An SBX Sourcebook, Volume II

Version of 2012-05-13

Additional information for this sourcebook would be welcome.
Please send it to thomsona@flash.net

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

SBX-1 fully afloat and under way

MV DOVE

Anchor Handling Towing Vessel for Sea-based X-band Radar

MV Dove is an MSC Anchor Handling Towing Vessel for Sea-based X-band Radar and is part of the 25 ships in Military Sealift Command's Special Mission Ships Program.

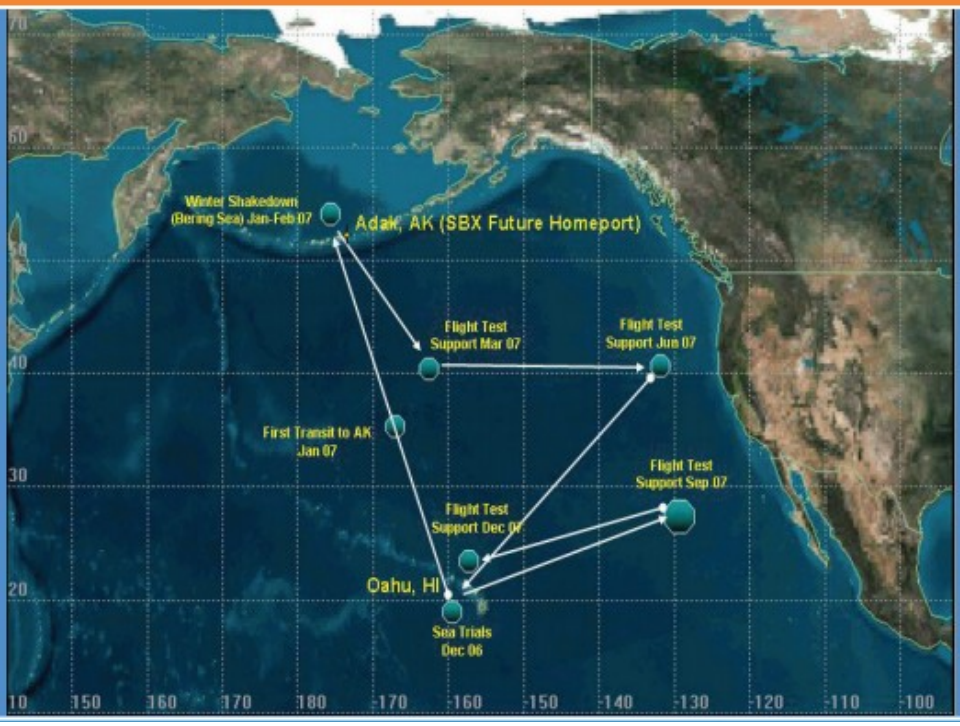
- **Length:** 279 feet
- **Beam:** 65 feet
- **Draft:** 22 feet
- **Displacement:** 3,393 long tons
- **Speed:** 15.0 knots
- **Civilian:** 12 contract mariners
- **Government-Owned/ Chartered:** Chartered

Click on image at left for larger picture.

This vessel is operated by the U.S. government and used only on non-commercial government service.

Last modified: January 9, 2012

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



http://www.indeed.com/salary/q-Shift-Security-Lead-Sbx-l-Adak,-AK.html

Shift Security Lead Sbx Salary in Adak, AK

What **Where**

Shift Security Lead Sbx — Job Title, Keywords

Adak, AK — City, State or Zip

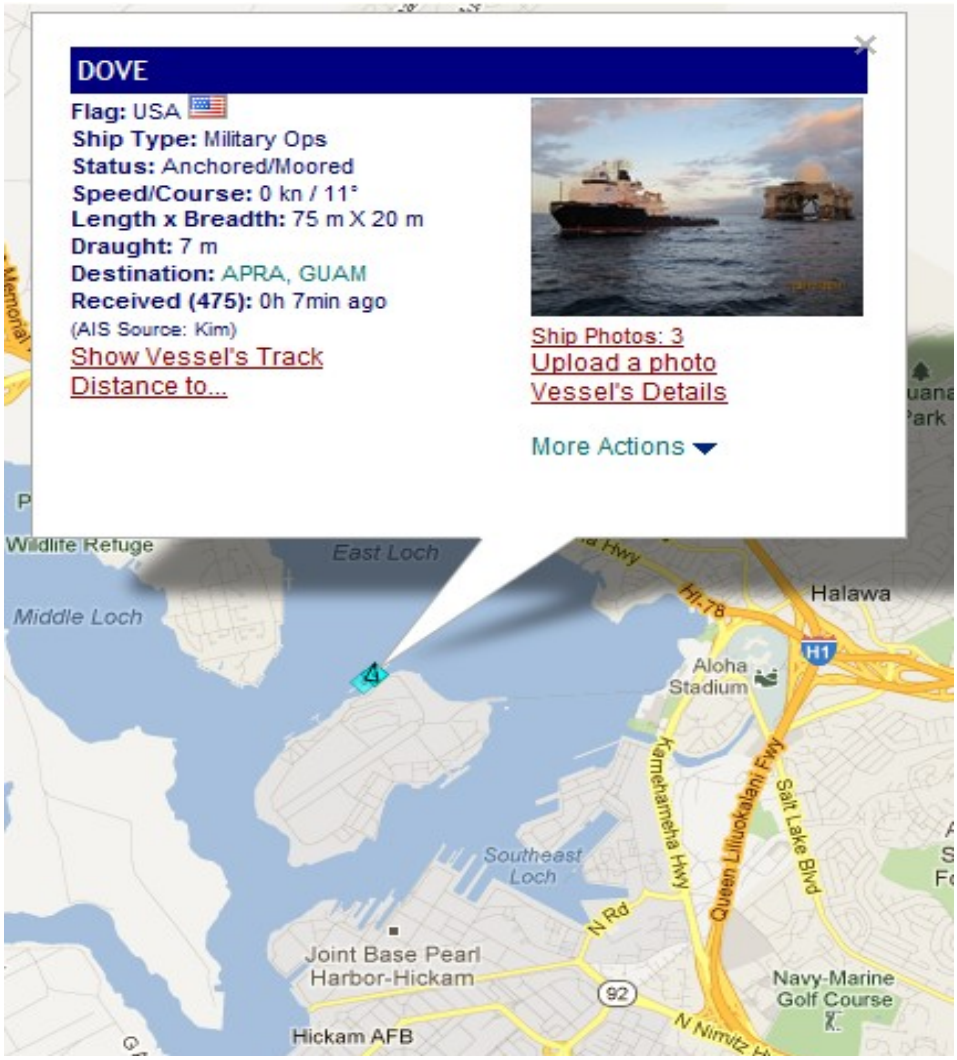
Add Comparison

Search Job Titles Only | View Salary

Average Salary of Jobs Matching Your Search

Average Shift Security Lead Sbx salaries for job postings in Adak, AK are 13% higher than average Shift Security Lead Sbx salaries for job postings nationwide.

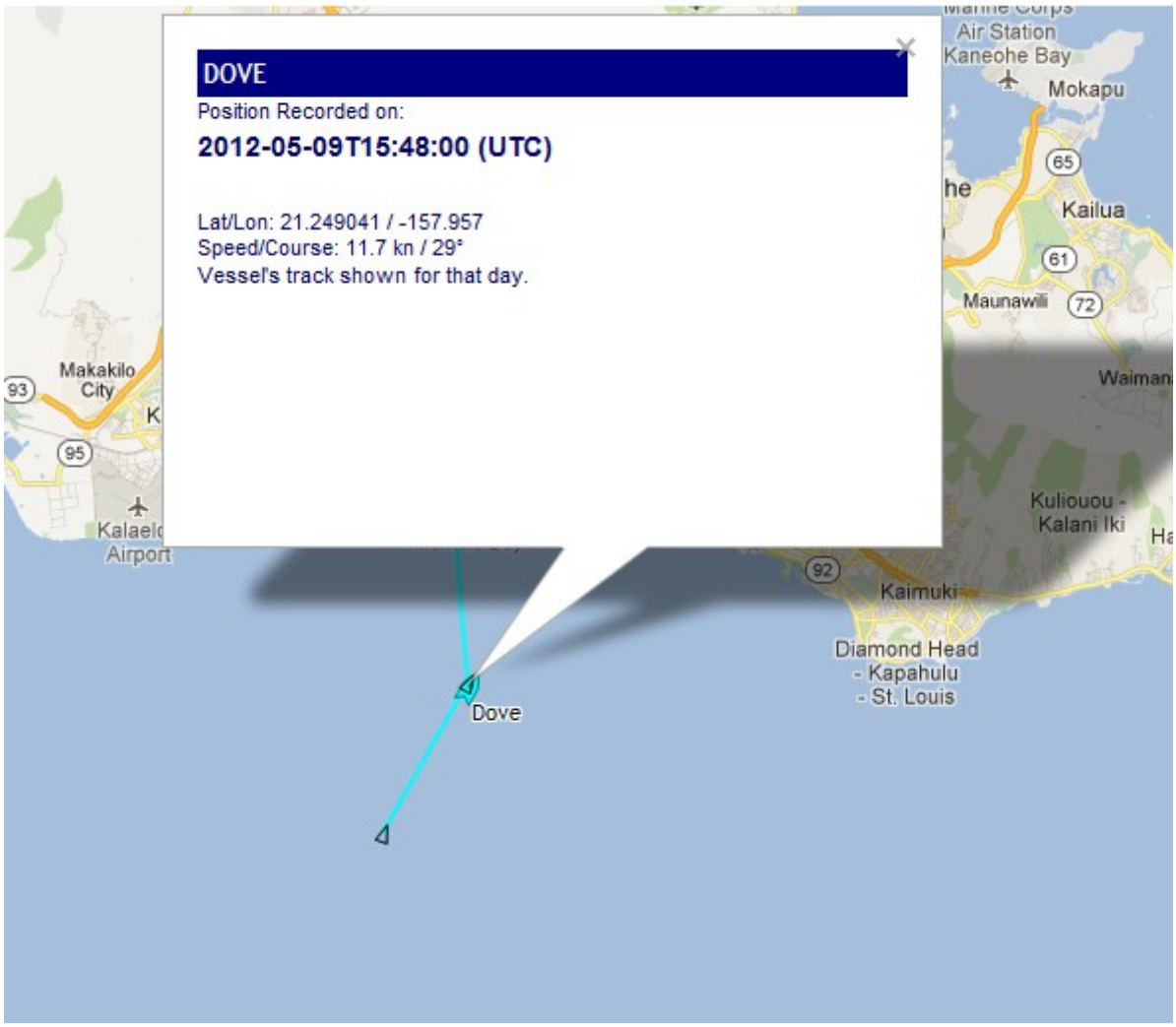
http://marinetraffic.com/ais/



Accessed 2012-05-11T14:32Z

Daily Vessel's Itineraries: **7 Records Found**

Time (UTC)	Vessel's Name	Position Type	Port	Area	Latitude / Longitude	Speed	Course	
2012-05-11 12:38	DOVE	Midday position			21.37104 -157.9598	0	26	Show on Map
2012-05-11 05:26	DOVE	In Range			21.37104 -157.9598	0.1	2	Show on Map
2012-05-11 01:00	DOVE	Midnight position			21.371 -157.9598	0	185	Show on Map
2012-05-11 01:00	DOVE	In Range			21.371 -157.9598	0	185	Show on Map
2012-05-10 15:52	DOVE	Midday position			21.37102 -157.9598	0.1	157	Show on Map
2012-05-10 08:13	DOVE	In Range			21.37102 -157.9597	0	356	Show on Map
2012-05-09 15:31	DOVE	In Range			21.20033 -157.9865	11.9	21	Show on Map


DOVE
Position Recorded on:
2012-05-09T15:48:00 (UTC)
Lat/Lon: 21.249041 / -157.957
Speed/Course: 11.7 kn / 29°
Vessel's track shown for that day.
Air Station
Kaneohe Bay
Mokapu
65
Kailua
61
Maunawili
72
Makakilo
City
93
95
Kalaelo
Airport
Kuliouou -
Kalani Iki
92
Kaimuki
Diamond Head
- Kapahulu
- St. Louis
Dove

http://hosted.ap.org/specials/interactives/documents/nas_response.pdf

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April 30, 2012

Representative Michael R. Turner
Chairman, Strategic Forces Subcommittee
House Armed Services Committee

Representative Loretta Sanchez
Ranking Member
House Armed Services Committee

Dear Mr. Turner and Ms. Sanchez:

We are pleased to provide the following responses to the twelve (12) questions you raised to us in your April 20 letter.

Before doing so, however, it is appropriate to make clear that our responses are unclassified as you requested (i.e., some specific details have been omitted to avoid making this letter classified). Furthermore, our responses are based on the briefing we provided to your subcommittee on April 18, as well as the work of a National Research Council (NRC) committee[1] which we co-chaired and helped prepare the NRC report entitled *Making Sense of Ballistic Missile Defense: An Assessment of Concepts and Systems for U.S. Boost-Phase Missile Defense in Comparison to Other Alternatives* which is undergoing final security classification review by the Missile Defense Agency (MDA).

It is also appropriate to make clear that the committee examined ballistic missile defense (BMD) for the following limited missions for defense against attacks that could plausibly be mounted by "rogue states" in the next decade or so: (1) protection of the U.S. homeland against limited nuclear, other weapons of mass destruction (WMD), or conventional ballistic missile attacks; (2) protection of U.S. forces and bases (to include forward based sensors important to homeland defense) located in theaters of operations against ballistic missile attacks armed with WMD or conventional munitions; and (3) protection of U.S. allies, partners, and host nations against ballistic-missile-delivered WMD and conventional weapons. The committee explicitly did not treat defense against Russian or Chinese strategic forces as a BMD mission. Moreover, since some level of defense against accidental or unauthorized launch from any source is an inherent capability of any defense system, it is not treated as an independent mission.

Our responses here are presented in summary form. The detailed explanations and analysis underlying them are set forth in the full report.

[1]Pursuant to Section 232 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 (Public Law 110-417), the NRC established the Committee on An Assessment of Concepts and Systems for U.S. Boost-Phase Missile Defense in Comparison to Other Alternatives.

[deletia]

(4) Ref. "Please describe the recommendations for a more effective, less expensive sensor system as a substitute for the PTSS program of record."

A more effective, lower cost, sensor solution in all scenarios (including those referred to by MDA in its response to our analysis) is the acquisition and deployment of a forward-based X-band radar suite. That suite includes a ground based X-band radar—a "stacked" AN/TPY2 radar with two of the current AN/TPY2 radar arrays installed one above the other, on a turntable mounting similar to sea-based X-band radar (SBX), with associated electronics, power and cooling equipment. These GBX radars would be deployed at each of the five (5) existing forward-based upgraded early warning radar (UEWR) sites and possibly in Hawaii. They would provide double the power and aperture of single-array AN/TPY2s, taking advantage of economies of scale and experience in procurement, and the consolidation of security and support already in place at the recommended sites. As with PTSS, this radar suite would be cued by existing and programmed OPIR assets, e.g., Defense Support Program (DSP), Spaced Based Infrared Systems (SBIRS).

In addition, the existing SBX radar would be permanently located at Adak, Alaska, to support both testing and operations.

These radars would be integrated for discrimination with the optical sensors on the kill vehicle of the new homeland defense interceptor that we recommend to replace the existing, inadequate, ground-based interceptor (GBI) described in Answer (6) below. This combination would provide extended threat tracking as well as communications and key discrimination support to engagements.

(5) Ref. "Please describe the study panel's views on the role and utility of the Sea-based X-band radar."

The committee recommends that, as part of the homeland defense system outlined in Answer (6), the existing SBX radar be permanently located at Adak. That radar provides important support to intercepts of Pacific threats from the Fort Greely Alaska site.

[deletia]

We hope these responses to your questions are helpful and we would be pleased to answer any additional questions that you might have.

Sincerely yours,

L. David Montague, Committee Co-Chair

Walter B. Slocombe, Committee Co-Chair

NRC Committee on an Assessment of Concepts and Systems for U.S. Boost-Phase Missile Defense in Comparison to Other Alternatives

http://www.af.mil/news/story.asp?id=123298784

U.S. missile defense counters growing threat

by Cheryl Pellerin
American Forces Press Service
Posted 4/19/2012

[EXCERPTS]

4/19/2012 - WASHINGTON (AFPS) -- Six days after North Korea's failed long-range rocket launch, the head of the Defense Department's Missile Defense Agency testified on Capitol Hill about bolstering U.S. defenses against a growing ballistic missile threat.

Agency Director Army Lt. Gen. Patrick J. O'Reilly appeared yesterday [2012-04-18] before the Senate Appropriations Committee's defense subcommittee to discuss the administration's fiscal 2013 budget request of $7.75 billion for his agency.

[deletia]

Also this year, the agency will activate a hardened power plant at Fort Greely, increase the firepower of fielded GBIs by testing and upgrading GBI components, and boost the capability of sea-based X-band radar, the tracking and discrimination radar used for the GMD element of the Ballistic Missile Defense System.

http://www.staradvertiser.com/news/breaking/144312355.html

Radar sails from Pearl Harbor before N. Korea rocket launch

By William Cole
POSTED: 04:22 p.m. HST, Mar 26, 2012
LAST UPDATED: 08:20 p.m. HST, Mar 26, 2012

[EXCERPT]

The Missile Defense Agency's big Sea-Based X-Band Radar tracking ship sailed out of Pearl Harbor on Friday *[2012-03-23]* — about three weeks ahead of North Korea's planned space launch.

Pam Rogers, an MDA spokeswoman, said she couldn't discuss the radar's operations and whether it will be used to monitor the upcoming rocket test.

The towering radar tracker "is returning to sea to continue its mission as a part of the ballistic missile defense system," she said today.

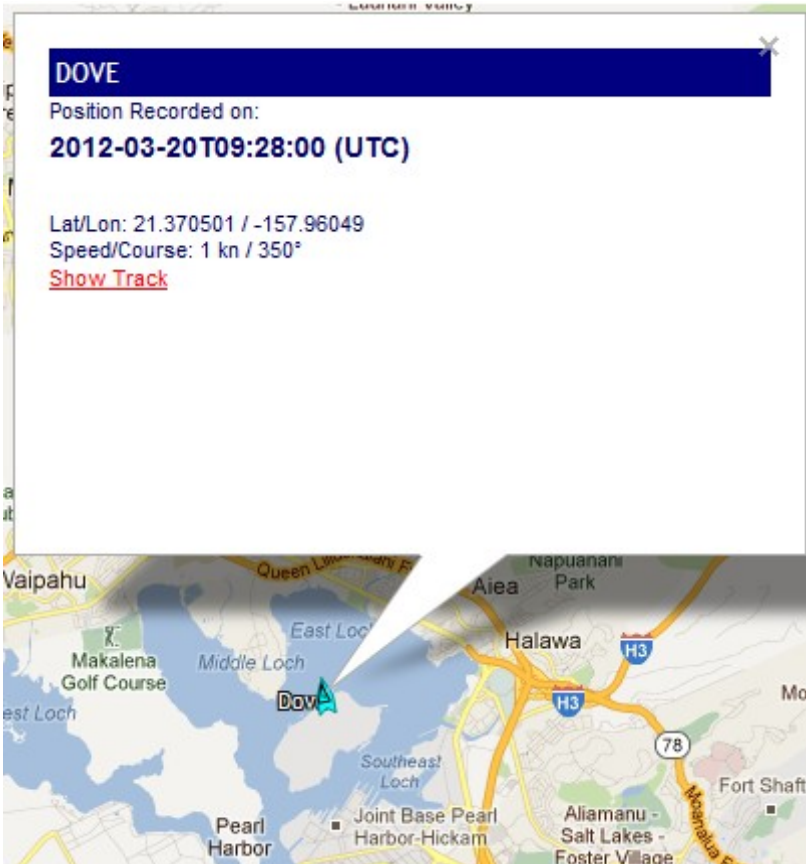
Where the radar will operate also is unclear, but it doesn't have to be near the Korean Peninsula to track the space launch. MDA officials in the past have said the radar could track a baseball-sized object flying through space on the East Coast while the SBX was on the West Coast.

http://www.marinetraffic.com/ais/datasheet.aspx?datasource=ITINERARIES&MMSI=368240000

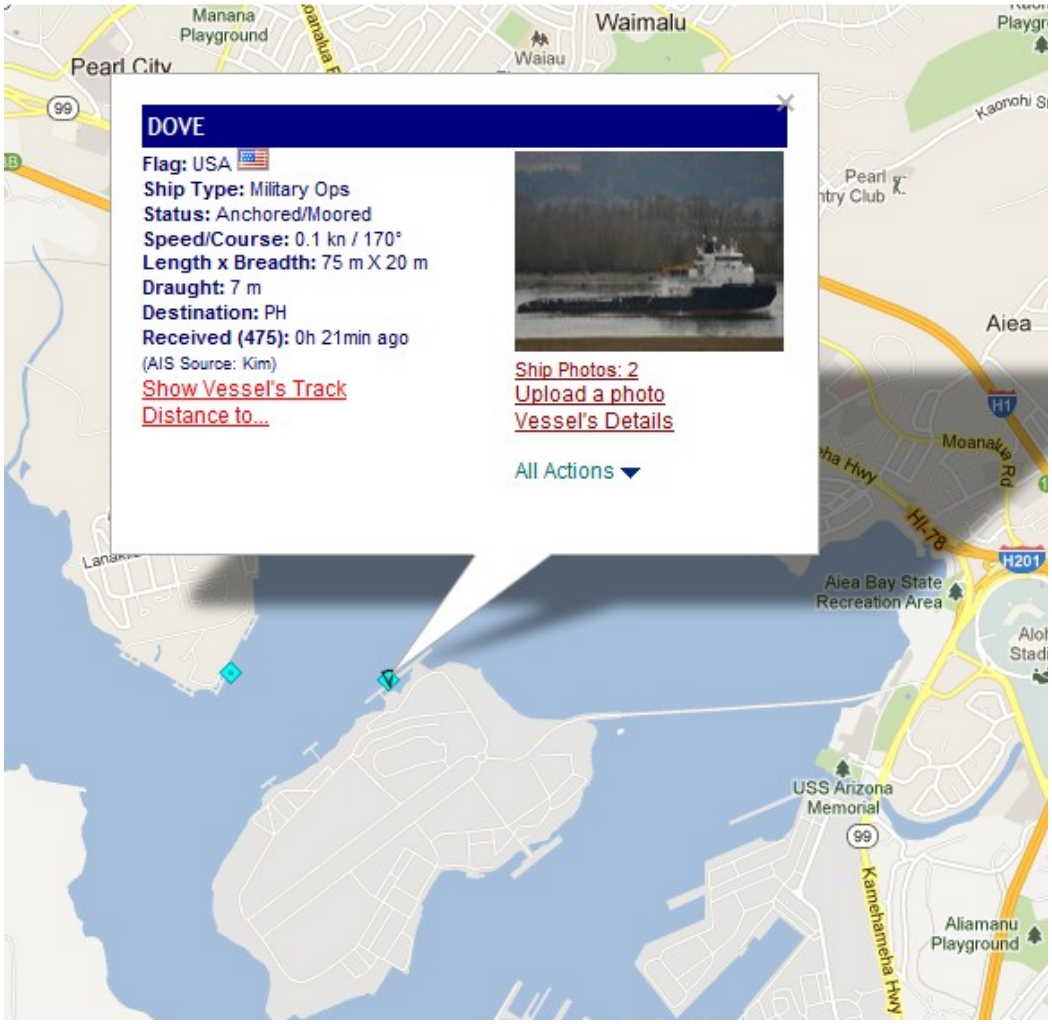
Daily Vessel's Itineraries: **21 Records Found**

Time (UTC)	Vessel's Name	Position Type	Port	Area	Latitude / Longitude	Speed	Course	
2012-03-20 09:28	DOVE	Midday position			21.3705 -157.9605	0.1	350	Show on Map
2012-03-20 04:37	DOVE	In Range			21.37053 -157.9605	0	178	Show on Map
2012-03-19 22:40	DOVE	Midnight position			21.3705 -157.9605	0	104	Show on Map
2012-03-19 18:25	DOVE	In Range			21.37048 -157.9605	0.1	22	Show on Map
2012-03-19 08:25	DOVE	Midday position			21.37052 -157.9605	0	357	Show on Map
2012-03-19 06:07	DOVE	In Range			21.37052 -157.9605	0.1	327	Show on Map
2012-03-18 19:19	DOVE	Midnight position			21.3705 -157.9605	0	169	Show on Map
2012-03-18 18:52	DOVE	In Range			21.3705 -157.9605	0.1	66	Show on Map
2012-03-18 15:41	DOVE	In Range			21.37052 -157.9605	0	10	Show on Map
2012-03-18 12:46	DOVE	In Range			21.37049 -157.9605	0.1	168	Show on Map
2012-03-18 12:46	DOVE	Midday position			21.37049 -157.9605	0.1	168	Show on Map
2012-03-18 09:47	DOVE	In Range			21.37052 -157.9605	0.1	340	Show on Map
2012-03-18 05:24	DOVE	In Range			21.37049 -157.9605	0	284	Show on Map
2012-03-18 03:17	DOVE	In Range			21.37053 -157.9604	0	170	Show on Map
2012-03-17 13:45	DOVE	In Range			21.37047 -157.9605	0.1	177	Show on Map
2012-03-17 13:45	DOVE	Midday position			21.37047 -157.9605	0.1	177	Show on Map
2012-03-17 11:23	DOVE	In Range			21.37048 -157.9605	0	84	Show on Map
2012-03-17 06:34	DOVE	In Range			21.37057 -157.9604	0	350	Show on Map
2012-03-17 03:00	DOVE	In Range			21.37054 -157.9604	0	203	Show on Map
2012-03-15 23:50	DOVE	Midnight position			21.37053 -157.9605	0.1	86	Show on Map
2012-03-15 18:46	DOVE	In Range			21.36677 -157.967	3.9	42	Show on Map

http://www.marinetraffic.com/ais/default.aspx?oldmmsi=368240000&zoom=10&olddate=lastknown#

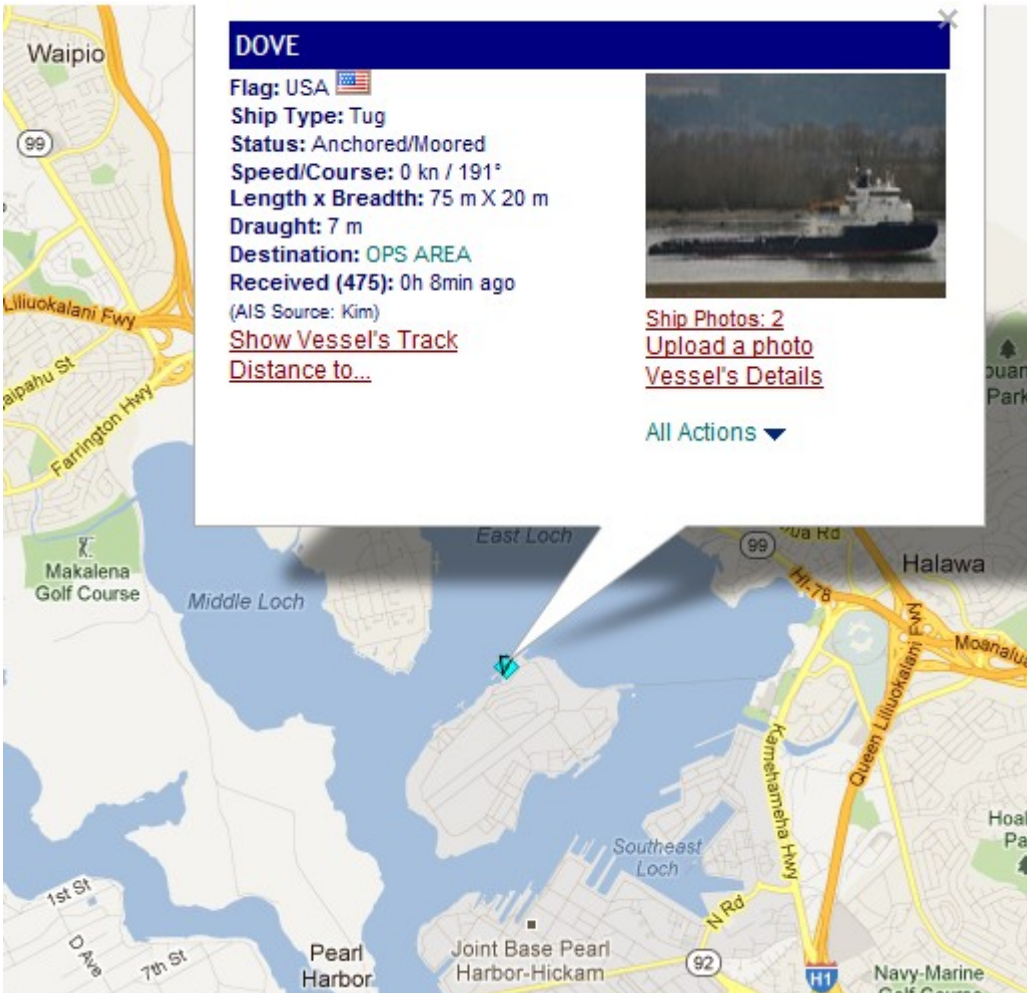


http://marinetraffic.com/ais/



Position Accessed 2012-03-19T19:55Z
SBX "Out of Range"

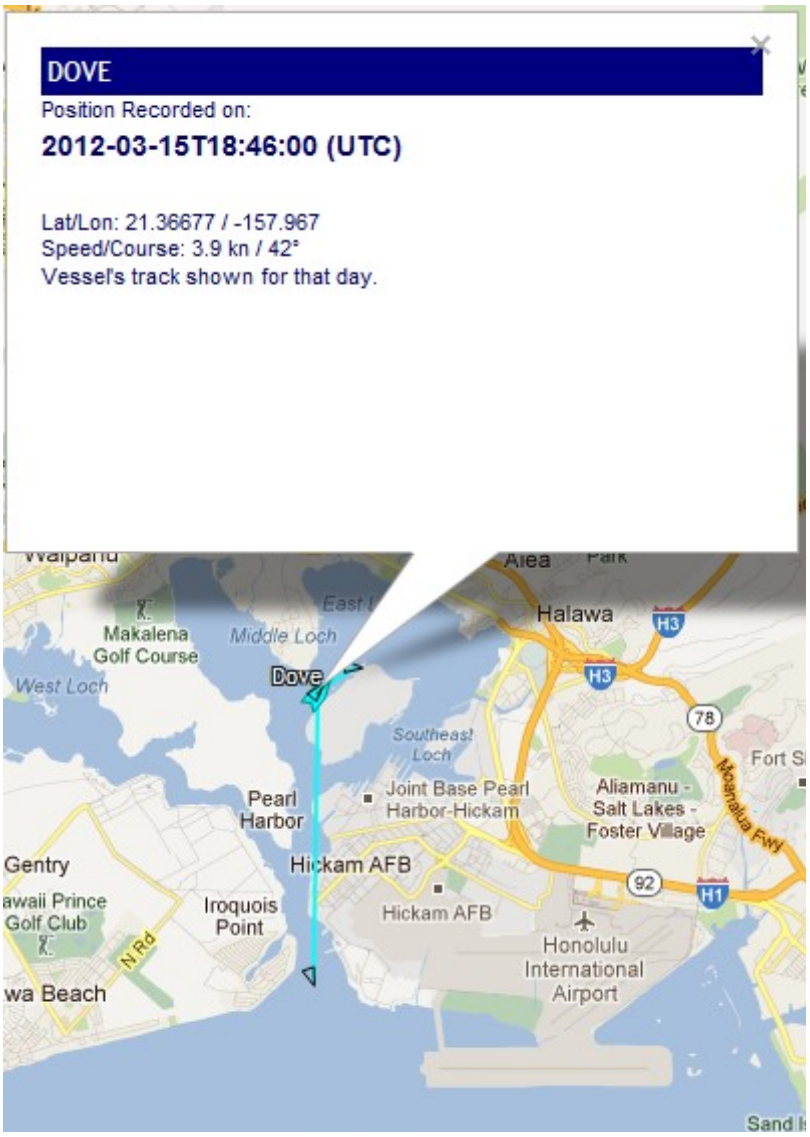
http://marinetraffic.com/ais/



Position Accessed 2012-03-17T17:15Z
SBX "Out of Range"

Sourcebook note: As of 2012-03-18T15:00 no AIS positions were available for either Dove or SBX.

http://www.marinetraffic.com/ais/default.aspx?zoom=9&oldmmsi=368240000&olddate=3/15/2012%206:46:00%20PM



[Sourcebook note: The southernmost position is labeled 8.5 knots 162° 2012-03-15T07:14:00]

http://www.bizjournals.com/pacific/news/2012/03/14/militarys-sea-based-radar-system.html

Military's sea-based radar system returning to Hawaii

Pacific Business News
Date: Wednesday, March 14, 2012, 4:31pm HST - Last Modified: Wednesday, March 14, 2012, 4:33pm HST

The Missile Defense Agency's sea-based X-Band is returning to Oahu and will be visible on the horizon on or about Thursday *[2012-03-15]*, Navy Region Hawaii officials said in a release.

