

Ketchikan Marine Industry Council

Ketchikan Marine Industry Council:  
Report on Composition of the  
Maritime Industry Sector

Desktop

2012



## Initial Ketchikan Marine Industry Council Industry Definition List

### **Ketchikan Marine Industry Council**

The Ketchikan Marine Industry Council (KMIC) is an industry-led initiative established in 2012 to support growth and expansion of Ketchikan's diverse maritime economy. KMIC is a "self-identified maritime industry cluster" which is organized, led, and funded by some of the largest private sector employers within the Ketchikan-region maritime industry. Supplemental funding support is provided by local government. KMIC utilizes an industry-led approach to economic development and workforce development, drawing upon the experience and talent of private sector's executive leadership to respond effectively to private sector trends and demand. This approach contrasts with non-profit and/or government-led economic development initiatives with limited private sector funding or participation.<sup>1</sup>

### **Industry Direction**

The State of Alaska has over 33,000 miles of coastline. Nearly all commercial and industrial activity within the state is maritime-reliant. Key State and National strategic priorities, including offshore energy development, arctic preparedness, light and heavy rare earth supplies, and national defense depend upon an effective maritime sector. In spite of these conditions, Alaska's maritime industry remains poorly defined and understood.

KMIC responded to the need to define Alaska's maritime industry by conducting a study which surveys, analyzes, and catalogues a comprehensive range of industry segments comprising Alaska's maritime industry cluster.

### **Maritime Industry Sector Research**

KMIC staff conducted a review of business, academic, government, and trade association resources (ex: port directories, maritime technology magazines, professional associations) and consulted with private sector leadership to assess the range of industries comprising the maritime industry sector. KMIC identified and inventoried maritime industry clusters and businesses associations located around the world, as well as within each of the US's coastal states, and reviewed the industry types comprising each cluster. An initial list of nine broad industry subcategories was produced: Transportation; Shipbuilding and Repair; Marine Vendor Base; Marine Construction; Marine Logistics; Marine Safety / Environmental; Marine Professional Services; Ports, Harbors, and Infrastructure; and Allied Industries.

KMIC staff worked with State of Alaska Department of Commerce CSV datasets for business licenses issued to private sector employers within the Ketchikan area. An initial set of approximately 200 maritime and maritime-related businesses were selected. In the State of Alaska, businesses applying for a business license are asked to self-identify their business type by selecting one or two six digit code categories within the North American Industries Classification System (NAICS). KMIC staff compiled a list of all NAICS codes self-reported by Ketchikan's maritime industry businesses. Errors and unrelated categories were eliminated. The end result was a preliminary list of 134 NAICS code

categories representative of Ketchikan's maritime industry cluster. This list was expanded through a keyword search of the US Census Bureau's NAICS database to include additional 6-digit NAICS categories, as well as parent categories representative of the maritime industry sector.<sup>ii</sup> 166 total 6-digit code categories were identified within 17 2-digit parent categories.

Ketchikan's maritime industry sector is consistent with Michael Porter's characterizations of "broad clusters," which are strengthened through significant overlap with diverse industry sectors (166 6-digit categories identified within 17 2-digit parent categories), and "traded industries" (such as manufacturing – 44 6-digit categories), which register higher wages, innovation, and influence on local wages than historically resource-dependent clusters.

### Observations on Maritime Industry Characteristics

- The maritime industry cluster overlaps significantly with and supports marine-reliant industry clusters, including mining, oil/gas, and energy development; industry sectors which tend to produce the highest wages, and the largest "multiplier effects" (indirect/induced benefits). This synergy should be taken into account when describing or quantifying the economic impacts of maritime industry sector activity.
- The maritime industry sector has a significant manufacturing component, comprised of 44 6-digit NAICS categories. (Table 3.)
- Ketchikan's maritime industry sector is consistent with Michael Porter's characterizations of "broad clusters," which are strengthened through significant overlap with diverse industry sectors (166 6-digit categories identified within 17 2-digit parent categories), and "traded industries" (such as manufacturing – 44 6-digit categories), which register higher wages, innovation, and influence on local wages than historically resource-dependent clusters.<sup>iii</sup>
- Economist Michael Porter advocates for development and use of consistent methodologies for defining and growing industry clusters, expressing that: "A major constraint to the analysis of clusters has been the lack of a systematic approach to defining the industries that should be included in each cluster and the absence of consistent empirical data on cluster composition..."<sup>iv</sup> The NAICS taxonomy is organized in a manner which is poorly suited to providing a cohesive portrait of the maritime industry sector. A new system of categorization / representation is needed to provide a more cohesive, user-friendly portrait of the diversity of the maritime industry sector. Identification of the spectrum of NAICS codes comprising the maritime industry is a first step towards developing more useful and effective representations of industry composition.
- In the State of Alaska, businesses self-report NAICS coding as a *pro forma* component of the business license application process. Businesses which are

disinterested in or do not have time to invest in searching and understanding NAICS taxonomy oftentimes self-report incorrectly; this was apparent in a number of instances within the State Department of Commerce’s dataset for Ketchikan-area businesses.

- Government agencies analyze, organize, and process some business data by NAICS code. Incorrect NAICS self-reporting results in inaccurate data compilation and analysis. A greater range of qualitative and quantitative tools (industry surveys, employer interviews, etc.) is necessary to provide more meaningful understandings of business climate, and industry need.
- “Life at sea” requires use the same spectrum of supplies, services, and technology required to support life on land... and then some. Accordingly, the supply chain needs of the maritime industry sector reach into virtually all industry sectors. Some of the most significant supply chain needs are reflected in the NAICS code listing below.

