

ALASKA STATE LEGISLATURE
HOUSE SPECIAL COMMITTEE ON ECONOMIC DEVELOPMENT, INTERNATIONAL
TRADE AND TOURISM

February 23, 2010

5:16 p.m.

MEMBERS PRESENT

Representative Jay Ramras, Chair
Representative Reggie Joule
Representative Mark Neuman
Representative Harry Crawford

MEMBERS ABSENT

Representative Mike Chenault
Representative Nancy Dahlstrom
Representative Kyle Johansen
Representative Lindsey Holmes
Representative Chris Tuck

COMMITTEE CALENDAR

OVERVIEW(S): STRENGTHENING THE ALASKAN ECONOMY - THE KETCHIKAN SHIPYARD~ BY DOUGLAS WARD~ DIRECTOR OF SHIPYARD DEVELOPMENT~ ALASKA SHIP & DRYDOCK; ADMIRAL TOM BARRETT, DEPUTY FEDERAL COORDINATOR, OFFICE OF THE FEDERAL COORDINATOR FOR ALASKA NATURAL GAS TRANSPORTATION PROJECTS.

- HEARD

PREVIOUS COMMITTEE ACTION

No previous action to record

WITNESS REGISTER

DOUG WARD, Director of Shipyard Development
Alaska Ship & Drydock (ASD)
Ketchikan, Alaska

POSITION STATEMENT: Gave a presentation on the Ketchikan Shipyard.

ADMIRAL TOM BARRETT, U.S. Coast Guard Retired; Deputy Federal Coordinator
Office of the Federal Coordinator
Alaska Natural Gas Transportation Projects

Anchorage, Alaska

POSITION STATEMENT: Testified during the hearing on Strengthening the Alaskan Economy.

DAVID SCOTT, Staff
Representative Kyle Johansen
Alaska State Legislature
Juneau, Alaska

POSITION STATEMENT: Answered questions during the hearing on Strengthening the Alaskan Economy.

ACTION NARRATIVE

[5:16:22 PM](#)

CHAIR JAY RAMRAS called the House Special Committee on Economic Development, International Trade and Tourism meeting to order at 5:16 p.m. Representatives Ramras, Crawford, and Neuman were present at the call to order. Representative Joule arrived as the meeting was in progress.

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OVERVIEW(S): STRENGTHENING THE ALASKAN ECONOMY - THE KETCHIKAN SHIPYARD, BY DOUGLAS WARD, DIRECTOR OF SHIPYARD DEVELOPMENT, ALASKA SHIP & DRYDOCK.

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CHAIR RAMRAS announced the first order of business would be a presentation by Doug Ward, Director of Shipyard Development, Alaska Ship & Drydock, on the Ketchikan Shipyard.

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DOUG WARD, Director of Shipyard Development, Alaska Ship & Drydock (ASD), informed the committee that Alaska Ship & Drydock is striving to provide not only cost reductions for Alaska's marine transportation system, but to help Southeast Alaska recover from the collapse of the timber industry and to form an industrial base in Ketchikan that will allow the state to participate in energy projects and resource development projects. The Ketchikan Shipyard is owned by the Alaska Industrial Development & Export Authority (AIDEA) in an effective public and private partnership between AIDEA, Alaska Ship & Drydock (ASD), and the City and Borough of Ketchikan. Mr. Ward described the effectiveness of the successful

partnership in that AIDEA is fulfilling its mission and, through the revenue sharing agreement, ASD is helping AIDEA contribute to the general fund.

CHAIR RAMRAS urged the representative from AIDEA to schedule a House Special Committee on Economic Development, International Trade and Tourism meeting to hear success stories about AIDEA projects.

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MR. WARD recalled that the Ketchikan shipyard was built by the state to help reduce the cost of operating the Alaska Marine Highway System (AMHS), and to provide economic diversification for the state by the addition of an industrial base for advanced manufacturing.

The committee took a brief at-ease for technical difficulties.