The radar, which resembles a giant white golf ball, is returning to Joint Base Pearl Harbor-Hickam because of a change in contractors for some of the support functions on it, the Navy said. It last left Hawaii in late December after spending two months at Pearl Harbor.

http://www.msc.navy.mil/sealift/2012/March/pacbriefs.htm

Military Sealift Command
SEALIFT
March 2012 *[Accessed 2012-03-15]*

Pacific Briefs

[EXCERPT]

Tim McCully, Military Sealift Command Pacific's deputy commander, represented MSCPAC at the California Maritime Academy Career Fair along with an MSC recruiter Jan. 17. At the fair, MSC described job opportunities to future graduates planning careers within the maritime industry.

Fourteen MSCPAC and Ship Support Unit San Diego employees served as MSC representatives at the annual Armed Forces Communications and Electronics Association Forum held Jan. 24-26 at the San Diego Convention Center. The forum, with nearly 8,000 attendees, featured the latest in electronics and communications technology geared toward U.S. warfighters.

Bernie Donathan, from the office of MSC Representative Pearl Harbor, attended a meeting with personnel from Joint Base Pearl Harbor Hickam's operations directorate and office of the comptroller. Discussions included funding, berthing and mooring for the Sea-Based, X-band Radar.

http://www.fbodaily.com/archive/2012/03-March/09-Mar-2012/FBO-02690491.htm

FBO DAILY ISSUE OF MARCH 09, 2012 FBO #3758

DOCUMENT

R -- SBX-1 Security Services - Solicitation 1

Notice Date
3/7/2012

Notice Type
Solicitation 1

NAICS
561612 — Security Guards and Patrol Services

Contracting Office
Department of the Navy, Military Sealift Command, MSC HQ - Washington, 914 Charles Morris Court, SE, Washington Navy Yard, Washington, District of Columbia, 20398-5540

Solicitation Number
N00033-12-R-2000

Archive Date
4/24/2012

Point of Contact
Brian HJ Kimm, Phone: 202-685-5963, Sheila C White, Phone: 202-685-5776

E-Mail Address
Brian.Kimm@navy.mil, sheila.white@navy.mil

Small Business Set-Aside
Competitive 8(a)

Web Link
FBO.gov Permalink
(https://www.fbo.gov/spg/DON/MSC/MSCHQ/N00033-12-R-2000/listing.html)

Document(s)
Solicitation 1

File Name: See Solicitation (https://www.neco.navy.mil/biz_ops/840-v5soln.aspx?soln=N0003312R2000)
Link: https://www.neco.navy.mil/biz_ops/840-v5soln.aspx?soln=N0003312R2000

Place of Performance
Address: Worldwide, Pearl Harbor, Hawaii, United States

Record
SN02690491-W 20120309/120307234624-62f2d75efcefd329fe54a6b40076feb4 (fbodaily.com)

http://kucb.org/post/destination-x-band-radar-remains-unclear

Destination Of X-Band Radar Remains Unclear

By Alexandra Gutierrez
6:26pm
Thu February 23, 2012

Since it deployed six years ago, the Missile Defense Agency's most powerful mobile radar has traveled across the Pacific, conducting flight tests and keeping an eye out for any ballistic missiles targeted at the United States. But while it's been to Seattle and Pearl Harbor, it's never made it to its homeport of Adak, where a $26-million mooring for the radar lies unused. With the release of Missile Defense Agency's funding requests, it's looking even more unlikely that the radar will ever use that facility.

According to Rick Lehner, the public affairs director with the agency, the sea-based X-band radar could see less use after it completes a number of flight checks this fall. Even though it looks like a giant golf ball perched on top of an oil rig, the radar is one of the agency's most sensitive pieces of equipment. It spends at least 200 days at sea annually, and costs $150 million to operate. Lehner says that the agency would save money by using its smaller, more mobile X-band units. That doesn't mean that the radar will be fully retired.

"People did have the impression that we were mothballing it, or canceling it, or dropping the SBX altogether. That's not the case," says Lehner. "Mainly, it's just going to stay in one place for a longer period of time, but we'll still have it available if we need it for defensive operations, and also for future flight tests."

But even though the radar won't be out to sea as much, there are still no plans to take it to Adak.

"It never has yet because of its heavy mission role in the Pacific, but you never know," says Lehner.

The maintenance of the $900-million radar in Adak was expected to help the village's economy, which took a hit after the Navy pulled out of its military base there in 1997.

Right now, the radar is currently in operation in the South Pacific.

http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=space&id=news/awx/2012/02/13/awx_02_13_2012_p0-424718.xml

MDA Slashes $1B from Budget; SBX Shelved

By Amy Butler abutler@aviationweek.com
THE PENTAGON
Feb 13, 2012

The U.S. Missile Defense Agency's funding request of $7.75 billion includes a major departure for the agency's testing regime: shelving the massive Raytheon Sea-Based X-Band (SBX) radar.

MDA has long used the radar, which is mounted on a large, floating platform, for providing targeting and discrimination data during flight tests in the Pacific region.

Officials will now use the AN/TYP-2 radars, also made by Raytheon, to support this testing as well as future deployments there, one MDA official says. Additionally, the agency has Upgraded Early Warning Radars and the Cobra Dane system to aid in sensor support for testing. The early warning radar in Clear, Alaska, is being upgraded to a more advanced configuration with completion slated for 2016.

SBX funding, which was at $176.8 million in fiscal 2012, sharply decreases to a steady $9.7 million annually through fiscal 2017.

The White House in budget documents suggests that the SBX will be maintained in a "limited test support" role, saving "at least $500 million over five years while also retaining the ability to recall it to an active, operational status if and when it is needed."

http://www.mda.mil/global/documents/pdf/budgetfy13.pdf

4. FY 2013 Plans: In the area of homeland defense in FY 2013, MDA intends to:

- Maintain 30 GBIs and continue GBI Fleet Upgrade program
- Deliver 5 operational GBIs
- Continue sustainment and operations of GBI missile fields: 38 total GBI silos (34 at Fort Greely, 4 at Vandenberg AFB)
- Initiate manufacturing of five additional GBIs for enhanced testing, stockpile reliability, and spares for a total of 57 GBIs
- Continue interceptor and ground systems software builds
- Initiate Fort Drum IDT construction
- Operate and maintain two forward-based AN/TPY-2 radars (Shariki, Japan and Site K, Turkey)
- Continue upgrade of Clear Early Warning Radar in Alaska to a UEWR by 2016
- Place the SBX in a limited test and contingency operations status

5. MDA Funding & Buy / Delivery Schedule:

FY2013 Appropriation Summary ($ in millions)

Appropriation	PE#	PE Title	FY12	FY13	FY14	FY15	FY16	FY17	FY13-17
MILCON	MILCON	Aegis Ashore EPAA Phase II	0.000	157.900	0.000	0.000	0.000	0.000	157.900
		Aegis Ashore EPAA Phase III	0.000	0.000	0.000	0.000	144.452	0.000	144.452
		Clear AFS UEWR Upgrade	0.000	0.000	14.500	0.000	0.000	0.000	14.500
		Fort Drum IDT	0.000	25.900	0.000	0.000	0.000	0.000	25.900
		Planning & Design/Minor	8.368	4.548	9.806	10.825	10.109	10.454	45.742
		Von Braun Complex Phase IV	58.800	0.000	0.000	0.000	0.000	0.000	0.000
MILCON Total			**67.168**	**188.348**	**24.306**	**10.825**	**154.561**	**10.454**	**388.494**
Procurement	0208866C	THAAD	709.150	460.728	565.938	447.427	490.197	463.739	2428.029
		Aegis BMD	565.393	389.626	767.031	844.349	822.096	1049.430	3872.532
		BMDS AN/TPY-2 Radars	380.195	227.421	0.000	38.648	0.000	0.000	266.069
		Aegis Ashore Phase III			86.400	290.199	50.400	20.600	447.599
Procurement Total			**1654.738**	**1077.775**	**1419.369**	**1620.623**	**1362.693**	**1533.769**	**7014.229**
O&M	O&M	THAAD	50.405	55.679	77.932	84.550	83.745	97.242	399.148
		Aegis BMD		12.163	7.457	11.361	5.404	5.853	42.238
		BMDS Radars	151.937	192.133	212.160	234.940	249.311	247.427	1135.971
O&M Total			**202.342**	**259.975**	**297.549**	**330.851**	**338.460**	**350.522**	**1577.357**
RDT&E	0603175C	BMD Technology	74.920	79.975	81.388	115.427	133.742	136.654	547.186
	0603274C	Special Programs	61.371	36.685	39.736	42.726	46.310	47.213	212.670
	0603881C	BMD Terminal Defense	290.076	316.929	313.212	338.353	249.475	279.758	1497.727
	0603882C	BMD Midcourse Defense	1159.456	903.172	914.603	954.069	948.650	862.884	4583.378
	0603884C	BMD Sensors	222.075	347.012	327.342	362.520	341.780	326.095	1704.749
	0603888C	BMD Test & Targets	85.569	0.000	0.000	0.000	0.000	0.000	0.000
	0603890C	BMD Enabling Programs	415.048	362.711	339.197	373.346	395.350	394.085	1864.689
	0603891C	Special Programs	296.145	272.387	321.460	345.263	354.503	348.602	1642.205
	0603892C	BMD Aegis	988.928	992.407	960.870	950.097	1030.201	958.680	4892.255
	0603893C	STSS	96.232	51.313	45.355	32.423	34.195	35.087	198.373
	0603895C	BMDS Space Program	7.940	6.912	6.576	6.610	7.219	7.371	34.688
	0603896C	BMD C2BMC	363.640	366.552	376.116	383.055	358.431	364.725	1848.879
	0603898C	BMD Joint Warfighter	41.174	55.550	53.139	53.718	59.291	60.540	282.238
	0603901C	Directed Energy Research	49.943	46.944	47.865	47.357	52.519	54.513	249.198
	0603902C	SM-3 BLK IIB	13.443	224.077	295.248	455.373	508.356	430.239	1913.293
	0603904C	MDIOC	69.249	63.043	54.299	55.409	54.693	55.844	283.288
	0603906C	Regarding Trench	15.775	11.371	10.369	5.050	1.769	1.809	30.368
	0603907C	Sea Based X-Band Radar	176.831	9.730	9.725	9.739	9.725	9.728	48.647
	0603913C	Israeli Cooperative	235.700	99.836	95.782	96.803	103.940	106.020	502.381
	0603914C	BMD Test	487.699	454.400	420.357	446.542	373.395	421.632	2116.326
	0603915C	BMD Targets	454.357	435.747	475.175	505.591	406.931	485.950	2309.394
	0604880C	Land-Based SM-3	306.185	276.338	127.235	113.677	47.718	56.193	621.161
	0604881C	Aegis SM-3 Blk IIA	473.843	420.630	273.926	200.699	185.007	46.103	1126.365
	0604883C	Precision Tracking Space System	80.723	297.375	267.505	285.529	326.073	354.190	1530.672
	0604884C	Airborne Infrared (ABIR)	0.000	0.000	0.000	0.000	0.000	(0.000)	0.000
	0604886C	Advanced Remote Sensor Technology	0.000	58.742	35.159	18.899	18.884	18.883	150.567
	0901585C	Pentagon Reservation	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0901598C	Management Headquarters	28.908	34.855	25.473	30.838	31.482	32.798	155.446
RDT&E Total			**6495.230**	**6224.693**	**5917.102**	**6229.113**	**6079.639**	**5895.596**	**30346.143**
PB 2013 President's Budget Controls			**8419.478**	**7750.791**	**7658.326**	**8191.412**	**7935.353**	**7790.341**	**39326.223**

http://www.mda.mil/global/documents/pdf/budgetfy12.pdf

FY 2012 Appropriation Summary ($ in millions)

Appropriation	PE #	PE Title	FY11	FY12	FY13	FY14	FY15	FY16	FY12-16
MILCON	0603884C	Sensors MILCON	0.0	0.0	16.4	0.0	0.0	0.0	16.4
	0603888C	Test & Targets MILCON	0.0	8.4	3.4	3.5	9.7	10.1	35.1
	0603890C	MDA Infrastructure MILCON	0.0	58.8	0.0	0.0	0.0	0.0	58.8
	0604880C	Land-Based SM-3 MILCON	0.0	0.0	89.4	0.0	0.0	0.0	89.4
	0604884C	ABIR MILCON	0.0	0.0	0.0	31.8	0.0	0.0	31.8
MILCON Total			0.0	67.2	109.3	35.3	9.7	10.1	231.6
O&M	O&M	THAAD	0.0	50.8	53.9	76.7	86.1	90.5	358.1
		BMDS Radars	0.0	151.9	189.8	209.6	224.8	246.6	1022.7
O&M Total			0.0	202.8	243.7	286.3	311.0	337.1	1380.7
Procurement	0208866C	THAAD	858.9	833.2	728.6	921.8	955.5	745.4	4184.4
		AEGIS BMD	94.1	565.4	675.1	737.4	807.9	1025.5	3811.4
		BMDS AN/TPY-2 Radars	0.0	380.2	365.6	376.8	380.7	380.3	1883.6
		Aegis Ashore Phase III	0.0	0.0	0.0	0.0	211.1	39.9	251.0
Procurement Total			953.0	1778.7	1769.2	2036.1	2355.2	2191.1	10130.4
RDT&E	0603175C	BMD Technology	132.2	75.0	103.8	111.7	164.4	170.9	625.8
	0603274C	Special Programs	0.0	61.5	37.9	41.0	43.9	46.4	230.7
	0603881C	BMD Terminal Defense	436.5	290.5	318.7	309.9	341.0	320.6	1580.7
	0603882C	BMD Midcourse Defense	1346.2	1161.0	1040.9	925.9	856.8	876.0	4860.7
	0603884C	BMD Sensors	454.9	222.4	357.3	336.5	318.3	348.9	1583.4
	0603888C	BMD Test & Targets	1113.4	1071.0	898.7	790.9	787.1	878.2	4426.0
	0603890C	BMD Enabling Programs	402.8	373.6	331.2	314.2	336.7	346.6	1702.3
	0603891C	Special Programs	270.2	296.6	317.8	416.1	431.0	452.4	1973.9
	0603892C	BMD Aegis	1467.3	960.3	958.0	1001.5	970.6	1033.7	4924.1
	0603893C	STSS	112.7	96.4	53.6	47.6	32.3	34.3	264.1
	0603895C	BMDS Space	10.9	8.0	6.8	6.5	6.5	6.9	34.6
	0603896C	BMD C2BMC	342.6	364.1	330.3	353.1	338.8	304.2	1690.6
	0603898C	BMD Joint Warfighter	68.7	41.2	58.1	56.0	56.5	60.7	272.4
	0603901C	Directed Energy Research	98.7	96.3	92.0	93.1	92.3	95.0	468.7
	0603902C	Aegis SM-3 BLKIIB	0.0	123.5	433.1	384.6	401.1	394.8	1737.2
	0603904C	MDDC	86.2	69.3	64.5	55.8	56.8	54.6	301.0
	0603906C	Regarding Trench	7.5	15.8	9.1	7.0	5.5	2.1	39.4
	0603907C	Sea Based X-Band Radar	153.1	177.1	172.6	162.6	185.9	173.6	871.8
	0603913C	Israeli Cooperative	121.7	106.1	99.9	95.8	96.8	104.0	502.6
	0604880C	Land-Based SM-3	281.4	306.6	149.3	60.6	41.4	154.8	712.8
	0604881C	Aegis SM-3 Blk IA	318.8	424.5	357.2	279.4	203.6	25.2	1289.8
	0604883C	Precision Tracking Space Sensor	67.0	160.8	272.9	302.3	273.6	331.2	1340.9
	0604884C	Airborne Infrared (ABIR)	111.7	46.9	49.9	49.2	33.0	34.2	213.3
	0901585C	Pentagon Reservation	20.5	0.0	0.0	0.0	0.0	0.0	0.0
	0901598C	Management Headquarters	29.8	28.9	29.1	27.7	27.8	29.9	143.5
		RDT&E Total	7454.6	6577.1	6602.8	6229.2	6101.9	6279.4	31790.3
BRAC	BRAC	Base Realignment and Closure	8.7	0.0	0.0	0.0	0.0	0.0	0.0
		BRAC Total	8.7	0.0	0.0	0.0	0.0	0.0	0.0
Grand Total			8416.3	8625.7	8725.0	8586.8	8777.8	8817.6	43533.0

http://www.mda.mil/global/documents/pdf/budgetfy11.pdf

Sea Based X-Band Radar (SBX) (PE 0603907C): For the FYDP, we are requesting $820M, including $153M in FY 2011. The FY 2011 request includes $98M for the operations and sustainment of the SBX platform and its support vessel (the Dove) and $43M for operations and sustainment of the X-band radar in support of BMDS flight testing, as well as the completion of software upgrades that provide an improved capability to discriminate between countermeasures and re-entry vehicles.

($millions, then year)

Program Element (PE) Title	PE Number	FY 2009	FY 2010	FY 2011
Procurement				
Aegis	0208866C	102	226	94
THAAD	0208866C	105	419	859
RDT&E				
Technology	0603175C	118	189	132
Terminal	0603881C	951	716	436
Midcourse	0603882C	1473	1027	1346
Boost	0603883C	384	182	
Sensors	0603884C	683	621	455
System Interceptor	0603886C	309		
Test and Targets	0603888C	907	823	1113
BMD Enabling Programs	0603890C	403	359	403
Special Programs – MDA	0603891C	183	250	270
Aegis BMD	0603892C	1054	1436	1467
STSS	0603893C	210	162	113
MKV	0603894C	226		
System Space Program	0603895C	23	12	11
C2BMC	0603896C	275	335	343
Hercules	0603897C	52	48	
Joint Warfighter Support	0603898C	66	61	69
MDIOC	0603904C	103	86	86
Directed Energy Research (new)	0603901C			99
Regarding Trench	0603906C	3	6	8
SBX	0603907C	144	167	153
European Interceptor Site	0603908C	349		
European Midcourse Radar	0603909C	74		
European Capability	0603911C		50	
European Communications Support	0603912C	26		
Israeli Cooperative	0603913C		201	122
Land Based SM-3 (new)	0604880C			281
Aegis SM-3 Block IIA Co-Development (new)	0604881C		256	319
Precision Tracking Space System (new)	0604883C			67
Airborne Infrared (ABIR) (new)	0604884C			112
Small Business Innovative Research	0605502C	125		
Pentagon Reservation	0901585C	20	20	20
Management Headquarters	0901598C	87	52	30
MILCON				
Test and Targets	0603888C	18	6	
Land Based SM-3	0604880C		69	
BMD Aegis	0603892C		25	
European Interceptor Site	0603908C			
European Midcourse Radar	0603909C			
BRAC	0207998C	160	87	9
MDA Total		8632	7891	8416

Table 1: Funding by Appropriation and Program Element, FY 2009 – FY 2011

http://www.mda.mil/global/documents/pdf/budgetfy10.pdf

Program Element (PE) Title	PE Number	FY 2008	FY 2009	FY 2010
Procurement	0208866C	0	162	589
RDT &E				
Technology	0603175C	106	119	110
Terminal	0603881C	1034	957	719
Midcourse	0603882C	2199	1507	983
Boost	0603883C	503	401	187
Sensors	0603884C	574	768	637
System Interceptors	0603886C	331	385	0
Test and Targets	0603888C	619	912	967
BMD Enabling Programs	0603890C	417	403	369
Special Programs – MDA	0603891C	193	176	302
Aegis BMD	0603892C	1214	1114	1691
STSS	0603893C	226	209	180
MKV	0603894C	223	283	0
System Space Program	0603895C	16	25	13
C2BMC	0603896C	440	288	340
Hercules	0603897C	51	56	48
Joint Warfighter Support	0603898C	45	70	61
MDIOC	0603904C	77	106	87
Regarding Trench	0603906C	2	3	6
SBX	0603907C	155	147	175
European Capability	0603911C	0	0	51
EIS	0603908C	0	362	0
EMR	0603909C	0	77	0
European Comm. Support	0603912C	0	27	0
Israeli Cooperative	0603913C	0	0	120
SBIR	06055026	137	0	0
Pentagon Reservation	0901585C	6	20	20
Management Headquarters	0901598C	84	81	57
MILCON		0	170	30
BRAC	0207998C	110	160	87
Defense-Wide Resources	0904903D	0	0	0
MDA Total		8766	8985	7826

Table 1
Funding by Appropriation and Program Element by Year
FY 2008 – FY 2010 ($millions, then year)

http://comptroller.defense.gov/defbudget/fy2010/budget_justification/pdfs/03_RDT_and_E/Vol_2_MDA/PE-0603907C-SBX.pdf

UNCLASSIFIED

Missile Defense Agency (MDA) Exhibit R-2 RDT&E Item Justification							Date: May 2009	
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 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Program Element (PE) Cost	155,244	146,895	174,576					
XX46 Sea Based X-Band Radar (SBX) Sustainment	155,244	146,895	174,576					

Note: The President's Budget submit for FY09 captured SBX funding for FY09 and out in the BMD Sensors program element. This budget submit carries all SBX funding in the Sea-based X-Band Radar program element (PE 0603907C).

http://comptroller.defense.gov/defbudget/fy2009/budget_justification/pdfs/03_RDT_and_E/Vol_2_MDA/19_PE-0603907C-SBX.pdf

UNCLASSIFIED

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.