**Table 1: Maritime Sector Penetration into NAICS Industry Categories -- 2-Digit Code**

11	Agriculture, Forestry, Fishing and Hunting
21	Mining, Quarrying, and Oil and Gas Extraction
22	Utilities
23	Construction
31	Manufacturing
42	Wholesale Trade
44	Retail Trade
48	Transportation and Warehousing
51	Information
52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
71	Arts, Entertainment, and Recreation
81	Other Services (except Public Administration)
92	Public Administration

**Table 2: NAICS Code List for the Maritime Industry Sector**

Marine Transportation and Logistics	48 -- TRANSPORTATION AND WAREHOUSING
	484230 -- BOAT HAULING, TRUCK, LONG-DISTANCE
	484230 – SPECIALIZED FREIGHT TRUCKING, LONG DISTANCE
	488320 – MARINE CARGO HANDLING SERVICES
	488330 - NAVIGATIONAL SERVICES TO SHIPPING (INCLUDES CARGO SALVAGING, MARINE; DOCKING AND UNDOCKING MARINE VESSEL SERVICES; MARINE SALVAGING SERVICES; MARINE VESSEL TRAFFIC REPORTING SERVICES)
	488390 - OTHER SUPPORT ACTIVITIES FOR WATER TRANSPORTATION (INCLUDES CARGO SURVEYORS, CHECKERS, MARINE)
	488510 - FREIGHT TRANSPORTATION ARRANGEMENT (INCLUDES MARINE SHIPPING AGENCY)
	488999 - ALL OTHER SUPPORT ACTIVITIES FOR TRANSPORTATION
	53 -- REAL ESTATE AND RENTAL AND LEASING
	532292 -- BOAT RENTAL, PLEASURE
	54 -- PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES
	541614 – PROCESS, PHYSICAL DISTRIBUTION AND LOGISTICS SERVICES
SHIPBUILDING AND REPAIR (Includes Boatbuilding)	23 -- CONSTRUCTION
	238320 -- SHIP PAINTING CONTRACTORS
	238350 -- SHIP JOINERY CONTRACTORS
	325 -- CHEMICAL MANUFACTURING
	325510 -- MARINE PAINTS MANUFACTURING
	332 -- FABRICATED METAL PRODUCT MANUFACTURING
	332312 – SHIP SECTIONS, PREFABRICATED METAL, MANUFACTURING [INCLUDES BOAT SECTIONS]
	333 -- MACHINERY MANUFACTURING
	333612 -- SPEED CHANGER, INDUSTRIAL HIGH-SPEED DRIVE, AND GEAR MANUFACTURING
	333618 -- MARINE ENGINES MANUFACTURING
	336 -- TRANSPORTATION EQUIPMENT MANUFACTURING
	336611 -- SHIP BUILDING AND REPAIRING (INCLUDES ALL VESSEL TYPES)
	336612 – BOAT BUILDING [INCLUDES ALL TYPES]
	54 -- PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES
	541330 – BOAT ENGINEERING DESIGN SERVICES (INCLUDES MARINE ENGINEERING SERVICES)
MARINE VENDOR	23 -- CONSTRUCTION

BASE	
	238210 -- ELECTRICAL CONTRACTORS AND OTHER WIRING INSTALLATION CONTRACTORS
	238220 -- PLUMBING, HEATING, AND AIR-CONDITIONING CONTRACTORS / COMMERCIAL REFRIGERATION
	31 -- MANUFACTURING
	314912 -- SAILS MADE FROM PURCHASED FABRICS
	325 -- CHEMICAL MANUFACTURING
	325191 -- NAVAL STORES, GUM OR WOOD, MANUFACTURING
	331 -- PRIMARY METAL MANUFACTURING
	331111 -- IRON AND STEEL MILLS
	331210 -- IRON AND STEEL PIPE AND TUBE MANUFACTURING FROM PURCHASED STEEL
	331221-- ROLLED STEEL SHAPE MANUFACTURING
	331311 -- ALUMINA REFINING
	331314 -- SECONDARY SMELTING AND ALLOYING OF ALUMINUM
	331315 -- ALUMINUM SHEET, PLATE, AND FOIL MANUFACTURING
	331319 -- SHIPBOARD CABLE MADE IN ALUMINUM WIRE DRAWING PLANTS
	331422 -- SHIPBOARD CABLE MADE FROM PURCHASED COPPER IN WIRE DRAWING PLANTS
	331512 -- STEEL INVESTMENT FOUNDRIES
	331521 -- ALUMINUM DIE-CASTING FOUNDRIES
	331525 -- SHIP AND BOAT PROPELLERS, CAST BRASS, BRONZE AND COPPER (EXCEPT DIE-CASTING), UNFINISHED, MANUFACTURING
	332 -- FABRICATED METAL PRODUCT MANUFACTURING
	332313 -- PLATE WORK MANUFACTURING
	332322 -- SHEET METAL WORK MANUFACTURING
	332410 -- MARINE POWER BOILERS MANUFACTURING
	332420 -- METAL TANK (HEAVY GAUGE) MANUFACTURING
	332510 -- MARINE HARDWEAR, METAL, MANUFACTURING
	332710 -- MACHINE SHOPS
	332995 -- NAVAL ARTILLERY MANUFACTURING
	332999 -- ALL OTHER MISCELLANEOUS FABRICATED METAL PRODUCT MANUFACTURING (INCLUDES MARINE HORNS, COMPRESSED AIR OR STEAM, METAL, MANUFACTURING)
	333 -- MACHINERY MANUFACTURING
	333298 -- ALL OTHER INDUSTRIAL MACHINE MANUFACTURING
	333923 -- BOAT LIFTS MANUFACTURING / SHIP CRANES AND DERRICKS MANUFACTURING
	333992 -- WELDING AND SOLDERING EQUIPMENT MANUFACTURING
	334 -- COMPUTER AND ELECTRONIC PRODUCT MANUFACTURING
	334220 -- MARINE RADIO COMMUNICATIONS EQUIPMENT
	334290 -- SIRENS (E.G., AIR RAID, INDUSTRIAL, MARINE, VEHICLE)

