlage (Bildhintergrund)

Diskussion

Geschrieben am: 23.02.2007 08:43 **Aktualisiert:** 23.02.2007 08:43

Re: DOVE & SBX-1

Name of ship : DOVE/IMO number : 9205809/Call Sign : WCY9037/Gross tonnage : 3534/Type of ship : Offshore Tug/Supply Ship/Year of build : 1999/
Flag : U.S.A./Registered owner: STATE STREET BANK & TRUST 225, Franklin Street, Boston MA UNITED STATES OF AMERICA/Ship manager: MARLIN OFFSHORE Galliano LA UNITED STATES OF AMERICA/../Name of ship : SBX-1/IMO number : 8765412 /Ship manager & Owner: MISSILE DEFENSE AGENCY Washington DC UNITED STATES OF AMERICA/Call Sign : AAMD/Gross tonnage : 32690/Type of ship : Platform/Year of build : 2002/Flag : U.S.A.

http://starbulletin.com/2007/09/29/news/story06.html

Flights avoid missile test

A defense rocket launched near Los Angeles diverts two Hawaii-bound planes

By Gregg K. Kakesako
gkakesako@starbulletin.com

The Federal Aviation Administration says two Hawaii flights were affected yesterday by an $85 million high-altitude missile test conducted over the Pacific Ocean several hundred miles west of Los Angeles.

A ground-based missile successfully intercepted a target missile in a test of the nation's defense system, the Missile Defense Agency said.

Passengers on United Flight 1, a daily direct route from Chicago to Honolulu, had to fly back to San Francisco yesterday morning to take on more fuel to avoid the missile test area.

Hawaiian Airlines Flight 21 from Seattle to Kahului was forced to take a 20-minute detour to avoid the test area, passengers reported.

Ian Gregor, FAA spokesman, said the federal agency had published notices earlier warning pilots to avoid the test area.

[deletia]

Rick Lehner, Missile Defense Agency spokesman, said the intercept occurred at 10:24 a.m. (Hawaii time) over the Pacific Ocean "several hundred miles" west-northwest of Los Angeles. Lehner said he could not give the exact intercept location because of security restrictions.

[deletia]

The target missile was successfully tracked by the Sea-Based X-band radar and the Pearl Harbor-based destroyer USS Russell. The SBX, with its domed radar housing, was located in the northern Pacific between Alaska and California, said Lehner, who also declined to pinpoint the floating platform's location.

http://www.kodiakdailymirror.com/?pid=19&id=5273

Interceptor hits mock warhead

Article published on Friday, September 28th, 2007
By BRYAN MARTIN
Mirror Writer
[EXCERPTS]

An anti-missile interceptor was launched today from Vandenberg Air Force Base in California and successfully knocked down a mock warhead fired from the Kodiak Launch Complex.

The Kodiak launch occurred at approximately noon local time.

There was an estimated 15-minute lag between the launch in Kodiak and the launch in California. The Vandenberg Air Force Base public affairs office confirmed that an interceptor launched at 1:16 p.m., PST.

Also playing a significant role in the launch was the sea-based X-band radar system, homeported in Adak, and now sailing in the Pacific Ocean.

http://money.cnn.com/news/newsfeeds/articles/prnewswire/AQF10128092007-1.htm

Boeing-led Missile Defense Team Completes Flight Test and Intercepts Target Missile
PR Newswire
September 28, 2007: 06:12 PM EST
[EXCERPTS]

ST. LOUIS, Sept. 28 /PRNewswire-FirstCall/ -- The Boeing Company , working with industry teammates and the U.S. Missile Defense Agency, successfully completed a missile defense flight test today that resulted in the intercept of a target warhead and demonstrated the capability and reliability of the nation's only defense against long-range ballistic missiles.

The test of the Ground-Based Midcourse Defense (GMD) system began at 4:01 p.m. Eastern when a long-range ballistic missile target lifted off from the Kodiak Launch Complex in Alaska. Seventeen minutes later, military operators launched an interceptor from Vandenberg Air Force Base, Calif.

The Boeing-led test was highly complex, involving a wide range of assets, including the Sea-Based X-Band Radar (SBX). SBX, a powerful new sea-based sensor developed by Boeing, tracked the target missile to prepare for the next GMD flight test, which will see SBX provide target updates to an in-flight interceptor for the first time.

"Flight tests are complex; they involve about 1,000 government and contractor personnel and integrate over 50 assets worldwide," said Norm Tew, Boeing director of weapon systems integration for GMD. "Our government and industry partners worked together as one team to make this exercise a successful reality."

http://www.prnewswire.com/cgi-bin/micro_stories.pl?ACCT=149999&TICK=RTN&STORY=/www/story/09-28-2007/0004672375&EDATE=Sep+28,+2007

Raytheon Missile Defense Systems Key in Successful Ballistic Missile Intercept in Space
[EXCERPTS]

TUCSON, Ariz., and TEWKSBURY, Mass., Sept. 28, 2007 /PRNewswire/ -- Raytheon Company (NYSE: RTN) components built under contract to The Boeing Company, the prime contractor for the Ground-based Midcourse Defense (GMD) system, played key roles in the destruction of a ballistic missile target during GMD's latest successful flight test conducted Sept. 28 by the U.S. Missile Defense Agency.

The Raytheon-built Exoatmospheric Kill Vehicle (EKV) intercepted the ballistic missile target in space over the eastern Pacific Ocean. The Raytheon-developed Upgraded Early Warning Radar (UEWR) *[39.1360 N, 121.3508 W]* at Beale Air Force Base, Calif., successfully tracked the target system for approximately 15 minutes during its flight downrange to the intercept point several hundred miles west of California. The Raytheon-developed X-Band Radar (XBR), the primary payload of the Sea-Based X-Band Radar (SBX), actively participated in this test by tracking, discriminating and assessing the target.

While in flight, the EKV received target updates from the In-Flight Interceptor Communication System and performed a star shot to calibrate its own position. The EKV observed the target complex with its advanced multi-color infrared seeker and successfully selected the target from other objects in space. During the end game, as the target grew in the seeker's field of view, the EKV selected the aimpoint and maneuvered for a direct, lethal hit.

As the primary ground-based sensor for this mission, the UEWR successfully acquired, tracked and classified the target system, providing critical targeting data to the system under test. The UEWR achieved all mission objectives as it continues its flawless support to GMD flight tests and path to Air Force operational acceptance.

Positioned in the eastern Pacific Ocean, the XBR initiated track on the target complex and collected valuable data, which will be used to hone algorithms for future flight tests. The radar achieved all mission objectives. This test marks the third successful mission that the Sea-Based XBR has participated in since last September.

"This highly successful test of the GMD system once again demonstrates Raytheon's systems performance and reliability," said Louise Francesconi, Raytheon Missile Systems president. "The test clearly demonstrates the maturity of our technology and our ability to provide this critical capability to the nation."

Designated Flight Test Ground-based Midcourse Defense-03a (FTG-03a), the test included a planned intercept of the target as one of its objectives. Other objectives included the EKV's ability to successfully detect, track, discriminate a target in space and communicate with ground-based sensors, and included participation of the SBX in the test.

http://www.navcen.uscg.gov/lnm/d17/lnm17392007.pdf

U.S. Department of Homeland Security
United States Coast Guard

LOCAL NOTICE TO MARINERS
WEEKLY EDITION

District: 17 **Week: 39/07**

AK - NARROW CAPE - UGAK ISLAND - SAFETY ZONE

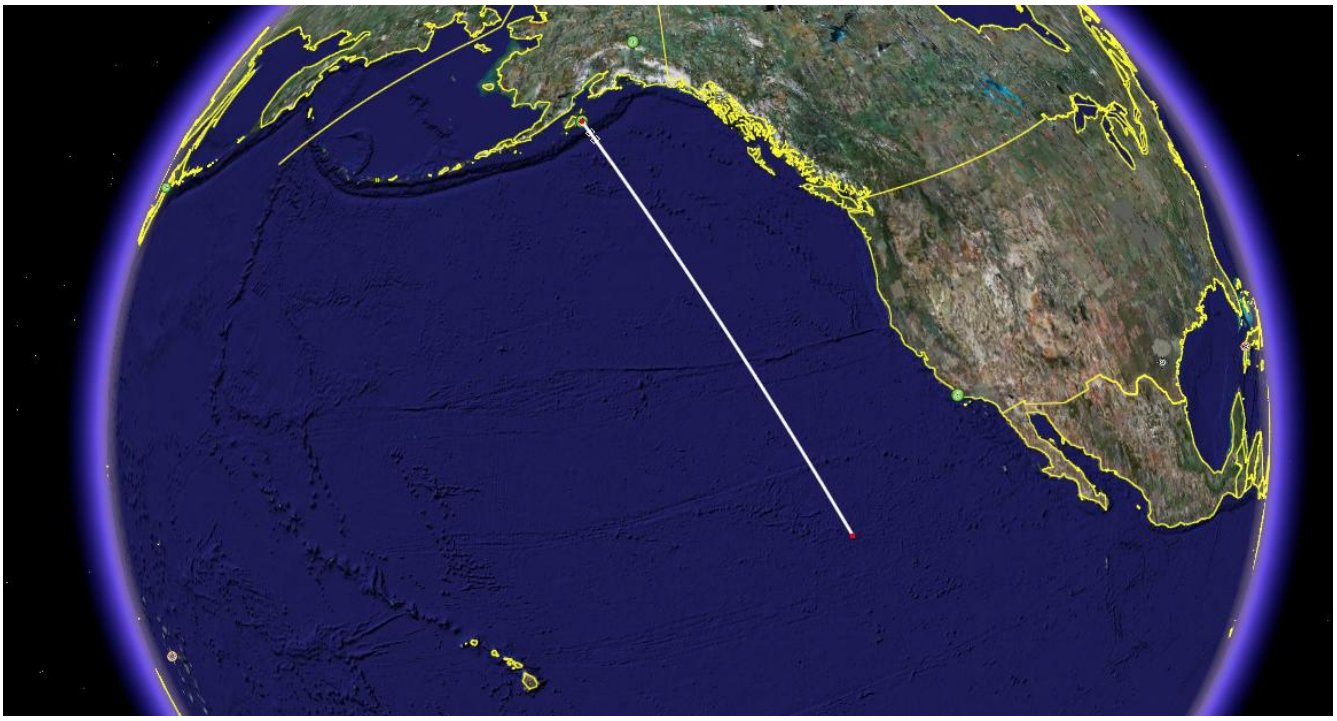
The US Coast Guard has established a Safety Zone in the vicinity of Narrow Cape and Ugak Island due to operations at the Kodiak Launch Complex. The Safety Zone is in effect from September 28, 2007 through October 2, 2007, between 8:00 a.m. and 4:30 p.m. each day, or until cancelled. The Safety Zone includes all navigable waters contained within the area bordered by the following points: 57° 29.8- North, 152° 17.0- West, then southeast to 57° 21.1- North, 152° 11.2- West, then southwest to 57° 19.9- North, 152° 14.2- West, then northwest 57° 25.4- North, 152° 28.2- West, then northeast to 57°29.8- North, 152° 17.0- West. For further information contact the Captain of the Port at (907) 271-6700.