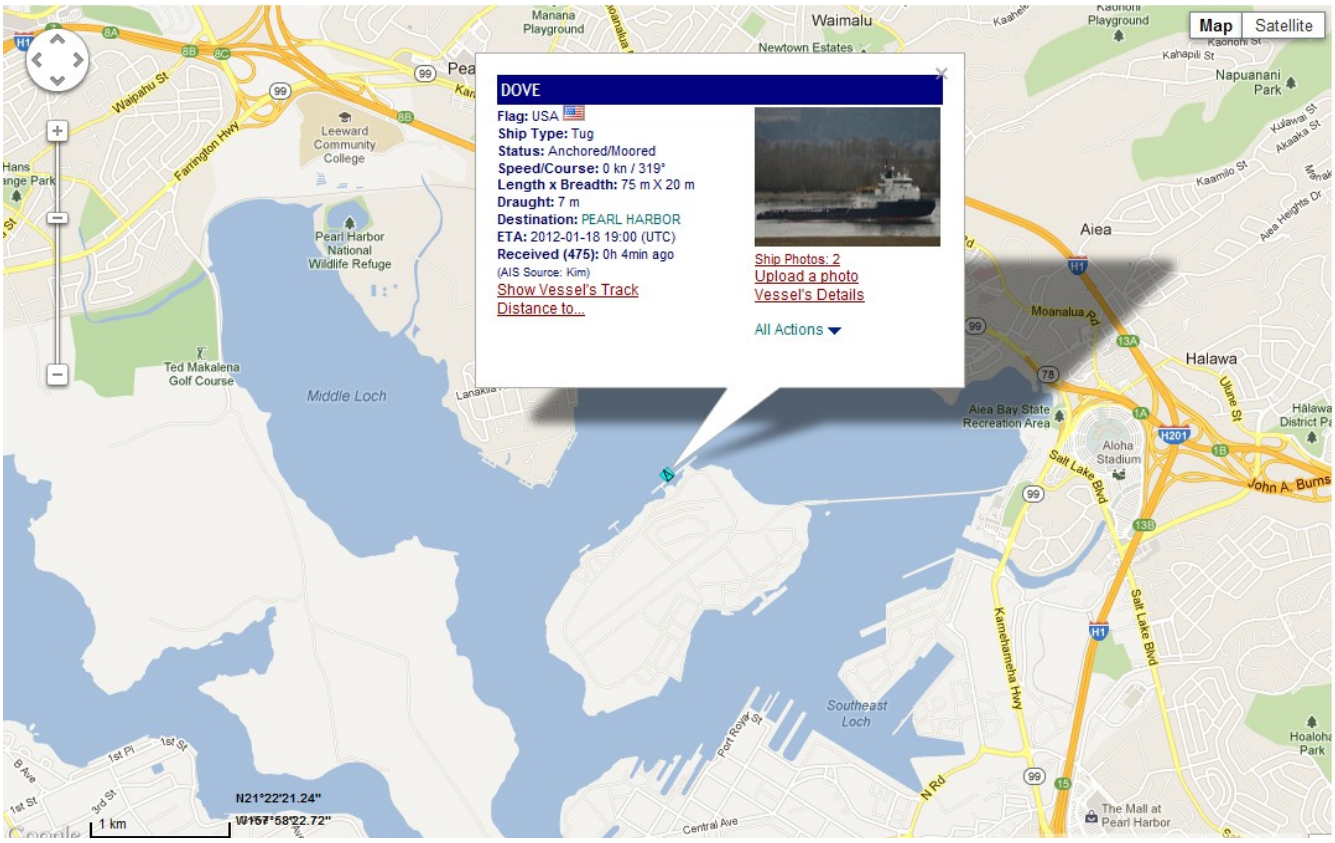
UNCLASSIFIED

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)	

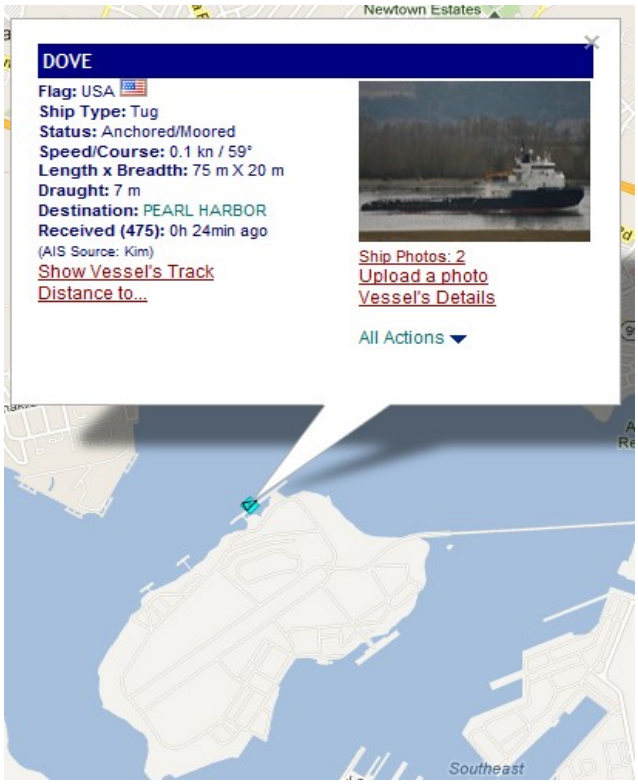
B. Program Change Summary	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008 PB)	0	0	0
Current President's Budget (FY 2009 PB)	0	165,243	0
Total Adjustments	0	165,243	0
Congressional Specific Program Adjustments	0	166,300	0
Congressional Undistributed Adjustments	0	-1,057	0
Reprogrammings	0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

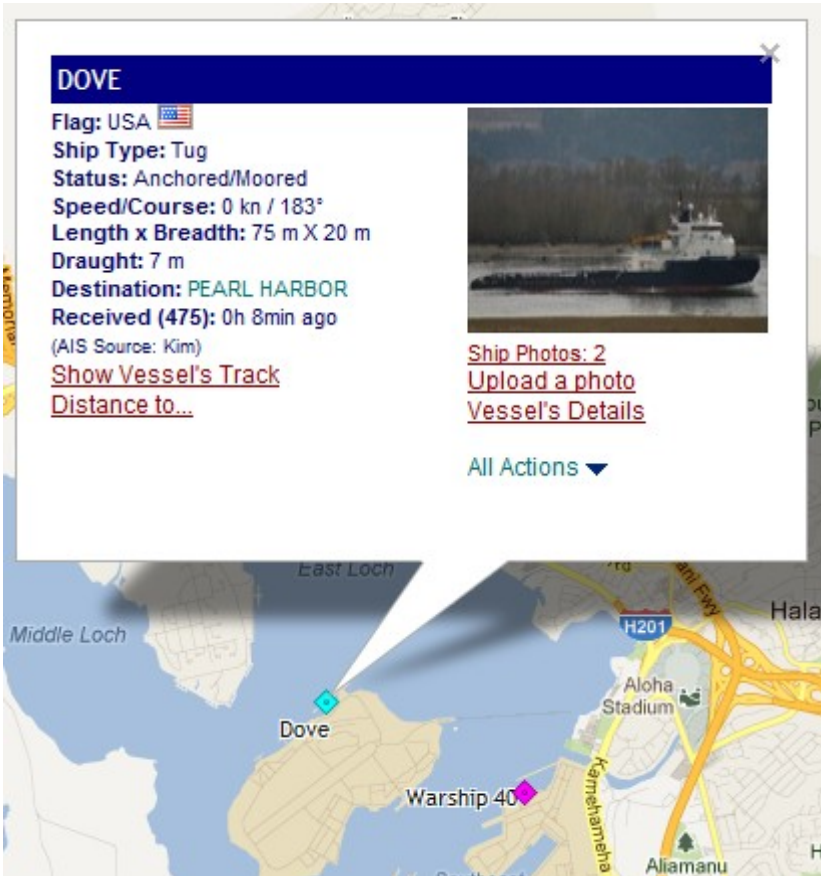
http://marinetraffic.com/ais/



Position (21.37048 N, -157.9605 E) accessed 2012-01-20T15:29Z.
SBX "Out of range"

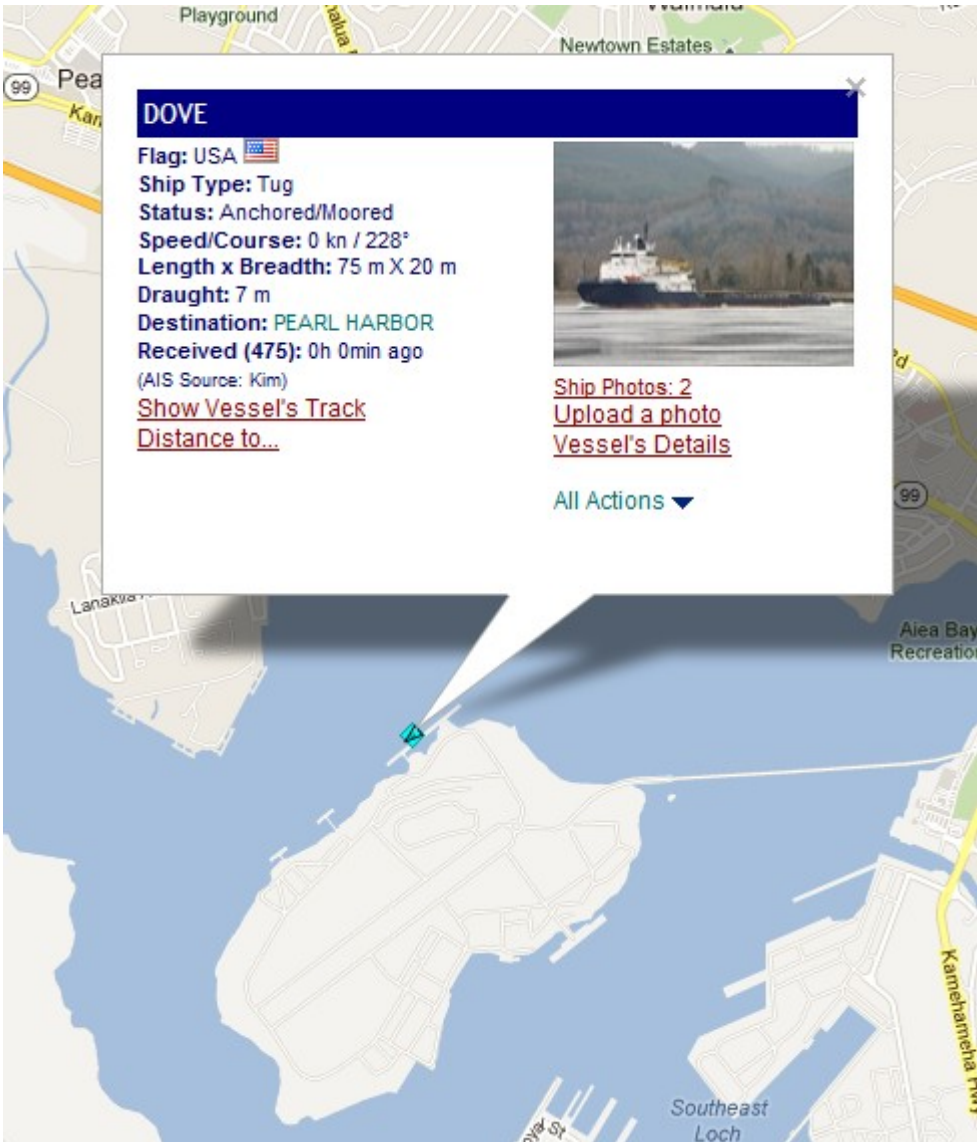


Position accessed 2012-01-24T13:15Z.
SBX "Out of range"



Position accessed 2012-01-26T16:35Z.
SBX "Out of range"

Position accessed 2012-01-27T16:20Z.
SBX "Out of range"
MV Dove "Out of Range"



Position accessed 2012-01-31T23:20Z.
SBX "Out of range"

Gryphon Technologies Wins $101.2 Million Contract for SBX-1 Mission Integration Support for NSWC Crane Code GXR

Jan. 12, 2012, 10:53 a.m. EST

GREENBELT, Md., Jan. 12, 2012 /PRNewswire via COMTEX/ -- Gryphon Technologies, LC was awarded a competitive-bid $101.2 million contract by the Naval Surface Warfare Center (NSWC) Crane, for research and development, engineering, analysis, configuration management, information technology management, supply programmatic, functional and administrative tasking in support of operation and sustainment of the Sea-Based X-Band (SBX-1). Gryphon Technologies will provide overall coordination of the radar, platform, and mission integration activities to include: Operation and Sustainment (O&S) of the Non-BMDS Electronic Systems including SBX-1 Non-Mission Communications Systems (NMC) systems; Integrated Electronic Security Systems (IESS); and Direct-to-Sailor Entertainment System.

"We are very excited about this win. The SBX is strategically important to the Nation. This is a big vote of confidence and a credit to our technical ability," said P.J. Braden, founder and CEO of Gryphon Technologies. Gryphon's SBX Program Manager, Jim Wesseling, also commented that "We welcome the opportunity to support NSWC in the operation and sustainment of this critical operational asset of the Ballistic Missile Defense System (BMDS)."

The Gryphon Team includes General Dynamics IT, Teledyne Brown Engineering, Applied Technical Systems, The GBS Group, KAYA Associates, The Parker Group, and Stimulus Engineering.

Gryphon Technologies, LC is a premier engineering and technical services firm supporting national security and coalition forces. The company has been named one of the Greatest Places to Work. Gryphon is a CMMI Level 3 rated company.

www.GryphonLC.com

Media Contact:C.J. DavisGryphon Technologies, L.C.240-387-1000 Ext 220CDavis@GryphonLC.com

SOURCE Gryphon Technologies, LC

http://www.defensenews.com/story.php?i=8792334&&s=TOP

Military Sealift Command Reorganizes Operations

By CHRISTOPHER P. CAVAS
Published: 9 Jan 2012 14:28

[EXCERPTS]

The Military Sealift Command (MSC) announced Jan. 9 a reorganization of its operating forces in a move to increase efficiency.

The submarine tenders Emory S. Land (AS 39) and Frank Cable (AS 40), seen together last month in Guam, are now part of MSC's Service Support program. MSC also oversees harbor tugboat operations (MC2 Elizabeth Fray / U.S. Navy)

"We are proactively streamlining," Rear Adm. Mark Buzby, MSC's commander, said in a statement.

MSC operates virtually all the U.S. Navy's support and auxiliary ships, crewing them with civilian mariners working for the government or civilian contract crews. The 110 ships operated by the command provide fleet services, take on special missions and carry and store military equipment.

Under the reorganization, the ships will operate under five mission programs, including a new Service Support program. Continuing in operation are the Combat Logistics Force (CLF), Special Mission, Prepositioning and Sealift programs.

The former Naval Fleet Auxiliary Force (NFAF) is no more, its ships operating now under the CLF or Service Support programs.

[deletia]

The Special Mission program maintains 24 contract-operated ships, including 8 chartered submarine- and special warfare-support ships; 6 T-AGS oceanographic survey ships; 5 T-AGOS ocean surveillance ships; 2 T-AGM missile range instrumentation ships; the navigation test support ship Waters; and the SBX-1 Sea-based X-Band Radar platform with its towing vessel Dove. The program also manages harbor tug contracts on behalf of the Navy's Installations Command.

[deletia]

http://www.msc.navy.mil/inventory/ships.asp?ship=215

[Accessed 2012-01-12]

MV DOVE

Anchor Handling Towing Vessel for Sea-based X-band Radar

MV Dove is an MSC Anchor Handling Towing Vessel for Sea-based X-band Radar and is part of the 25 ships in Military Sealift Command's Special Mission Ships Program.

• **Length:**	279 feet
• **Beam:**	65 feet
• **Draft:**	22 feet
• **Displacement:**	3,393 long tons
• **Speed:**	15.0 knots
• **Civilian:**	12 contract mariners
• **Government-Owned/ Chartered:**	Chartered

Click on image at left for larger picture.

This vessel is operated by the U.S. government and used only on non-commercial government service.

Last modified: January 9, 2012

http://www.msc.navy.mil/inventory/pics/Dove.jpg

http://www.msc.navy.mil/inventory/ships.asp?ship=213

[Accessed 2012-01-12]

SEA-BASED X-BAND RADAR (SBX-1)

Sea-based X-band Radar

Sea-based X-Band Radar is an MSC Sea-based X-band Radar and is part of the 25 ships in Military Sealift Command's Special Mission Ships Program.

• **Length:**	389 feet
• **Beam:**	238 feet
• **Draft:**	33 feet (at transit draft)
• **Displacement:**	50,000 long tons (when ballasted)
• **Speed:**	9+ knots
• **Civilian:**	33 contract mariners/54 sponsor personnel civil service mariners
• **Military:**	None
• **Government-Owned/ Chartered:**	Government-owned

Click on image at left for larger picture.

Return to ship inventory main page *Glossary of Terms*

This vessel is operated by the U.S. government and used only on non-commercial government service.

View print version

Last modified: January 5, 2012

http://www.shipspotting.com/gallery/photo.php?lid=1465003

Photo Details

Photographer:	WadeArmstrong [View profile]	**Title:**	SBX-1	**Added:**	Dec 30, 2011
Captured:	December 28, 2011	**IMO:**	8765412	**Hits:**	89
Photo Category:	Service Craft				

Description:

Sea-Based X-band radar platform departing Pearl Harbor, Hawaii, under tow by M/V Dove.

http://www.bizjournals.com/pacific/news/2011/12/28/sea-based-radar-system-leaves-hawaii.html

Sea-based radar system leaves Hawaii

Pacific Business News
Date: Wednesday, December 28, 2011, 2:23pm HST

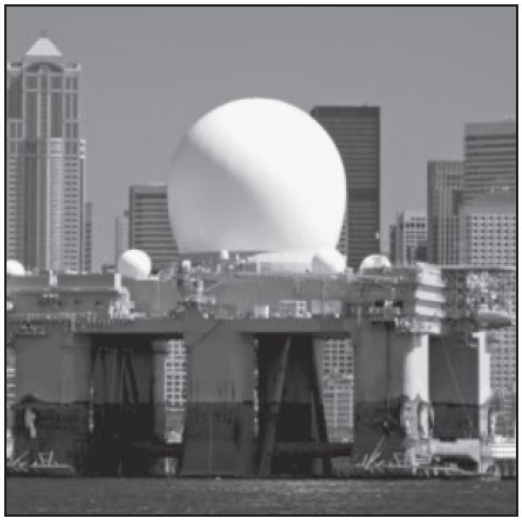
The massive sea-based X-Band Radar left Joint Base Pearl Harbor-Hickam on Wednesday *[2011-12-28]* morning, but Navy officials would not disclose where it was headed.

The X-Band Radar, or SBX-1, was moved to the base on Oct. 21 *[2011]*, where it underwent maintenance and was used for training during its time at the base, the Navy said.

While in Hawaii, the sea-based radar, which resembles a giant golf ball atop a floating platform, was based in Pearl Harbor.

The SBX is one of the sensors for our nation's ballistic missile defense system ... designed to identify ballistic missile threats to our nation and relay that information to the appropriate command and control center for missile defense, Bill Doughty, deputy director for Navy Region Hawaii's public affairs, said in an email.

http://www.seafarers.org/seafarerslog/2011/12_December/documents/December2011.pdf



The SIU-crewed *SBX-1* departs Seattle and heads for Hawaii following three months of scheduled maintenance and upgrades. (Photo courtesy Missile Defense Agency)

IAS Lands DOD Contract

SIU Jobs Secure Aboard SBX-1

The Defense Department in early November announced that Interocean American Shipping Corp. (IAS) has been awarded a contract to operate and maintain the sea-based X-Band Radar platform known as *SBX-1* for the U.S. Military Sealift Command. The contract is for one year but includes options that would bring the total agreement to five years.

IAS already had been operating the *SBX-1*, with an SIU crew, under terms of a prior contract.

According to the recent government announcement, the vessel "will be deployed to the Pacific Ocean to provide ballistic missile-tracking information to the Ground-based Midcourse Defense System (GMD). *SBX-1* will also provide advanced target and countermeasures discrimination capability for the GMD interceptor missiles."

The U.S. Missile Defense Agency reports that the *SBX-1* can sail at up to eight knots. The unique vessel measures 240 feet wide, 390 feet long, and 280 feet high from its keel to the top of the radar dome (radome).

The *SBX-1* features an advanced X-Band radar mounted aboard an oceangoing, semi-submersible platform. It is twin-hulled, self-propelled and very stable in rough seas.

http://www.hawaiinewsnow.com/story/16105886/special-report-exclusive-tour-of-the-sbx-radar

SPECIAL REPORT: Exclusive tour of the SBX radar

Posted: Nov 22, 2011 6:15 PM CST Updated: Nov 23, 2011 3:12 AM CST

[EXCERPT]

"SBX's key role is not only to acquire and track," said [Lieutenant Colonel Steve Braddom, SBX project manager with the U.S. Missile Defense Agency], "but to be able to discriminate a warhead from the decoys that may be associated with it and communicate that information back to the ballistic missile defense systems command and control."

Then the war fighters determine how to intercept it, whether from a missile launched at sea or on land.

It takes about a hundred people to secure, operate and maintain the SBX radar which is activated only at sea. To stab[i]lize the structure, the SBX ballasts down about 30 feet, submerging it to allow its four main thrusters maximum ability to stabalize the structure to improve its ability track the target object, even in bad weather.

Inside the radome, said Braddom, "The entire antennae mount, that 4.8 million pounds that's inside the radome can actually rotate and elevate to make sure we can see and track a missile as it follows its course."

What's even more fascinating about SBX-1 is that the radome itself is not solid. It's covered by a very thin, specially designed, kevlar-strength material that protects the radar within.

Lt. Braddom said, "It's a pressurized dome. The fabric is held up by air pressure. The dome itself weighs a little bit more than 17,000 pounds."

The $1 billon piece of hardware took two years to build and costs about $150 million a year to operate. Since 2005, SBX has undergone numerous tests, development and upgrades to increase its capabilities. And now the Department of Defense's Missile Defense Agency, which develops and acquires missile defense technology, is ready to hand it over to the Navy for use within the Pacific Command.

"Right now, we're building up to the transfer which will occur in many steps," said Braddom. "First the transfer of the vessel itself, which is what brought us into Pearl Harbor, to complete those activities." The transfer will take place of the course of the next few months. It's not known when the vessel will head back to open waters. MDA officials say that for security reasons, they don't officially release the departure date of the vessel in advance.

The Navy will actually run the missions of the SBX-1, while the radar itself will continue to be operated and maintained by MDA contractors.

http://www.defense.gov/contracts/contract.aspx?contractid=4657

FOR RELEASE AT 5 p.m. ET
No. 932-11
November 03, 2011

CONTRACTS

NAVY

Interocean American Shipping Corp., Moorestown, N.J., is being awarded a $28,189,899 firm-fixed-price contract for the operation and maintenance of the Sea-Based X-Band Radar platform (SBX-1). SBX-1 will be deployed to the Pacific Ocean to provide ballistic missile-tracking information to the Ground-based Midcourse Defense System (GMD). SBX-1 will also provide advanced target and countermeasures discrimination capability for the GMD interceptor missiles. This contract includes four one-year option periods, which, if exercised, would bring the cumulative value of this contract to $165,204,573. Work will be performed at sea, and is expected to be completed by September 2012. Contract funds will expire at the end of the current fiscal year. This contract was competitively procured via solicitations posted to Military Sealift Command, Navy Electronic Commerce Online, and Federal Business Opportunities websites, with more than 100 companies having access to the solicitation, with five offers received. The Military Sealift Command, Washington, D.C., is the contracting activity (N00033-12-C-2500).

http://www.fleetmon.com/vessels/Dove_33481
[Accessed 2012-03-20]

DOVE

TUG

The ship DOVE (IMO: 9205809, MMSI: 368240000) is a tug registered in United States. See below for the last known position obtained by AIS, technical details of the ship, vessel owner and manager, tonnages, and a history of port calls recorded in the FleetMon Vessel Database.

Recommend +1

FLAG:	United States	LENGTH:	75 m
IMO:	9205809	BEAM:	20 m
MMSI:	368240000	CALLSIGN:	WDC6228
TYPE OF CARGO:	——	YEAR BUILT:	——
GROSS TONNAGE:	——	DEAD WEIGHT:	——

VOYAGE RELATED INFOS

DESTINATION:	SEA TRIALS
ETA:	2011-10-19 16:00 UTC
NAV. STATUS:	restricted manoeuvrability
MAX. DRAUGHT:	7.0 m

KN 1.4

COURSE SW

LOCATION

LAST POSITION RECEIVED:	2011-10-24 05:42 UTC 4 M
MARITIME AREA:	——
NEAREST PORT:	Grand Isle (US), 22 km
LAST KNOWN PORT:	Grand Isle (US)

http://aprs.fi/info/i/368240000
[Accessed 2012-03-20]

AIS vessel **DOVE** - show graphs

Callsign:	WDC6228
MMSI number:	368240000
IMO number:	9205809
Navigational status:	Moored (5)
Vessel class:	Military operations (35)
Destination:	*PH (ETA 20120307192000)*
Location:	29°08.07' N 90°12.07' W - locator EL49VD52UG - **show map** - **static map** 14.7 miles Southwest bearing 241° from Grand Isle, Jefferson Parish, Louisiana, United States [?] 17.3 miles South bearing 168° from Golden Meadow, Lafourche Parish, Louisiana, United States 57.1 miles South bearing 188° from New Orleans, Orleans Parish, Louisiana, United States 58.7 miles South bearing 183° from Metairie, Jefferson Parish, Louisiana, United States
Last position:	2011-08-10 10:47:01 UTC (223d 3h38m ago) 2011-08-10 05:47:01 CDT local time at Grand Isle, United States [?]
Course:	295° – heading 340°
Dimensions:	length 75 m width 20 m draught 7.0 m
Last path:	WDC6228>ais via MarineTraffic
Positions stored:	970

http://www.hawaiinewsnow.com/story/15734504/sbx-radar-to-return-to-pearl-harbor

SBX radar returning to Pearl Harbor

Posted: Oct 19, 2011 4:51 PM CDT Updated: Oct 19, 2011 4:51 PM CDT

HONOLULU (HawaiiNewsNow) - The largest and most sophisticated mobile radar system in the world is heading back to Hawaii.

The Missile Defense Agency's Sea-Based X-band Radar (SBX) will be visible on the horizon from Oahu Thursday *[2011-10-20]* and will arrive at Joint Base Pearl Harbor-Hickam shortly thereafter.

While in port, the vessel will undergo scheduled maintenance and crew members will conduct training operations.

http://www.defense.gov/contracts/contract.aspx?contractid=4625

FOR RELEASE AT
5 p.m. ET No. 800-11
September 19, 2011

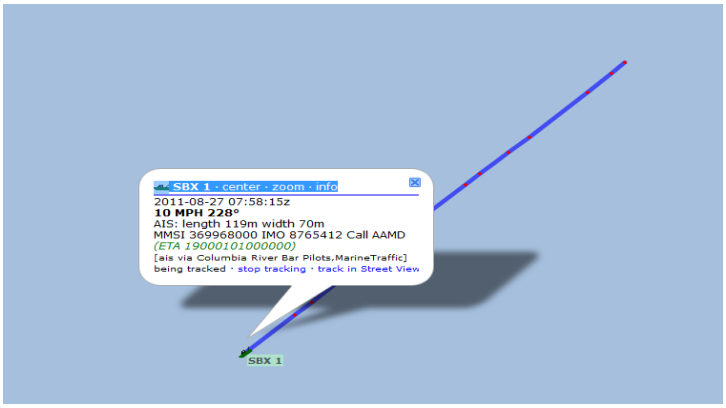
Navy

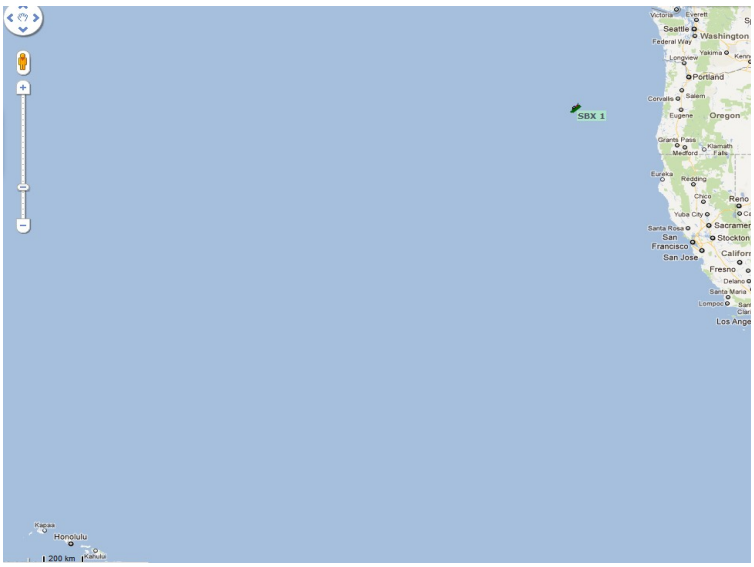
Alpha Marine Services, L.L.C., Galliano, La., is being awarded a $25,266,636 firm-fixed-price contract for the time charter of M/V Dove, a U.S.-flagged, anchor-handling, towing supply vessel that will be used to support the Sea-Based X-Band Radar Platform, also called SBX-1. M/V Dove will transfer fuel, supplies, and offshore workers to and from SBX-1, and will function as the oil spill response vessel for SBX-1. Alpha Marine Services will operate and maintain M/V Dove for the duration of the charter. This contract includes four one-year option periods, which, if exercised, would bring the cumulative value of this contract to $146,986,164. Work will be provided in the Pacific Ocean, and is expected to be completed by September 2012. Contract funds are subject to availability in fiscal 2012 and will expire at the end of that fiscal year, or fiscal 2013. This contract was competitively procured via a solicitation posted to the Military Sealift Command, Navy Electronic Commerce Online, and Federal Business Opportunities websites with more than 100 companies having access to the solicitation, four offers were received. Military Sealift Command, Washington, D.C., is the contracting activity (N00033-11-C-2006).

http://aprs.fi/info/i/369968000

AIS vessel **SBX 1** - show graphs

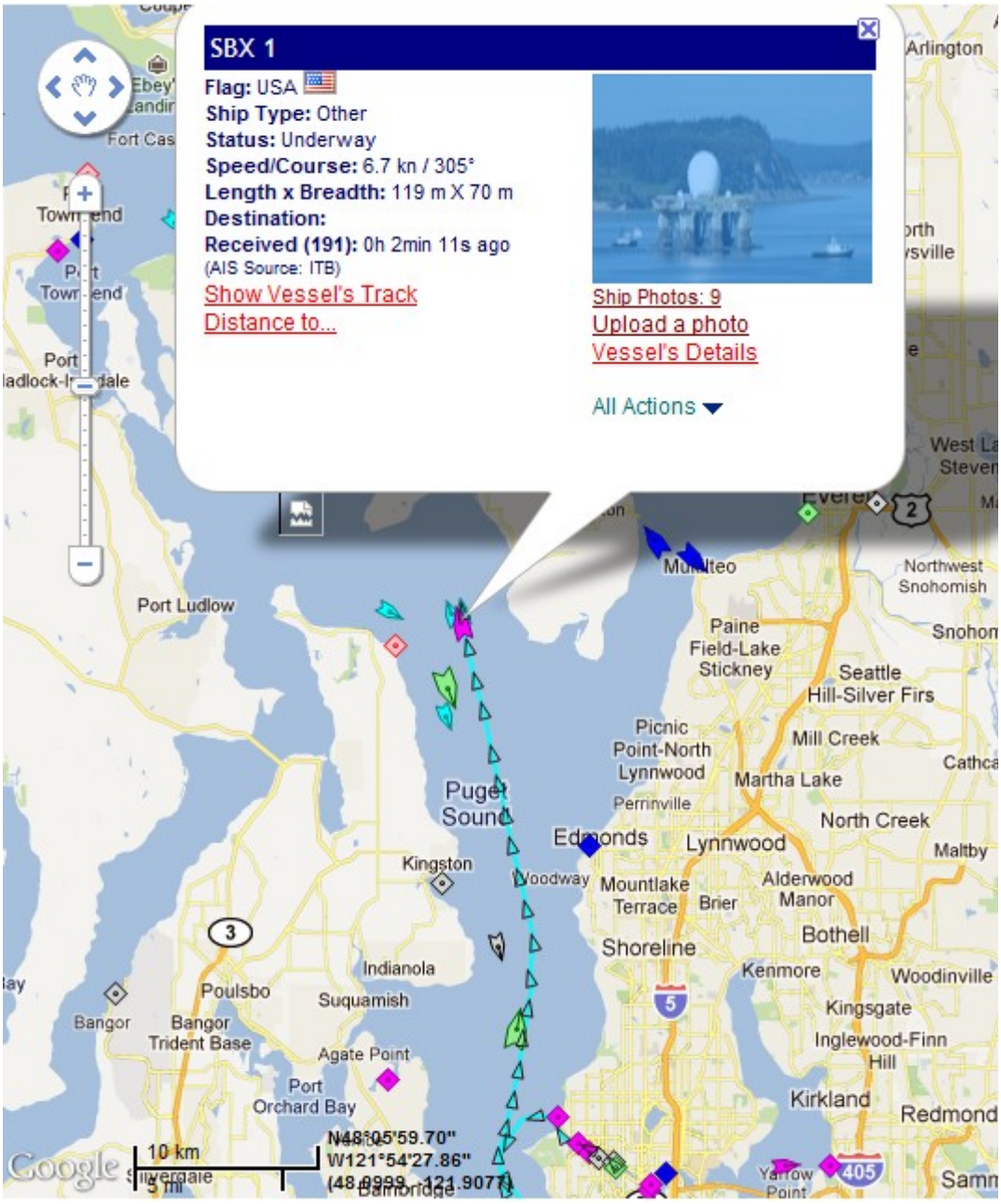
Callsign:	AAMD
MMSI number:	369968000
IMO number:	8765412
Navigational status:	Under way (engine) (0)
Vessel class:	(90)
Destination:	*(ETA 19000101000000)*
Location:	44°06.67' N 129°06.80' W - locator CN54KC66JP - **show map** - **static map**
Last position:	2011-08-27 07:58:15 UTC (206d 7h35m ago)
Course:	228° – heading 228°
Speed:	10 MPH
Dimensions:	length 119 m width 70 m draught 0.0 m
Last path:	AAMD>ais via Columbia River Bar Pilots,MarineTraffic
Positions stored:	1050





Sourcebook note: At this point, SBX was on a direct course to Hawaii.