MR. WARD continued his presentation and said that planning for the shipyard began in the late 1970's to repatriate the funds spent to maintain and operate AMHS ships. Ketchikan was selected for the shipyard because of its location on the shipping route, its proximity to Seattle, and its protected, deep water port at Ward Cove. Furthermore, Ketchikan is the traditional industrial and transportation hub of Southeast. At the opening of the shipyard in 1987, planners recognized that the facility would become the AMHS winter maintenance facility, but would also need capacity for other ship works. One aspect of ship repair in Alaska is that it is a countercyclical industry, thus in the fall it creates a wintertime demand for employment. Since last year through this spring, ASD has performed \$9 million of AMHS repair work resulting in savings to the state of \$3.5 million over work done in Seattle.

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CHAIR RAMRAS asked whether there was there a real savings realized-beyond savings for transportation costs-over the price of work done in Seattle.

MR. WARD reminded the committee the shipyard must compete for federal, AMHS, and other commercial projects. For example, last February the M/V Lituya broke loose from its moorings and required repairs to its hull plating. The repairs were estimated at \$450,000, and he said the shipyard won the bid over Seattle shipyards on a "straight up basis." Another example is

the construction of the new Ketchikan International Airport ferry because ASD's bid of \$6 million saved the Ketchikan borough about \$1 million.

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CHAIR RAMRAS questioned the accuracy of the estimate.

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MR. WARD explained ASD could build the ferry for \$1 million less because it understands the procurement practices of the state, understands the logistics, and has a multi-skilled, globally competitive workforce that is more productive than those in the Lower 48. A third example was the Chevron Legacy refueling station built for Chevron Canada. Delivered in November, it is in-service and can be seen during the television broadcasts of the Olympic Winter Games from Vancouver, Canada. This was a fairly complex barge project involving many fuels and safety measures. Mr. Ward stressed the barge is registered with the "Made in Alaska" trademark, and it is one of the few Jones Act vessels the U.S. has exported in the last 50-60 years. In fact, the U.S. shipbuilding industry exports less than 1 percent of the global demand for commercial ships. The shipbuilding industry is successful in the export of military vessels, but not in the commercial market. Mr. Ward said the state, like Ketchikan, should be proud of exporting complicated manufactured products into the world market. He then called attention to the M/V Susitna, another "Made in Alaska" project, which is the ferry that will operate between Anchorage, the Matanuska-Susitna Borough, Tyonek, and Kenai. The ferry is an Office of Naval Research demonstrator vessel designed as part of the U.S. Navy's forward Seabasing Initiative that will have very large, floating structures stationed 100 nautical miles offshore. The M/V Susitna is designed as the "truck" that will carry marines and tanks from the stations through the surf and onto the shore. Mr. Ward described many of the capabilities and the innovative design-build engineering of the vessel; in fact, it has been described as "the most complicated ship to have been designed in 100 years."

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REPRESENTATIVE NEUMAN asked for the cost.

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MR. WARD said the cost was \$70 million. In further response to Representative Neuman, he said the ship was very expensive compared to other ferries. A lot of the cost went into the concept design, hull design, and the geometry and mechanisms to change configurations to meet military and sea trial benchmarks. The business model was to take military technology and transfer it into commercial markets. By building the ship in Alaska, ASD is learning innovative and advanced manufacturing practices and building a "purpose-built" tough ship that will work in Alaska, and demonstrate unique and new capabilities in the marine transportation market. Mr. Ward concluded the commercialization of the technologies surrounding the ship will give Alaska a "leg-up" on developing new vessels and marine transportation systems. Several slides of a PowerPoint presentation titled, "The Ketchikan Shipyard" showed the ship in its different configurations and he pointed out that the ship achieves stability at high speeds because its flotation remains underwater. However, to unload cargo on the beach, the cargo deck is lowered and the draft of the vessel is reduced from thirteen feet to three feet. In Alaska, the ability to load and unload on the beach means services can be delivered to villages, communities, and sites on the Arctic Ocean that do not have shore-side facilities.