ALASKA-SOUTH CENTRAL-GULF OF ALASKA

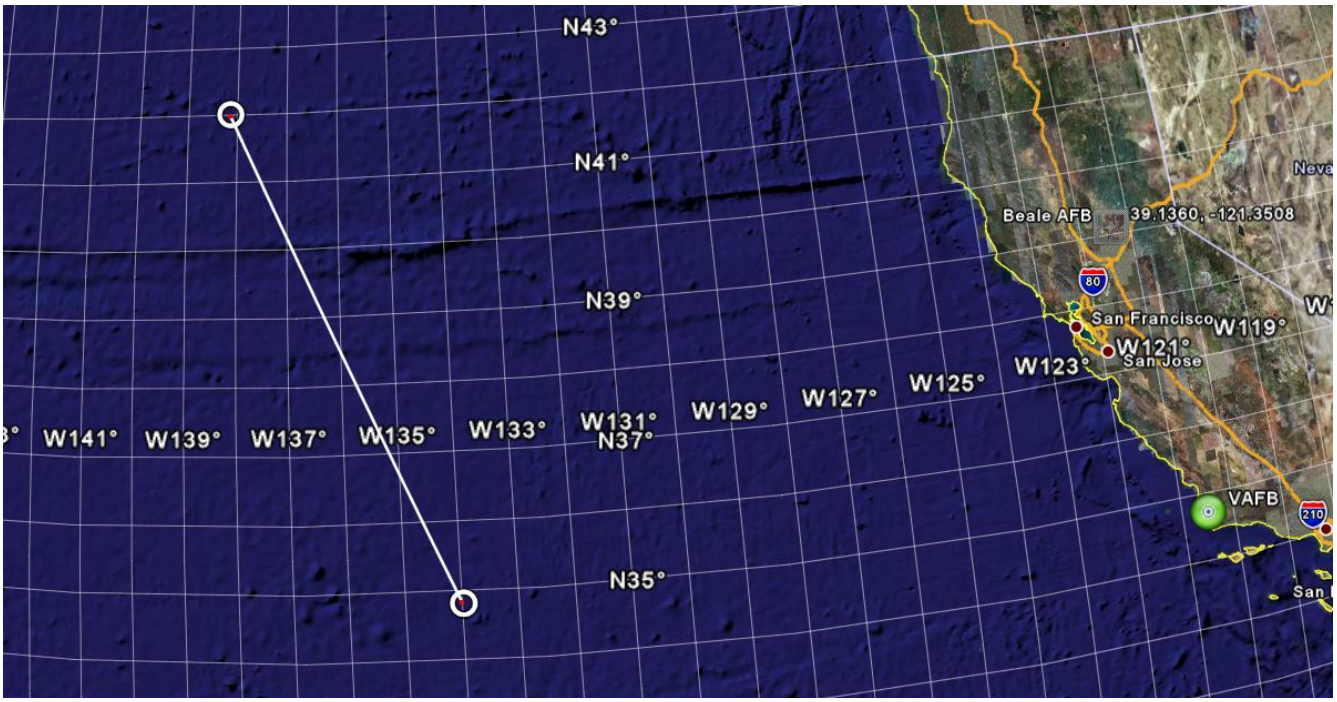
THERE WILL BE A HAZARDOUS ROCKET BOOSTER IMPACT AREA CENTERED APPROXIMATELY 90 NAUTICAL MILES SOUTH-EAST OF KODIAK ISLAND FROM SEP 28 THROUGH OCT 02 2007, BETWEEN 12 P.M. AND 4 P.M. EACH DAY, OR UNTIL CANCELLED. THE HAZARD AREA IS DEFINED BY THE POINTS 56.5 NORTH, 151.3 WEST, 55.95 NORTH, 150.65 WEST, 56.05 NORTH, 150.35 WEST, 56.6 NORTH, 151.0 WEST. ALL MARINERS ARE STRONGLY ADVISED TO STAY CLEAR OF THIS AREA.

ALASKA-SOUTH CENTTRAL-GULF OF ALASKA

ALASKA-SOUTH CENTRAL-GULF OF ALASKA - THE US COAST GUARD ESTABLISHED A SAFETY ZONE IN THE VICINITY OF NARROW CAPE AND UGAK ISLAND DUE TO OPERATIONS AT THE KODIAK LAUNCH COMPLEX. THE SAFETY ZONE IS IN EFFECT FROM SEP 28 THROUGH OCT 02, 2007, BETWEEN 12 P.M. AND 4 P.M. EACH DAY, OR UNTIL CANCELLED. THE SAFETY ZONE INCLUDES ALL NAVIGABLE WATERS CONTAINED WITHIN THE AREA BORDERED BY THE FOLLOWING POINTS: 57-29.8 NORTH, 152-17.0 WEST; 57-21.1 NORTH, 152-11.2 WEST; 57-19.9 NORTH, 152-14.2 WEST; 57-25.4 NORTH, 152-28.2 WEST. AS PER 33 CFR PART 165, UNAUTHORIZED ENTRY INTO OR THROUGH THIS ZONE IS STRICTLY PROHIBITED AND MAY RESULT IN CIVIL AND/OR CRIMINAL PENALTIES, INCLUDING FINES OF UP TO $32,500.



[Trajectory of target consistent with safety zones in the above Local Notice to Mariners. Southern end of trajectory is arbitrary.]



[Segment of target trajectory consistent with press reports of the intercept. Distance of the segment from the California coast is approximately 700 – 750 miles (1000 – 1200 km). Distance of the midpoint of the segment from the Kodiak Is. launch site is approximately 1500 miles (2400 km).]

http://www.kodiakdailymirror.com/?pid=19&id=5251

Rocket launch planned Friday

Mooring for giant radar ready at remote Aleutian homeport
Article published on Monday, September 24th, 2007
By BRYAN MARTIN
Mirror Writer

The Kodiak Launch Complex is gearing up for another missile test set for Friday.

The test comes on the heels of completion of a major mooring and anchor system for the sea-based X-band radar homeported in Adak, although the giant structure is now sailing in an undisclosed location in the Pacific.

Rick Lehner, Missile Defense Agency spokesman in Washington, D.C., said Friday, the test, with a backup window of Saturday, has the same objectives as a launch attempted in May that failed due to a faulty rocket motor on the interceptor from Vandenberg Air Force Base in California.

The test also includes testing SBX's ability to track or shadow the attacking missile.

The upcoming launch, the 12th fired from KLC, has a primary objective of the interceptor striking the target missile.

Lt. Gen. Henry "Trey" Obering III, MDA director, announced last week the SBX mooring system, a key piece of infrastructure for the radar, has been successfully installed in Adak three weeks ahead of schedule.

[deletia]

"Right now the SBX is somewhere in the Pacific," Lehner said, unable to divulge its exact location, although it was in Honolulu and has not yet anchored in Adak.

Lehner said the new mooring system is positioned about 3.5 to 4 miles off the beach near Kuluk Bay.

"The completion of the mooring system is an important achievement because it will allow the SBX to operate closer to shore, making it easier to protect and resupply the vessel," Scott Francher, program director of Ground-based Midcourse Defense radars, said.

"This will enhance SBX's ability to perform essential sensing functions for the GMD system, which defends the U.S. against long-range ballistic missiles," Francher said.

[deletia]

http://www.pcb007.com/anm/templates/article.aspx?articleid=16493&zoneid=68&v=

Boeing Announces Completion of Sea-Based Radar's Mooring System
Friday, September 21, 2007 PMW

The Boeing Company today announced that the Sea-Based X-Band Radar (SBX) mooring system has been installed at SBX's homeport in Alaska, completing a key piece of infrastructure for the missile defense sensor.

Manson Construction, a Boeing subcontractor, used tugs, barges and cranes to place the mooring system's eight anchors on the bottom of Kuluk Bay. Heavy machinery aboard a barge then dragged the 75-metric-ton anchors, embedding them into the sea bed. The construction team completed the installation three weeks ahead of schedule.

"This was an enormous undertaking, and completing it 21 days ahead of schedule was the result of excellent planning and great team work by all players, including industry partners Manson Construction Co., Golder Co. and Glosten Associates; our government customer, the Missile Defense Agency; and the American Bureau of Shipping, which ensured the work met all mooring installation standards," said Paul Smith, director of Ground-based Midcourse Defense (GMD) radars.

When SBX visits its homeport of Adak, Alaska, a small island in the Aleutian Islands, it will be chained to the anchors to keep it stationary in Kuluk Bay.

SBX is a powerful new sensor developed by Boeing for the U.S. Missile Defense Agency's GMD system, the nation's only defense against long-range ballistic missiles. Boeing is GMD's prime contractor.

"The completion of the mooring system is an important achievement because it will allow the Sea-Based X-Band Radar to operate closer to shore, making it easier to protect and resupply the vessel," said Scott Fancher, vice president and program director for GMD. "This will enhance SBX's ability to perform essential sensing functions for the GMD system, which defends the United States against long-range ballistic missiles. SBX can be deployed worldwide; it can detect small objects thousands of miles away; it can provide critical data on incoming ballistic missile threats; and it is the only platform of its type in the world."