	MANUFACTURING
	334511 – NAUTICAL SYSTEMS AND INSTRUMENTS MANUFACTURING
	334513 -- BOILER CONTROLS, INDUSTRIAL, POWER, AND MARINE-TYPE, MANUFACTURING
	335 -- ELECTRICAL EQUIPMENT, APPLIANCE, AND COMPONENT MANUFACTURING
	335314 -- MARINE AND NAVY AUXILIARY CONTROLS, MANUFACTURING
	335911 -- MARINE STORAGE BATTERIES MANUFACTURING
	336 -- TRANSPORTATION EQUIPMENT MANUFACTURING
	336214 -- BOAT TRANSPORTER TRAILERS, SINGLE-UNIT, MANUFACTURING
	336321 -- BOAT AND SHIP LIGHTING FIXTURES MANUFACTURING
	336999 – MANUFACTURING
	337 -- FURNITURE AND RELATED PRODUCT MANUFACTURING
	337127 -- SHIP FURNITURE MANUFACTURING
	339 -- MISCELLANEOUS MANUFACTURING
	339920 -- SAILBOARDS MANUFACTURING
	42 -- WHOLESALE TRADE
	423510 – METAL SERVICE CENTERS AND OTHER METAL MERCHANT WHOLESALERS
	423610 – ELECTRICAL APPARATUS AND EQUIPMENT, WIRING SUPPLIES, RELATED EQUIPMENT MERCHANT WHOLESALERS
	423620 – ELECTRICAL AND ELECTRONIC APPLIANCE, TELEVISION, AND RADIO SET MERCHANT WHOLESALERS
	423690 – COMMUNICATIONS EQUIPMENT MERCHANT WHOLESALER
	423710 – HARDWARE MERCHANT WHOLESALERS
	423720 – PLUMBING AND HEATING EQUIPMENT AND SUPPLIES (HYDRONICS) MERCHANT WHOLESALERS
	423740 – REFRIGERATION EQUIPMENT AND SUPPLIES MERCHANT WHOLESALERS
	423810 - CONSTRUCTION AND MINING (EXCEPT OIL WELL) MACHINERY AND EQUIPMENT MERCHANT WHOLESALERS
	423830 – INDUSTRIAL MACHINERY AND EQUIPMENT MERCHANT WHOLESALER
	423840 – INDUSTRIAL SUPPLIES MERCHANT WHOLESALERS
	423860 -- MARINE SUPPLIES (EXCEPT PLEASURE) MERCHANT WHOLESALERS [INCLUDES SHIPS, BOATS, ENGINES, AND OTHER TRANSPORTATION EQUIPMENT]
	423910 -- MARINE SUPPLIES, PLEASURE, MERCHANT WHOLESALERS [INCLUDES SHIPS, BOATS, ENGINES, AND OTHER TRANSPORTATION EQUIPMENT]
	424710 – PETROLEUM BULK STATIONS AND TERMINALS
	424720 – PETROLEUM AND PETROLEUM PRODUCTS MERCHANT WHOLESALERS
	424990 -- SHIP CHANDLER MERCHANT WHOLESALERS
	44 -- RETAIL TRADE
	441221 – MOTORCYCLE, TV, AND PERSONAL WATERCRAFT DEALERS
	441222 – BOAT DEALERS (INCLUDES MARINE SUPPLY DEALERS)
	444130 – HARDWARE STORES
	444190 -- OTHER BUILDING MATERIAL DEALERS
332999	444210 – OUTDOOR POWER EQUIPMENT SALES

	447190 – OTHER GASOLINE STATIONS (INCLUDES MARINE SERVICE STATIONS)
	451 SPORTING GOODS, HOBBY, BOOK, AND MUSIC STORES
	451110 - SPORTING GOODS STORES
	454 -- NONSTORE RETAILERS
	454319 – OTHER FUEL DEALERS
	53 -- REAL ESTATE AND RENTAL AND LEASING
	532411 -- COMMERCIAL AIR, RAIL, AND WATER TRANSPORTATION EQUIPMENT RENTAL AND LEASING
	532412 -- CONSTRUCTION, MINING, AND FORESTRY MACHINERY AND EQUIPMENT RENTAL AND LEASING
	532490 -- OTHER COMMERCIAL AND INDUSTRIAL MACHINERY AND EQUIPMENT RENTAL AND LEASING
	54 -- PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES
	541420 – INDUSTRIAL DESIGN SERVICES
	81 -- OTHER SERVICES (EXCEPT PUBLIC ADMINISTRATION)
	811213 – COMMUNICATION EQUIPMENT REPAIR AND MAINTENANCE
	811219 – OTHER ELECTRONIC AND PRECISION EQUIPMENT REPAIR AND MAINTENANCE
	811310 - COMMERCIAL AND INDUSTRIAL MACHINERY AND EQUIPMENT (EXCEPT AUTOMOTIVE AND ELECTRONIC) REPAIR AND MAINTENANCE
MARINE SAFETY / ENVIRONMENTAL	54 -- PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES
	541620 -- ENVIRONMENTAL CONSULTING SERVICES
	56 -- ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES
	562910 – ENVIRONMENTAL REMEDIATION SERVICES
Marine Civil Construction	23 -- CONSTRUCTION
	236210 -- INDUSTRIAL BUILDING CONSTRUCTION
	236220 -- COMMERCIAL AND INSTITUTIONAL BUILDING CONSTRUCTION
	237130 -- CABLE LAYING / ALTERNATIVE ENERGY (E.G., GEOTHERMAL, MARINE, TELEVISION, TELEPHONE, OCEAN WAVE, SOLAR, WIND) STRUCTURE CONSTRUCTION
	237990 -- MARINE CONSTRUCTION [ ALL TYPES]
	321 -- WOOD PRODUCT MANUFACTURING
	321114 -- PILINGS, FOUNDATION, AND MARINE CONSTRUCTION, TREATING
Marine Professional Services	42 -- WHOLESALE TRADE
	423930 -- SHIP DISMANTLING (EXCEPT AT FLOATING DRYDOCKS AND SHIPYARDS) MERCHANT WHOLESALERS
	51 -- INFORMATION
	517210 -- SHIP-TO-SHORE BROADCASTING COMMUNICATION CARRIERS, EXCEPT SATELLITE