Further, ASD manufactured pieces and parts for the ship that are similar to those needed for the off-shore oil and gas industry; for example, ASD has an in-line boring machine-the largest on the West Coast-that is now ready to work on large projects in the oil and gas industry.

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MR. WARD displayed slide 8 that showed the assembly of the Chevron Legacy modules on the lot. He pointed out that the shipyard has the capability to lift 250 foot long, 2,500 ton ships out of the water and into enclosed repair halls. He then turned to the construction of the airport ferry that will transport passengers and cars to and from the Ketchikan airport. Delivery of the ferry will be in the spring of 2011. The shipyard is also building AmphibAlaska, which is an amphibious truck that was designed in Ketchikan, and is capable of traveling 25 miles per hour on land and 30 knots in the water. The U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency are interested in this working vessel for beach erosion surveys, airport rescue, and fisheries restoration.

CHAIR RAMRAS, to illustrate the export potential of marine craft, informed the committee that Allen Marine of Sitka built 25 ferries that were used in New York to replace the collapsed subway system after the terrorist attacks of September 11, 2001.

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MR. WARD displayed slide 11 that was a schedule of shipyard career paths and major processes to develop a local workforce educated and trained in shipbuilding and advanced manufacturing. He opined the biggest strides to make in productivity are to increase the skills of laborers, and to establish a stable multi-skilled workforce in Ketchikan to build and repair ships. Infrastructure is not helpful without workers who can think, reason, and understand the purpose of their tasks. He provided a short history of the U.S. shipbuilding industry and efforts to strengthen the industry through skill standards developed by the National Shipbuilding Research Program (NSRP). Research in Japan and other countries revealed that shipyards complete ship construction, conversion, and repair through corrosion control, structural, mechanical, and electrical services. These processes are achieved by workers using fabrication, assembly, installation, and testing. ASD organized this research with the intention to take a new, nontraditional, Alaskan workforce and teach skills that are common to shipbuilding and other trades. After two years, workers move on to production training and learn a variety of skills. In addition, ASD is using a "training within industry" methodology developed during WWII that actively recruits women and minorities. Slide 12 showed highly skilled welders at work. Mr. Ward gave examples of successful training experiences for some of ASD's workers. The ASD workforce reflects the demographics of Ketchikan with 30 percent minority hire. Slide 13 showed the location of Ketchikan in the North American hemisphere. He concluded that Ketchikan builds purpose-built vessels to operate in the Arctic Ocean and the North Pacific, and works to support Alaska's upcoming energy and resource projects with advanced manufacturing.

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REPRESENTATIVE NEUMAN asked about training.

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MR. WARD noted that ASD is focused on structured, on-the-job training that does not take place in the classroom, but in the workplace, where learning is more effective.

CHAIR RAMRAS spoke of the lack of covered working areas to deal with 150 inches of annual rainfall in Ketchikan. He inquired as to what role Ketchikan could play in building Arctic-ready ships if it can demonstrate it is globally competitive from a quality and cost standpoint.

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MR. WARD responded ASD is reframing its 1999 development plan in light of the addition of \$38 million in new Federal Transit Administration (FTA) funds. Members of ASD management recently toured other shipyards to gauge large ship assembly and production halls. The next phase of development at ASD will be a very large assembly hall and production line. He opined this will create a globally competitive infrastructure; however, just as important as infrastructure is how the ships are built. ASD has a detailed plan to build ships that will be globally competitive; in fact, ASD anticipates the assembly line will be operating in time to bid for the \$120 million Alaska-Class ferry, and to build a fleet of modern ships to support the new industry along the outer continental shelf.

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CHAIR RAMRAS asked whether ASD has the capacity to grow and accommodate large orders, such as 100 amphibious trucks. Also, he inquired as to the effect of a large order on the company's employment base.