SBX, which consists of a radar atop a modified semi-submersible oil drilling platform, arrived in Alaskan waters in February for the first time after completing a self-propelled, 2,200-nautical-mile journey from Hawaii. During its voyage, the platform displayed its durability by successfully navigating severe winter storms in the northern Pacific Ocean, including waves more than 50 feet high and wind gusts of more than 100 miles an hour. The radar system is able to move throughout the Pacific Ocean, or any of the world's oceans, to support advanced missile defense testing and defensive operations.

During a GMD test in March, the mobile SBX, positioned in the north-central Pacific Ocean, demonstrated its capability by detecting, tracking and assessing a long-range ballistic missile target launched from Vandenberg Air Force Base, Calif. As part of the GMD system, SBX provided that

target information via satellite to GMD's Colorado-based fire control system, which used the data to simulate a target shootdown with a simulated ground-based interceptor.

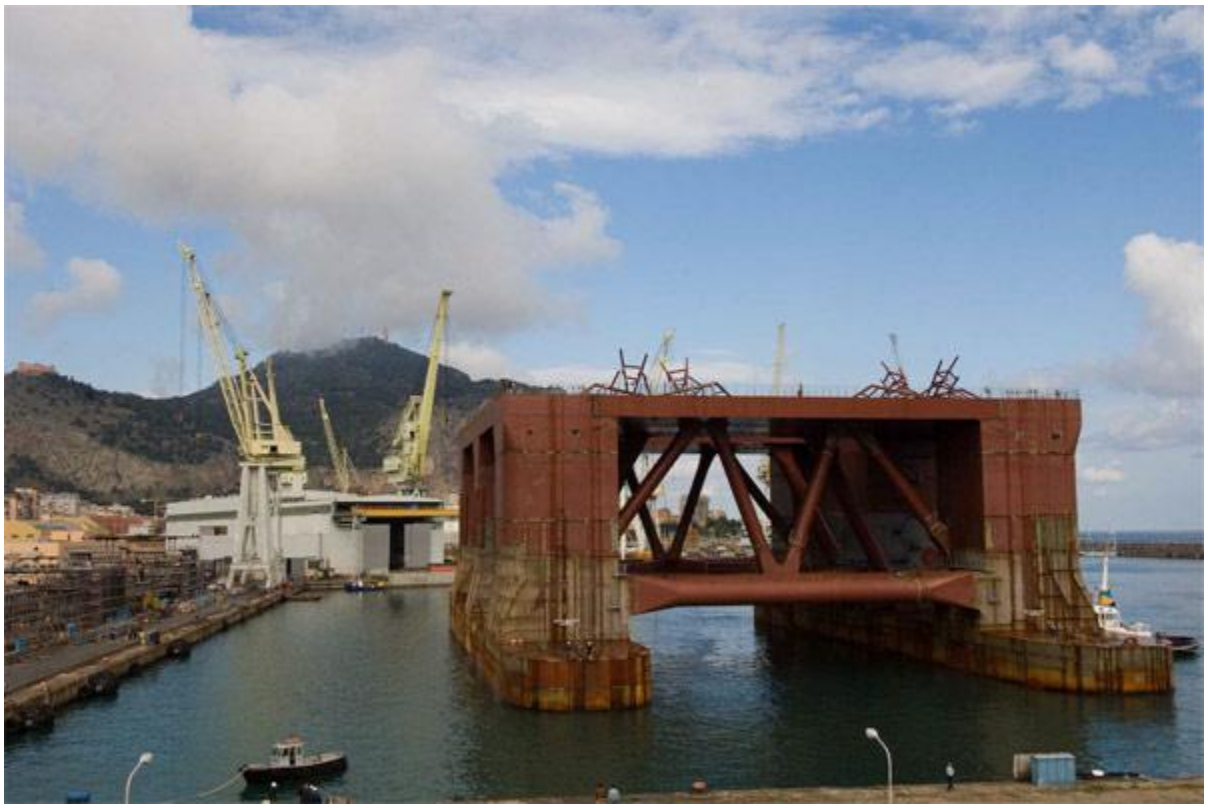
[Sourcebook note: The GMD test in March presumably occurred on 20 March:
"The target missile was launched today from Vandenberg Air Force Base, Calif. at 9:27 pm PDT March 20 (12:27 am EDT March 21). The target was successfully tracked by the Sea-Based X-band (SBX) radar and two Aegis Ballistic Missile Defense ships using onboard SPY-1 radar."
http://www.mda.mil/mdalink/pdf/07news0028.pdf]

CS-50 platforms at Sevmash, Severodvinsk, Russia
Accessed from Google Earth 2008-09-13

http://pda.sevmash.ru/?id=3601&lg=en

SEVMASH PLATFORM HAS TRAVELED THROUGH EUROPE

Mikhail Starozhilov,
Head of FSUE "PO "Sevmash" press cutting service
[Undated; apparently late November of December 2007]



MOSS CS-50 arrived in Palermo

Marine platform "MOSS CS-50", built on Sevmash, is being prepared for operation in Palermo. Italian shipbuilders are going to equip it with drilling rig and other mechanisms.

Universal semi-submerged platform with free deck is designed by "Moss Maritime AS" (Norway), and built on Sevmash by "Moss Mosvold Platforms AS" (Norway) order, general investor –"Saipem" (Italy).

On the 19th of September 2007 platform was commissioned to customer. On the 24th of September ships "Neftegaz-55" and "Neftegaz-57" began towing platform from Severodvinsk water areas and at the middle of November it was delivered in Italy.

"Moss CS-50" became the first marine platform, built on Sevmash and its creation allowed enterprise preparing for serial production of such structures.

MOSS CS-50 after additional equipment

During building number of new progressive technologies have been developed and implemented, – said Sevmash Deputy Director General Valery Borodin during Arctic scientific conference, which was held last week in Arkhangelsk. – 3-D modeling system “Foran” was implemented as well as manufacturing methods of unique welded structures, assembly of large structures afloat.

- For implementing new technologies Sevmash shipbuilders received premium named after M. Lomonosov in November 2007. “Moss Maritime” President Per Christensen said that Sevmash is the most prepared in Russia for building marine platforms.

“MOSS CS-50” owner, Italian company “Saipem” plans using drilling platform in the Northern Sea. And in Sevmash slip way workshop second platform pontoons are being produced. It is planned to be commissioned at the beginning of 2008 navigation.

”Moss CS-50 MkII” platform (project 2958) refers to the sixth generation of semi-submerged platforms and is a structure of catamaran type, placed on two pontoons and six columns. Dimensions 118×70×40 meters, weight about 15 thousand tons. Platforms are built with complete hull outfitting and free deck, where any equipment can be placed: drilling, extractive, crane, etc depending on purpose.

http://www.crewing.biz.ua/Article5047-eng.html

Platform MOSS CS-50 is being prepared for towing
Posted by: Admin on Aug 24, 2007 - 02:40 PM

The President of Norwegian Company “Moss Maritime AS”, Per Kristensen, has said Sevmash work when building marine multi-purpose platform MOSS CS-50 to be good. It is planned to deliver it to Customer in September. Now on platform, which is moored at outfitting quay, assembly welding and painting works, equipment and system mounting are finished. Foreigners regularly inspected work progress. A day or two ago during visit on Sevmash, Mr. Kristensen has discussed working questions with Deputy Director General on marine equipment manufacturing and civil shipbuilding, Valery Borodin.

– Modern semisubmersible platforms are the most complicated engineering structures. Their building requires the great qualification – noted Mr. Kristensen. – Sevmash is one of the most ready-to-work enterprises in Russia for platform building. All the more, the enterprise is favorably located relative to Russian oil and gas deposits. Multi-purpose platform with free deck “Moss CS-50” belongs to the 6th generation of semisubmersible platforms. Platform of catamaran type is located on two pontoons, hull is supported by six stabilizing columns. Main dimensions: 118×70×40 m, weight is approximately 15 thousand tons. Depending on platform purpose any equipment (catching, drilling, crane, accommodation) can be located on the deck. Nowadays, at Sevmash two “Moss CS-50” platforms are being built. Customer is “Moss Mosvold Platforms AS” Company (Norway), designer is “Moss Maritime AS” (Norway). The first platform was laid on Sevmash in February, 2006, the second one was in March, 2007.

http://www.jotun.com/www/com/20020116.nsf/4e128623f4b79832c1256a5d0049ce68/77794545021c8f22c1257310003c3acb/$FILE/Offshore%20reference%20list.pdf

Reference List Offshore Drilling Rigs

JOTUN

Unit	Type	Owner	Operator	Category	Fabrication / Docking Site	Hull	Topside Equipment	Ballast Tanks	Completed
CS-50 (2 pieces)	Semi-sub.	MOSS Maritime		Newbuilding	Sevmash predpriyatie, Russia	x	x	x	2008

http://en.portnews.ru/news/6558/

Sevmash to deliver semisubmersible platform MOSS CS-50 MkII to the customer
19.09.2007, 11:05

On September 19, semisubmersible platform MOSS CS-50 MkII (project 2958) will be delivered to the customer at shipbuilding plant Sevmash (Severodvinsk), the company reports according to REGNUM news agency. The platform has been ordered by Norwegian company Moss Mosvold Platforms AS.

Nowadays the second platform of the same type is under construction at Sevmash.

[deletia]

http://www.setonresourcecenter.com/register/2007/Aug/24/48555B.pdf

DEPARTMENT OF HOMELAND
SECURITY
Coast Guard
33 CFR Part 165
[COTP Honolulu 07–005]
RIN 1625–AA87
Security Zone; Waters Surrounding U.S. Forces Vessel SBX–1, HI
AGENCY: Coast Guard, DHS.
ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a temporary 500-yard moving security zone around the U.S. Forces vessel SBX–1 during transit within the Honolulu Captain of the Port Zone. The security zone is necessary to protect the SBX–1 from hazards associated with vessels and persons approaching too close during transit. Entry of persons or vessels into this temporary security zone is prohibited unless authorized by the Captain of the Port (COTP).

DATES: This rule is effective from 9 a.m. (HST) on August 1, 2007, through 11:59 p.m. (HST) on September 30, 2007.