	52 -- FINANCE AND INSURANCE
	522110 – COMMERCIAL BANKING
	522120 – SAVINGS INSTITUTIONS
	522130 – CREDIT UNIONS
	522190 – OTHER DEPOSITORY CREDIT INTERMEDIATION
	522220 – SALES FINANCING
	522291 – CONSUMER LENDING
	523110 – INVESTMENT BANKING AND SECURITIES DEALING
	524126 – DIRECT PROPERTY AND CASUALTY INSURANCE CARRIERS (INCLUDES MARINE INSURANCE CARRIERS, DIRECT)
	524127 – DIRECT TITLE INSURANCE CARRIERS
	524130 -- MARINE REINSURANCE CARRIERS
	524210 – INSURANCE AGENCIES AND BROKERAGES
	54 -- PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES
	541110 – OFFICES OF LAWYERS
	541199 -- ALL OTHER LEGAL SERVICES
	541330 -- ENGINEERING SERVICES
	541340 -- DRAFTING SERVICES
	541360 -- GEOPHYSICAL SURVEYING AND MAPPING SERVICES
	541370 -- SURVEYING AND MAPPING (EXCEPT GEOPHYSICAL) SERVICES
	541712 -- OCEANOGRAPHIC RESEARCH AND DEVELOPMENT LABORATORIES OR SERVICES
	541990 -- ALL OTHER PROFESSIONAL, SCIENTIFIC, AND TECHNICAL SERVICES (INCLUDES MARINE SURVEYOR SERVICES)
	56 -- ADMINISTRATIVE AND SUPPORT AND WASTE MANAGEMENT AND REMEDIATION SERVICES
	561990 -- ALL OTHER SUPPORT SERVICES
Ports, Harbors, and Infrastructure	22 -- UTILITIES
	221111 -- HYDROELECTRIC POWER GENERATION
	221119 -- OTHER ELECTRIC / POWER GENERATION
	221122 -- ELECTRIC POWER DISTRIBUTION
	23 -- CONSTRUCTION
	238990 -- BOAT LIFT INSTALLATION
	48 -- TRANSPORTATION AND WAREHOUSING
	488310 -- PORT AND HARBOR OPERATIONS
	493 -- WAREHOUSING AND STORAGE
	493110 -- GENERAL WAREHOUSING AND STORAGE
	493120 – REFRIGERATED WAREHOUSING AND STORAGE
	493190 -- OTHER WAREHOUSING AND STORAGE
	53 -- REAL ESTATE AND RENTAL AND LEASING

	531120 -- DOCK AND ASSOCIATED BUILDING RENTAL OR LEASING
Allied Industries	71 -- ARTS, ENTERTAINMENT, AND RECREATION
	11 -- AGRICULTURE, FORESTRY, FISHING AND HUNTING
	112512 -- SHELLFISH FARMING
	112519 -- OTHER AQUACULTURE
	114111 -- FINFISH FISHING
	114112 -- SHELLFISH FISHING
	114119 -- OTHER MARINE FISHING
	21 MINING, QUARRYING, AND OIL AND GAS EXTRACTION
	211111 NATURAL GAS, OFFSHORE PRODUCTION / OFFSHORE CRUDE PETROLEUM PRODUCTION
	213111 – DRILLING OIL AND GAS WELLS
	213112 – SUPPORT ACTIVITIES FOR OIL AND GAS OPERATIONS
	213113 – SUPPORT ACTIVITIES FOR COAL MINING
	213114 – SUPPORT ACTIVITIES FOR METAL MINING
	213115 – SUPPORT ACTIVITIES FOR NONMETALLIC MINERALS
	23 -- CONSTRUCTION
	237120 -- OIL AND GAS PIPELINE AND RELATED STRUCTURES CONSTRUCTION
	31 -- MANUFACTURING
	311711 -- SEAFOOD CANNING (INCLUDES FISH AND MARINE ANIMAL OILS PRODUCED IN A CANNERY)
	311712 -- FRESH AND FROZEN SEAFOOD PROCESSING
	324 -- PETROLEUM AND COAL PRODUCTS MANUFACTURING
	324110 – PETROLEUM REFINERIES
	333 -- MACHINERY MANUFACTURING
	333132 -- OIL AND GAS FIELD-TYPE DRILLING MACHINERY AND EQUIPMENT (EXCEPT OFFSHORE FLOATING PLATFORMS) MANUFACTURING
	42 -- WHOLESALE TRADE
	424460 - FISH AND SEAFOOD MERCHANT WHOLESALERS
	44 RETAIL TRADE
	445220 -- FISH AND SEAFOOD MARKETS
	48 -- TRANSPORTATION AND WAREHOUSING
	481111 -- SCHEDULED PASSENGER AIR TRANSPORTATION
	481211 -- NONSCHEDULED CHARTERED PASSENGER AIR TRANSPORTATION
	486110 -- PIPELINE TRANSPORTATION OF CRUDE OIL
	486210 -- PIPELINE TRANSPORTATION OF NATURAL GAS
	486910 -- PIPELINE TRANSPORTATION OF REFINED PETROLEUM PRODUCTS
	486990 -- ALL OTHER PIPELINE TRANSPORTATION
	488119 – OTHER AIRPORT OPERATIONS
	488190 -- OTHER SUPPORT ACTIVITIES FOR AIR TRANSPORTATION
	61 -- EDUCATIONAL SERVICES
	611310 – COLLEGES, UNIVERSITIES, AND PROFESSIONAL SCHOOLS