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MR. WARD responded that ASD now has 170 workers; within 10 years after the "build-out" of its development plan, ASD will support 306 direct ship building and repair jobs, and 200 indirect jobs, in Ketchikan. Nationwide, 1,100 permanent jobs will result from this investment. He advised that these jobs will replace the jobs lost by the closure of the pulp mill. In fact, the ships under construction now are the economic engine that will attract new investment and new vendors to support shipyard activity.

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CHAIR RAMRAS asked whether the development of the shipyard was tied to the presence of Mr. Ward.

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MR. WARD assured the committee that succession planning is part of ASD's plan. The company continues to recruit for skills in management, administration, and engineering. He spoke of a future grant to partner with the high school and its new advanced manufacturing center. The high school program uses software that will attract young people to engineering, green science, and ocean engineering.

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CHAIR RAMRAS asked about the demographics of the workforce at ASD.

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MR. WARD advised that the workforce of ASD will always reflect the demographics of Ketchikan and Alaska. However, the global shipbuilding industry is overcapitalized, and ASD receives many job applications from outside Alaska. ASD may hire a good candidate who is willing to move to Ketchikan and mentor apprentices. Of ASD's 170 employees, 30 percent are minority. Vendors are happy with the dedication of ASD's workers and there is no tension between outside vendors and shipyard workers.

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CHAIR RAMRAS announced that the committee would now hear testimony from Admiral Tom Barrett, Deputy Federal Coordinator, Office of the Federal Coordinator for Alaska Natural Gas Transportation Projects.

ADMIRAL TOM BARRETT, U.S. Coast Guard Retired; Deputy Federal Coordinator, Office of the Federal Coordinator, Alaska Natural Gas Transportation Projects, described his background in the Coast Guard and in private and public service related to pipeline safety and transportation. He expressed his belief in the natural gas pipeline project and his interest in supporting the economic development of the state.

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CHAIR RAMRAS described Admiral Barrett's trip to Ketchikan to visit the shipyard.

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ADMIRAL BARRETT stated that the pipeline is not a "corridor issue up in the north," but has implications and opportunities for industrial capabilities statewide. It is important for his office to review capabilities around the state, such as the shipyard in Ketchikan, relative to the gas line project. He expressed his interest in workforce issues as they are also enormously important to the project and to the state. Admiral Barrett advised that the Alaska Works Partnership, Inc., Pipeline Training Center in Fairbanks is "a very solid step" toward getting a workforce capable of working effectively in the oil and gas industry. The state must attract, train, and retain a qualified workforce. Furthermore, the Arctic region will be of interest for the next 20-50 years with developments in ocean engineering, marine engineering, and shipping. Admiral Barrett reminded the committee that the M/V Susitna is an Arctic-class vessel built to operate in cold weather, ice, and cold water conditions. The vessel must also deal with moving heavy equipment in shallow conditions, and rivers, and to coastal communities without docks. At the shipyard he observed a variety of work such as the construction of new, high-tech ships, ship repair on the M/V Lituya and M/V Taku, ship repair on a commercial fishing vessel, heavy duty fabrication, and industrial fabrication. He listed details on the specifications of the M/V Susitna and the methods of its construction.

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ADMIRAL BARRETT recognized the Ketchikan shipyard for its innovative modular construction because that is "how modern shipyards work." The Ketchikan shipyard demonstrated: high quality in construction to tolerances of 1/32 of an inch, or better; the use of variable strengths of steel; the use of stainless steel; auto-welding; involvement in the design-build of the M/V Susitna; efficient handling of materials; efficient logistics of the two dry docks; flexibility of the docks; and the use of a rail system to move ships to sheltered areas for work.

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ADMIRAL BARRETT, returning to the subject of a workforce, said he heard that the shipyard has partnered with the school district to bring back welding at the high school through apprenticeships. He encouraged further partnering between the

education system and business. Lastly, he relayed that the attention to quality at the shipyard was good. Shipyard operators and customers require this to save costs and avoid re-work. Admiral Barrett concluded that the shipyard is a learning, growing activity with some great skill sets, and a strategy to move forward. In general, shipyards need a balance of government contract work and commercial work, and the Ketchikan shipyard appears to be adaptive to the future market environment.