[deletia]

SUPPLEMENTARY INFORMATION:

Regulatory Information

We did not publish a notice of proposed rulemaking (NPRM) for this regulation. Under 5 U.S.C. 553(b)(B), the Coast Guard finds that good cause exists for not publishing an NPRM. The Coast Guard was not given the final voyage plan in time to initiate full rulemaking, and the need for this temporary security zone was not determined until less than 30 days before the SBX–1 will require the zone's protection. Publishing an NPRM and delaying the effective date would be contrary to the public interest since the transit would occur before completion of the rulemaking process, thereby jeopardizing the security of the people and property associated with the operation. Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the Federal Register. The COTP finds this good cause to be the immediate need for a security zone to allay the waterborne security threats surrounding the SBX–1's transit.

Background and Purpose

On approximately August 1, 2007, the SBX–1 is scheduled to transit U.S. navigable waters in the Honolulu Captain of the Port Zone from Pearl Harbor, HI to sea for sea trials. The SBX–1 will be returning to Pearl Harbor, HI and departing again as needed for maintenance and logistical reasons. The Coast Guard is establishing this security zone to ensure the vessel's protection during its transit(s).

Discussion of Rule

This temporary security zone is effective from 9 a.m. (HST) on August 1, 2007, through 11:59 p.m.

(HST) on September 30, 2007. It is located within the Honolulu Captain of the Port Zone (See 33 CFR 3.70–10) and covers all U.S. navigable waters extending 500 yards in all directions from the U.S. Forces vessel SBX–1, from the surface of the water to the ocean floor. The security zone moves with the SBX–1 while in transit. The security zone becomes fixed when the SBX–1 is anchored, positionkeeping, or moored.

The SBX–1 is easy to recognize because it contains a large white object shaped like an egg supported by a platform that is larger than a football field. The platform in turn is supported by six pillars similar to those on large oil-drilling platforms.

[deletia]

http://www.time.com/time/nation/article/0,8599,1652780,00.html

With the USS Arizona Memorial in the foreground, the Sea-Based X-band Radar (SBX) is seen, Monday July 16, 2007 in Pearl Harbor, Hawaii. The military's $900 million, 28-story-tall missile defense radar is back in Hawaii from its remote base in Alaska for renovations.
Marco Garcia / AP

http://cryptome.org/usace073007.htm

[Federal Register: July 30, 2007 (Volume 72, Number 145)]
[Proposed Rules]
[Page 41470-41471]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr30jy07-18]

DEPARTMENT OF DEFENSE
Department of the Army; Corps of Engineers
33 CFR Part 334
United States Army restricted area, Kuluk Bay, Adak, Alaska
AGENCY: U.S. Army Corps of Engineers, DoD.
ACTION: Notice of proposed rulemaking and request for comments.

SUMMARY: The Corps of Engineers is proposing to establish a restricted area within Kuluk Bay, Adak, Alaska. The purpose of this restricted area is to ensure the security and safety of the Sea Based Radar, its crew, and other vessels transiting the area. The proposed restricted area is within an established moorage restriction area for the U.S. Navy. The restricted area will be marked on navigation charts as a restricted area to insure security and safety for the public.

DATES: Written comments must be submitted on or before August 29, 2007.

ADDRESSES: You may submit comments, identified by docket number COE-2007-0023, by any of the following methods:
Federal eRulemaking Portal: http://www.regulations.gov. Follow the instructions for submitting comments.
E-mail: david.b.olson@usace.army.mil. Include the docket number COE-2007-0023 in the subject line of the message.
Mail: U.S. Army Corps of Engineers, Attn: CECW-CO (David B. Olson), 441 G Street, NW., Washington, DC 20314-1000.

[[Page 41471]]

Hand Delivery/Courier: Due to security requirements, we cannot receive comments by hand delivery or courier.

Instructions: Direct your comments to docket number COE-2007-0023.

All comments received will be included in the public docket without change and may be made available on-line at http://regulations.gov, including any personal information provided, unless the commenter indicates that the comment includes information claimed to be Confidential Business

Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI, or otherwise protected, through regulations.gov or e-mail. The regulations.gov Web site is an anonymous access system, which means we will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail directly to the Corps without going through regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, we recommend that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If we cannot read your comment because of technical difficulties and cannot contact you for clarification, we may not be able to consider your comment. Electronic comments should avoid the use of any special characters, any form of encryption, and be free of any defects or viruses.

Docket: For access to the docket to read background documents or comments received, go to http://www.regulations.gov. All documents in the docket are listed. Although listed in the index, some information is not publicly available, such as CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form.

Consideration will be given to all comments received within 30 days of the date of publication of this notice.

FOR FURTHER INFORMATION CONTACT: Mr. David Olson, Headquarters, Operations and Regulatory Community of Practice, Washington, DC at (202) 761-4922, or Mr. Leroy Phillips, Corps of Engineers, Alaska District, Regulatory Branch, at (907) 753-2828.

SUPPLEMENTARY INFORMATION: Pursuant to its authorities in Section 7 of the Rivers and Harbors Act of 1917 (40 Stat. 266; 33 U.S.C.1) and Chapter XIX, of the Army Appropriations Act of 1919 (40 Stat. 892; 33 U.S.C.3), the Corps proposes to amend the restricted area regulations in 33 CFR Part 334 by adding Sec. 334.1325 as a restricted area within Kuluk Bay, Adak, Alaska as described below. The proposed restricted area is completely within a moorage restriction area for the United States Navy in Kuluk Bay, Adak, Alaska, which was established at 33 CFR 334.1320 and is designated on NOAA chart 16475.

Procedural Requirements

a. Review under Executive Order 12866. This proposed rule is issued with respect to a military function of the Defense Department and the provisions of Executive Order 12866 do not apply.

b. Review under the Regulatory Flexibility Act. This proposed rule has been reviewed under the Regulatory Flexibility Act (Pub. L. 96-354) which requires the preparation of a regulatory flexibility analysis for any regulation that will have a significant economic impact on a substantial number of small entities (i.e., small businesses and small Governments). The Corps expects that the economic impact of the identification of this restrictive area would have practically no impact on the public, no anticipated navigational hazard or interference with existing waterway traffic, and accordingly, certifies that this proposed regulation, if adopted, will have no significant economic impact on small entities.

c. Review under the National Environmental Policy Act. Due to the administrative nature of this action and because there is no intended change in the use of the area, the Corps expects that this

regulation, if adopted, will not have a significant impact to the quality of the human environment and therefore preparation of an environmental impact statement is not required. An environmental assessment will be prepared after the public notice period is closed and all comments have been received and considered. It may be reviewed at the district office listed at the end of FOR FURTHER INFORMATION CONTACT, above.

d. Unfunded Mandates Act. This proposed rule does not impose an enforceable duty among the private sector and, therefore, it is not a Federal private sector mandate and it is not subject to the requirements of either Section 202 or Section 205 of the Unfunded Mandates Act. We have also found under Section 203 of the Act, that small governments will not be significantly and uniquely affected by this rulemaking.

List of Subjects in 33 CFR Part 334

Danger zones, Marine safety, Navigation (water), Restricted areas, Waterways.

For the reasons set out in the preamble, the Corps proposes to amend 33 CFR Part 334 as follows:

PART 334-DANGER ZONE AND RESTRICTED AREA REGULATIONS

1. The authority citation for 33 CFR Part 334 continues to read as follows:

Authority: 40 Stat. 266 (33 U.S.C. 1) and 40 Stat. 892 (33 U.S.C. 3).

2. Add Sec. 334.1325 to read as follows:

Sec. 334.1325 United States Army restricted area, Kuluk Bay, Adak, laska.

(a) The area. The area within a radius 1,000 yards around the Sea Base Radar mooring site in all directions from latitude 51[deg]53'05.4" N, longitude 176[deg]33'47.4" W (NAD 83).

(b) The regulation. (1) No vessel, person, or other craft shall enter or remain in the restricted area except as may be authorized by the enforcing agency.

(2) A ring of eight lighted and marked navigation buoys marking the perimeter of the mooring anchor system will provide a visible distance reference at a radius of approximately 800 yards from latitude 51[deg]53'05.4" N, longitude 176[deg]33'47.4" W (NAD 83). Each buoy has a white light, flashing at 3 second intervals with a 2 nautical mile range. Vessels, persons or other craft must stay at least 200 yards outside the buoys.

(3) The regulation in this section shall be enforced by personnel attached to the Missile Defense
(4) Agency and/or by such other agencies as the Director, MDA-AK, Fort Richardson, Alaska, may designate.

Dated: July 25, 2007.
Mark Sudol,
Acting Chief, Operations, Directorate of Civil Works.
[FR Doc. E7-14651 Filed 7-27-07; 8:45 am]
BILLING CODE 3710-92-P

Google Earth image showing centerpoint and 1,000 yard points of SBX anchorage

BAE Systems Wins More Work on Sea-Based Missile Warning Radar

(2007-07-18)
Business Wire

BAE Systems has been awarded a second contract from Boeing for work on the Sea-Based X-Band Radar (SBX-1), a floating, self-propelled, mobile missile warning radar station.

The radar arrived at BAE Systems Hawaii Shipyards in Pearl Harbor from Alaska on June 26 and will remain there through February 2008. The company had previously performed maintenance work on the SBX-1 in 2006.

BAE Systems will conduct maintenance and systems upgrades to include fuel oil tank cleaning; tow bridle repairs; a deadweight survey; antenna installation; catwalk and ladder repairs; crane upgrades and additions; galley and scullery upgrades; and will install a quick launch recovery boat.

SBX-1 is part of the United States Missile Defense System, operated by the Missile Defense Agency. Designed to operate in high winds and heavy seas, the Missile Warning radar is mounted on a fifth generation Norwegian-designed, Russian-built CS-50 semi-submersible twin-hulled oil-drilling platform. It is based at Adak Island, Alaska and can roam over the Pacific Ocean to detect incoming ballistic missiles. It has the capability to identify baseball-size objects from thousands of miles away.

"We are pleased that Boeing and the Missile Defense Agency continue to place high value in our versatile maintenance capabilities for such an important project," said Al Krekich, president of BAE Systems Ship Repair. "The SBX-1 is key to our nation's ballistic missile defense."

BAE Systems Ship Repair is the United States' leading non-nuclear ship repair, modernization and conversion company - focused on dry dock and ship repair services for the U.S. Navy, other defense agencies and commercial customers. It has major operations in Norfolk, San Diego, San Francisco and Hawaii.