SBX position retrieved at 2011-08-21T11:56Z
Note: The maximum speed indicated past Port Townsend is 11.0 knots, with 8 – 9 knots typical.
Note: at 2011-08-21T1712:25Z the wind speed at Port Angeles was 0 knots.

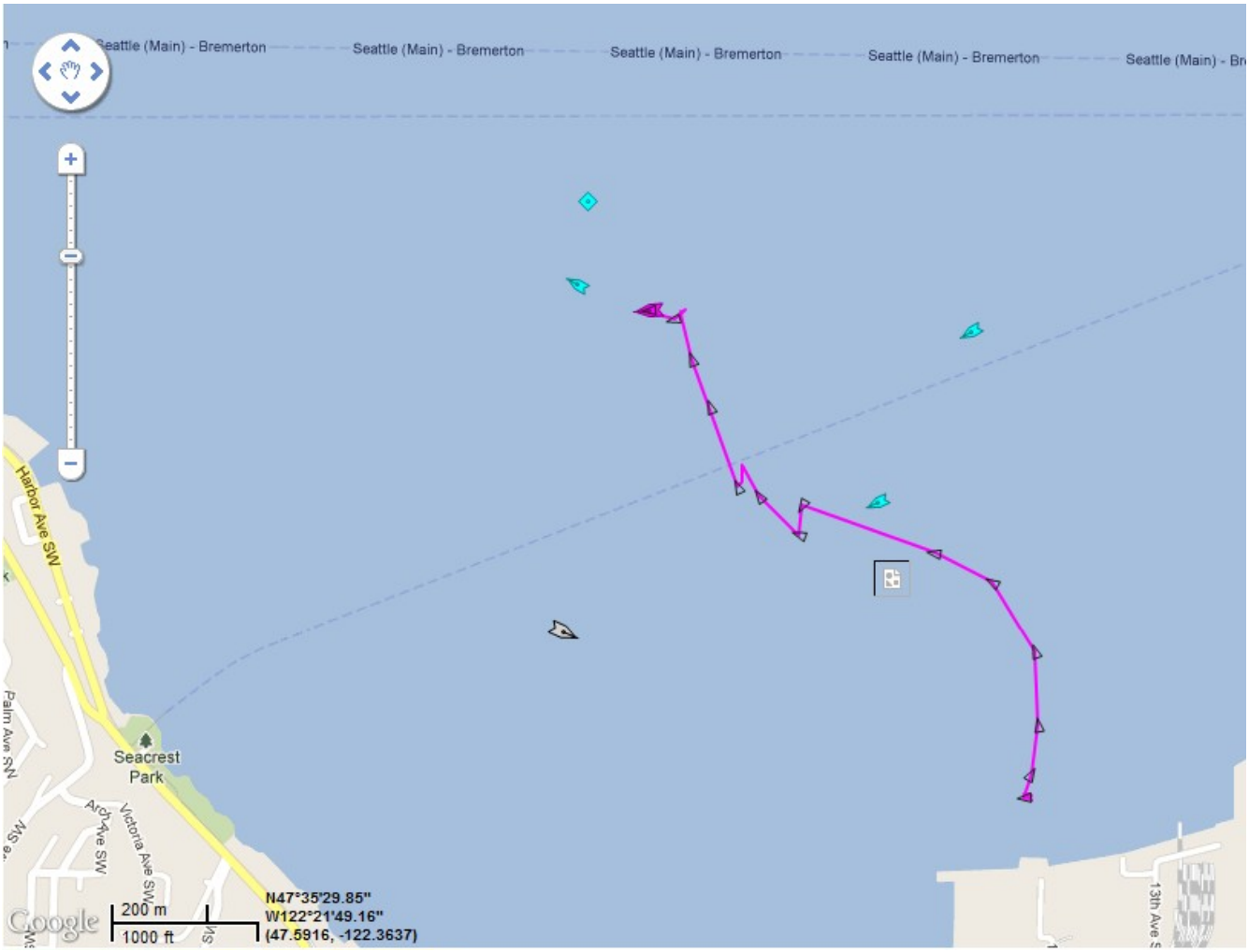


SBX position retrieved at 2011-08-21T01:40Z

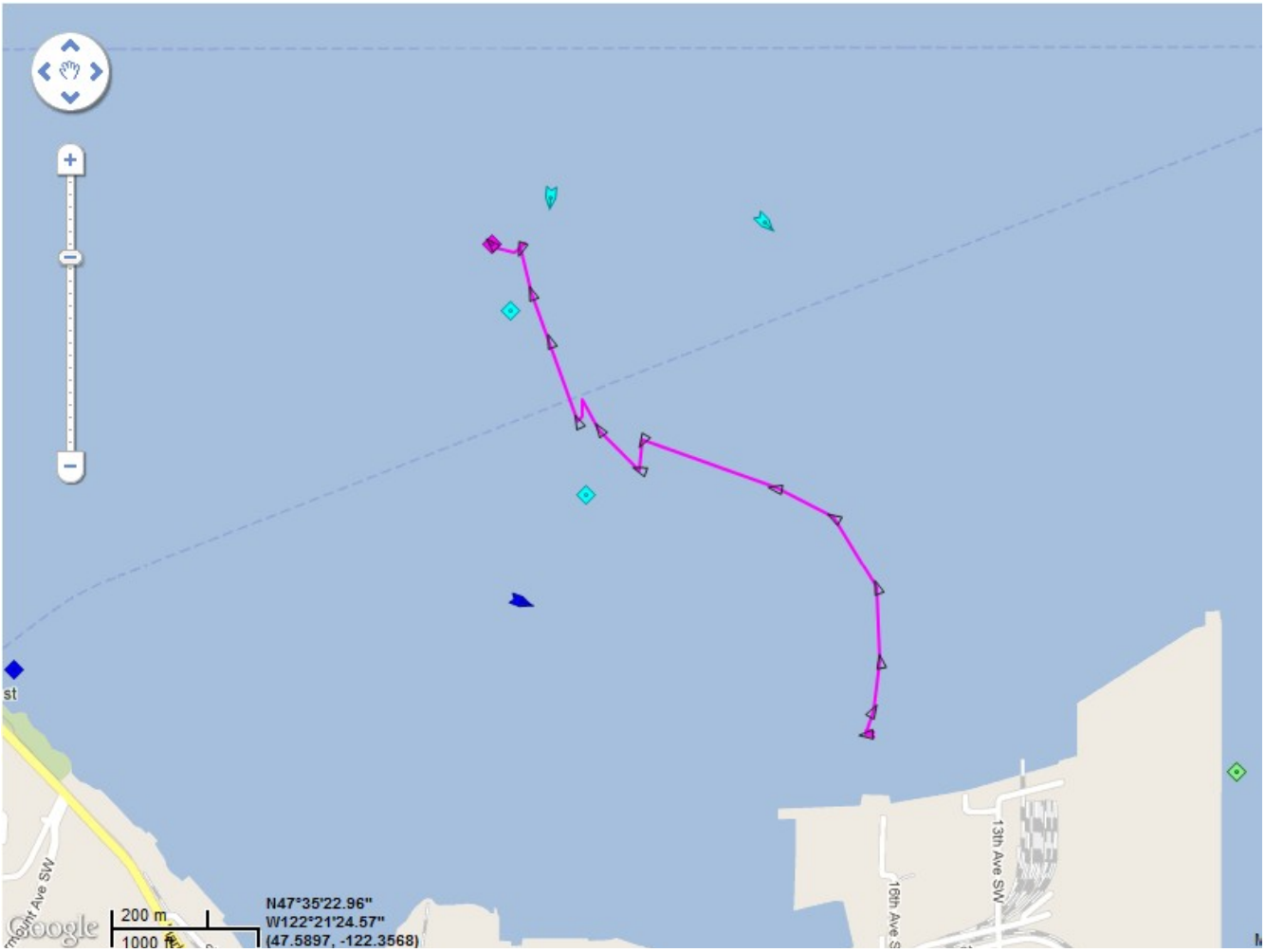
http://www.myballard.com/2011/08/20/missile-defense-x-band-radar-vessel-leaves-seattle/

The photos were taken from Sunset Hill Park *[47.684 N, 122.402 W]* around 4:30 on Saturday afternoon*[2011-08-20T23:30Z].*

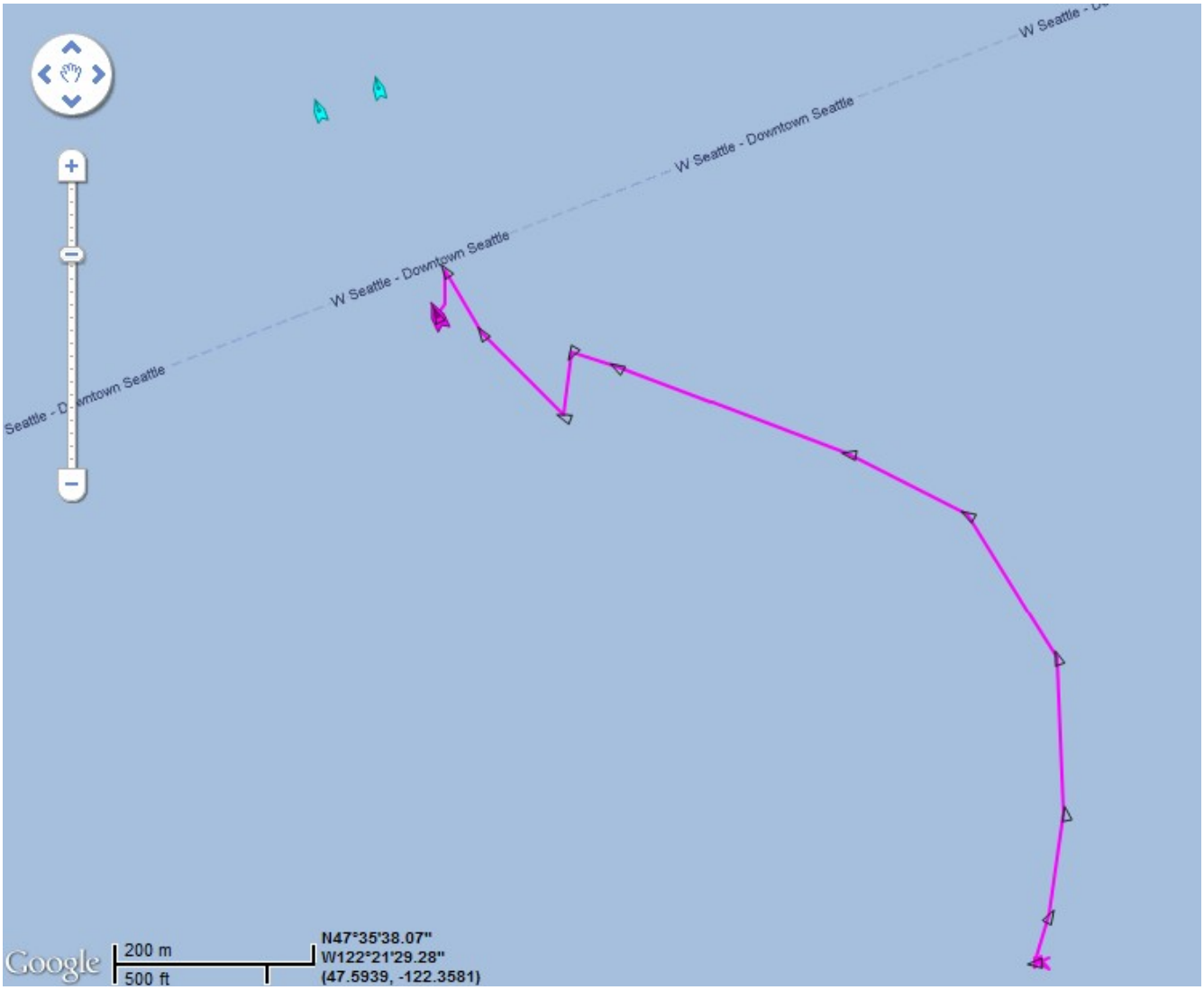
http://www.mda.mil/global/images/system/sbx/sbx_20aug6.jpg



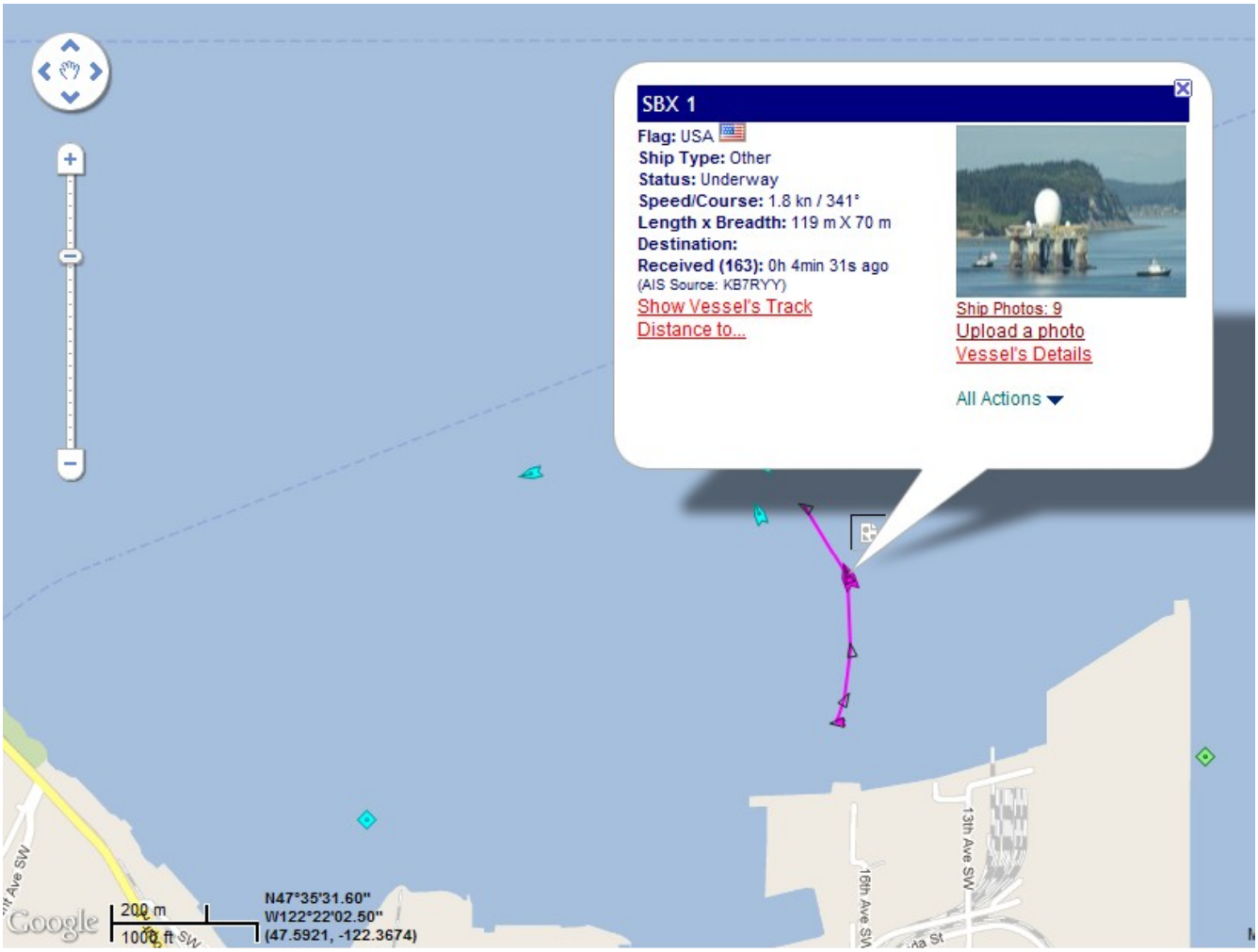
SBX position retrieved at 2011-08-20T21:56Z



SBX position retrieved at 2011-08-20T21:05Z

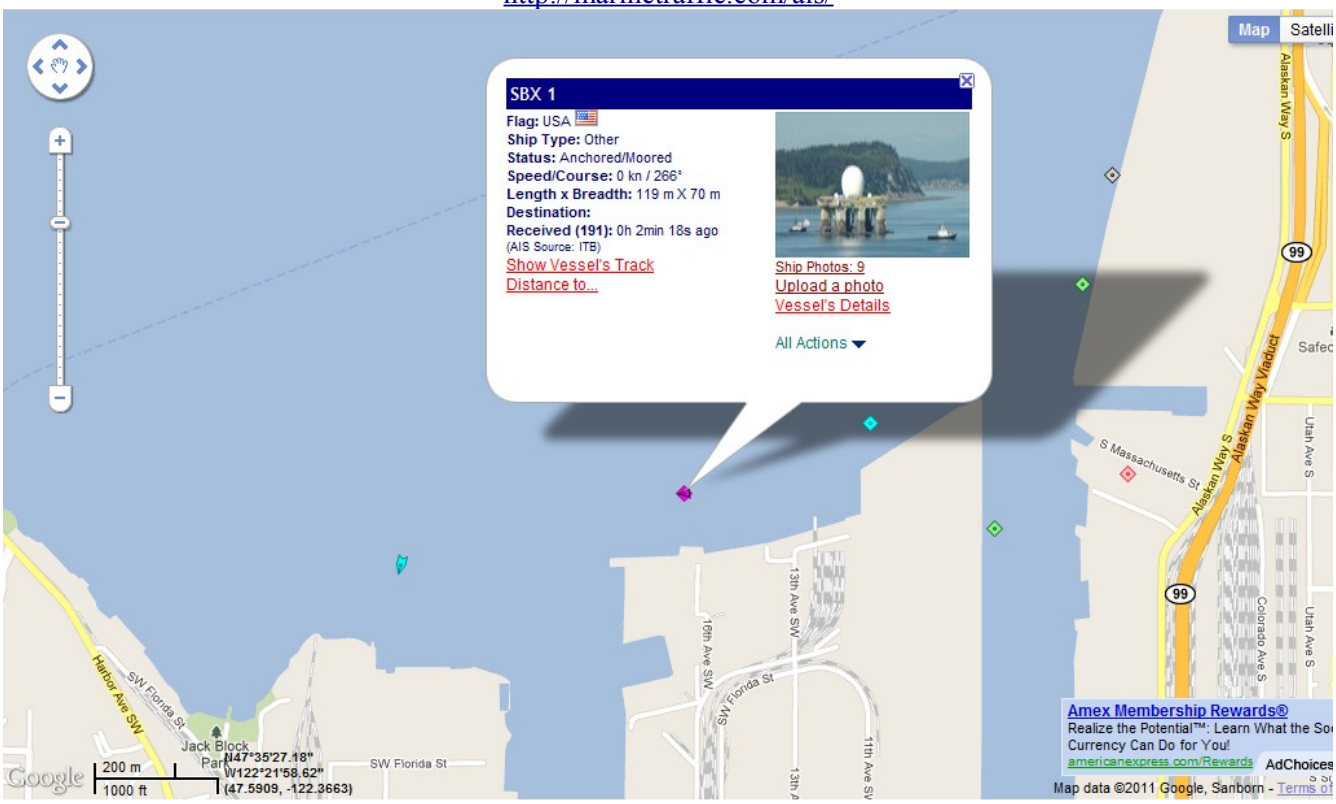


SBX position retrieved at 2011-08-20T17:32Z



SBX position retrieved at 2011-08-20T18:55:15Z
Ship track indicates that SBX was under way at 0.8 knots at the southernmost indicated position at 18:44:40Z

http://marinetraffic.com/ais/



SBX position retrieved at 2011-08-20T17:53Z
The tugs Henry Foss, Andrew Foss and Pacific Explorer are immediately to the north of SBX

http://westseattleblog.com/2011/08/say-goodbye-to-a-temporary-icon-sbx-leaves-tomorrow

Say goodbye to a temporary icon: SBX leaves tomorrow

In Seen at sea, West Seattle news
August 19, 2011 at 12:45 pm

(WSB photo from July)

The Missile Defense Agency just sent word that the SBX is leaving Harbor Island tomorrow *[2011-08-20]*, 3 months and 10 days after its late-night arrival drew crowds to West Seattle shores. We're checking on an estimated time – meantime, here's the announcement:

The Sea-Based X-Band Radar (SBX) will depart August 20th from Seattle, Washington where it has been undergoing scheduled maintenance and planned upgrades at Vigor Shipyards since May. The work has taken about three months to complete and was consistent with the normal work accomplished at Vigor for other government and commercial vessels.

The SBX is one of the sensors for our nation's Ballistic Missile Defense System (BMDS). Its mission is to identify ballistic missile threats to our nation and to relay that information to the command and control center for missile defense.

A Naval Vessel Protection Zone, applicable to government vessels in transit and undergoing maintenance at Vigor Shipyards, will be applied to SBX as it departs. The US Coast Guard will be assisting with the NVPZ.

One month ago today, the seagoing radar dome drew crowds again as it left Vigor for a few hours so an oil-drilling ship could be moved in:

The SBX has been based in Alaska, though there's no official word if it's headed there next.

http://www.westseattleherald.com/2011/08/04/features/update-2-slideshow-blue-angels-and-flying-ove

The Blue Angels typically fly not only over Lake Washington, but also make a pass or two over the Navy Ships in Elliott Bay, here for Seafair. They flew past the X-Band Radar (SBX) at Vigor Shipyards on Aug. 4 *[2011]* during practice.

http://blogs.seattleweekly.com/dailyweekly/2011/07/1_billion_floating_radar_able.php

Gigantic $1 Billion Radar Chugs Through Elliott Bay at 9 MPH (But It Isn't Leaving Yet)

By Jonathan Walczak Wed.
Jul. 20 2011 at 2:26 PM

Theoretically, if Felix Hernandez could pitch a baseball toward Seattle from 2,500 miles away, the giant James Bond-looking platform floating in Elliott Bay could detect it as it approached the U.S.

The platform, a Sea-Based X-Band Radar, is a $900-million addition to the Missile Defense Agency designed to track incoming ballistic missiles. About 45,000 modules form a radar beam that can relay information to help launch interceptor missiles from Fort Greely, Alaska, and Vandenberg Air Force Base in California.

It arrived in May, but is moving from its spot in Elliott Bay this week to make room for a Shell oil platform.

The SBX, as it's known, which weighs more than 50,000 tons, is undergoing maintenance and upgrades to its thrusters, which propel it at a rate of about 8 knots (about 9 mph). Seattle Weekly wrote it about it back in 2003.

The SBX is turned off while it's in port, according to Rick Lehner, a spokesman with the Missile Defense Agency. The reason it's here is because the water is deeper than 50 feet, he said.

When asked by Seattle Weekly if it's a national security issue that the SBX is temporarily out of commission, Lehner said other smaller radars in the Pacific will pick up the slack while it's in port.

If Armageddon breaks out anytime soon, everyone on the platform, which spends most of its time at sea, will be in good shape. It has living quarters, a generator and a helicopter pad, and it carries 60 days worth of supplies and fuel.

So far, the SBX, which was built by Boeing, has been used to track a number of objects, Lehner said. In 2008, it helped track a dying satellite with toxic fuel.

"If it had crashed into something on the earth, it could have been a major hazard," Lehner said. "A Navy ship was able to shoot down the sattelite with a modified missile."

So enjoy, folks. It's only here til August.

http://blog.seattlepi.com/aerospace/2

Massive radar not leaving Seattle yet

Posted by Aubrey Cohen
July 19, 2011 at 2:37 pm

An oil-drilling platform, center, moves into Elliott Bay toward Seattle's Vigor Shipyard. The Missile Defense Agency's SBX radar, top left, was moved into Elliott Bay to make way for the arctic drilling platform on Tuesday, July 19, 2011. (Joshua Trujillo, seattlepi.com)

The Boeing-built Sea-Based X-band Radar (pdf) is moving around in Seattle's Elliott Bay, but it's not leaving yet.

The billion-dollar Missile Defense Agency radar is undergoing maintenance and upgrades at Vigor Shipyards, under a subcontract from Boeing. It's moving to making room for a similarly massive Shell ice-breaking oil platform, the Kulluk, which will pull into the inside slip at Vigor for maintenance, Boeing and Missile Defense Agency spokespeople said Tuesday.

The radar is designed to track missiles and relay targeting data to a laser. It arrived at Vigor, on Harbor Island, in May and is expected to remain until August. Upgrades include adding the ability to plug into shore power, rather than having to use its six diesel generators while in port, and adding redundant power and radar systems.

The entire vessel is about 240 feet wide, 390 feet long and 280 feet from the keel to the top of the radar dome. That's about the height and width of a Nimitz-class aircraft carrier, but one-third the length.

It typically cruises at about 7 knots, although it can go a little faster, can semi-submerse for extra stability and can operate in the roughest seas.

A protection zone remains in place, prohibiting vessels within 100 yards of the radar.

http://westseattleblog.com/category/seen-at-sea

Update: SBX's short trip off West Seattle shores; drillship's arrival

July 19, 2011 at 1:36 pm
In Seen at sea, West Seattle news

[EXCERPTS]

As first reported here Monday morning, the Sea-Based X-Band Radar (SBX) that's been so prominently visible from Harbor Island's Vigor Shipyard for the past two months is making a short trip today. As scheduled, around 1 pm it headed out into Elliott Bay. It's scheduled to be out for about six hours of testing while the floating offshore-drilling ship Kulluk is maneuvered into Vigor at the end of its long tow from Dutch Harbor, Alaska.

We don't have formal word on this, but one report we encountered while researching all this yesterday indicated that the work on the Kulluk is scheduled to take at least seven months. Meantime, SBX was expected to be out for at least six hours today, so if you want to see it out and about, you might get to see it moving back toward the shipyard before dark.

ADDED 6:22 PM: Thanks again to everyone who has been sharing photos of the sights at sea – again, SBX is NOT leaving permanently, it's been here two months and was expected to be at Vigor at least three. First photo, WSB co-publisher Patrick Sand got a view of the Water Taxi with the SBX behind:

This one's courtesy of Rebecca Nelson (editor of RavennaBlog.com but passing through via ferry):

Our original tip about these marine moves came from her. She also spotted a sailboat near a Coast Guard vessel enforcing the 500-yard keep-away-from-SBX zone:

Might add a few more later.

9:52 PM UPDATE: The SBX was still out in the bay when we passed by after the Hi-Yu concert, a little more than an hour ago.

http://www.westseattleherald.com/2011/07/10/features/sbx-radar-has-changed-view-saltys

SBX Radar has changed the view from Salty's

By Patrick Robinson
2011-07-10

Framed by the trees adjacent to Salty's on Alki the SBX Radar dome has changed the view from the restaurant and elsewhere in West Seattle.