321114 -- PILINGS, FOUNDATION, AND MARINE CONSTRUCTION, TREATING
324110 -- PETROLEUM REFINERIES
325191 -- NAVAL STORES, GUM OR WOOD, MANUFACTURING
325510 -- MARINE PAINTS MANUFACTURING
331111 -- IRON AND STEEL MILLS
331210 -- IRON AND STEEL PIPE AND TUBE MANUFACTURING FROM PURCHASED STEEL
331221-- ROLLED STEEL SHAPE MANUFACTURING
331311 -- ALUMINA REFINING
331314 -- SECONDARY SMELTING AND ALLOYING OF ALUMINUM
331315 -- ALUMINUM SHEET, PLATE, AND FOIL MANUFACTURING
331319 -- SHIPBOARD CABLE MADE IN ALUMINUM WIRE DRAWING PLANTS
331422 -- SHIPBOARD CABLE MADE FROM PURCHASED COPPER IN WIRE DRAWING PLANTS
331512 -- STEEL INVESTMENT FOUNDRIES
331521 -- ALUMINUM DIE-CASTING FOUNDRIES
331525 -- SHIP AND BOAT PROPELLERS, CAST BRASS, BRONZE AND COPPER (EXCEPT DIE-CASTING), UNFINISHED, MANUFACTURING
332312 -- FABRICATED STRUCTURAL METAL MANUFACTURING
332313 -- PLATE WORK MANUFACTURING
332322 -- SHEET METAL WORK MANUFACTURING
332410 -- MARINE POWER BOILERS MANUFACTURING
332420 -- METAL TANK (HEAVY GAUGE) MANUFACTURING
332510 -- MARINE HARDWEAR, METAL, MANUFACTURING
332710 -- MACHINE SHOPS
332995 -- NAVAL ARTILLERY MANUFACTURING
332999 -- ALL OTHER MISCELLANEOUS FABRICATED METAL PRODUCT MANUFACTURING (INCLUDES MARINE HORNS, COMPRESSED AIR OR STEAM, METAL, MANUFACTURING)
333132 -- OIL AND GAS FIELD-TYPE DRILLING MACHINERY AND EQUIPMENT (EXCEPT OFFSHORE FLOATING PLATFORMS) MANUFACTURING
333298 -- ALL OTHER INDUSTRIAL MACHINE MANUFACTURING
333612 -- SPEED CHANGER, INDUSTRIAL HIGH-SPEED DRIVE, AND GEAR MANUFACTURING
333618 -- MARINE ENGINES MANUFACTURING
333992 -- WELDING AND SOLDERING EQUIPMENT MANUFACTURING
334220 -- MARINE RADIO COMMUNICATIONS EQUIPMENT
334290 -- SIRENS (E.G., AIR RAID, INDUSTRIAL, MARINE, VEHICLE) MANUFACTURING
334511 -- NAUTICAL SYSTEMS AND INSTRUMENTS MANUFACTURING
334513 -- BOILER CONTROLS, INDUSTRIAL, POWER, AND MARINE-TYPE, MANUFACTURING
335314 -- MARINE AND NAVY AUXILIARY CONTROLS, MANUFACTURING
335911 -- MARINE STORAGE BATTERIES MANUFACTURING
336214 -- BOAT TRANSPORTER TRAILERS, SINGLE-UNIT, MANUFACTURING
336321 -- BOAT AND SHIP LIGHTING FIXTURES MANUFACTURING

336611 -- SHIP BUILDING AND REPAIRING (INCLUDES ALL VESSEL TYPES)
336612 -- BOAT BUILDING [INCLUDES ALL TYPES]
336999 -- MANUFACTURING
337127 -- SHIP FURNITURE MANUFACTURING
339920 -- SAILBOARDS MANUFACTURING

**Table 4: Marine Initiative Catalogue**

<b>Name</b>	<b>Link</b>	<b>Type</b>
Southeast Conference Transportation Committee	<a href="http://www.seconference.org">www.seconference.org</a>	Alaska
Southeast Conference CEDS	<a href="http://www.seconference.org">www.seconference.org</a>	Alaska
Marine Exchange of Alaska	<a href="http://www.mxak.org/home/members.html">http://www.mxak.org/home/members.html</a>	Alaska
Alaska Association of Harbormasters and Port Administrators	<a href="http://www.alaskaharbors.org">www.alaskaharbors.org</a>	Alaska
SEAPRO	<a href="http://www.seapro.org/">http://www.seapro.org/</a>	Alaska
CHADUX	<a href="http://www.chadux.com/">http://www.chadux.com/</a>	Alaska
Homer Marine Trades (AK)	<a href="http://www.homermarinetrades.com/">http://www.homermarinetrades.com/</a>	Alaska
Chamber of Shipping of British Columbia	<a href="http://www.chamber-of-shipping.com/">http://www.chamber-of-shipping.com/</a>	International
International Maritime Organization	<a href="http://www.imo.org/HOME.html">http://www.imo.org/HOME.html</a>	International
INTERTANKO	<a href="http://www.intertanko.com/">http://www.intertanko.com/</a>	International
Marine Log	<a href="http://www.marinelog.com/">http://www.marinelog.com/</a>	International
Oceans Advance (Labrador / Newfoundland)	<a href="http://www.oceansadvance.net">www.oceansadvance.net</a>	International
Maritime Singapore	<a href="http://www.mpa.gov.sg/sites/global_navigation/maritime_singapore.page">http://www.mpa.gov.sg/sites/global_navigation/maritime_singapore.page</a>	International
Singapore Maritime Cluster Fund	<a href="http://www.mpa.gov.sg/sites/business_and_enterprise/business_and_enterprise.page">http://www.mpa.gov.sg/sites/business_and_enterprise/business_and_enterprise.page</a>	International
European Network of Maritime Clusters (Listed Below)	<a href="http://www.european-network-of-maritime-clusters.eu/">http://www.european-network-of-maritime-clusters.eu/</a>	International
Maritime Cluster Bulgaria	<a href="http://www.marinecluster.com">www.marinecluster.com</a>	International
Maritime Cluster	<a href="http://www.maritimecenter.dk/">http://www.maritimecenter.dk/</a>	International