About BAE Systems

BAE Systems is a global defense and aerospace company, delivering a full range of products and services for air, land, and naval forces, as well as advanced electronics, information technology solutions, and customer support services. BAE Systems, with 88,000 employees worldwide, had 2006 sales that exceeded $25 billion.

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http://www.adn.com/news/alaska/story/9265828p-9180611c.html

Missile defense test planned

'COMPLEX': Sea-based radar in Hawaii will track Kodiak-launched target, California-based interceptor.

The Associated Press
Published: August 31, 2007
Last Modified: August 31, 2007 at 02:15 AM
[EXCERPT]

KODIAK -- The Defense Department will send up a test rocket from Kodiak Island for its next test of the missile defense system.

A rocket motor is due to arrive in Kodiak early Saturday in preparation for the Missile Defense Agency's next test.

"The next launch is being planned for the end of September or mid-October," said Rick Lehner, MDA spokesman in Washington, D.C.

The agency will attempt to shoot down the rocket with an interceptor launched from Vandenberg Air Force Base in California.

Plans call for an Air Force C-17 to fly the rocket motor to Kodiak State Airport early Saturday morning while the airport is closed. A truck convoy will transport it over closed roads to the Kodiak Launch Complex at Narrow Cape on the island 225 miles southwest of Anchorage.

Lehner said the MDA has been preparing the upcoming test for seven months.

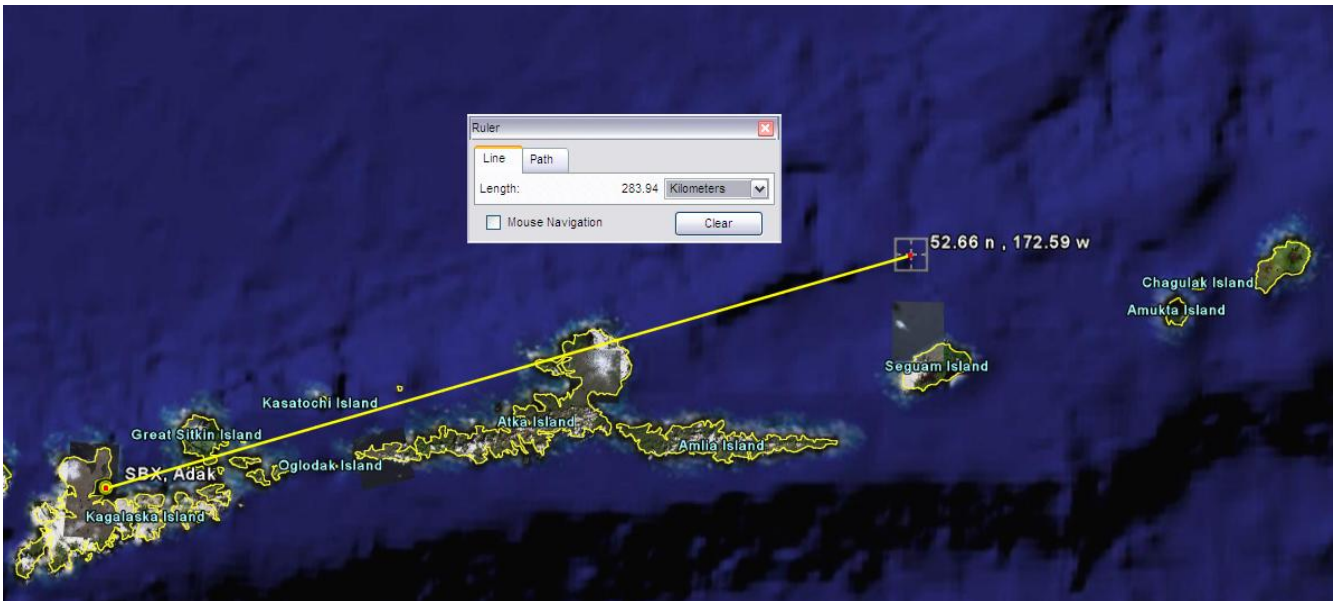
"It is incredibly complex," he said.

SBX sea-based radar now in Honolulu for upgrades will play a key role in the upcoming launch. The SBX home port eventually will be in Adak in the Aleutian Islands.

The SBX will track the target missile fired from Kodiak and the interceptor missile fired from Vandenberg. The launch also will be tracked by radar at Beale Air Force Base near Sacramento, Calif.

Both the Beale radar and the SBX provide targeting information for the interceptor.

"It is a complex matter of geometry and velocity to get the interceptor and target to the proper point in space," Lehner said.



Position of SBX-1 at 52.66 N, 172.59 W on 2007-02-21 (Private communication)

http://www.northcom.mil/Images/Images_2007/SBX_Alaska_a.jpg

SBX-1 near Aleutian islands, January-March 2007

http://www.chouest.com/Newsletters/Vol_24.pdf

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CHOUEST VESSELS

DOVE

The DOVE, a 279-ft. anchor handling vessel, recently towed the semisubmersible U.S. Forces' vessel SBX-1 on its first mission away from Pearl Harbor, Hawaii. Formally known as the Sea-Based X-Band Radar, the vessel provides highly advanced ballistic missile detection for the U.S. Military utilizing the world's largest X-band radar at nine stories high.

The vessel departed Pearl Harbor on January 8, 2007. The vessel and crew traveled over 3,000 miles and encountered 30-ft. seas for six consecutive days before eventually arriving at the SBX-1 home port in Adak, Alaska on January 25. The vessel will remain in Alaska until April.

The DOVE crew making the voyage from Hawaii to Alaska included Captain Richard Grabowski, Relief Captain Garrett Doucet, Mates Mark Finks and Michael Howells, Chief Engineer Joseph Zaborny, Sr., Engineers Donald Logue and Alex Curtis, Oiler David McConville, ABs Herlon DeAruajo and James Marks and OS Brian Lewis.

http://homernews.com/stories/030106/news_030206new009.shtml

Marine expert says shipping safety isn't 'rocket science'
Story last updated at 8:30 PM on Wednesday, March 1, 2006
BY MICHAEL ARMSTRONG
STAFF WRITER

[EXCERPTS]

The Kenai Peninsula dodged a bullet when the Seabulk Pride ran aground near Nikiski last month and was successfully refloated without a major oil spill. The risk of such future disasters can be reduced by 80 to 90 percent, marine safety expert Rick Steiner said this week.

"This isn't rocket science," he said.

"It's boats and water."

A professor with the Marine Advisory Program of the University of Alaska, Steiner spoke Monday evening to a crowd of about 55 people at the Alaska Islands and Ocean Visitor Center for the annual meeting of the Kachemak Bay Conservation Society. His talk, "Cook Inlet on the Rocks," looked at the risks of heavy cargo traffic through Cook Inlet and along the Great Circle Route through the Aleutian Islands.

In April, the tug Dove arrives in Adak as an escort for the Sea-based X-band Radar platform being stationed as part of the Missile Defense System. The SBX radar is on a floating platform and tracks incoming missiles.

www.beyondships.com/files/pObering12r.pdf

A SHIELD ABOVE US

North Korea, Iran and other hostile countries are actively developing and deploying missile technology. Lt. General Henry A. Trey Obering III, USAF, outlines the status of Americaís ballistic missile defense program.

Edited by Richard H. Wagner (originally published in The Log, Navy League of the United States, New York Council, Spring 2007)

[EXCERPTS]

On 24 January *[presumably 2007]*, Lt. General Henry A. "Trey" Obering III, USAF, Director of the Missile Defense Agency ("MDA"), addressed a luncheon of the New York Council of the Navy League of the United States.

[deletia]

The sea-based X-band radar gear is on its way to Alaska, in fact it is approaching what we call way-point nine. It will be stationed in Adak, Alaska, which is the Alaska king crab fishing capital. When that platform pulls into Adak, I think it is going to double the population of that town.

To put this in perspective, The sea-based x-band radar is 30 stories high. It is self-propelled and operates at about the speed of a World War II submarine. Each one of the pontoons, is about the size of a Trident submarine. If we put this radar in the Chesapeake Bay, we could actually track and detect a baseball size object over San Francisco. We are moving it to Alaska to keep track of all the trajectories coming in from possibly North Korea into either Hawaii or into the continental United States. The radar itself weighs about four and a half million pounds.

All of this was not there two and a half years ago. So, in two and a half years, we have put this in place and we will continue to grow this.

[deletia]

https://www.cnic.navy.mil/navycni/groups/public/@pub/@hawaii/documents/document/cnip_012001.pdf

Hawai'i Navy News
Serving the "Best Homeport in the Navy"
January 13, 2006 www.hawaii.navy.mil Volume 31 Issue 2

Sea-Based X-Band Radar arrives in Pearl Harbor

JO2 Ryan C. McGinley
Editor

The Sea-Based X-Band Radar (SBX) arrived in Pearl Harbor on Monday for planned repairs and refurbishment, after completing a 15,000-mile journey from Corpus Christi, Texas aboard the heavy lift vessel MV Blue Marlin.

The SBX will be off-loaded and will proceed into the Pearl Harbor Shipyard where it will undergo minor modifications, post-transit maintenance and routine inspections before completing its voyage to its homeport of Adak, Alaska in the Aleutian Islands.

"We brought SBX to the Pearl Harbor shipyard to undergo modifications because of the outstanding quality of work that they do," said Pam Rogers, communications specialist for the Missile Defense Agency (MDA).

The SBX is a combination of the world's largest phased-array X-band radar carried aboard a mobile, ocean-going, semi-submersible oil platform. It will provide the nation with highly advanced ballistic missile detection and will be able to discriminate a hostile warhead from decoys or countermeasures.

"SBX will be an element of the ballistic missile defense system, which will protect our nation, our service members and our allies against ballistic missile attack," said Rogers.

The MDA completed integration of the SBX platform and radar in the spring of 2005 at a cost of approximately $900 million. The SBX spans 240 feet in width and 390 feet in length. It towers more than 280 feet from its keel to the top of the radar dome and displaces nearly 50,000 tons. The platform is twin-hulled, self-propelled and stable in high winds and turbulent sea conditions.