The SBX Marine Radar dome, in port at Harbor Island since mid May, has about another 30 days worth of work to be done before it is redeployed. But for the time being, on summer evenings it resembles either the moon come down to earth or the biggest golf ball ever made as it resides, bathed in light in it's berth at the Vigor Shipyards.

The view from Salty's on Alki, always the best view of Seattle in Seattle has been altered this spring in summer by the dome's presence on the skyline.

The Secretary of Defense Performance-Based Logistics Awards Program
For
Excellence in Performance-Based Logistics
In
Life Cycle Product Support

Section 1

Nomination

Nominating Organization:
Sensors Directorate (MDA/SN)
Missile Defense Agency

Date:
June 30, 2011

POC:
Jim Hamlin, MDA/SN, (703) 882-6450, james.hamlin.ctr@mda.mil

Award Category:
System Level

Award Year:
1 July 2010 – 30 June 2011

Nominee:
Sea-Based X-Band Radar Product Office Team

POC:
Bob Dees, MDA/SN, (256) 450-1902, bob.dees@mda.mil

Team/Organization Members:
LTC Howard Jaynes - SBX Product Manager
Robert Dees - SBX Acquisition Lead
Willis Brice - SBX Contracting Officer
Jason Troxel - SBX Sustainment Manager (Boeing)
Patrick Sullivan - SBX Vessel Management Superintendent (Inter-Ocean American Shipping)
Susan Gordner - SBX Flexible Support Concept Coordinator (Boeing)
Patrick Carraher - SBX Supplier Management (Boeing)

The Secretary of Defense Performance-Based Logistics Awards Program
For
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In
Life Cycle Product Support

Section 2
Summary of Criteria Accomplishments

Over the past year the Sea-Based X-Band Radar (SBX) team significantly reduced the SBX operating costs, which resulted in funds being made available to upgrade the system. This was accomplished while maintaining Warfighter operational support and participating in Ballistic Missile Defense System (BMDS) testing.

In a fiscally-constrained environment, the SBX team took advantage of the evolving SBX concept of operations and gained considerable cost efficiencies in two areas of logistical support. By changing the approach for SBX logistical operations from a moored system to a flexible support concept, and transforming the Calendar Year (CY) 2011 SBX replenishment method from a full-time chartered supply vessel to an on-call chartered helicopter support, the SBX team was able to reduce expected costs by $5M in Fiscal Year (FY) 2010, $35M in FY 2011, and $22-26M per year over the life of the system. These proactive efforts provided funding for near-term enhancements recommended by an Independent Readiness Review Team of Flag and General Officers, plus priority improvements recommended by the Navy's Board of Inspection and Survey. The upgrades will increase SBX's operational availability and maintainability, providing better service at lower cost through the vessel's life.

Mooring SBX near Adak, Alaska was the original concept of operations for SBX mission support. Adak was selected in 2003 as the SBX's primary support base because of its strategic location to support the defense of the continental United States, Alaska, and Hawaii. It was thought that mooring would be the most effective method for operating in the Northern Pacific.In the five years since the basing decision, the SBX team has learned many lessons concerning operational employment, use of the Adak mooring, and meeting strategic security requirements.

The SBX system's demonstrated mobility, reliability and ability to repair at sea have been essential to the current SBX concept of operations and operational flexibility. SBX has averaged approximately 300 days at sea per year including 396 continuous at-sea days from June 2009 to July 2010. It is now understood that SBX security and environmental requirements, including patrol boats, port security and oil-spill-response tug, increase operating costs at Adak mooring above continuous underway operating costs by approximately $22-26M per year.

To fully evaluate the new operating concept, the SBX team conducted a joint-basing study with the Navy to determine the best method to support SBX future operations. Numerous sites and approaches were evaluated for potential SBX operations and sustainment, including effectiveness and estimated costs. The SBX team's ability to coordinate across and disseminate information to the Missile Defense Agency (MDA), Commander Naval Installations Command, Chief of Naval Operations Surface Directorate, Military Sealift Command, and the Program Executive Office for Integrated Warfare Systems and the Navy, led to the timely completion of the study and approval of the SBX Flexible Support Concept by the Missile Defense Executive Board in May 2010. Under the Flexible Support Concept, SBX will not have a home base of operations; instead it will conduct replenishment from any capable port close to its area of operations.

Operating SBX under the FSC method avoided $5M in FY10 costs and the $22-26M annually over the SBX system's life cycle. The Program was able to redirect this funding to finalize arrangements for executing Flexible Support, including demobilization of a chartered support vessel. *[Sourcebook note: M/V Dove, q.v.]*

Over the last five years, the SBX system has been logistically supported by an offshore support vessel that conducted replenishment operations, crew exchange, resupply, fueling, towing, and mooring support as required. The SBX team realized that CY 2011 had a unique schedule that would allow a change of replenishment operations for a year and avoid substantial replenishment costs. Over this year, the SBX was scheduled to be in port for six months. In addition, no major flight tests were scheduled, SBX did not require mooring support, and the transition from MDA to new Navy contracts for the offshore support vessel would occur. The SBX team proactively worked with the prime contractor to develop a plan to resupply the SBX for CY 2011 via helicopter which would allow the support vessel contract to end nine months early. The SBX team briefed senior MDA leadership on the plan, costs avoided, and associated risks. As a result, the team received approval to execute. Available cost estimates to maintain the status quo for continued use of the SBX support vessel for nine months of replenishment operations were roughly double the available funding within SBX controls. The new replenishment strategy to resupply SBX by helicopter reduced replenishment costs by approximately $35M in CY 2011. In addition to closing the SBX replenishment funding gap, these additional savings were applied to top-priority SBX shipyard upgrades in 2011. Executing this shipyard effort implemented SBX upgrades for power, radar and dynamic positioning (DP) redundancy; added shore power capability; and maintained the critical path for SBX transfer to the Navy. Since December 2010, the SBX has been replenished safely and professionally via helicopter without any degradation in mission support.

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Section 3

Nomination Endorsements

Approved Endorsements

TIM R. McKAIG, Program Director, Sensors Date:

RICHARD A. RITTER, Program Executive for C4ISR Date:

PATRICK J. O'REILLY, Lieutenant General, USA, Director Date:

The Secretary of Defense Performance-Based Logistics Awards Program
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Section 4

Achievements

The SBX Product Office took extremely proactive measures to reduce the expected operating costs for the Sea-Based X-Band Radar, avoiding costs of $5M in Fiscal Year (FY) 2010, $35M in FY 2011, and $22-26M per year over the remaining life of the system. The changes that produced these substantial savings were realized by changing the logistical operations from a moored system to a flexible support concept, and transforming the Calendar Year 2011 SBX replenishment approach from a full-time chartered supply vessel to an on-call chartered helicopter support approach.

Since December 2010, the SBX has conducted helicopter replenishment safely and professionally without any degradation in mission support while realizing these impressive cost savings.

http://www.seattlepi.com/local/gallery/Photos-Giant-sea-based-radar-arrives-in-Seattle-14864/photo-984478.php

A worker walks on the deck of the Missile Defense Agency's Sea-Based X-band Radar (SBX) vessel, moored at Vigor Shipyard on Seattle's Harbor Island on Wednesday, May 11, 2011... Photo: JOSHUA TRUJILLO / SEATTLEPI.COM

http://westseattleblog.com/2011/05/followup-sea-based-x-band-radar-sbx-in-seattle-in-daylight

Followup: Sea-Based X-Band Radar (SBX) in Seattle, in daylight

May 11, 2011 at 12:19 pm

In Seen at sea, West Seattle news

(Photo by MIKE SIEGEL/SEATTLE TIMES [WSB partner], republished with permission)

Hundreds watched it arrive in Elliott Bay, passing West Seattle shores late last night (WSB coverage here) – and this morning, the Sea-Based X-Band Radar (SBX) is in place at Vigor Shipyard (formerly Todd) on Harbor Island for three months of work – also visible from the West Seattle Bridge, as Brian Presser from TouchTech Systems observed while in this morning's nightmare traffic (WSB coverage of THAT, here):

Hours after the SBX arrival, officials from the Missile Defense Agency and Vigor hosted media reps to get a somewhat closer look, though tours on board the facility itself were not offered. Army Col. Mark Arn, the SBX project manager for the MDA, explained a few things you might not have heard, even if you have been following our coverage over the past week. For one, a little more on why it's here for the next 3 months: Routine maintenance, upgrades including power and radar – such as, enabling it to hook into shore power so its diesel generators don't have to run ALL the time – and work on its thrusters, since it's coming up on a "5-year certification renewal." That requires a shipyard at a deep-water port (at least 50 feet), and Vigor qualified.

Yes, he reiterated, it won't be operating while here. So what if somebody just accidentally flipped the switch? That can't happen, Col. Arn insisted – putting it into operation requires a sequence of processes far beyond just pressing a button or flipping a switch. By the way, up to 100 people can live on board, though they have been closer to 85 lately. How sensitive is it, as a missile (or whatever) detector? He had an interesting analogy in this next minute-plus of video (the main questioner you hear is longtime aerospace reporter Glenn Farley from KING5), along with information on what's under the dome:

Col. Arn said the SBX arrival here now also has to do with its schedule; it participates in missile-defense tests, including one less than a month ago. It's the only one of its kind, and he said there are no current plans for another one; he mentioned its total cost in the vicinity of a billion dollars. The work at Vigor is estimated at $27 million.

http://blog.seattlepi.com/aerospace/2011/05/11/massive-radar-could-track-baseball-from-across-a-continent/

Massive radar could track baseball from across a continent

Posted by Aubrey Cohen on May 11, 2011 at 12:58 pm

[EXCERPTS]

It is scheduled to spend about 90 days at Seattle's Vigor Shipyards for maintenance and upgrades, including adding the ability to plug into shore power, rather than having to use its six diesel generators while in port, and adding redundant power and radar systems, because the radar is spending more time at sea — more than 300 days in one year — than originally expected, [Army Col. Mark Arn, the Missile Defense Agency's project manager for the X-band sensors] said.

[deletia]

It typically cruises at about 7 knots, although it can go a little faster, can semi-submerse for extra stability and can operate in the roughest seas — sea states 8 and 9, Arn said.

http://www.westseattleherald.com/2011/05/11/news/sea-based-x-band-radar-sbx-vessel-close-and-perso

Sea Based X-Band Radar (SBX) vessel up close and personal at Vigor Shipyard

By Steve Shay
2011-05-11 updated 4 hours ago *[Accessed 2011-05-11T21:55Z]*

The Missile Defense Agency's Sea-Based X-band Radar (SBX) diesel vessel, 250-feet high, cruised along Elliott Bay poking the Seattle skyline Tuesday night, and pulling into the Vigor Shipyards (formerly Todd Pacific Shipyards), just after midnight Wednesday.

A press conference this morning unveiled some facts about our new neighbor that will remain for repairs through the summer. Steve Welch, former CEO of Todd Shipyards, a 95-year company, acquired by Vigor about 10 weeks ago, opened things up. He is now president of Vigor.

[deletia]

Col. Mark Arn, a West Point graduate, has been involved with the SBX, and was 2009 program manager of the year with SBX. All the X-Band radars fall under Arm, He gave an overview, "Its radar sits on top of a semi-subversible platform. Some call the radar the 'big golf ball'. We are doing routine maintenance, upgrades, some enhancements, including our generators providing shore power, and we have to maintain certification with the American Bureau of Shipping. (5-Year renewal) Thrusters require inspection, and we replace some shaft seals and inspect upper and lower gear boxes. We needed a minimum of 50-foot depth.

"We spend over 300 days a year at sea. It's maneuverable and has been all over the Pacific. It tracks small objects at very large, very long distances. You could put the SBX in Chesapeake Bay and it can track a baseball hit high outside Safeco Field. Radar is an 85-foot octagonal, 2100 tons."

The platform submerges over 70 feet when at sea.

"It's extremely important," he said of the radar. "This is an integral part of the ballistic missile defense system. It gives the ability to discriminate between what is a lethal object vs. what is a decoy or debris. There is only one. This is one of a kind. It moves on its own, coming in here about 7 knots. It can move slightly faster. It performs extremely well in high winds and waves.

"It can berth 100 folks, but typically the crew is 85 to 90. This is contract (civilian) manned and operated. We have a contract with Boeing.

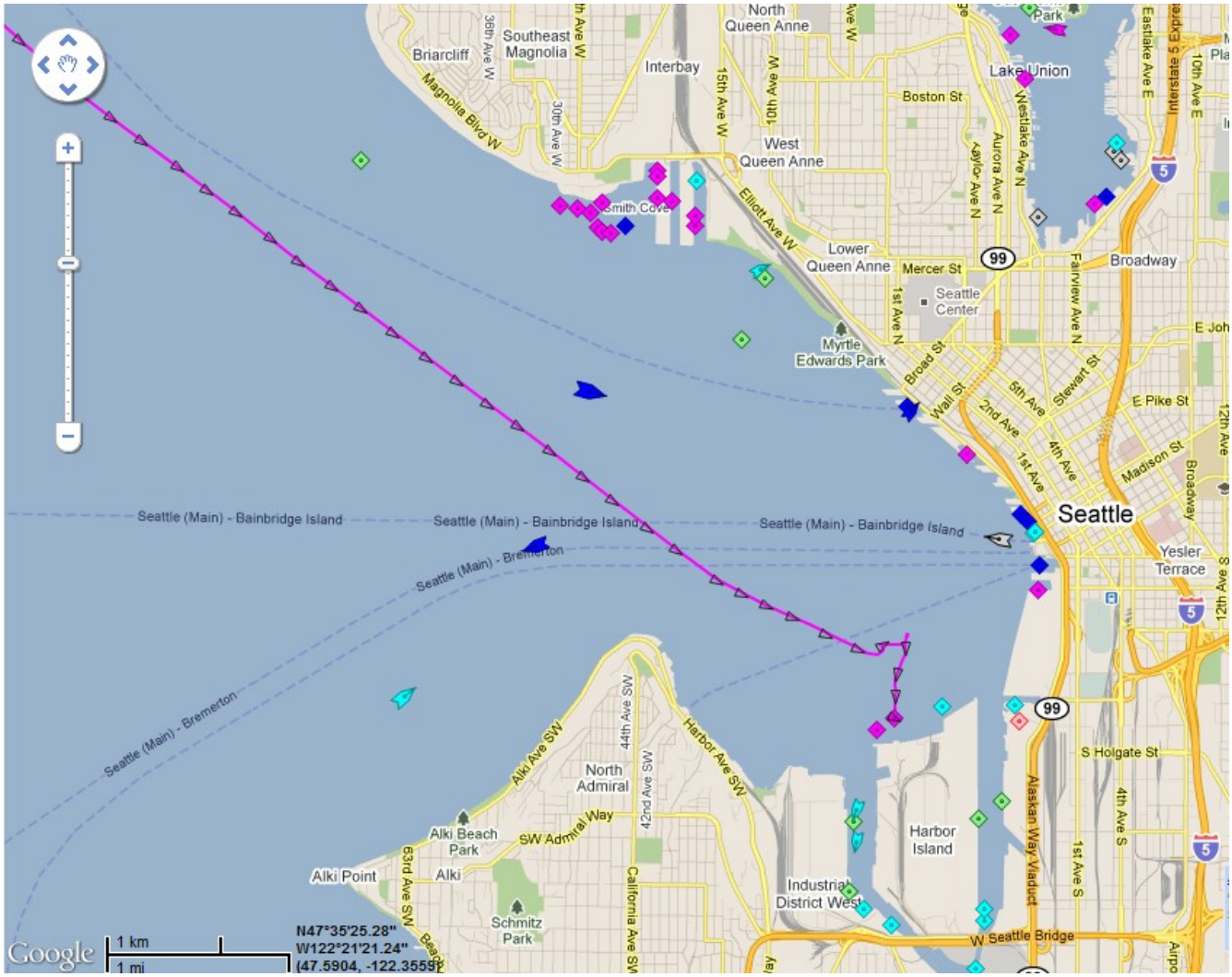
"To start operating the radar is not just a flip of a switch or pushing a button. There are a lot of switches to turn it on. It is not operational here. When we were 50 miles off the coast that was the last time we could use the radar."

He did not explain why it is against policy not to operate the radar in populated areas but said no danger exists if it did.

Vigor COO, David Whitcomb took some media closer to the deck.

There, Lieutenant Col. Rich Jaymes told the West Seattle Herald, "The main deck has work space, sleeping space, very nice dining facility. We have a gym, the Internet for people to keep in touch with family. When people are out at sea it's almost like having your own little autonomous city. Very interesting mission. Very interesting job."

http://marinetraffic.com/ais/default.aspx?mmsi=369968000&centerx=-122.3559&centery=47.58889&zoom=10&type_color=9



SBX docked at Harbor Island at approximately 2011-05-11T06:45Z (2011-05-10T23:45 Pacific Daylight Time)

http://blog.seattlepi.com/thebigblog/2011/05/10/giant-sea-based-radar-vessel-nears-seattle/

Giant sea-based radar vessel arrives in Seattle

Posted by Joshua Trujillo
May 10, 2011 at 9:46 pm

The Missile Defense Agency's Sea-Based X-band Radar (SBX) vessel crosses Elliott Bay as seen from West Seattle Tuesday *[2010-05-10]* night. (Photo by Joshua Trujillo, seattlepi.co)

http://marinetraffic.com/ais/shipdetails.aspx?mmsi=368240000

DOVE

Edit this vessel Vessel for Sale?

Vessel's Details

Ship Type: Tug
Year Built: 1999
Length x Breadth: 90 m X 20 m
DeadWeight: 3400 t
Speed recorded (Max / Average): 13.5 / 11.3 knots
Flag: USA [US]
Call Sign: WDC6228
IMO: 9205809, MMSI: 368240000

Last Position Received

Area: Mexico Gulf
Latitude / Longitude: 29.14516° / -90.21242° (Map)
Currently in Port:
Last Known Port:
Info Received: 0d 0h 0min 53s ago
Current Vessel's Track
Itineraries History

Voyage Related Info (Last Received)

Draught: 7 m
Destination: FOURCHON LA
ETA: 2011-01-09 12:00
Info Received: 2011-05-10 18:02 (0d, 0h 18min 52s ago)

Search Terms:

MMSI:
368240000

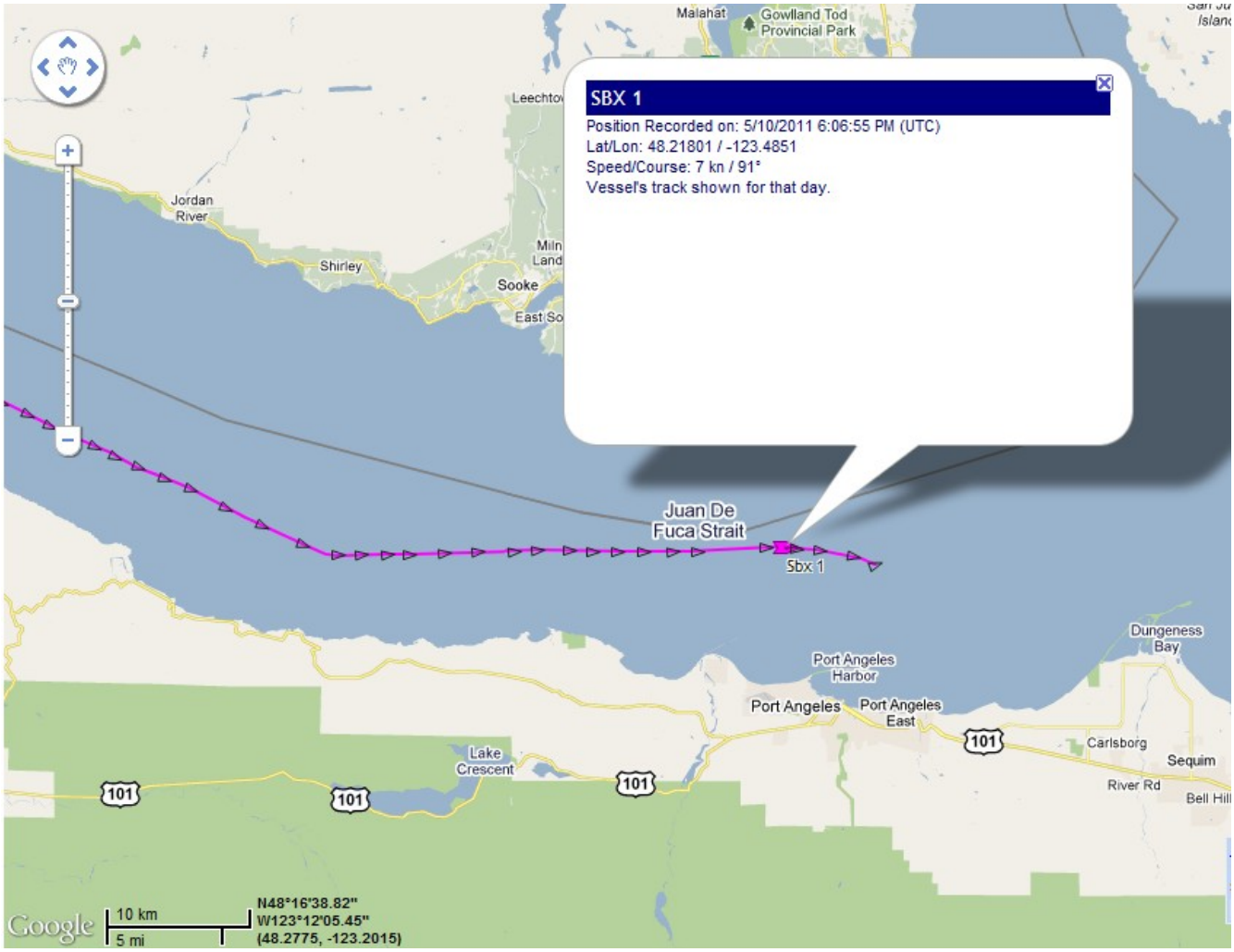
Daily Vessel's Itineraries: 50 Records Found

Time (UTC)	Vessel's Name	Position Type	Port	Area	Latitude / Longitude	Speed	Course	
2011-05-10 13:00	DOVE	Midday position		Atlantic North	29.14515 -90.21239	0	226	Show on Map
2011-05-10 00:58	DOVE	Midnight position		Atlantic North	29.1452 -90.21248	0.1	246	Show on Map

[deletia]

2011-04-16 00:59	DOVE	Midnight position		Atlantic North	29.146 -90.21046	0.1	295	Show on Map
2011-04-15 13:00	DOVE	Midday position		Atlantic North	29.14612 -90.2104	0.1	257	Show on Map

http://marinetraffic.com/ais/default.aspx?oldmmsi=369968000&zoom=10&olddate=5/10/2011%206:06:55%20PM



http://marinetraffic.com/ais/datasheet.aspx?datasource=ITINERARIES&MMSI=369968000

Search Terms:

MMSI:
369968000

Daily Vessel's Itineraries: **8 Records Found**

Time (UTC)	Vessel's Name	Position Type	Port	Area	Latitude / Longitude	Speed	Course	
2011-05-10 18:07	SBX 1	Underway		Pacific North	48.20748 -123.4001	3.9	73	Show on Map
2011-05-10 13:00	SBX 1	Midday position		Pacific North	48.27496 -124.1174	5.7	118	Show on Map
2011-05-10 04:03	SBX 1	In Range		Pacific North	48.29477 -125.27	5.6	57	Show on Map
2011-03-30 20:04	SBX 1	Midnight position			21.19843 -158.0242	8.7	231	Show on Map
2011-03-30 16:34	SBX 1	In Range			21.37315 -157.9592	2.4	352	Show on Map
2011-03-24 18:49	SBX 1	Midnight position			21.33705 -157.9699	3.7	13	Show on Map
2011-03-24 14:34	SBX 1	STOPPED			21.23819 -157.9233	0.3	35	Show on Map
2011-03-24 13:49	SBX 1	Midday position			21.21083 -157.9674	6	52	Show on Map

SBX-1

http://blog.seattlepi.com/aerospace/2011/05/09/missile-defense-radar-to-enter-strait-monday-sound-tuesday/

Missile defense radar to enter strait Monday, sound Tuesday

SBXPosted by Aubrey Cohen
May 9, 2011 at 12:35 pm

The U.S. Missile Defense Agency's Sea-Based X-band Radar vessel will enter the Strait of Juan de Fuca late Monday *[2011-05-09]* and the Puget Sound on Tuesday, according to the agency.

"The first view of the SBX for some residents in the Pacific Northwest will likely be when the vessel is just off shore before entering the Strait of Juan de Fuca tonight," the agency said Monday. "It should be visible from Port Angeles on Tuesday morning. The vessel can be seen from various points as it makes its way through Puget Sound to Elliott Bay and to Vigor Shipyards Seattle, arriving late Tuesday night."

Boeing won a $27.1 million contract to perform maintenance and upgrades on the huge system. The work is set to take about three months at Seattle's Vigor Shipyards.

People are not allowed within 100 yards of SBX while it is in navigable U.S. waters and moored at Vigor Shipyard.

http://www.mda.mil/news/11news0008.html

MISSILE DEFENSE AGENCY
MDANEWS Release

www.mda.mil
mda.info@mda.mil

7100 Defense Pentagon
Washington, DC 20301-7100

SBX Radar Vessel to Transit Puget Sound Towards Seattle's Vigor Shipyards

11-NEWS-0008
May 6, 2011

The Missile Defense Agency's Sea-Based X-band Radar (SBX) vessel will soon enter Puget Sound to arrive at Vigor Shipyard Seattle (formerly Todd Pacific Shipyards) in Seattle, Wash., for maintenance and upgrades. This work will begin in mid-May and will take about three months to complete. The radar will not be based in the Seattle area, and will not operate while in the shipyard. All vessel movements and work associated with the SBX are fully compliant with all environmental, health, and hazard laws and ordnances.

The SBX Radar is one of the sensors for our nation's missile defense system. Its mission is to identify ballistic missile threats and relay that information to the battle management, command, control and communications system for missile defense.

The SBX vessel will take several hours to cross the Puget Sound, and is expected to enter Vigor Shipyard Seattle within the next several days. While SBX is transiting in the navigable waters of the U.S., and while moored at Vigor Shipyard Seattle, a naval vessel protection zone (NVPZ) will be in effect around this vessel. The US Coast Guard will be assisting with the NVPZ.

Additional information regarding a media availability will be sent in a subsequent advisory.

http://blog.seattlepi.com/aerospace/2011/05/04/huge-missile-defense-radar-coming-to-seattle/

Huge missile defense radar coming to Seattle

Posted by Aubrey Cohen on May 4, 2011 at 3:46 pm

The Missile Defense Agency is sending its Sea-Based X-band Radar to Seattle in this middle of this month for maintenance and upgrades.

Boeing won a $27.1 million contract for the work, which is set to take place at Seattle's Vigor Shipyards, according to the agency.

The "SBX" Radar Vessel is a sensor designed to identify ballistic missile threats to the U.S. It is 240 feet wide, 390 feet long and 280 feet high (from its keel to the top of the radar dome), and displaces nearly 50,000 tons.

Oh, and you're not allowed within 100 yards of it.

CORRECTION: Todd Pacific Shipyards is now Vigor Shipyards.

http://www.defense.gov/contracts/contract.aspx?contractid=4516

No. 312-11
FOR RELEASE AT
5 p.m. ET
April 19, 2011

CONTRACTS

MISSILE DEFENSE AGENCY

The Missile Defense Agency (MDA) is announcing the award of a sole-source cost-plus- fixed-fee (CPFF) modification to The Boeing Company, Huntsville, Alabama under Contract HQ0147-09-C-0007 (P00028). The not-to-exceed value of the award is $27,242,000. Under this modification, The Boeing Company will provide support for the Sea Based X-Band Radar shipyard maintenance efforts. The work will be performed at Todd Pacific Shipyard in Seattle, WA. The period of performance is from March 2011 through September 2011. Fiscal year (FY) 2011 Research, Development, Test and Evaluation funds will be used to incrementally fund this effort in the amount of $10,400,000. The Missile Defense Agency is the contracting activity (HQ0147).

http://www.govsupport.us/sbxea/Documents/SBX%20FEA%20Dist%20A%20-%2011-MDA-6140%2011Apr11.pdf

Sea-Based X-Band (SBX) Radar Vessel Maintenance and Repair

Final Environmental Assessment

April 2011

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

Department of Defense
Missile Defense Agency
7100 Defense Pentagon
Washington, DC 20301-7100

Approved for Public Release 11-MDA-6140 (11 APR 11)

[EXCERPT]

2.1.1 SBX RADAR VESSEL

The SBX Radar Vessel supports Ballistic Missile Defense System (BMDS) integrated flight testing. It exercises all midcourse sensor functions including weapon task plans, in-flight target updates, target object maps, and kill assessments. The SBX Radar supports most extended range test scenarios.

The SBX Radar also has a real-world missile defense mission. It is part of an integrated, layered system to defend the United States, its deployed forces, allies, and friends against all ranges of enemy ballistic missiles.