Center of Europe (Denmark)		
Finland	<a href="http://www.akerarctic.fi/">http://www.akerarctic.fi/</a>	International
Cluster Maritime Francais (France)	<a href="http://www.cluster-maritime.fr/">http://www.cluster-maritime.fr/</a>	International
Bundesministerium fur Wirtschaft und Technologie (Germany)	<a href="http://www.bmwi.de/">http://www.bmwi.de/</a>	International
Federazione del Mare (Italy)	<a href="http://www.federazionedelmare.it/">http://www.federazionedelmare.it/</a>	International
Luxembourg Maritime Cluster	<a href="http://www.cluster-maritime.lu/">http://www.cluster-maritime.lu/</a>	International
Dutch Maritime Network	<a href="http://www.dutchmaritimeguide.com/">http://www.dutchmaritimeguide.com/</a>	International
Maritimt Forum (Norway)	<a href="http://www.maritimt-forum.no/">http://www.maritimt-forum.no/</a>	International
Polish Maritime Cluster	<a href="http://www.mea.szczecin.pl/">http://www.mea.szczecin.pl/</a>	International
Spanish Maritime Cluster	<a href="http://www.clustermaritimo.es/">http://www.clustermaritimo.es/</a>	International
Maritime Forum (Sweden)	<a href="http://www.maritimeforum.se/english.html">http://www.maritimeforum.se/english.html</a>	International
Sea Vision UK (UK)	<a href="http://www.british-shipping.org/">http://www.british-shipping.org/</a>	International
Denmark-Sweden Joint Venture Maritime Cluster	<a href="http://www.maritimecenter.dk/">http://www.maritimecenter.dk/</a>	International
Maritime Cluster of Northern Germany	<a href="http://www.maritimes-cluster.de/en/">http://www.maritimes-cluster.de/en/</a>	International
IDMO (Ireland)	<a href="http://www.imdo.ie/imdo/business/BusinessNew.htm">http://www.imdo.ie/imdo/business/BusinessNew.htm</a>	International
Marine South East (England)	<a href="http://www.marinesoutheast.co.uk/">http://www.marinesoutheast.co.uk/</a>	International
Mersey Maritime (England)	<a href="http://www.mersey-maritime.co.uk/">http://www.mersey-maritime.co.uk/</a>	International
Marine Institute of Ireland	<a href="http://www.marine.ie/">http://www.marine.ie/</a>	International
Marine South West (England)	<a href="http://www.marine-south-west.org.uk/">http://www.marine-south-west.org.uk/</a>	International
Maritime London	<a href="http://www.maritimelondon.co.uk/">http://www.maritimelondon.co.uk/</a>	International
Maritime Hull Partnership (UK)	<a href="http://www.cityport.co.uk/Pages/Intropg.htm">http://www.cityport.co.uk/Pages/Intropg.htm</a>	International
North Sea Shipping (UK)	<a href="http://www.northseashipping.org/">http://www.northseashipping.org/</a>	International
Sail NW (UK) –	<a href="http://www.sailnw.org/innerpage.asp?id=13&amp;sec">http://www.sailnw.org/innerpage.asp?id=13&amp;sec</a>	International

(Marine Leisure Development)	tion=3	
Hong Kong Maritime Industry Council	<a href="http://www.mic.gov.hk/eng/home/index.htm">http://www.mic.gov.hk/eng/home/index.htm</a>	International
Dubai Maritime Cluster	<a href="http://www.dubaimaritimecity.ae/">http://www.dubaimaritimecity.ae/</a>	International
Singapore Logistics Cluster	<a href="http://www.sedb.com/etc/medialib/downloads/about_edb.Par.0018.File.tmp/edb_Logistics%20%20Transport.pdf">http://www.sedb.com/etc/medialib/downloads/about_edb.Par.0018.File.tmp/edb_Logistics%20%20Transport.pdf</a>	International
Uruguay Shipbuilding Cluster Association	<a href="http://www.google.com/url?sa=t&amp;rct=j&amp;q=&amp;esrc=s&amp;frm=1&amp;source=web&amp;cd=1&amp;ved=0CCEQFjAA&amp;url=http%3A%2F%2Fwww.industrianaval.com.uy%2F%2Fdocument_library%2Fget_file%3Fp_1_id%3D6383%26folderId%3D178707%26name%3DDLFE-7601.pdf&amp;ei=maYxT8jpAuOZiQKFmLXFAw&amp;usg=AFQjCNGN-6FW6t27G9aTllh2Hk-Szeel6g&amp;sig2=b_YanKLBB_4IrRqmAYdvoQ">http://www.google.com/url?sa=t&amp;rct=j&amp;q=&amp;esrc=s&amp;frm=1&amp;source=web&amp;cd=1&amp;ved=0CCEQFjAA&amp;url=http%3A%2F%2Fwww.industrianaval.com.uy%2F%2Fdocument_library%2Fget_file%3Fp_1_id%3D6383%26folderId%3D178707%26name%3DDLFE-7601.pdf&amp;ei=maYxT8jpAuOZiQKFmLXFAw&amp;usg=AFQjCNGN-6FW6t27G9aTllh2Hk-Szeel6g&amp;sig2=b_YanKLBB_4IrRqmAYdvoQ</a>	International
Korean Shipbuilding Cluster	<a href="http://www.isc.hbs.edu/pdf/Student_Projects/Korea_Shipbuilding_2010.pdf">http://www.isc.hbs.edu/pdf/Student_Projects/Korea_Shipbuilding_2010.pdf</a>	International
Trinidad and Tobago Shipbuilding Cluster Strategy	<a href="http://tts-r.com/wp-content/uploads/Recommended_Strategy_by_S&amp;R_Cluster_2007.pdf">http://tts-r.com/wp-content/uploads/Recommended_Strategy_by_S&amp;R_Cluster_2007.pdf</a>	International
Trinidad and Tobago Investment Strategy for Maritime	<a href="http://www.investtnt.com/1content/en/tsectors.aspx?articleid=139&amp;zoneid=3">http://www.investtnt.com/1content/en/tsectors.aspx?articleid=139&amp;zoneid=3</a>	International
Prince Rupert Port Authority	<a href="http://www.rupertport.com/">http://www.rupertport.com/</a>	International
Greater Ketchikan Area Chamber of Commerce	<a href="http://www.ketchikanchamber.com">www.ketchikanchamber.com</a>	Ketchikan
Oceans Alaska	<a href="http://www.oceansalaska.org">www.oceansalaska.org</a>	Ketchikan
American Association of Port Authorities	<a href="http://www.aapa-ports.org">www.aapa-ports.org</a>	National
National Shipbuilding Network	<a href="http://www.nsnetwork.com/">http://www.nsnetwork.com/</a>	National
Workboat	<a href="http://www.workboat.com/index.asp">http://www.workboat.com/index.asp</a>	National
American Bureau of Shipping	<a href="http://www.eagle.org">www.eagle.org</a>	National
National Oceanic and Atmospheric Administration	<a href="http://www.noaa.gov">www.noaa.gov</a>	National