On Oct. 14, 2005, SBX returned from a successful 52-day deployment in the Gulf of Mexico.While in the gulf, SBX completed more than 100 major test activities, demonstrating the ability to achieve most major sustainment and operational capabilities, including transferring personnel, supplies, and fuel; at-sea maintenance; and the ability to operate at sea for extended periods. It also tracked three satellites to test the radar's operation.

"The radar is so powerful that if it were off the east coast of the United States near Washington, D.C., it would be capable of detecting the motion and rotation of a baseball launched into outer space from the

San Francisco area," according to the Missile Defense Agency.

The SBX is scheduled to arrive in Adak later this year. Although homeported in Adak, it will be capable of moving throughout the Pacific Ocean to support both advanced missile defense testing as well as defensive operations. The radar will provide missile tracking, discrimination and hit assessment functions to the ground-based midcourse defense element of the ballistic missile defense system. It will support interceptor missiles located in Alaska and California if required to defend against a limited long-range missile attack on the United States, and will also participate in operationally realistic flight tests.

http://www.smdc.army.mil/PubAff/07Eagle/March.pdf

The Eagle
U.S. Army Space and Missile Defense Command/U.S. Army Forces Strategic Command
Volume 14, Number 3, March 2007

SBX completes successful journey to Alaska

Missile Defense Agency

WASHINGTON — Lt. General Henry "Trey" Obering, Missile Defense Agency director, announced Feb. 7 that the Sea-based X-band Radar has successfully traveled from Hawaii to the waters of the Aleutian Island chain of Alaska.

The SBX departed Pearl Harbor, Hawaii, Jan. 3, and conducted numerous sea trials and exercises while en route to Alaska and also continued the calibration of the X-band radar mounted on top of the ocean-going platform.

[deletia]

The SBX will be home-ported at the Aleutian Island of Adak starting late this summer after its mooring facilities have completed construction.

www.smdc.army.mil/PubAff/07Eagle/March.pdf

The Eagle

U.S. Army Space and Missile Defense Command/U.S. Army Forces Strategic Command

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Missile Defense Agency

WASHINGTON — Lt. General Henry "Trey" Obering, Missile Defense Agency director, announced Feb. 7 that the Sea-based X-band Radar has successfully traveled from Hawaii to the waters of the Aleutian Island chain of Alaska.

The SBX departed Pearl Harbor, Hawaii, Jan. 3, and conducted numerous sea trials and exercises while en route to Alaska and also continued the calibration of the X-band radar mounted on top of the ocean-going platform.

The largest radar of its type, the SBX is designed to track and discriminate small objects in space, making it especially effective for missile defense. It provides very accurate information to the missile defense command and control system to help direct ground and sea-based interceptor missiles to a point in space where they can be placed in a position to collide directly with an in-coming missile warhead for a "hit to kill" intercept, while ignoring decoys and countermeasures.

As a testament to its durability and overall seaworthiness, the SBX successfully navigated several winter storms in the northern Pacific Ocean, encountering waves of more than 50 feet high and wind gusts of more than 100 miles per hour. The SBX's platform was originally designed to support oil drilling equipment in the harsh environment of the North Sea, with its high waves, strong winds and freezing temperatures. Contrary to some published reports, this was the first time the SBX left Hawaii to make the journey north to Alaska. Previous departures from Hawaii over the past several months were to conduct sea trials, radar calibration and to support missile defense tests, not to transit to Alaska.

The SBX is 240 feet wide and 390 feet long. It stands 280 feet high from its keel to the top of the radar's protective dome, and weighs almost 50,000 tons. The SBX will be home-ported at the Aleutian Island of Adak starting late this summer after its mooring facilities have completed construction. The ocean-spanning mobility of the SBX allows the radar to be repositioned as needed to support both actual operations to defend the Unites States, its deployed forces, allies and friends against a ballistic missile attack, and is also used to support operationally realistic missile defense flight tests.

http://sev.prnewswire.com/aerospace-defense/20071217/DC1004417122007-1.html

Japan Unilaterally Demonstrates Capability to Destroy North Korean Ballistic Missiles
BARKING SANDS, Kauai, Hawaii,
Dec. 17 *[2007]*
PRNewswire-USNewswire

-- Riki Ellison, President of the Missile Defense Advocacy Alliance (MDAA), reported today that at about 12:11 p.m. Hawaii time, the Japanese Aegis Destroyer, the JS KONGO (DDG-173), shot down a scud-like target missile similar in speed and size to those deployed by the North Korean military off the coast of Kauai, Hawaii.

This historic first missile intercept by Japan demonstrates to the Japanese public that Japan has proven its capability to defend and protect their country from North Korean missiles. The international ramifications of having Japan invest, develop and deploy their own missile defense system that can protect their nation independently of the United States are tremendous. This intercept sends a resounding, persuasive and compelling message to other countries that seek their own self-defense from the threat of ballistic missiles to follow Japan's lead. Moreover, this demonstration further dissuades and deters those countries and entities that choose to invest in ballistic missiles.

At 12:05 p.m. Hawaii time on a tropical day with a slight breeze and scattered clouds in the northern area of Kauai at the Pacific Range Missile Facility (PRMF), a target missile was launched. Within a minute or so after the launch of the target in white cap seas off the coast of Hawaii, the crew of the JS KONGO, using Aegis sensors, located and tracked the target missile and downloaded that information to the Standard Missile (SM-3 Block 1A) located in the vertical launch tubes on the JS KONGO. Moments later at about 12:08 p.m. Hawaii time, the defensive SM-3 Block 1A missile was fired from the ship and continued to receive updated information while in flight. At about 12:11 p.m. Hawaii time, high above the Pacific Ocean in space, the Japanese SM-3 missile intercepted the target missile launched from Kauai using an internal heat seeking sensor and from the sheer velocity speeds of thousands of miles per hour, both the target missile and the defensive missile were completely destroyed.

This test marks the first time the United States Naval facility (the PRMF) was used and paid for by a foreign government for a ballistic missile test. Approximately $57 million was paid by the Japanese government for the test. The United States was able to watch and independently use its missile defense sensors from multiple platforms on this Japanese owned test, which are part of the current U.S. missile defense system. Three of the U.S. sensors that were used included the Sea-Based X-Band Radar, the Aegis cruiser USS Lake Erie (CG -70), and the Terminal High Altitude Area Defense (THAAD) stationed at the PRMF.

This successful missile test marks the 10th intercept for the Aegis Missile Defense System since December 2002, when the United States made the decision to deploy missile defenses and the 27th overall ballistic missile intercept since that date.

This historic intercept marks the 10-year culmination, investments and resolve of the Japanese government and its public to build their own missile defense system. In 1998, North Korea launched a ballistic missile unannounced over the country of Japan. Since then, North Korea has built its force to

approximately 200 ballistic missiles, and most of them are scud-type missiles. On Dec. 17, 2007, Japan proved with its own ship, crew and interceptor that it can locate, track, discriminate and destroy a ballistic missile similar to a current North Korean scud missile.

The JS KONGO will soon return to Pearl Harbor and disembark with a load of SM-3 Block 1A missiles to return to Japanese waters. With the U.S. Aegis Missile Defense Destroyers and Cruisers in the Sea of Japan, this international missile defense fleet coupled with other U.S. defense assets in the region will be a formidable deterrence force that will further ensure stability, protection and peace in this part of the world.

Riki Ellison was at the test site in Kauai and is available for personal comments and insights on the test. Call Mike Terrill at 602-885-1955 to arrange an interview.

Federal Register: January 7, 2008 (Volume 73, Number 4)]
[Proposed Rules]
[Page 1133-1135]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr07ja08-16]

[EXCERPTS]

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DEPARTMENT OF HOMELAND SECURITY
Coast Guard
33 CFR Part 165
[Docket No. USCG-2007-0195]
RIN 1625-AA87

Security Zone; Waters Surrounding U.S. Forces Vessel SBX-1, HI

AGENCY: Coast Guard, DHS.
ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard proposes to establish a permanent 500-yard moving security zone around the U.S. Forces vessel SBX-1 during transit within the Honolulu Captain of the Port Zone. This zone is necessary to protect the SBX-1 from threats associated with vessels and persons approaching too close during transit. Entry of persons or vessels into this security zone would be prohibited unless authorized by the Captain of the Port (COTP).

DATES: Comments and related material must reach the Coast Guard on or before February 6, 2008.

ADDRESSES: You may submit comments identified by Coast Guard docket number USCG-2007-0195 to the Docket Management Facility at the U.S. Department of Transportation. To avoid duplication, please use only one of the following methods:

(1) Online: http://www.regulations.gov.

(2) Mail: Docket Management Facility (M-30), U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590-0001.

(3) Hand delivery: Room W12-140 on the Ground Floor of the West Building, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202-366-9329.

(4) Fax: 202-493-2251.

FOR FURTHER INFORMATION CONTACT: Lieutenant (Junior Grade) Jasmin Parker, U.S. Coast Guard Sector Honolulu at (808) 842-2600.

Background and Purpose

The U.S. Forces vessel SBX-1 will enter the Honolulu Captain of the Port Zone and transit to Pearl Harbor, HI for maintenance at least once each year. The SBX-1 is easy to recognize because it contains a large white object shaped like an egg supported by a platform that is larger than a football field. The platform in turn is supported by six pillars similar to those on large oil-drilling platforms.

The Coast Guard's reaction to such transits thus far has been to await a final voyage plan and then establish a security zone using a temporary final rule applicable to that particular voyage. Such action diminishes the public's opportunity for formal comment and imposes a pressing administrative burden each time the SBX-1 arrives. This permanent SBX-1 security zone proposal affords solicitation of public comments and promotes relief from the emergency rulemakings currently necessary to protect these transits.

Discussion of Proposed Rule

Our proposed security zone would be established permanently. It would be automatically activated, meaning it would be subject to enforcement, whenever the U.S. Forces vessel SBX-1 is in U.S. navigable waters within the Honolulu Captain of the Port (COTP) Zone (see 33 CFR 3.70-10). The security zone would include all waters extending 500 yards in all directions from the SBX-1, from the surface of the water to the ocean floor.

The security zone would move with the SBX-1 while it is in transit. The zone would become fixed around the SBX-1 while it is anchored, position-keeping, or moored, and it would remain activated until the SBX-1 either departs U.S. navigable waters within the Honolulu COTP zone or enters the Honolulu Naval Defensive Sea Area established by Executive Order 8987 (6 FR 6675, December 24, 1941).