The SBX Radar Vessel is self-propelled by four steerable 3.4-megawatt (MW) electrically driven thrusters, which extend below the bottom surface of the platform's pontoons. While in open water, two thrusters effectively propel and maneuver the SBX Radar Vessel without assistance. The thrusters of the vessel are retractable. While the thrusters are extended, the draft of the SBX Radar Vessel is approximately 50 feet. The retractable thrusters can be lifted into the pontoons to reduce the draft of the vessel to approximately 35 feet, allowing it to enter shallower ports.

The SBX Radar Vessel has a permanent crew of approximately 83 personnel, which includes approximately 16 Boeing employees, 65 subcontractors (mariners, security, communications, and radar personnel) and 2 government employees. In addition, there is sufficient berthing, accommodations, and lifesaving equipment to support an additional 50 people onboard on a temporary basis to support testing.

When the vessel is operational in the open ocean, the electrical power requirement for the SBX Radar Vessel and its various payloads is approximately 20.76 MW. This is supplied in a varying combination by six 3.46-MW Ship Service Diesel Generators (SSDG). The SBX Radar Vessel has a fuel capacity of approximately 1.88 million gallons; however, the fuel is normally maintained at approximately 80 percent of capacity or 1.4 million gallons. Approximate fuel consumption for transit and radar operation is 14,500 gallons per day.

2.1.2 COMPONENTS OF THE SEA-BASED RADAR VESSEL

2.1.2.1 Sea-Based Platform

The Sea-Based Platform is a commercial platform manufactured by Moss Maritime of Oslo, Norway. The platform is a column-stabilized semi-submersible platform, with two pontoons and six stabilizing columns supporting the upper hull. The structure has sufficient strength to support a deck load of 20,000 tons. Table 2-1 provides the dimensions of the platform. The Sea-Based Platform is semi-submersible, meaning that it has large ballast tanks that are evacuated to raise the vessel and reduce draft for transit or pier-side use. The helicopter pad is not anticipated to be in use during the maintenance and repair period.

Table 2-1. Platform Dimensions

Platform Characteristics	Dimensions
Upper Hull	
Length of deck	272 feet
Width of deck	240 feet
Height to upper deck	133 feet
Draft during operation with thrusters installed	91.8 feet
Draft during transit with thrusters installed	50 feet
Pontoons	
Length	390 feet
Width	47 feet
Depth	33.3 feet
Pontoon spacing	190 feet
Displacement during operation	50,340 tons
Displacement in transit	32,800 tons

Source: U.S. Army Space and Missile Defense Command, 2003

2.1.2.2 X-Band Radar Component

The XBR is a multifunction radar that performs tracking, discrimination, and kill assessments of overflying missiles for both missile defense testing and for missile defense contingencies in the case of an actual missile attack against the United States. The XBR is mounted on a 90-foot diameter antenna mount track support cylinder housed in a 103-foot base diameter radome. Total height of the SBX Radar Vessel above the water line including the XBR radome isTotal height of the SBX Radar Vessel above the water line including the XBR radome is approximately 250 feet at transit draft.approximately 250 feet at transit draft.

United States Government Accountability Office

GAO

Report to Congressional Committees

March 2011

MISSILE DEFENSE

Actions Needed to Improve Transparency and Accountability

GAO-11-372

MDA Plans to Hand over Operational Control of SBX to the Navy in Fiscal Year 2012

MDA made progress toward fielding SBX and plans to hand over operational control of SBX to the Navy in fiscal year 2012. During fiscal year 2010, MDA completed a critical Navy inspection and certification necessary to hand over operational control of SBX. Planned operational areas include positions in the northern, western, and middle Pacific Ocean. According to MDA, the Missile Defense Executive Board approved a recommendation from the Navy to utilize a more flexible approach allowing SBX to port at multiple locations rather than establishing a dedicated port for SBX. U.S. Strategic Command will exercise combatant commander authority of SBX and delegate operational control to the Navy via Pacific Command. Although the Navy will operate SBX, MDA will maintain the development responsibility for improving radar capabilities.

The SBX Program Experienced a Significant Failure during FTG-06 and Attempted to Demonstrate a Correction in FTG-06a

During the GMD flight test FTG-06 in January 2010, SBX experienced a significant failure. According to program officials, as the primary sensor for the flight test, SBX's task was to track the missile target, an intermediate-range missile, and provide a qualified track on the target to GMD. During the flight test, SBX initially performed as expected but then experienced a failure which prevented it from establishing a reportable track on the target. According to MDA, high sensitivity coupled with a large number of presented objects could cause the SBX processor to become overwhelmed as exhibited in FTG-06. MDA also states that software changes were incorporated into SBX to mitigate this problem. Currently, computer models cannot replicate the situation SBX experienced during FTG-06 but can replicate the effect SBX experienced.

To address the failure in FTG-06, program officials developed iterative software corrections. The first software correction, Spiral 1, has already been developed by the program office and was tested during four targets of opportunity. During three of the tests, computer simulators mimicked the effects experienced during FTG-06 to test the software corrections. According to program officials, these tests, in addition to other ground tests, served as risk reduction leading up to a re-test of SBX objectives in FTG-06a.

MDA tested those software corrections in FTG-06a, which was conducted in December 2010. This test was deemed a failure by MDA because GMD was unable to intercept the target. However, the performance of SBX during the flight test is unknown at this time because the test report for this event was unavailable during our audit. SBX served as an inline sensor for the test and was tasked to track the target over the horizon, discriminate the warhead, and send a missile track of the target to GMD.

http://www.staradvertiser.com/news/hawaiinews/20110326_Floating_radar_back_at_Pearl_Harbor.html

Floating radar back at Pearl Harbor

By William Cole
POSTED: 01:30 a.m. HST, Mar 26, 2011

The towering Sea-Based X-Band Radar returned to Pearl Harbor Thursday *[2011-03-24]* for what officials said is expected to be a brief port visit.

Since the ballistic missile defense radar, topped by what looks like a giant golf ball, first arrived here in January 2006, it has returned frequently for replenishment and repairs.

In the process, Pearl Harbor has become its informal home.

About $9.4 million in work on the vessel's thrusters and other modifications was to begin this month at Todd Shipyards in Seattle, the Missile Defense Agency previously said. Pearl Harbor is too shallow for the job.

In October the MDA said the work had to begin in March to maintain the vessel's certificate of inspection issued by the American Bureau of Shipping.

In mid-February the MDA, which oversees the radar, announced the availability of a draft environmental assessment for public comment for the planned maintenance and repair. The MDA said repair work could begin this spring.

This marks the SBX's 13th visit to Pearl Harbor. The 280-foot-tall SBX is tied up on the west side of Ford Island.

The MDA said that prior to this visit it had spent about $59 million for repairs and maintenance at Pearl Harbor on the $1 billion missile tracking radar.

http://www.staradvertiser.com/news/20110123_On_the_ball.html

On the ball

Pearl Harbor has become the X-Band radar's informal home

By William Cole

POSTED: 01:30 a.m. HST, Jan 23, 2011

When it comes to the Sea-Based X-Band Radar, Alaska's loss is Hawaii's $59 million gain.

DAYS SPENT IN ISLES

- **2006:** 170 days
- **2007:** 63 days
- **2008:** 63 days
- **2009:** 177 days
- **2010:** 51 days
- Dec. 22 to present

Source: Missile Defense Agency

Since the towering ballistic missile defense radar, topped by what looks like a giant golf ball, first arrived here in January 2006, it has become a loyal return visitor, shunning its foul-weather Aleutian Island home port so completely that it has never even moored there.

The 280-foot-tall SBX, as it is called, has "loitered" in the vicinity of Adak several times, the U.S. Missile Defense Agency said, but it has returned to Pearl Harbor 11 times and spent a combined total of more than a year and a half in port in Hawaii — becoming an instant tourist attraction every time.

Some airline pilots even point it out to passengers on their approach. The radar tied up at Ford Island on Dec. 22 for replenishment.

CINDY ELLEN RUSSELL / CRUSSELL@STARADVERTISER.COM

A look inside the Sea-Based X-Band Radar, which has spent a total of a year and a half and $59 million in Hawaii.

The Missile Defense Agency said it has spent about $59 million for repairs and maintenance at Pearl Harbor on the one-of-a-kind $1 billion missile tracking radar.

"When there has been a need to come into port, Pearl Harbor has offered the correct mix of labor and supplies to accomplish needed maintenance and repairs," the agency said in August.

The phased array radar inside the inflatable dome tracks U.S. and foreign missile tests with 45,000 transmission and receiving elements, and is so powerful it can see a baseball 2,500 miles away, according to the agency.

So far, it hasn't docked anywhere but Hawaii, and after years of announcements and expectations that the SBX would become a fixture in remote Adak, the Missile Defense Agency now has taken a new tack: The agency said testing has shown that the SBX operates best in a "nomadic" mode.

"This means it is available for both operations and testing by having the ability to move around the ocean as necessary rather than moored at a fixed location," the Missile Defense Agency said in an e-mail.

Unused is a $26 million, eight-point mooring chain system installed in 2007 in Adak's Kuluk Bay, according to the Alaska Dispatch newspaper.

Because of shore personnel and infrastructure requirements, "operating from the mooring is not currently as cost-effective as operating at sea with resupply," the missile agency said. "SBX will resupply from whatever port is best in the area where the mission has SBX operating."

Between 2009 and 2010, the SBX spent 396 continuous days at sea, officials said.

When it does head in, Hawaii has become the SBX's home port by default. Ironically, in 2003, military officials considered but rejected permanently basing the SBX here. A spot three miles south of Kalaeloa was examined along with five other locations before Adak was selected.

CINDY ELLEN RUSSELL / CRUSSELL@STARADVERTISER.COM

Capt. Andy Potter describes how a joystick that controls four thrusters provides better navigational control than a traditional wheel.

Adak got the nod because it is between the "threat ballistic missiles" — presumably in North Korea — and the interceptor missiles in California and Alaska, Lt. Gen. Henry Obering III, then-head of the missile agency, said in a 2006 memo.

The island, with a population of about 165 in 2009, also has "outstanding facilities" — a protected ice-free harbor with pier space, fuel storage, housing and a large airport, Obering said. Adak was home to a naval air station until 1997.

The Missile Defense Agency is tight-lipped about the reasons for never mooring the SBX in Adak as planned in 2006, but the Coast Guard raised concern over operating a 280-foot-tall oil rig ship in the unforgiving Bering Sea, where waves routinely exceed 30 feet and winds top 130 mph.

Rear Adm. J.C. Olson, then the commander of Coast Guard District 17, which includes Alaska, said in a 2006 letter to the Missile Defense Agency that the SBX was not capable of "maintaining station" under such conditions, which posed a safety threat to the platform, crew and environment.

But Steve Stangl, a Boeing employee and site manager on the SBX, said there have been no weather-related operations problems.

In January 2007, on the SBX's first trip up to Adak, the vessel ran into hurricane-force, 100 mph winds and 50-foot seas about 250 miles south of the Aleutian chain.

"I was impressed," Stangl said. "Even in the hurricane, I'm sitting in my office doing regular work, and I couldn't tell (there was a storm outside). She's built for stability."

The 120-foot tall radome is inflatable and made of materials similar to Teflon and Kevlar, officials said. Inside, it's tan, and penetrating sunlight casts a gold glow over the 85-foot octagonal radar face.

Overpressure keeps the 18,000-pound dome inflated, and when the air lock door is opened, the pressure change feels like a descent in a jetliner.

Even in the 2007 hurricane-force winds, "the bag (radome) was just fine," said Ken Dube, the deputy X-band radar department head.

CINDY ELLEN RUSSELL / CRUSSELL@STARADVERTISER.COM

The SBX is equipped with a gym for its crew, complete with foosball, pingpong tables and exercise equipment.

THE PIVOTING RADAR and its rotating carriage weigh 2,500 tons. The radar itself is studded with 45,000 geometrically placed radiating elements that are each about a foot tall.

"It provides us the power and the range that we need to execute our mission," Dube said.

About 85 crew members operate the SBX, which is run by Boeing, officials said. The Missile Defense Agency plans to transfer operations and sustainment responsibility to the Navy late this year.

The agency said fiscal 2010 sustainment costs — including repairs and maintenance at Pearl Harbor — were $167.1 million.

The SBX is piloted from a bridge that's 133 feet off the water.

"We do look down on aircraft carriers when we come in," said Nathan Currier, the third mate.

The SBX is the principal sensor for ballistic missile defense while a rocket is in the midcourse of flight outside the Earth's atmosphere, but can engage ballistic missile threats in all phases of flight, the missile agency said.

The radar has participated in multiple tests and the successful Feb. 21, 2008, shoot-down of a dying U.S. spy satellite, an undertaking code-named "Operation Burnt Frost." In June 2009, Defense Secretary Robert Gates ordered the SBX — which was in Pearl Harbor at the time — to sea as North Korea prepared a space launch across the Pacific.

The X-band radar is so powerful that officials said during an early planning meeting on Oahu that it could cause car airbags and fighter plane ejection seats to deploy.

The SBX also has been accused of causing garage door malfunctions, affecting pacemakers — even altering the weather, officials said.

Stangl, the SBX site manager, said the radar isn't turned on within 75 miles of Oahu. Officials also said it is never pointed at land.

"We don't run the radar close to land. I don't think people understand that," he said.

There have been lots of upgrades and repairs over the years, and those will continue in the future.

BAE Systems said in 2007 that it had been awarded a contract for work in Pearl Harbor, including fuel oil tank cleaning, antenna installation, catwalk and ladder repairs, crane upgrades and additions, galley and scullery upgrades, and installation of a quick-launch recovery boat.

Another recent change is the decision to do away with the SBX's 279-foot support vessel, the Dove, and resupply by helicopter, officials said.

The SBX is expected to leave Pearl Harbor by the end of the month, and for the first time since it was transported 15,000 miles to Hawaii on a heavy lift vessel in 2006, upcoming work will be done elsewhere.

About $9.4 million in work on the vessel's thrusters and other modifications will begin in March at Todd Shipyards in Seattle, the agency said. Pearl Harbor is too shallow for the job.

In the meantime, the SBX seems to have gained acceptance at its informal home off Ford Island among all the Navy vessels that populate the harbor.

By contrast, there was a public outcry in Everett, Wash., when consideration was given to placing the radar vessel there.

"We don't get complaints or issues (in Hawaii)," said Lt. Col. Rich Jaynes, the Missile Defense Agency's product manager for the SBX.

He added that when the SBX pulls in, the agency gets numerous requests from local government officials and veterans organizations asking if they can visit the distinctive ship.

The Vidinha family was having lunch recently at waterfront Blaisdell Park in Waimalu, directly across the SBX.

"If it comes to Pearl, it must create jobs. That's one thing we need — a lot of jobs," said Warren Vidinha, 59.

"I think it's interesting," added his daughter, Palani, 33. "It's something different."

http://www.mda.mil/news/10news0019.html

MISSILE DEFENSE AGENCY
MDANEWS Release

www.mda.mil
mda.info@mda.mil

7100 Defense Pentagon
Washington, DC 20301-7100

10-NEWS-0019
December 15, 2010

Missile Defense Test Conducted

The Missile Defense Agency was unable to achieve a planned intercept of a ballistic missile target during a test over the Pacific Ocean today. The flight test included the successful flight of an intermediate-range ballistic missile target from Ronald Reagan Test Site on Kwajalein Atoll in the Republic of the Marshall Islands and a long-range interceptor missile launched from Vandenberg Air Force Base, Calif.

The Sea Based X-Band radar (SBX) and all sensors performed as planned. The Ground Based Interceptor (GBI) was launched and successfully deployed an Exoatmospheric Kill Vehicle (EKV). Program officials will conduct an extensive investigation to determine the cause of the failure to intercept the target. The next flight test will be determined after identification of the cause of the failure.

Media Contacts:
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http://www.lompocrecord.com/news/local/military/vandenberg/article_0d0c3b92-04fb-11e0-a862-001cc4c03286.html

Missile defense test set

By Janene Scully/Associate Editor janscully@lompocrecord.com Lompoc Record |
Posted: Friday, December 10, 2010 11:47 pm

A missile defense test set for Tuesday is scheduled to be the last launch of 2010 from Vandenberg Air Force Base, and a repeat of the year's first blastoff.

The $120 million test is expected to occur between 8 a.m. and noon Tuesday *[2010-12-14]*, when a target missile will fly from the Kwajalein Atoll in the Central Pacific Ocean.

A short time later, an interceptor missile, carrying the Exoatmospheric Kill Vehicle, should pop out of its underground silo on north Vandenberg Air Force Base.

That's similar to a Jan. 31 intercept test for the Ground-based Midcourse Defense segment that ended in failure when a Sea-Based X-Band radar malfunctioned.

"It is generally the same scenario with generally the same objectives," said Richard Lehner, Missile Defense Agency spokesman.

The current test's goal is to exercise the GMD system over an increased distance — about 4,200 miles — versus the shorter flight path between Kodiak, Alaska, and Vandenberg.

Tests are designed to exercise the system against a "threat-representative" ballistic missile target, Lehner added.

The Jan. 31 test, which coincidentally was the first of 10 for 2010 from Vandenberg, also involved an interceptor that launched from Vandenberg toward a target that blasted off from the Kwajalein Atoll.

While the intercept didn't happen due to a snafu involving the sea-based radar, they still collected some valuable data, Army Lt. Gen. Patrick J. O'Reilly, Missile Defense Agency director, told a congressional subcommittee April 15.

"We discovered new failure modes for the SBX (sea-based radar), the EKV flew more than twice the distance it had flown in previous tests, and we collected significant new data on the EKV's ability to acquire, track, and discriminate the target," O'Reilly said, adding that he intended to repeat the test scenario.

The powerful radar that is designed to detect, acquire and track targets provides the data necessary for the complex Ground-based Midcourse Defense segment. It's one of several key elements that make up the system.

The sea-based radar — it looks like a huge golf ball sitting on an old oil platform in the ocean — was designed as the "sole tracking sensor responsible for data" during the engagement between the target and interceptor. The radar was suppose to deliver the critical data to other parts of the system.

http://www.mda.mil/news/10news0013.html

MISSILE DEFENSE AGENCY
MDANEWS Release
www.mda.mil
mda.info@mda.mil
7100 Defense Pentagon
Washington, DC 20301-7100

Missile Defense Agency Plans to Bring Sea-Based X-Band Radar to Todd Pacific Shipyard in Seattle in March 2011

10-NEWS-0013
October 7, 2010

The Missile Defense Agency is planning to have its Sea-Based X-Band Radar (SBX) undergo modifications and maintenance at the Todd Shipyard in Seattle, Washington. This determination was made in order to accommodate available shipyard space with required maintenance schedules. Work on the vessel's thrusters and other modifications must begin in March, 2011 to maintain its Certificate of Inspection issued by the American Bureau of Shipping.

Work is expected to start in March and will be ongoing for about 90 days, and the estimated cost of the work is expected to be about $9.4 million.

Maintenance to the vessel requires a port with water depth of at least 50 feet. There are only three facilities on the West Coast with water deep enough for this type of work. The other two are Naval Station Everett, Wash., and Naval Air Station North Island, Calif.

The SBX tracks, discriminates and assesses the flight characteristics of ballistic missiles. It is a unique combination of advanced X-band radar mounted on a mobile, ocean-going, semi-submersible platform that provides the Ballistic Missile Defense System (BMDS) with extremely powerful and capable radar that can be positioned to cover any region of the globe.

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http://www.staradvertiser.com/news/breaking/102207394.html

Huge floating radar leaves Ford Island dock after maintenance

By William Cole
POSTED: 08:09 p.m. HST, Sep 03, 2010

[EXCERPTS]

The Missile Defense Agency's giant floating radar left its Ford Island dock yesterday *[2010-09-02]* after $7 million in maintenance was completed faster than expected, officials said.

When it will return to Hawaii is unclear. Missile Defense Agency officials said it will resume operations at sea.

The $1 billion ballistic missile tracker, known as the Sea-Based X-Band Radar, or SBX, arrived back at Pearl Harbor on July 13.

The Missile Defense Agency said the SBX would be in port in Hawaii for "periodic maintenance" and to conduct American Bureau of Shipping surveys leading to renewal of a U.S. Coast Guard certificate of inspection.

The work included checks of the vessel hull and machinery operating condition and safety, as well as checking all safety programs aboard SBX.

The distinctive radar was expected to be in Hawaii until the fall.

[deletia]

Adak, Alaska, was the radar's intended home port, but the SBX has spent scant time there. It has never pulled into port in Adak, officials said.

[deletia]

The SBX last left Pearl Harbor on June 16, 2009.

According to the Missile Defense Agency, the vessel traveled around the central Pacific within a thousand miles of Hawaii, and was in the northern Pacific near Adak, and the Bering Sea north of Dutch Harbor. But the SBX did not dock in Adak.

http://www.staradvertiser.com/news/hawaiinews/20100803_Giant_sea-based_radar_undergoes_7M_repair.html

Giant sea-based radar undergoes $7M repair

By William Cole
POSTED: 01:30 a.m. HST, Aug 03, 2010

[EXCERPTS]

The Missile Defense Agency's giant floating radar is in for some expensive repairs at Pearl Harbor and later on the West Coast.

The $1 billion ballistic missile tracker, known as the Sea-Based X-Band Radar, or SBX, arrived back at Pearl Harbor on July 13.

The Missile Defense Agency said the 280-foot-tall former oil rig will undergo about $7 million in repairs here.

"SBX will be in port to perform periodic maintenance and to conduct American Bureau of Shipping surveys that will lead to renewal of the SBX U.S. Coast Guard Certificate of Inspection," the agency said. "These include checks of the vessel hull and machinery operating condition and safety, as well as checking all safety programs aboard SBX."

The distinctive radar is expected to be in Hawaii until the fall.

Missile Defense Agency officials also are looking at three deepwater ports on the West Coast for additional maintenance. They are Naval Station Everett, Wash.; Todd Pacific Shipyard in Seattle; and Naval Air Station North Island, San Diego, said Pam Rogers, an agency spokeswoman. Pearl Harbor is not deep enough, she said.

The Seattle Post-Intelligencer said an informational meeting was held in Washington state last week to lay out plans for the SBX's possible stay there.

The online news site said the manufacturer-recommended, five-year maintenance will be on the platform's thrusters and also will include painting and system upgrades at an estimated cost of about $9.4 million.

[deletia]

Adak, Alaska, was the radar's intended home port, but the SBX has spent scant time there. It has never pulled into port in Adak, officials said.

[deletia]

The SBX last left Pearl Harbor on June 16, 2009.

According to the Missile Defense Agency, the vessel traveled around the central Pacific within a thousand miles of Hawaii, and was in the northern Pacific near Adak, and the Bering Sea north of Dutch Harbor. But the SBX did not dock in Adak.

http://www.seattlepi.com/sound/424335_sound99665024.html

Possible SBX move to Everett overshadowed in Langley by focus on military spending

By ROY JACOBSON
SOUTH WHIDBEY RECORD
Sunday, August 1, 2010
Last updated 9:31 a.m. PT

[EXCERPT]

Islanders were nearly outnumbered Thursday evening as Defense Department representatives laid out a case for bringing a mammoth anti-missile platform to Everett for maintenance.

For most of those who attended, however, the question was less about the location of the platform and more about the debate over defense spending in general.

"It's total nonsense spending all that money on imaginary enemies," said Malcolm Ferrier, 80, a "dyed-in-the-wool pacifist" from Langley. "It makes me so sad."

About 30 people showed up at the Langley Middle School cafeteria to look at displays and ask questions of the 20 or so Defense Department officials on hand.

The Navy and the Missile Defense Agency need a deep-water port to work on the Sea-Based X-Band Radar platform (SBX), currently based in Adak, Alaska, in the Aleutian Islands.

Everett is one of only three West Coast ports suitable to the task, which requires 50 feet of depth. The others are Todd Pacific Shipyards in Seattle and Naval Air Station North Island in San Diego, Calif.

The $1 billion, 280-foot-tall self-propelled mobile platform, operated by a crew of 80, is designed to detect incoming ballistic missiles.

The SBX went into service in 2005. It's currently at Pearl Harbor, Hawaii, where it spends much of its time monitoring nearby missile ranges, but where the water isn't deep enough for repairs.

The manufacturer-recommended five-year maintenance will be on the vessel's thrusters, along with painting, repairing other components and upgrading some internal systems, at an estimated cost of about $9.4 million, officials said.

Portions of the work would be open to bid by Puget Sound-area contractors, and maintenance will be supervised by the Boeing Co., prime contractor for the SBX, officials said.

Army Col. Mark Arn, SBX project manager for the Missile Defense Agency, said a decision on which port will be used will be determined following community meetings in all three locations and the completion of an environmental assessment and a 30-day comment period.

A similar meeting attended by about 35 people was held in Everett on Tuesday night.

Arn said officials hope to begin maintenance on the SBX sometime this fall.

"There's no notion of having it move to Everett as a home base," Arn added.

An uproar arose over the SBX in 2003 when the Missile Defense Agency wanted to homeport the yet-to-be-built platform at Everett.

Everett officials, community members and Congressman Rick Larsen opposed the plan, raising concerns about health hazards and radiation that could hinder airport and emergency services communications.

Dozens of Whidbey Island residents joined the 2003 protest, the reason a community meeting was scheduled in Langley this time around, Arn said.

Arn and other officials said the planned maintenance work would take no longer than four months, and that the platform's powerful radar systems would be turned off while in port.

He also said the platform would not be brought to Everett while the aircraft carrier USS Abraham Lincoln is home. The SBX, resembling a huge golf ball on top of a big box, is shorter and not as wide as the Lincoln, but is 30 feet taller.

Naval Station Everett officials said the base has strict environmental standards of its own which would apply to the SBX.

"We have regulations they would have to abide by if they do choose us," said John Miller, a base representative.

He said most concerns so far have revolved around air and water quality, hazardous material, noise and visual aesthetics.

"We're taking a look at all that stuff," said Navy Capt. Mike Coury, commanding officer of the Everett base, who added that the final decision isn't up to him. "My concern is the ships at Naval Station Everett."

[deletia]

http://www.khon2.com/mostpopular/story/Oceanic-Cable-internet-phone-TV-service-outage/y-d99jZRXUKMwAAga8VMow.cspx

Oceanic Cable internet, phone, TV service outage affecting customers statewide

Reported by: Gina Mangieri
Email: gmangieri@khon2.com
Last Update: 7/27 7:52 pm

[EXCERPT]

A severed undersea cable cut off Oceanic phone, internet and many television channels for much of the day across the islands.

The statewide outage affected tens of thousands of people, but Maui County took the brunt of it with up to 14 hours of black screens on most TV stations, and about 13 hours without internet.

"I was kind of disappointed that I didn't get to watch the news and the Regis and Kelly when I was exercising," said Grace Barroga, a resident of Kahului.

"We came in this morning and we have no email, which means no new orders and no communication that way," said Mike Sirutis of Sign Solutions in Kahului. "So can't do much except for what we already have to do."

According to Oceanic, something severed a 3000-foot-deep fiber optic undersea cable off Lanai at around 1:10 a.m. Many internet users on Oahu and Kauai experienced outages for about two hours.

"We had to reroute all of those modems on Oahu and Kauai so they would look this connection back to the mainland," said Norman Santos of Oceanic Time Warner Cable.

Meanwhile all but 19 satellite-fed television signals, plus internet and oceanic phone service to thousands of customers on Maui and the Big Island, remained cut off until the afternoon while temporary redundant lines and different pathways could be arranged.

Oceanic says the last time something happened like this was when the anchoring SBX radar severed this section of cable under Pearl Harbor.

Oceanic says it will take weeks to make the permanent fix on the line owned by T.W. Telcom.

http://www.seattlepi.com/sound/423985_sound99144649.html

Navy to visit Langley to talk about bringing missile radar platform to Puget Sound

By ROY JACOBSON
SOUTH WHIDBEY RECORD
Monday, July 26, 2010
Last updated 9:31 a.m. PT

A 25-story seagoing monster may lumber into Everett this fall after being banished to Alaska in 2003 by determined protesters, including many from South Whidbey.

The Navy and the Missile Defense Agency need a deep-water port to work on their Sea-Based X-Band Radar platform (SBX), currently based in Adak, Alaska, in the Aleutian Islands.

Everett is one of only three West Coast ports suitable to the task. Two public meetings next week, one in Langley, will be held to explain the plan and collect community input.

The $1 billion, 280-foot-tall mobile platform, operated by a mostly civilian crew of 80, is designed to detect incoming ballistic missiles. Its powerful radar can track a baseball-size object from a distance of 2,900 miles, according to the Missile Defense Agency.

The only West Coast ports that can handle the planned maintenance are San Diego, Todd Pacific Shipyard in Seattle and Naval Station Everett, officials say.

“No decision has been made,” Kristin Ching, Naval Station Everett spokesperson, said Thursday.