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CHAIR RAMRAS agreed and asked for the Admiral's opinion on the future of the Arctic, and Alaska's strategic relationship to the Arctic as the nearest Arctic port.

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ADMIRAL BARRETT stated that because the Arctic is an ocean, firstly, there are maritime issues, and secondly, more activities are taking place. There are also enormous energy and fish resources and a growing interest in tourism. In addition, indigenous people have a presence in the Arctic with cultural, well-being, and security issues. Opportunities for development must simultaneously protect the environment and the Native people. Admiral Barrett cautioned that there are many misconceptions about the Arctic and about open water. Ocean melting means there is less ice, but vessels will still operate in ice for environmental responses and oil spill recovery. It is important to be adaptive, with Alaska at the epicenter of the convergence of tough issues and opportunities for the U.S.

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ADMIRAL BARRETT, in further response to Chair Ramras, said interest in the Arctic will steadily increase for decades, although the initial interest in transportation is related to energy. However, Canadian authorities have reported an increase in small passenger vessels transiting to the Northwest Territories. He warned that the U.S. will not be alone in energy development in the Beaufort Sea.

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CHAIR RAMRAS asked for information regarding Arctic-class ships.

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ADMIRAL BARRETT was unable to provide specific information on this market; however, he said there are many types of ships such as ice holding and ice strengthening for tankers. Arctic vessels will vary with the type of ship; in fact, "Arctic classing" under international standards is tied to a specific type of vessel. Standards are well-defined and specific, thus are different for a general cargo barge and a petroleum tanker. The market for Arctic ships is growing, and although the Ketchikan shipyard will not be able to build a drilling platform, there will be a market for smaller vessels and ships. Furthermore, the experience gained during the construction of the M/V Susitna is valuable for this evolving market.

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CHAIR RAMRAS asked how a shipyard develops a reputation.

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ADMIRAL BARRETT opined reputation is driven by repeat customers and products that are built on time, on budget, and to the standards in the specifications. Shipyards build a reputation based on performance. The reputation of the Ketchikan shipyard is evolving and he asked whether ASD surveys its customers.

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MR. WARD reported that ASD's largest customer, AMHS, has confidence in the yard to repair and build its vessels. Also, two panels of the NSRP visited ASD and declared the welds on the M/V Susitna were superior. ASD also received good reports from the environmental panel of the same organization. He expressed his belief that ASD has a "pretty dog-gone good reputation."

ADMIRAL BARRETT acknowledged that environmental issues are important to a shipyard and to his knowledge the Ketchikan shipyard had no environmental violations. Another factor of reputation comes in when bids are for best value, and not just for the lowest bid, because a shipyard's performance record is considered in the award.

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MR. WARD added that for the expansion of the shipyard, AIDEA is preparing an alternative procurement process called Construction Management General Contractor. This "special experiment"

alternative procurement process takes into account reputation and the ability to meet schedules and standards. Furthermore, he understood that the Department of Transportation & Public Facilities (DOT&PF) will be using a similar process to solicit bids for the construction of the Alaska-class ferry.

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ADMIRAL BARRETT advised that most effective federal contracts have an incentive.

MR. WARD, on behalf of the employees of ASD, thanked the committee.

CHAIR RAMRAS asked what the development of the shipyard has meant to the displaced workers of Ketchikan after the mill shut down.

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DAVID SCOTT, Staff, Representative Kyle Johansen, Alaska State Legislature, opined the jobs created at ASD bring pride and a sense of purpose to those who work there.

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CHAIR RAMRAS then asked how an expansion to 1,100 jobs would affect the community of Ketchikan.

MR. SCOTT said it would be like the old days in some ways, and "more jobs are better."

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ADJOURNMENT

There being no further business before the committee, the House Special Committee on Economic Development, International Trade and Tourism meeting was adjourned at 6:46 p.m.