The general regulations governing security zones contained in 33 CFR 165.33 would apply. Entry into, transit through, or anchoring within the zone while it is activated and enforced would be prohibited unless authorized by the COTP or a designated representative thereof. Any Coast Guard commissioned, warrant, or petty officer, and any other COTP representative permitted by law, could enforce the zone. The COTP could waive any of the requirements of this rule for any person, vessel, or class of vessel upon finding that application of the security zone is unnecessary or impractical for the purpose of maritime security. Vessels or persons violating this rule would be subject to the penalties set forth in 33 U.S.C. 1232 and 50 U.S.C. 192.

Regulatory Evaluation

List of Subjects 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard proposes to amend 33 CFR part 165 as follows:

PART 165--REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

1. The authority citation for part 165 continues to read as follows:

Authority: 33 U.S.C. 1226, 1231; 46 U.S.C. Chapter 701; 50 U.S.C. 191, 195; 33 CFR 1.05-1(g), 6.04-1, 6.04-6, and 160.5; Pub. L. 107-295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

2. A new Sec. 165.1411 to read as follows:

Sec. 165.1411 Security zone; waters surrounding U.S. Forces vessel SBX-1, HI.

(a) Location. The following area, in U.S. navigable waters within the Honolulu Captain of the Port Zone (see 33 CFR 3.70-10), from the surface of the water to the ocean floor, is a security zone: All waters extending 500 yards in all directions from U.S. Forces vessel SBX-1. The security zone moves with the SBX-1 while it is in transit and becomes fixed when the SBX-1 is anchored, position-keeping, or moored.

(b) Regulations. The general regulations governing security zones contained in 33 CFR 165.33 apply. Entry into, transit through, or anchoring within, this zone while it is activated, and thus subject to enforcement, is prohibited unless authorized by the Captain of the Port or a designated representative thereof.

(c) Suspension of Enforcement. The Coast Guard will suspend enforcement of the security zone described in this section whenever the SBX-1 is within the Honolulu Defensive Sea Area (see 6 FR 6675).

(d) Informational notice. The Captain of the Port of Honolulu will cause notice of the enforcement of the security zone described in this section to be made by broadcast notice to mariners. The SBX-1 is easy to recognize because it contains a large white object shaped like an egg supported by a platform that is larger than a football field. The platform in turn is supported by six pillars similar to those on large oil-drilling platforms.

(e) Authority to enforce. Any Coast Guard commissioned, warrant, or petty officer, and any other Captain of the Port representative permitted by law, may enforce the security zone described in this section.

(f) Waiver. The Captain of the Port may waive any of the requirements of this rule for any person, vessel, or class of vessel upon finding that application of the security zone is unnecessary or impractical for the purpose of maritime security.

(g) Penalties. Vessels or persons violating this rule are subject to the penalties set forth in 33 U.S.C. 1232 and 50 U.S.C. 192.

Dated: December 6, 2007.
V.B. Atkins
Captain, U.S. Coast Guard, Captain of the Port, Honolulu.
[FR Doc. E8-19 Filed 1-4-08; 8:45 am]

BILLING CODE 4910-15-P

A BRIEF HISTORY OF THE SEA-BASED X-BAND RADAR-1

PREFACE

The Missile Defense Agency (MDA) History Office documents the official history of America's missile defense programs and provides historical support to the MDA Director and staff. Our goal is to provide a factually accurate portrayal of significant events affecting the agency's mission.

"A Brief History of the Sea-Based X-Band Radar-1" provides readers with a summary of the radar's construction history and offers interesting facts about the advanced sensor's capability to enhance the agency's Ballistic Missile Defense System. This pamphlet also includes a sequential photograph display with captions.

Comments and suggestions may be forwarded to Dr. Lawrence M. Kaplan, MDA Historian, at lawrence.kaplan@mda.mil, or by telephone at (703) 882-6546.

A BRIEF HISTORY

In January 2003, the United States government purchased a semi-submersible 50,000-ton seagoing platform from Moss Maritime, a Norwegian company specializing in special purpose offshore vessels and platforms, for use in the Missile Defense Agency's (MDA's) layered Ballistic Missile Defense System (BMDS). MDA's Ground-based Midcourse Defense Joint Program Office, a BMDS component, oversaw platform modifications at the Keppel AMFELS shipyard in Brownsville, Texas; assembly and installation of the world's largest X-band radar onto the platform at Kiewit Offshore Services in Ingleside, Texas; and additional modifications at Pearl Harbor Naval Shipyard in Honolulu, Hawaii.

The self-propelled vessel, in addition to the X-band radar, includes a bridge, control rooms, living quarters, workspaces, storage areas, a power generation area, and a helicopter landing pad. It also contains a command, control and communications system and an In-flight Interceptor Communication System Data Terminal. The platform maintains 60-days of supplies and fuel.

In July 2005, MDA officially named the vessel the "Sea-Based X-Band Radar-1," or "SBX-1." The SBX-1 underwent a wide range of sea trials and exercises in the Gulf of Mexico prior to beginning its journey around South America to its home port of Adak, Alaska. Moreover, the mobility of the SBX-1 allows its movement throughout ocean areas to support both missile defense advanced testing and defensive operations.

Integrating the SBX-1 into the BMDS provides an advanced tracking and countermeasures discrimination capability to assist interceptor missiles located at Fort Greely, Alaska, and Vandenberg Air Force Base, California, in defending against a limited long-range missile attack aimed at the United States. Furthermore, the SBX-1 will support other missile defense elements designed to intercept and destroy shorter range ballistic missiles that might be used against the United States, its deployed forces, its friends, and its allies.

FAST FACTS

- The SBX-1 serves as the largest and most sophisticated phased array electro-mechanically steered X-band radar in the world. Steering electronically within its field of coverage and mechanically in azimuth and elevation allows the radar to track a full 360 degrees in azimuth and about 90 degrees in elevation from near the horizon to the zenith. As a result, the radar can track objects as they fly toward, over, and away from the vessel.
- Approximately 45,000 transmit/receive modules in the radar operate together to form the radar beam, which is capable of seeing an object the size of a baseball at a distance of 2,500 miles. Each module consists of the final transmit stage and initial receive stage from each antenna element. The radar also uses 69,632 multi-sectional circuits to transmit, receive, and amplify signals.
- The SBX-1, which is capable of traveling 8 knots under its own power, measures 240 feet wide, 390 feet long, and 280 feet high from its keel to the top of the radar dome (radome).
- Air pressure alone supports the radome that surrounds the radar. The radome weighs 18,000 pounds, stands more than 103 feet high, and measures 120 feet in diameter. Moreover, the high-tech synthetic fabric allows the radome to withstand winds in excess of 130 miles per hour.
- The SBX-1 crew includes approximately 86 officers, civilians, and contractor personnel to carry out its mission.
- In addition to the inherent stability of the vessel, the radar itself provides electronic stabilization of the radar beam to continue mission operations as the vessel responds to changing sea conditions.
- The marine diesel fuel capacity of the SBX-1 is 1.8 million gallons.
- As the principle midcourse sensor for the BMDS, the radar's major functions are cued search, precision tracking, object discrimination, and providing a missile kill assessment. The In-flight Interceptor Communication System Data Terminal communicates instructions from the GMD Fire Control system to the interceptor missile when it engages a target missile.

25 April 2003

The *SmitWijs Rotterdam*, a Dutch-owned oceangoing tugboat, transports the 50,000-ton seagoing platform from Moss Maritime in Norway across the Atlantic Ocean.

30 May 2003

The platform enters the Keppel AMFELS shipyard channel at Brownsville, Texas, with the western tip of South Padre Island, Texas, visible in the foreground.

30 May 2003

The *SmitWijs Rotterdam* vessel tugs the SBX platform through the Keppel AMFELS Shipyard channel in Brownsville, Texas.

1 January 2004

Construction of the SBX radar ringwall assembly in the Keppel AMFELS Shipyard at Brownsville, Texas.

6 April 2004

Aerial view (looking south) of SBX construction in the Keppel AMFELS Shipyard at Brownsville, Texas, with a view of northern Mexico.

6 April 2004

Aerial view of SBX construction in the Keppel AMFELS Shipyard at Brownsville, Texas.

7 April 2004

Construction of the SBX "hotel" in the Keppel AMFELS Shipyard at Brownsville, Texas.

7 April 2004

Aerial view of SBX construction in the Keppel AMFELS Shipyard at Brownsville, Texas.

13 October 2004

The newly constructed "helopad" and ongoing SBX construction in the Keppel AMFELS Shipyard at Brownsville, Texas.

15 October 2004

This welder from Kiewit Offshore Services at Ingleside, Texas, joins pieces of metal during radar construction.

15 October 2004

The radar construction and emplacement team stands in front of the SBX radar in Kiewit Offshore Services at Ingleside, Texas.

12 March 2005

The SBX platform passes South Padre Island, Texas, enroute to Kiewit Offshore Services at Ingleside, Texas.

2 April 2005

The Heavy Lift Device, capable of lifting more than 13,000 tons, raises the huge radar in Kiewit Offshore Services at Ingleside, Texas.

29 April 2005

The SBX radar was secured and integrated onto the seagoing platform in Kiewit Offshore Services at Ingleside, Texas.

15 May 2005

The radome installation construction team in Kiewit Offshore Services at Ingleside, Texas.

1 July 2005

Motor vessel *Dove*, chartered to support the SBX while operating offshore of Adak, Alaska, tows it during "sea trials" on the Gulf of Mexico.

1 July 2005

View of the SBX passing through a residential area of Corpus Christi, Texas, on its way to "sea trials."

26 July 2005

Colonel Mike Smith, SBX Project Manager (center, in white hardhat), Colonel John Fellows, incoming SBX Project Manager (in black beret), and associates stand before the newly designated SBX-1 at its dedication ceremony in Kiewit Offshore Services at Ingleside, Texas.

18 November 2005

The SBX-1 aboard the *Blue Marlin*, a Dutch-owned semi-submersible heavy lift ship, exits Aransas Pass in the Gulf of Mexico.

17 December 2005

The SBX-1 passes through the Strait of Magellan, which separates the southernmost tip of the South American mainland. The archipelago of Tierra Del Fuego, Chile, and its capital city, Punta Arenas, are in the foreground.