“All three locations are being studied for feasibility,” concurred Pamela Rogers, Missile Defense Agency spokeswoman.

Ching said the agencies hope to begin maintenance in the fall, and that the work would take “three or four months, tops.” But before a site is chosen, local input will be gathered and an environmental assessment made, she said.

Ching said the huge platform’s sophisticated radar systems, other than those required for navigation, would be turned off during maintenance.

She said base officials have scheduled public meetings next week in Everett and Langley to gather comments from the community.

The Langley meeting will be from 5 to 8 p.m. Thursday, July 29, in the Langley Middle School cafeteria.

An earlier meeting will be from 5 to 8 p.m. Tuesday, July 27, at Everett Community College’s Whitehorse Hall, Room 105.

“People will definitely have the opportunity to comment,” Ching said.

An uproar arose over the SBX in 2003 when the Missile Defense Agency wanted to homeport the platform at Naval Station Everett.

Everett officials, community members from throughout the area, and eventually Rep. Rick Larsen, opposed the plan, concerned about health hazards and radiation that could hinder airport and emergency services communications.

The platform eventually was deployed to a welcoming Adak.

Rogers said the repair work on the platform can't be done at Adak because of the weather and inadequate facilities and workforce.

She said the primary focus of the maintenance will be on the vessel's thrusters, which help propel it through the water. Regular thruster maintenance is required for U.S. Coast Guard certification, she said. Painting, repairing other components and upgrading some internal systems are also planned.

Cost of the proposed work would be about $9.4 million, Rogers said.

She said portions of the work will be open to bid by Puget Sound-area contractors, and that maintenance will be supervised by the Boeing Co., prime contractor for the SBX.

She said the platform would arrive at Everett under its own power, then be pushed to the pier by tugboats.

Rogers said a decision on which port to use will be made once the environmental assessment is complete. If Everett is selected, the SBX would be coordinated with the Navy's homeported vessels.

For example, the SBX would not come to Everett when the aircraft carrier USS Abraham Lincoln is in port, she said.

In 2003, dozens of South Whidbey residents attended hearings in Everett on the proposal to station the SBX there. Whidbey Environmental Action Network, an island watchdog group, was in the forefront of the protest.

Marianne Edain of WEAN remains an opponent of the SBX program. On Thursday, she questioned the wisdom of allowing the platform to come to Everett, even for maintenance, and the amount of taxpayer money the program requires, especially in the current poor economy.

"The entire program is bogus and non-useful in the world," she said. "We need to look very carefully at what's involved, and the impact on the community."

This article was originally published in the South Whidbey Record on July 25, 2010.

Roy Jacobson can be reached at rjacobson@southwhidbeyrecord.com.

http://www.govsupport.us/sbxea/

SEA-BASED X-BAND RADAR

Environmental Assessment

Welcome to the website for the Sea-Based X-Band Radar Environmental Assessment

This website has been established to provide you with a source for current information about the preparation of the EA.

SBX

The Missile Defense Agency (MDA) needs to perform limited maintenance work on the SBX vessel. The SBX vessel's thrusters, which help move it through the water, require periodic maintenance to retain American Bureau of Shipping/U.S. Coast Guard certification, which is required for the vessel to operate. Thruster maintenance is needed to maintain a full suite of radars for anti-ballistic missile testing and defense.

The required maintenance can be accomplished only at a deepwater port. Three locations on the West Coast have the appropriate depth to accomplish the repairs and are under consideration for use. These locations include:

* Naval Station Everett – Everett, Washington
* Naval Air Station North Island – San Diego, California
* Todd Shipyards – Seattle, Washington

MDA also needs to perform additional maintenance and repair on the vessel. Work includes repainting needed areas, inspecting and repairing other vessel components, and upgrading some internal systems.

MDA will not operate the X-Band Radar while in port for the required maintenance.

The National Environmental Policy Act (NEPA) does not require Federal agencies to establish a website. This website has been developed to provide the public with information about the project. The NEPA Process page provides information on how to comment by mail or e-mail.

http://www.peninsuladailynews.com/article/20100718/news/307189972/david-g-sellars-on-the-waterfront-westports-new-prototype-cutter

DAVID G. SELLARS ON THE WATERFRONT: Westport's new prototype cutter special
By David G. Sellars
PDN Maritime Columnist
[Presumably 2010-07-18 from the URL]

[EXCERPTS]

Meanwhile, out in the harbor

Sierra, an 831-foot crude oil tanker, anchored in Port Angeles Harbor on Friday.

According to Chandra "Hollywood" McGoff of Washington Marine Repair, the topside ship repair company at the foot of Cedar Street, personnel went onboard to repair the portside anchor windlass and to assist the crew with a mooring winch.

[deleita]

Chandra also said Washinton Marine will be send six people to Pearl Harbor, Hawaii, on Monday and six more on the following Monday to work on the sea-based X-band (SBX) radar platform that is moored there for repairs.

http://www.staradvertiser.com/news/hawaiinews/20100714_Golf_ball_radar_back_in_isles.html

'Golf ball' radar back in isles

The Sea-Based X-Band Radar will be in Hawaii until fall for maintenance
By William Cole
POSTED: 01:30 a.m. HST, Jul 14, 2010

[EXCERPT]

CRAIG T. KOJIMA / CKOJIMA@STARADVERTISER.COM
The 280-foot-tall Sea-Based X-Band Radar was off Waikiki Beach at noon yesterday.

It's back. Again.

The 280-foot-tall, $900 million Sea-Based X-Band Radar, otherwise known as the giant floating golf ball, has returned to Pearl Harbor.

It is the latest in a series of frequent stops here by the distinctive "SBX," which is part of the U.S. ballistic missile defense shield.

The U.S. Missile Defense Agency said the SBX will be at Pearl Harbor for the remainder of the summer for "routine maintenance." It will depart in early fall.

The powerful radar has 45,000 radiating elements within its white pressurized dome and is used to track targets and discriminate nuclear warheads from decoys.

Adak, Alaska, was the radar's intended home port. Since the "golf ball" arrived here in 2006 from Corpus Christi, Texas, for a temporary stay, it has returned periodically to Hawaii for millions of dollars in maintenance and repairs.

[deletia]

http://www.heraldnet.com/article/20100609/NEWS01/706099848&news01ad=1

Plan to park giant radar platform in Everett raises concerns

By Debra Smith
Herald Writer
Published: Wednesday, June 9, 2010

EVERETT — The SBX radar platform is 25 stories tall and looks like a gigantic floating golf trophy.

It might be motoring to Everett's waterfront sometime soon.

The U.S. Navy and the Missile Defense Agency are talking about bringing the Sea-Based X-Band Radar to Naval Station Everett for repairs.

If the radar platform came to Everett, its visit would be temporary, said Naval Station Everett spokeswoman Kristin Ching.

“The homeport is not on the table,” she said.

[deletia]

U.S. Rep. Rick Larsen opposed anchoring the SBX in Everett seven years ago. Today he's concerned about how a visit to Everett might affect the Naval Station's core mission and pier space for Navy vessels.

“It's just important as the Navy and Missile Defense Agency are going forward that they listen to the view and concerns of the community,” he said.

Mayor Ray Stephanson doesn't see the advantages of even a temporary visit. “There's not a lot of economic value to the community,” he said. “My understanding is they bring contractors from out of the area.”

Naval Station Everett's spokeswoman said officials are just beginning to discuss the idea now. They still don't have a clear picture of the scope of the work and how long it might take, she said.

If the SBX did come to Everett, it would likely be moored near where the USS Abraham Lincoln ties up now.

Ching said there would be ample public notice and information meetings on the matter.

Debra Smith: 425-339-3197, dsmith@heraldnet.com

Raytheon Exoatmospheric Kill Vehicle Plays Key Role in Latest Missile Defense Test

VANDENBERG AIR FORCE BASE, Calif.,
Aug. 16, 2010

/PRNewswire/ -- A Raytheon Company (NYSE: RTN) Exoatmospheric Kill Vehicle (EKV) demonstrated successful two-stage flyout on June 6, 2010 during the latest test of the Missile Defense Agency's Ground-based Midcourse Defense (GMD) system.

During this non-intercept mission, Raytheon's EKV met all test objectives, gathering critical data on kill vehicle performance that will improve the fidelity of its simulation models.

"This test once again demonstrates the reliability and quality of Raytheon's Exoatmospheric Kill Vehicle," said Dr. Taylor W. Lawrence, Raytheon Missile Systems president. "The knowledge we gained will strengthen our nation's shield against threat ballistic missiles."

The test began at 3:25 p.m. PDT when the two-stage ground-based interceptor lifted off from Vandenberg Air Force Base. Carrying an operational EKV payload, the GBI measured performance data for the new two-stage design as well as how an operationally configured EKV operates under stressing boundary conditions.

The EKV is the intercept component of the GBI, which is the weapon element of the GMD system. Its mission in the defense of the nation is to engage high-speed ballistic missile warheads in the midcourse phase of flight and to destroy them using only the force of impact or hit-to-kill.

EKV consists of an infrared sensor in a flight package used to detect and discriminate the incoming warhead from other objects. The EKV also has its own propulsion, communications link, discrimination algorithms, guidance and control system and computers to support target selection and intercept.

The Raytheon-developed X-band radar, the primary payload of the sea-based X-band radar, and the AN/TPY-2 radar actively participated in this test by tracking, discriminating and assessing.

"Once again, Raytheon radars demonstrated exceptional performance in this critical test of U.S. missile defense capability," said Karen Kalil-Brown, Raytheon Integrated Defense Systems vice president of National & Theater Security Programs.

http://appropriations.senate.gov/ht-defense.cfm?method=hearings.view&id=56817d40-fdd9-4424-8718-cc187f03407e

Lieutenant General Patrick J. O'Reilly, USA
Director, Missile Defense Agency

Before the
Senate Appropriations Committee
Defense Subcommittee

Regarding the
Fiscal Year 2011 Budget Request
Ballistic Missile Defense Programs

Wednesday, April 21, 2010

[EXCERPTS]

Additionally, we will continue operations and sustainment of the Sea-Based X-band radar (SBX) platform to prepare for transfer of the SBX operations to the U.S. Navy in 2012.

[deletia]

We are requesting $455M for sensors in FY 2011. We plan to upgrade the AN/TPY-2 radar software to facilitate its use as a surveillance radar or as a THAAD battery fire-control radar, optimize the radar's ability to leverage assistance by external sensors, and support the contingency operations of AN/TPY-2 radars deployed in Japan and Israel. We will continue to develop a Concurrent Test, Training and Operations capability to provide operational BMDS sensors (including the UEWRs, Cobra Dane and Sea-Based X-band radars) the capability to conduct training and testing while continuing to provide on-line missile defense, upgrade AN/TPY-2 and Sea-Based X-band radar discrimination and dense track management software, and conduct ground and flight testing to support accreditation of sensor models and simulations.

http://www.aviationweek.com/aw/generic/story_channel.jsp?channel=defense&id=news/asd/2010/04/06/07.xml

GBI Test Failure Result Of Two Problems

By Amy Butler
Apr 6, 2010

Two unrelated factors contributed to the failure of a U.S. Missile Defense Agency Ground-Based Interceptor (GBI) to destroy its target during a Jan. 31 flight test, Aviation Week has learned from multiple officials in the ballistic missile defense program.

The first problem, known in the rocket sector as "chuffing," occurred as the target boosted from the Kwajalein Atoll in the Marshall Islands around 3:40 PST. Chuffing refers to the sound that the motor makes, but it is also used to describe changes in the burn rate or pressure of burning in the solid-rocket fuel that propels a booster, in this case the LV-2 target. Chuffing is common in rocket motors, particularly older boosters. LV-2 used Trident C4 boosters, some of which are 25-35 years in age.

The missile defense officials agree that LV-2 performed as required by MDA for the test, and that the chuffing was within normal expectations. While the chuffing did not affect target performance, a problem arose when the primary sensor for the test, the massive Sea-Based X-band radar (SBX) managed by Boeing, had difficulty reading what MDA officials call the "threat scene." This includes the rocket body, nose cone, countermeasures, warhead and any other objects that may be within view of the SBX during the test, according to the officials. Algorithms designed to help SBX "filter out" chuffing were not engaged during the test, one official says. Thus, the threat scene that SBX viewed was more complex than it should have been. In a real engagement, this official says, the algorithms would be engaged and SBX would not have encountered such an unfamiliar threat scene.

According to an MDA statement issued shortly after the failed flight test, the GBI and target both performed nominally, "but the Sea-Based X-band radar did not perform as expected." MDA officials declined to outline further detail at that time.

A failure review board is sifting through the test data to discover the causes, and MDA officials still will not directly discuss the findings.

The second problem contributing to the test failure involved the functioning of the Exoatmospheric Kill Vehicle (EKV) itself, according to the officials. The EKV apparently experienced a mechanical failure in a thruster. This was described by one of the officials as a quality control issue brought on by a faulty connector.

U.S. Army Lt. Gen. Patrick O'Reilly, MDA's director, has complained repeatedly—before and after this test—about the pitfalls of connectors on missile defense elements that require highly precise performance (Aerospace DAILY, March 23).

Though the EKV failed to destroy the target in this case, the results of this portion of the test do not point to an inherent defect in the missile defense system or architecture. Officials found that while the EKV was operating on incomplete data from SBX (which was confused by the threat scene), its onboard sensor managed to pick out the warhead—the actual target—from the threat scene.

Missile Defense Agency

Fiscal Year (FY) 2011

Budget Estimates

Overview

For Public Release Only After Release Is Authorized by the Office of the Secretary of Defense

10-MDA-5141 (15 JAN 2010)

Sea Based X-Band Radar (SBX) (PE 0603907C): For the FYDP, we are requesting $820M, including $153M in FY 2011. The FY 2011 request includes $98M for the operations and sustainment of the SBX platform and its support vessel (the Dove) and $43M for operations and sustainment of the X-band radar in support of BMDS flight testing, as well as the completion of software upgrades that provide an improved capability to discriminate between countermeasures and re-entry vehicles.

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

MISSILE DEFENSE AGENCY
MDANEWS Release

www.mda.mil
mda.info@mda.mil

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.goldengateendeavour.com/?p=323

Day 99 - Dr Evil's Secret On-Water Lair!!

August 15, 2009 – 10:41 am

[EXCERPT]

Dr Evil's Secret Lair

Today we woke, had breakfast and then hauled in the sea anchor (using the trip line) and got on with some very decent rowing. Despite a slight headwind and waves coming against Bo we're making very reasonable speeds.

Just as we started taking to the oars the sea me started to beep. A ship was nearby. We looked but couldn't see anything. After an hour Mick called out as he could see it but it looked weird. He was certainly right.

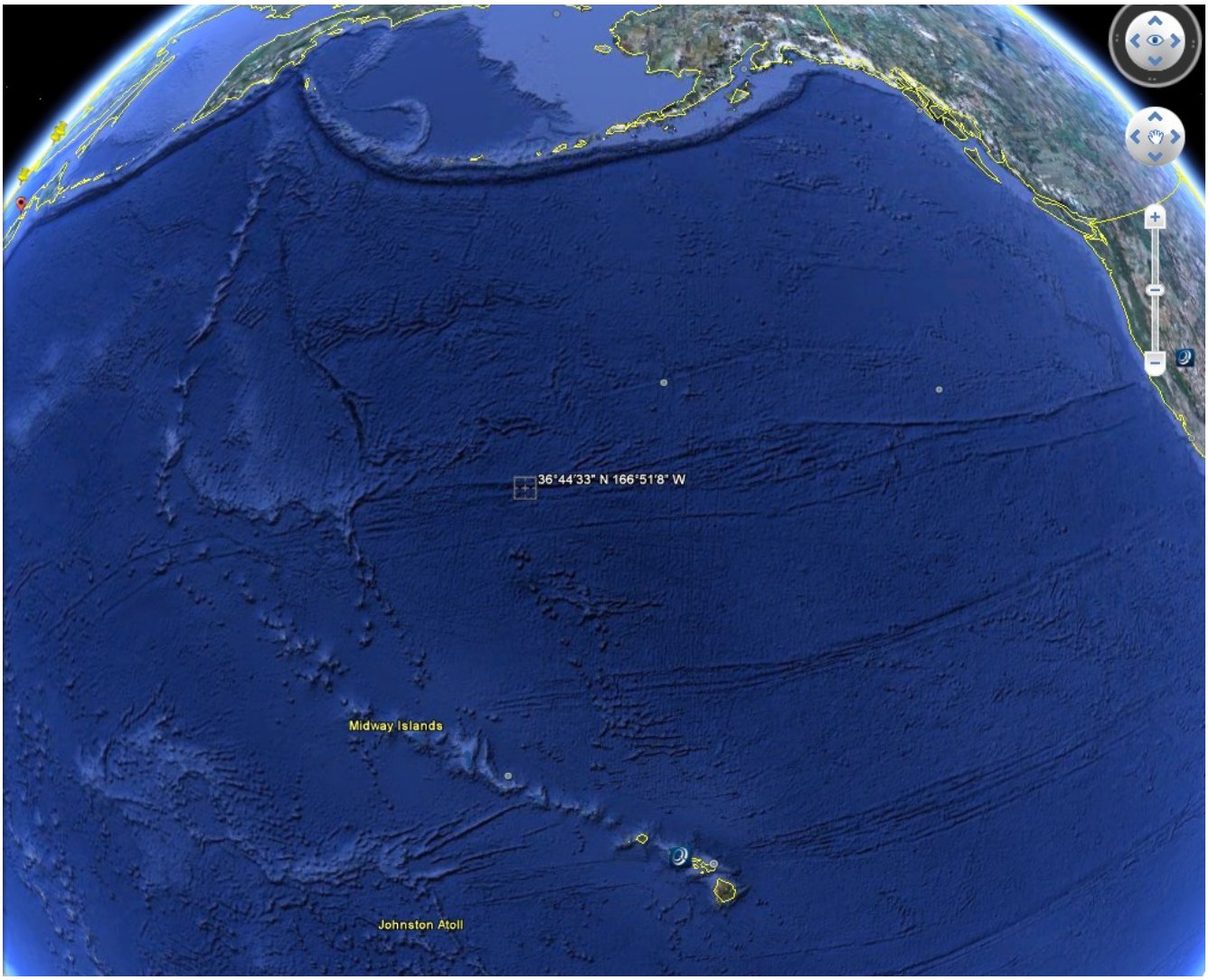
Over the next few hours we closed in on what according to our VHF conversation was SBX-1 a research vessel but before we could invite ourselves onboard for lunch or even just if they could lower us a few burgers and chips they told us that we were not to come within 3nm of their position. Rather difficult with our manouvourability and speed.

Eventually about lunchtime there was the noise of engines in the air and this huge structure started to look very sprightly indeed and in under 45 minutes had gone over the horizon. Bizarre, strange and certainly a one off.

Maybe it was a research vessel, maybe it was a US missile listening post or maybe just maybe it was Dr Evil's secret on water lair.

36°44′33"N 166°51′8"W
Chris & Mick travelled 20.5 miles East-North-East (heading 57.0°) on day 99
They ended 2417.4 miles from San Francisco (19.6 miles closer than yesterday)

[deletia]


36°44'33" N 166°51'8" W
Midway Islands
Johnston Atoll

http://vyborgshipyard.ru/en/?p=news_en&id=217

07.07.09

On July 7th 2009 at Vyborg Shipyard there was held launching ceremony of SB Pontoon of the first Russian SMODU project Moss CS 50 MkII for needs of OAO «Gazprom» within the framework of the program of development of Shtokman Gas Condensate Field.

At the ceremony there were present: Governor of the Leningrad region V.P. Serdjukov, General Director of LLC Gazflot Y.V. Shamalov, Chief of Technical Directorate of OAO «Gazprom» V.S.Vovk, Chairman of the Board of Directors of Vyborg Shipyard JSC G.A. Poryadin, General Director of Vyborg Shipyard JSC V.G. Levchenko.

In their speeches the participants of the meeting pointed out the high importance of development of offshore oil & gas fields for Russia and necessity of building modern technical facilities for the Arctic region. All speakers expressed confidence that Vyborg Shipyard will be able to execute this pilot project with high quality and in the contract dates.

Among the honorary guests to congratulate Vyborg shipbuilders on the occasion the ceremony was attended by the President of the project design company Moss Maritime, Norway, Per Herbert Kristensen.

By orthodox tradition the priest of the Spaso-Preobrazhensky Cathedral Maxim Pavlov went through the ceremony of christening of the Pontoon. Galina Shamalova was nominated Godmother of the SMODU. By the long-standing sea-borne tradition the Godmother crashed a bottle of champagne against the board of the SMODU to bless her for a long and happy life and gave her the name «Polar Star».

Production Director of Vyborg Shipyard V.I. Ruskin reported readiness of the Pontoon for launching. Command to start moving of the Pontoon to the floating-out chamber was given by General Director of Vyborg Shipyard V.G. Levchenko.

SMODUs construction is based on concept design MOSS CS-50 MK-II VI generation developed by the Norwegian engineering company Moss Maritime for northern seas. Units will be of the catamaran type with two pontoons and six stabilizing columns supporting the upper hull and topside.

The Units are designed to operate in arctic conditions in drifting ice thickness to 70 cm at temperatures down to — 30 degrees C in water depth to 500m, drilling depth 7 500 m. Rated life of the Units is 20 years with provision for further extension.

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.

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.crewing.biz.ua/Article20058.html

MOSS CS-50 maritime platform leaves Sevmash shipyard
Posted by: Admin on Oct 08, 2008 - 03:15

MOSS CS-50 maritime platform has left the water area of Sevmash shipyard, the company's press center informs. Upon completion of the customs and border control at the outer harbor of Archangelsk seaport MOSS CS-50 will sail to Great Britain. It is already the second platform of such type built at OAO "PO "Sevmash". On the 23rd of September 2008 OAO "PO "Sevmash" shipbuilders handed over the second maritime platform MOSS CS-50. The first object was commissioned in September 2007 .

"Today we carry on negotiations regarding the third and following platforms. We hope to receive orders from foreign and native companies," Director General of Sevmash Nikolay Kalistratov said. Design-automation system is implemented, procedures of complex welds manufacturing, large sections mounting are developed in order to build MOSS platforms at OAO "PO. "Sevmash". These engineering solutions allowed platform assembly afloat within 3.5 months. This is an optimum period of performing such operation at Russian shipyards "We have made sure that in future Sevmash can build not only platforms with free deck, but also complete drilling platforms", – noticed president of design bureau "Moss Maritime AS" Per Herbert Christensen". MOSS CS-50 maritime platform refers to the 6th generation of maritime semi-submerged platforms. Dimensions 118×70×40 meters, weight 15 thou.tons. Platform is universal, with free deck where any equipment can be placed.

[deletia]

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.

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

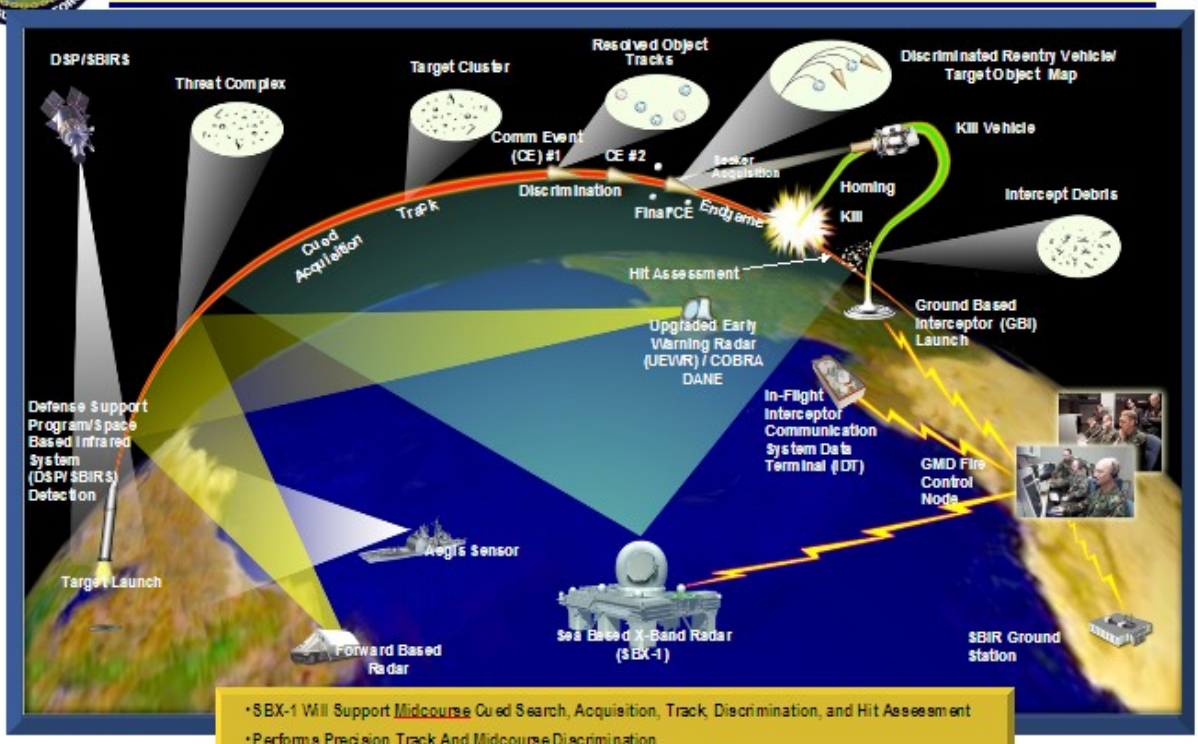
CAPT Joe Horn

1

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

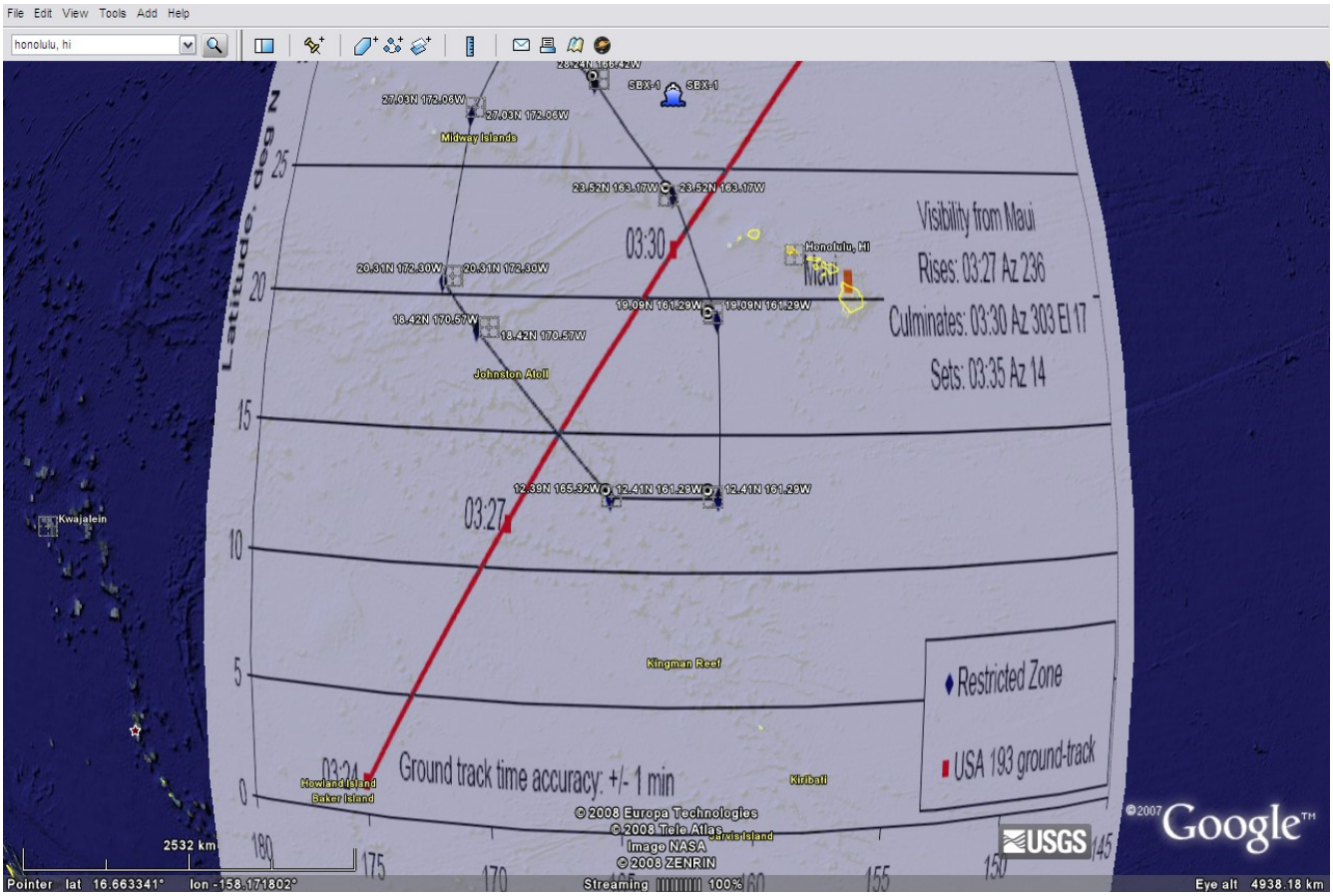
Raytheon Missile and Radar Played Critical Roles in Satellite Intercept

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.