US Customs Service	<a href="http://www.cbp.gov">www.cbp.gov</a>	National
US Coast Guard	<a href="http://www.uscg.mil">www.uscg.mil</a>	National
MARAD	<a href="http://www.marad.dot.gov">www.marad.dot.gov</a>	National
Bureau of Ocean Energy Management, Regulation, and Enforcement	<a href="http://www.boemre.gov">www.boemre.gov</a>	National
US Navy	<a href="http://www.navy.mil">www.navy.mil</a>	National
Baltimore Marine Exchange	<a href="http://www.balmx.org/">http://www.balmx.org/</a>	Regional
Greater Houston Port Bureau and Marine Exchange of the West Gulf	<a href="http://www.txgulf.org/">http://www.txgulf.org/</a>	Regional
Jacksonville, Florida Marine Transportation Exchange	<a href="http://www.jmtx.org/index.htm">http://www.jmtx.org/index.htm</a>	Regional
Marine Exchange of Puget Sound	<a href="http://www.marineexchangesea.com/">http://www.marineexchangesea.com/</a>	Regional
Marine Exchange of San Francisco Bay Region	<a href="http://www.sfmex.org/">http://www.sfmex.org/</a>	Regional
Marine Exchange of Southern California	<a href="http://www.mxsocal.org/">http://www.mxsocal.org/</a>	Regional
Marine Association of the Port of New York / New Jersey	<a href="http://www.nymaritime.org/">http://www.nymaritime.org/</a>	Regional
Marine Exchange for the Delaware River and Bay	<a href="http://www.maritimedelriv.com/">http://www.maritimedelriv.com/</a>	Regional
New Orleans Board of Trade	<a href="http://www.nobot.org/">http://www.nobot.org/</a>	Regional
Port of Hampton Roads Maritime Association	<a href="http://www.portofhamptonroads.com/">http://www.portofhamptonroads.com/</a>	Regional
Tampa Port Authority	<a href="http://www.tampaport.com/">http://www.tampaport.com/</a>	Regional
The Merchants Exchange of Portland, Oregon	<a href="http://www.pdxmex.com/">http://www.pdxmex.com/</a>	Regional
Northwest Cruise Ship Association	<a href="http://nwcruiseship.org/">http://nwcruiseship.org/</a>	Regional
Gloucester / EDA initiative (Massachusetts)	<a href="http://gloucester-ma.gov/DocumentView.aspx?DID=1014">http://gloucester-ma.gov/DocumentView.aspx?DID=1014</a>	Regional