18 December 2005

The SBX-1 passes through the western portion of the Strait of Magellan on its way to the Pacific Ocean.

10 January 2006

The SBX-1 aboard the *Blue Marlin* at Pearl Harbor, Hawaii, with the U.S.S. Arizona Memorial in the foreground.

21 January 2006

The SBX-1 aboard the *Blue Marlin* in the Pacific Ocean with the Hawaiian island of Maui in the background.

22 January 2006

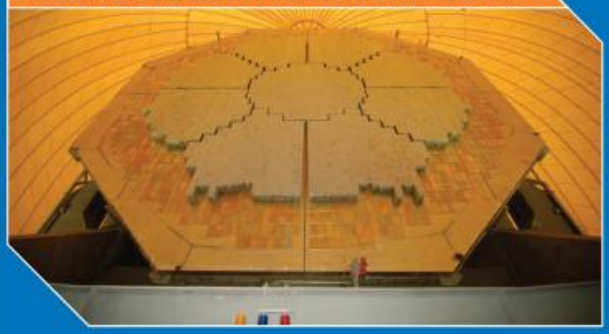
The SBX-1 in the Pacific Ocean adjacent to the Hawaiian island of Maui.

23 January 2006

Maintenance work at the Pearl Harbor Naval Shipyard in Hawaii shows the elevator, scaffolding, stairs, and gangway leading to the vessel's main deck.

28 March 2006

Approximately 45,000 transmit/receive modules operate together to form the radar beam. The radome surrounds the radar and protects it from the weather.



31 March 2006

Motor vessel *Dove* tows the SBX-1 out of Pearl Harbor, Hawaii, for its winter "shakedown."

16 October 2006

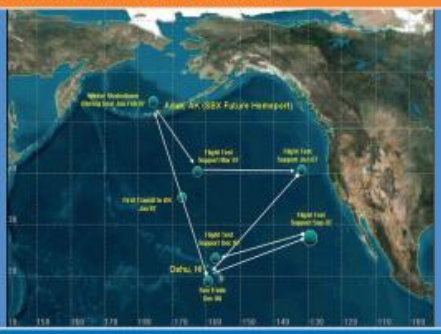
Aerial view of the SBX-1 homeport in Kulak Bay, Alaska, prior to the installation of the mooring system designed to make the vessel stationary by chaining it to eight 75-metric-ton anchors embedded into the sea bed.

12 February 2007

The SBX-1 in the frigid waters of the Bering Sea north of its port in Adak, Alaska.

12 February 2007

Between 1 December 2007 and 1 April 2008, the SBX-1 traveled more than 4,000 nautical miles across the Pacific Ocean.



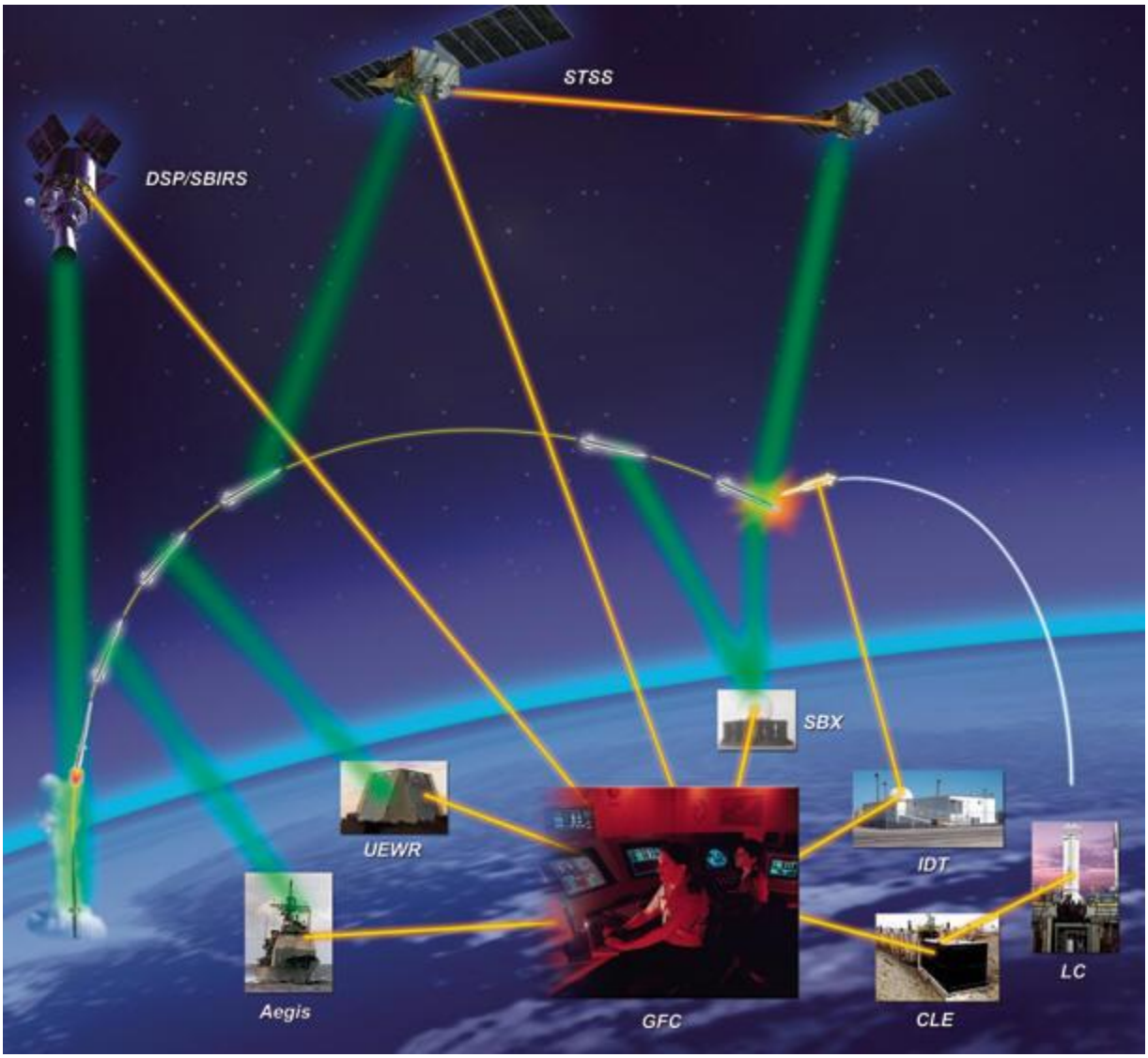
Missile Defense Agency History Office
7100 Defense Pentagon
Washington, D.C., 20301 · 7100

1 May 2008

Approved for Public Release
08-MDA-3447 (15 MAY 08)

Sea-based X-Band Radar (SBX) In-Flight Interceptor Communications Integrated Data Terminal (IDT) Antenna Stabilization Algorithm Design

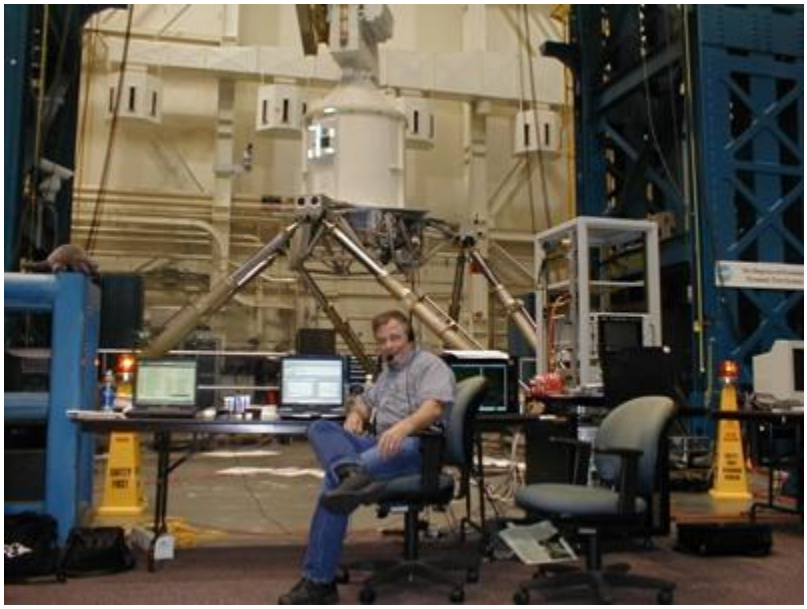
In January 2003, Dr. Brooks was requested by Northrop Grumman Mission Systems (NGMS) of Huntsville, AL to design algorithms to stabilize the SBX IDT antenna to permit precise pointing and tracking under severe wave motion conditions expected in the North Pacific.



The role of SBX in the overall NMD Program

The SBX Vessel During Gulf of Mexico Trials

The algorithms and models developed by Dr. Brooks were implemented by NGMS personnel and the antenna system was transported to Johnson Space Center (JSC) in Houston, TX. Harris Corporation and NGMS personnel mounted the antenna assembly onto the 6-Degree-of-Freedom (6-DOF) table at JSC.



Dr. Brooks at Johnson Space Center 6-DOF Table, Antenna Pedestal in Background

The SBX IDT Team

Satellite Tracking and Phased Array Radar Simulation

BEI, Inc. maintains Matlab-based tools for exoatmospheric state propagation and generic tactical missile trajectory estimation. We are able to combine those tools with radar (phased array and parabolic dish) simulation tools to provide a complete assessment of any tactical scenario. The computational tools can be supplemented with powerful visualization capabilities to further enhance the final product. An example of this is the calibration of precision phased array radars with high-accuracy ephemeris satellites.

A number of precision ephemeris satellites are used for geodesy and sensor calibration purposes. A central repository of these data can be found at the Crustal Dynamics Data Information System (CDDIS). The Satellite Laser Ranging (SLR) data sets can be found here. The value of the SLR data to the calibration of a phased array radar is illustrated below. Given that the position of (for example) the EGP/Ajisai satellite (NORAD identifier 16908) is known within a few centimeters, a phased array radar which is tracking the satellite can be calibrated for misalignment in roll, pitch and yaw, and also errors in geolocation very precisely. For a general derivation of the error Jacobian for phased array radars, click here.