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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

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	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
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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]

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]

==========

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

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.

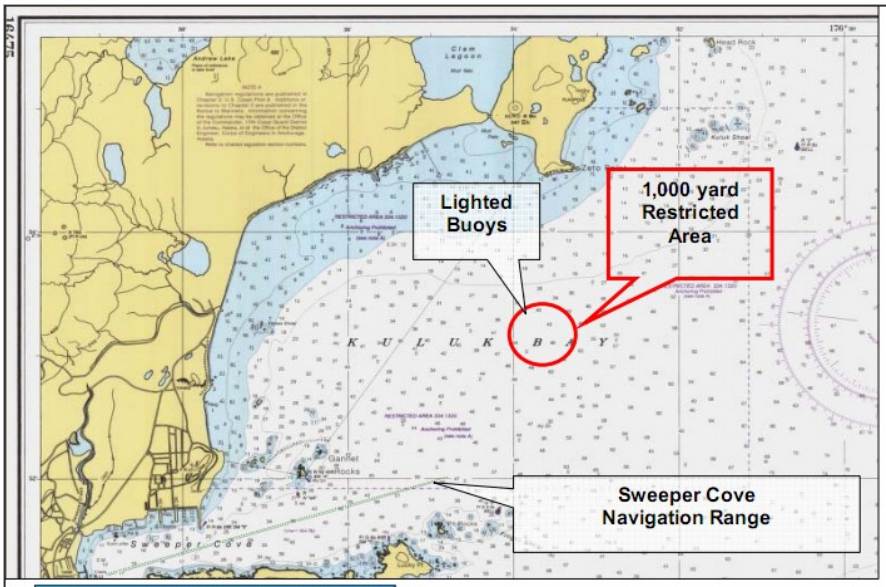
Control measures would include: In addition to the security measures in MARSEC 1 and 2 in MARSEC 3: All cargo operations immediately suspended until approval is granted by FSO. Essential movement only, conduct 100% inspections of pedestrians, baggage, vehicles, cargo, etc. entering restricted areas.

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

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



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

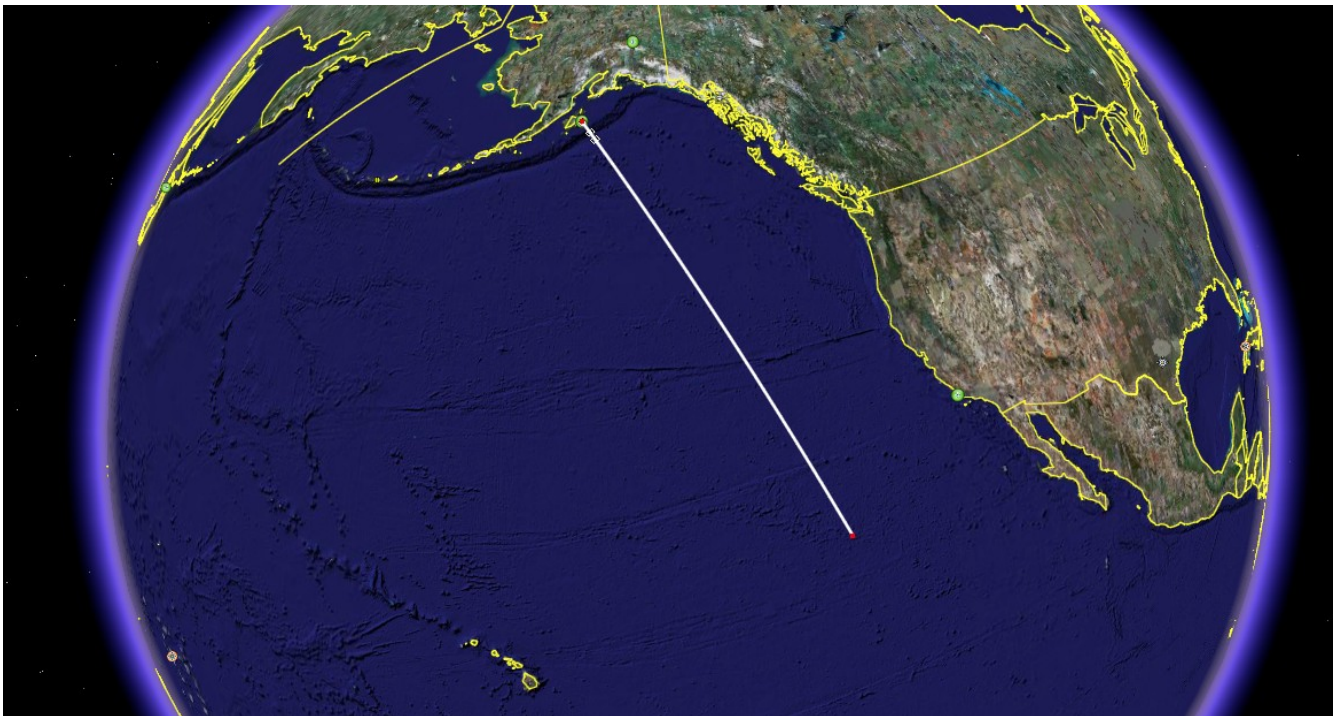
The US Coast Guard has established a Safety Zone in the vicinity of Narrow Cape and Ugak Island due to operations at the Kodiak Launch Complex. The Safety Zone is in effect from September 28, 2007 through October 2, 2007, between 8:00 a.m. and 4:30 p.m. each day, or until cancelled. The Safety Zone includes 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

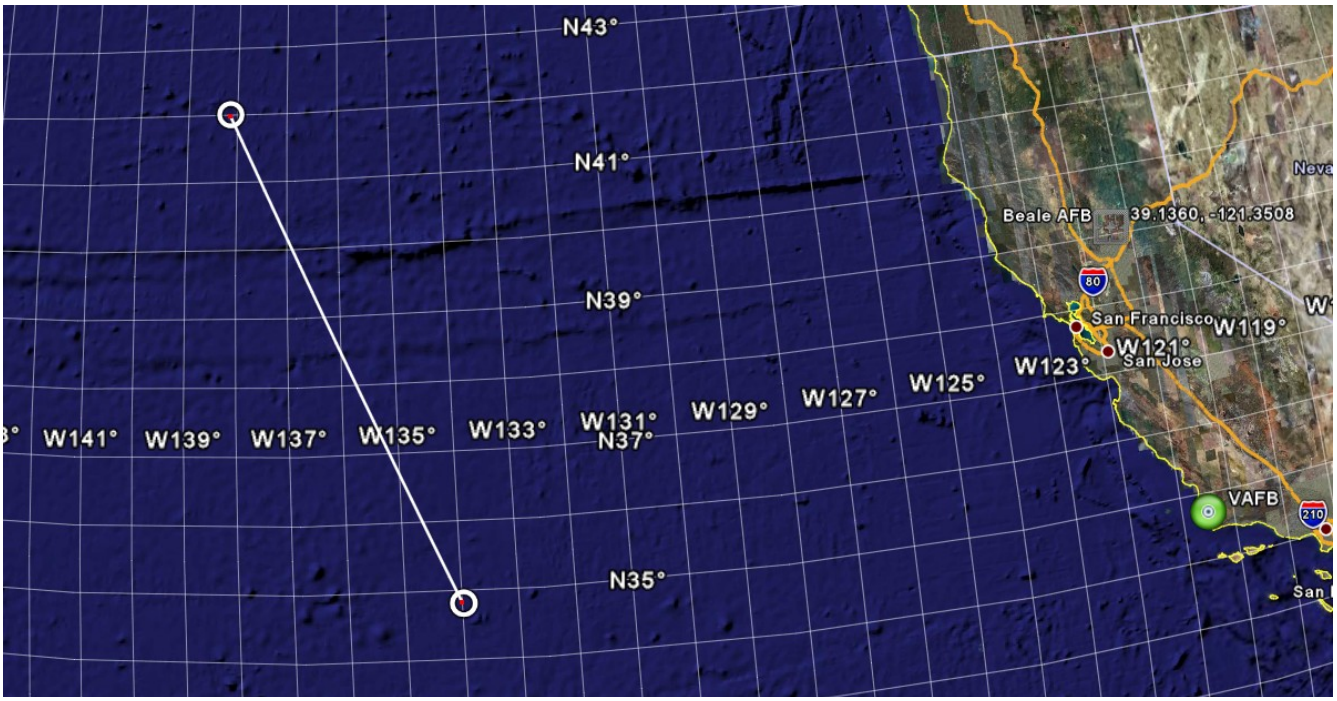
THERE WILL BE A HAZARDOUS ROCKET BOOSTER IMPACT AREA CENTERED APPROXIMATELY 90 NAUTICAL MILES SOUTH-EAST OF KODIAK ISLAND FROM SEP 28 THROUGH OCT 02 2007, BETWEEN 12 P.M. AND 4 P.M. EACH DAY, OR UNTIL CANCELLED. THE HAZARD AREA IS DEFINED BY THE POINTS 56.5 NORTH, 151.3 WEST, 55.95 NORTH, 150.65 WEST, 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.mansonconstruction.com/sbk-in-water-mooring-installation
[Accessed 2012-05-13]

SBX In-Water Mooring Installation
Owner: U.S. Missile Defense Agency
Contract Amount: $22,800,000
Location: Adak, AK
Project Duration: 08/2006-07/2007

This project involved stabilizing a platform to serve as the "home port" for a Sea-Based X-Band (SBX) Radar vessel that is part of the Ballistic Missile Defense System. The platform serves as a mooring station for the semi-submersible vessel between sailings.

The mooring system consists of eight 75-metric-ton anchors attached to the sea floor, providing maximum safety for the vessel in the sometimes harsh Aleutian Island weather. The permanent mooring was designed as a conventional, centenary anchor leg system with eight legs. The legs consisted of eight anchors — the largest conventional anchors ever made — along with associated mooring chain and other tension members and buoys.


MANSON


MANSON

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 or December 2007]

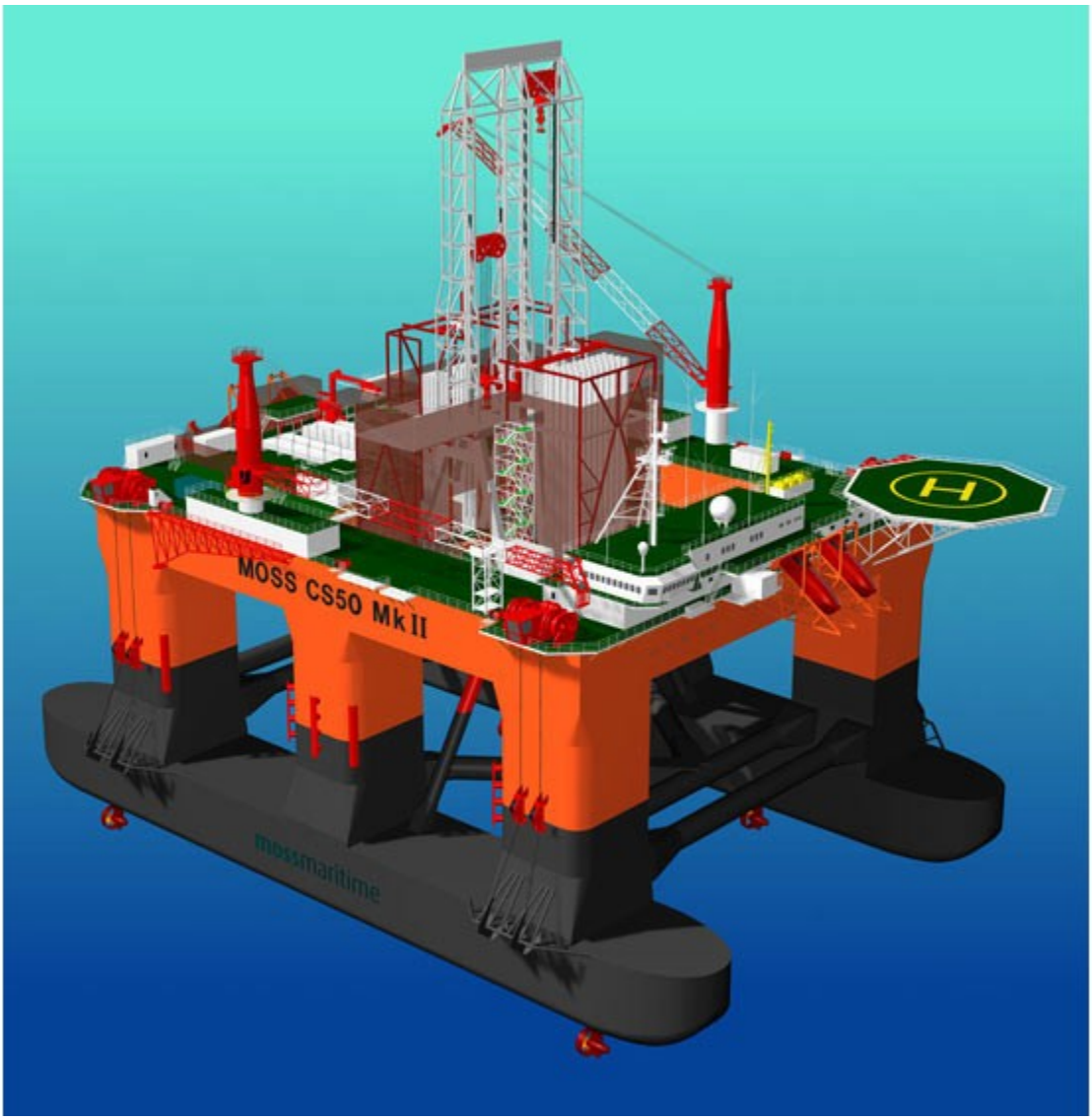
MOSS CS-50 arrived in Palermo

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.

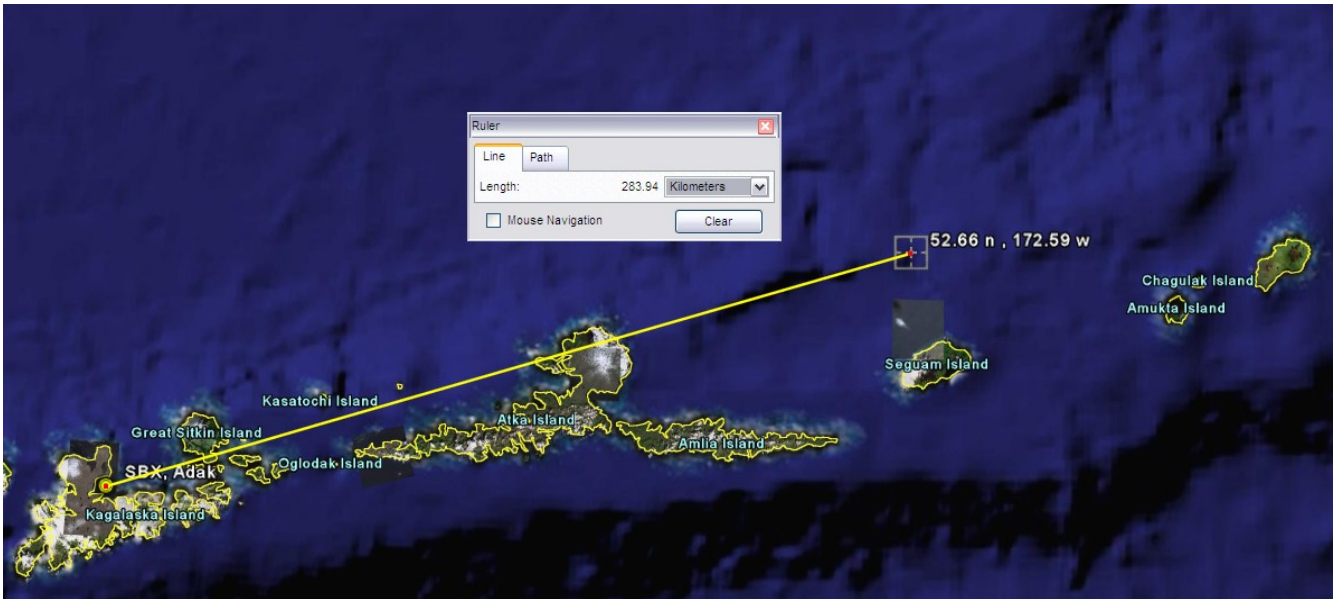
"It is incredibly complex," he said.

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.

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]

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]*

-- 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.

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.

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.

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.

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

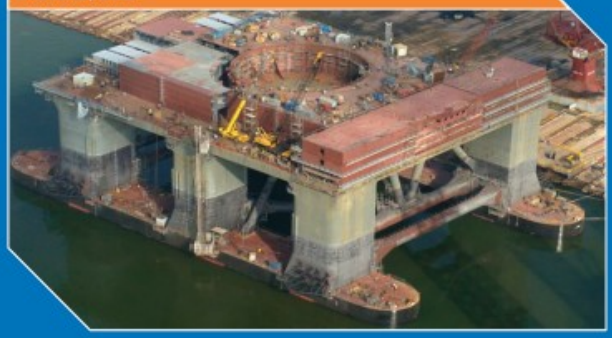
Aerial view of SBX construction in the Keppel AMFELS Shipyard at Brownsville, Texas.

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

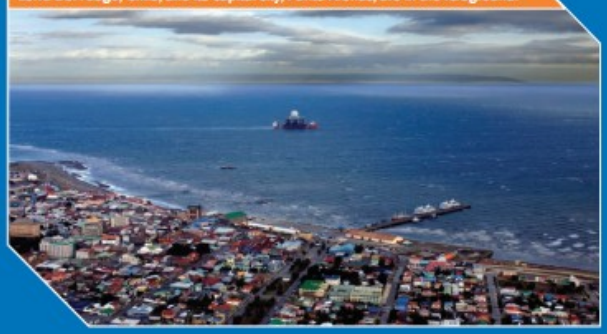
Colonel Mike Smith, SBX Project Manager (center, in white hardhat), Colonel John Fellows, incoming SBX Project Manager (in black beret), and associates stand before the newly designated SBX-1 at its dedication ceremony in Kiewit Offshore Services at Ingleside, Texas.

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

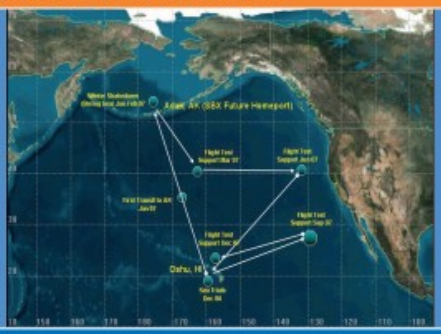
Aerial view of the SBX-1 homeport in Kulak Bay, Alaska, prior to the installation of the mooring system designed to make the vessel stationary by chaining it to eight 75-metric-ton anchors embedded into the sea bed.

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.



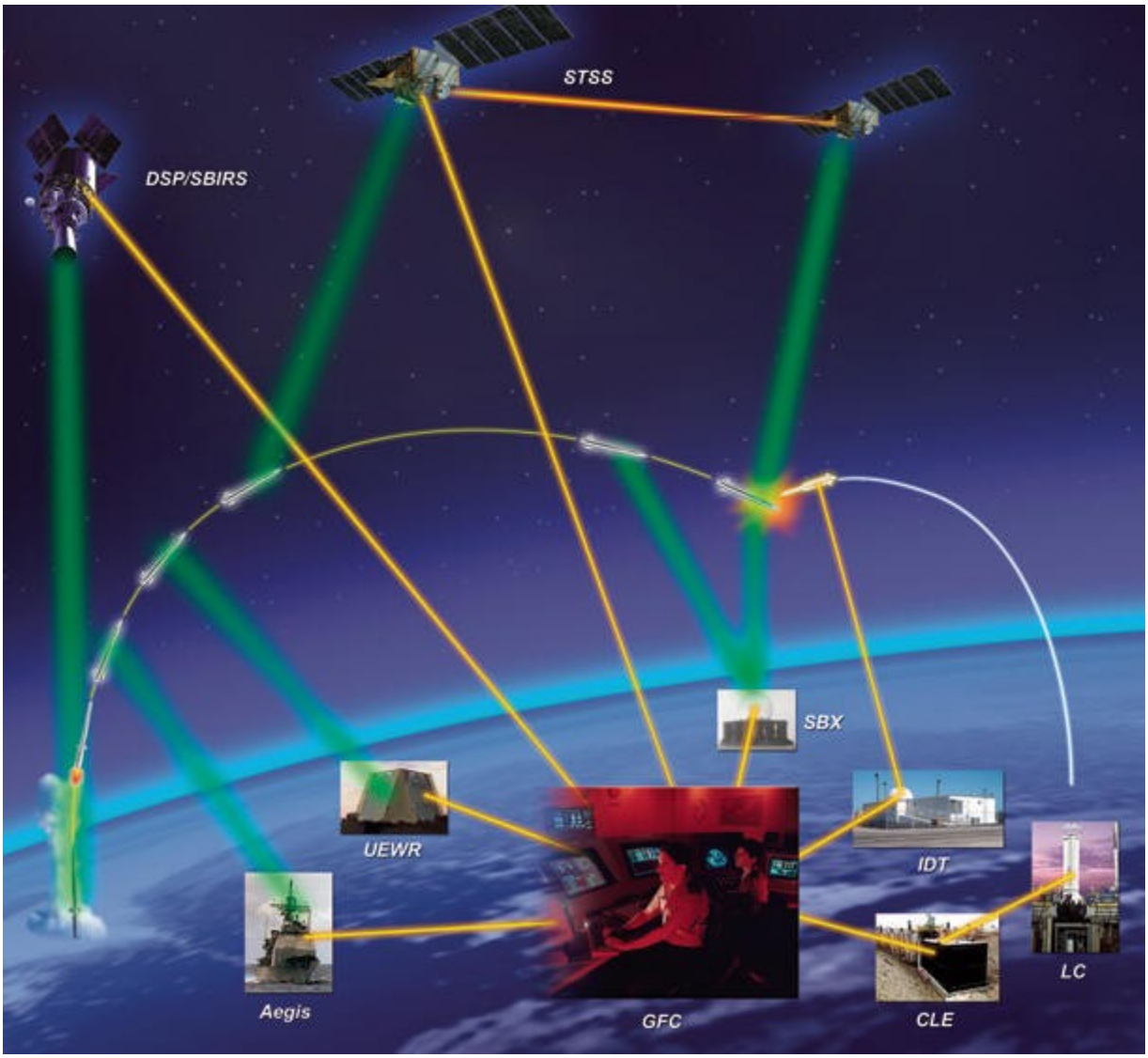
Missile Defense Agency History Office
7100 Defense Pentagon
Washington, D.C., 20301 · 7100

1 May 2008

http://www.bei-corp.com/table_of_contents.htm#Satellite%20Tracking%20and%20Phased%20Array%20Radar%20Examples

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

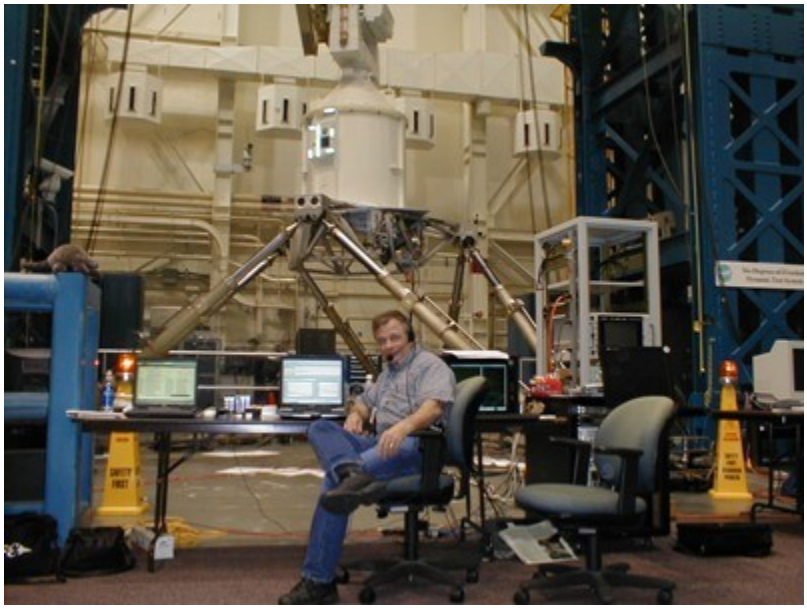
In January 2003, Dr. Brooks was requested by Northrop Grumman Mission Systems (NGMS) of Huntsville, AL to design algorithms to stabilize the SBX IDT antenna to permit precise pointing and tracking under severe wave motion conditions expected in the North Pacific.



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.

SBX at Kiewit yard, Ingleside, Texas 2005-06-28

http://www.aleutcorp.com/pdf/september2005.pdf

VOLUME 34 · ISSUE 5 www.aleutcorp.com

The Aleutian Current

Radar Platform Heads North

As many of you know by now, the Sea-Based X-Band Radar platform is making the long journey from the Gulf of Texas to Adak. Thankfully, the platform was not affected by Hurricane Katrina and should still arrive in Alaska around December of 2005. When the radar platform does arrive, it will not only mark a new era of military presence in Adak, but a rededication of people and resources that should benefit the island for years to come.

While the radar platform will be one of the most obvious changes to the landscape of Adak, it is only the beginning of new and exciting opportunities for the region. Once the platform arrives so too will the need for extra security, solid waste disposal, utilities generation and hazardous materials disposal. Someone has to administer those services. Some of the work may be delegated to subsidiaries of TAC; others may be managed by village corporations or simply entrepreneurs who see a new opportunity.

Already the TAC Board is considering ways to reward shareholders or descendents who have an interest in doing business on Adak. Free housing is an option, but there may be other creative ways to build up the population and expertise on Adak.

As you will read in the following article, others are beginning to take note of the changes taking place at Adak. This article originally ran in the Anchorage Daily News on August 1, 2005.

Floating radar station prepares to sail for Adak

By Paula Dobbyn, Daily News Reporter

A massive floating radar station that detects enemy missiles will sail soon to Adak, a remote island in the Aleutian chain owned in part by a regional Native corporation. The $815 million X-band radar platform is a key part of the Bush administration's multibillion-dollar missile defense program.

The sea-based radar platform – the only one of its kind in the world – was assembled in Texas by defense contractors Boeing and Raytheon. The self-propelled station sits 21 stories high and is as wide as a football field, rendering it too gigantic to squeeze through the Panama Canal, according to Boeing publicity materials. The converted oil platform with a space-age looking dome atop will take the long

route, rounding South America and heading to Hawaii before reaching Adak by Christmas or early next year.

When it reaches Adak, 1,200 miles southwest of Anchorage, the radar station will float just off the town, a former naval station that Aleut Corp. is redeveloping into a residential community and fishing port. The X-band radar will be linked to missile interceptors buried in underground silos at Fort Greely, near Delta Junction, and at Vandenberg Air Force Base in California.

Dave Jensen, chief executive of Anchoragebased Aleut Corp., which owns a chunk of Adak, flew to Corpus Christi, Texas, last week for the official christening of the radar platform.

Aleut Corp. successfully bid to have the X-band stationed at Adak, beating out Vandenburg as well as companies in Everett Wash., and Honolulu, said Curtis Smith, a spokesman for the company. Jensen said Aleut's success in getting the Xband marks a milestone, not just for his company or Adak but for the state.

"This is a monster project for Alaska," Jensen said.

The radar and the business it will spawn are a big step for Adak's redevelopment and economy, Jensen said. Up to 100 people will work inside the massive structure, all of whom will need to go ashore from time to time for goods, services and recreation.

"People will be going to the pub and the pizzeria," he said.

The Aleut Corp. and its subsidiaries expect to play a support role for the radar station, he said.

Aleut Technologies, a subsidiary, won a contract with Boeing to operate a huge tugboat, the Dove, that will move fuel and supplies between Adak and the X-band station year-round. The Dove and its 17 crew members will be stationed at one of Adak's docks, next to a fish plant operated by Adak Fisheries, Jensen said.

Aleut Corp., representing more than 3,000 Native shareholders with ties to the Aleutian Islands, acquired Adak from the federal government in March 2004 under a land trade. The company makes money from fuel sales, seafood processing, real estate and government contracting. It expects to post a record profit of nearly $11 million in 2005 once auditors sign off on the final numbers, Jensen said.

Chris Taylor, a spokesman for the Pentagon's Missile Defense Agency, said the X-band radar has undergone sea trials and may participate in missile flight tests after the platform leaves Corpus Christi, sometime in the next few weeks. The agency isn't releasing the exact date for security reasons, he said.

[deletia]

Daily News reporter Paula Dobbyn can be reached pdobbyn@adn.com or 257-4317.