The Maritime Alliance (San Diego)	<a href="http://themaritimealliance.org/resources/san-diego-maritime-technology-cluster/">http://themaritimealliance.org/resources/san-diego-maritime-technology-cluster/</a>	Regional
Seattle's Maritime Cluster (WA)	<a href="http://www.seattle.gov/economicdevelopment/pdf_files/Seattle%20Maritime%20Study%20-%202009.pdf">http://www.seattle.gov/economicdevelopment/pdf_files/Seattle%20Maritime%20Study%20-%202009.pdf</a>	Regional
Narragansett Bay Cluster (RI)	<a href="http://www.ci.uri.edu/RIBayTeam/Docs/Narragansett_Bay_Cluster.pdf">http://www.ci.uri.edu/RIBayTeam/Docs/Narragansett_Bay_Cluster.pdf</a>	Regional
Rhode Island Economic Monitoring Strategy (Maritime Clusters)	<a href="http://www.dem.ri.gov/bayteam/documents/proposed_economic_monitoring_strategy_1005.pdf">http://www.dem.ri.gov/bayteam/documents/proposed_economic_monitoring_strategy_1005.pdf</a>	Regional
Connecticut Maritime Coalition	<a href="http://www.ctmaritime.com/">http://www.ctmaritime.com/</a>	Regional
Mississippi Maritime Cluster	<a href="http://www.norcc.org/cluster/maritime.php">http://www.norcc.org/cluster/maritime.php</a>	Regional
Northwest Washington Marine Cluster Study	<a href="http://www.google.com/url?sa=t&amp;rct=j&amp;q=&amp;esrc=s&amp;frm=1&amp;source=web&amp;cd=4&amp;ved=0CDgQFjAD&amp;url=http%3A%2F%2Fwww.sanjuansedc.org%2FReports%2FRegional%2520Marine%2520Cluster%2520Final%2520Report.pdf&amp;ei=h5AxT4DjOK3ZiQKVqvjFAw&amp;usg=AFQjCNERB8LgSM49eH8VYUjzFdXi4r3dpA&amp;sig2=F87MQ5qWNynftkiDMNWdHQ">http://www.google.com/url?sa=t&amp;rct=j&amp;q=&amp;esrc=s&amp;frm=1&amp;source=web&amp;cd=4&amp;ved=0CDgQFjAD&amp;url=http%3A%2F%2Fwww.sanjuansedc.org%2FReports%2FRegional%2520Marine%2520Cluster%2520Final%2520Report.pdf&amp;ei=h5AxT4DjOK3ZiQKVqvjFAw&amp;usg=AFQjCNERB8LgSM49eH8VYUjzFdXi4r3dpA&amp;sig2=F87MQ5qWNynftkiDMNWdHQ</a>	Regional
San Pedro Bay Maritime Technology Cluster	<a href="http://www.metrans.org/nuf/2007/documents/LyteTechnologyPaperFinalVersion120507.pdf">http://www.metrans.org/nuf/2007/documents/LyteTechnologyPaperFinalVersion120507.pdf</a>	Regional
Sturgeon Bay Shipbuilding Cluster Map	<a href="http://map.co.door.wi.us/planning/Comp-Plan/Resource/Shipbuilding%20Cluster%20Master%20Plan.pdf">http://map.co.door.wi.us/planning/Comp-Plan/Resource/Shipbuilding%20Cluster%20Master%20Plan.pdf</a>	Regional
Virginia Maritime Association	<a href="http://oldweb.vamaritime.com/">http://oldweb.vamaritime.com/</a>	Regional
New Carolina TDL Council	<a href="http://www.newcarolina.org/clusters/tldcouncil.aspx">http://www.newcarolina.org/clusters/tldcouncil.aspx</a>	Regional
Massachusetts Maritime Commerce	<a href="http://www.mass.gov/hed/economic/industries/maritime-commerce.html">http://www.mass.gov/hed/economic/industries/maritime-commerce.html</a>	Regional
Maine Technology Institute Cluster Initiative	<a href="http://www.mainetechnology.org/fund/cluster-initiative-program">http://www.mainetechnology.org/fund/cluster-initiative-program</a>	Regional
St. Petersburg Bayboro Marine Research Cluster	<a href="http://www.stpete.org/economic_development_dept/region_overview/docs/Marinesciencecluster8_08.pdf">http://www.stpete.org/economic_development_dept/region_overview/docs/Marinesciencecluster8_08.pdf</a>	Regional

Tampa Bay Marine Cluster	<a href="http://www.tampabay.com/news/business/economicdevelopment/two-cities-st-petersburg-and-tampa-strive-to-establish-their-own-industry/1148300">http://www.tampabay.com/news/business/economicdevelopment/two-cities-st-petersburg-and-tampa-strive-to-establish-their-own-industry/1148300</a>	Regional
Savannah Maritime Association	<a href="http://savannahmaritime.com/">http://savannahmaritime.com/</a>	Regional
Maritime Association of South Carolina	<a href="http://www.maritimesc.org/">http://www.maritimesc.org/</a>	Regional
South Carolina Marine Association	<a href="http://www.scmarine.org">http://www.scmarine.org</a>	Regional
West Gulf Maritime Association (Texas)	<a href="http://www.wgma.org">http://www.wgma.org</a>	Regional
Louisiana Maritime Association (LAMA)	<a href="http://www.concentriamaritime.com">www.concentriamaritime.com</a>	Regional
Louisiana Maritime Association (LAMA)	<a href="http://www.louisianamaritime.org">www.louisianamaritime.org</a>	Regional
Louisiana Port Association	<a href="http://www.portsoflouisiana.org">www.portsoflouisiana.org</a>	Regional
Port of Los Angeles	<a href="http://www.portoflosangeles.org">www.portoflosangeles.org</a>	Regional
Hawaii Autonomous Maritime Robotics Cluster	(No Website)	Regional
Maritime Information Service of North America	<a href="http://www.misnadata.org/">http://www.misnadata.org/</a>	US
Offshore Marine Service Association	<a href="http://www.offshoremarine.org/">http://www.offshoremarine.org/</a>	US
Passenger Vessel Association	<a href="http://www.passengervessel.com/">http://www.passengervessel.com/</a>	US
Professional Mariners	<a href="http://www.professionalmariner.com/">http://www.professionalmariner.com/</a>	US
US Maritime Administration	<a href="http://marad.dot.gov/">http://marad.dot.gov/</a>	US

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<sup>i</sup> [www.ketchikanmarineindustry.com](http://www.ketchikanmarineindustry.com)

<sup>ii</sup> <http://www.census.gov/eos/www/naics/>

<sup>iii</sup> Michael E. Porter, "The Economic Performance of Regions," *Regional Studies*, Vol 37. 6&7, pp. 549-578, August/October 2003. Porter clarifies: "The key for a region [...] is to develop the conditions for supporting high wages in its traded industries, rather than attempting to grow the traded share of the economy." (p. 562) He later explains: "The relevant knowledge spillovers that affect innovation and performance should be strongest within cluster and among related industries. Hence, specialization in clusters, not in industries per se, should lead to higher performance. Diversity of cluster in a region rather than diversity of industries may also be a more meaningful diversity measure (KETELHOHN, 2002). A diverse array of overlapping clusters... should be associated with better performance than a diversity of clusters that are unrelated." (p. 562)

<sup>iv</sup> Porter, op cit. (p. 562)