



THE MARITIME ALLIANCE

"Promoting the Maritime Community"

**"The Maritime Alliance:
Organizing the San Diego Maritime Technology Cluster &
Promoting Maritime Tech Development & Business Worldwide"**

Presentation to **Gloucester's New Maritime Port Economy Summit**
November 16, 2011

Michael B. Jones – President
The Security Network & **The Maritime Alliance**
San Diego, CA
mbjones@themaritimealliance.org

www.thesecuritynetwork.org

www.themaritimealliance.org



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The mission of **The Maritime Alliance** is "Promoting the Maritime Community". The non-profit **The Maritime Alliance** is the cluster organizer for the San Diego maritime technology community and fosters maritime business and technology innovation through collaboration around the U.S. and the world.



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Key attributes of the non-profit

The Maritime Alliance:

- Focus on technology
- Emphasis on collaboration
- Horizontal (*not vertical*) orientation
- National / International outreach & partnerships



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The U.S. Blue Economy

From 2009 Senate Testimony by Dr. Judith Kildow:

- In 1983 US acquired Exclusive Economic Zone offshore of more than 4 million sq. miles - more than doubled US territory; value barely estimated
- **U.S. Coastal economy:**
 - COUNTIES: GDP of counties that border the oceans, Gulf of Mexico & Great Lakes totaled \$5.7 trillion in 2007 – equivalent to 40% of US GDP while representing only 18% of U.S. land area with 108 million people with 48 million jobs
 - COASTAL STATES: 83% of U.S. GDP is produced in coastal states
- **Ocean Economy** is an important subset of the **Coastal Economy**
- No good statistical information on the size of Ocean Economy

(Estimated that over 50% of world population lives within 60 miles of coast)



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The Maritime Technology Industry:

- **General observations:**

- No overall “community” recognition – many tech & service sub-sectors
- Mostly small, very independent, specialized companies (estimate 2,000+)
- Most creating multi-use technologies
- Largely invisible locally worldwide (*visible v. invisible marine industry*)
- No political strength (few voters) & “out of sight, out of mind”

- **The ultimate export industry:**

- Growth industry with markets in every country w/ coast & bodies of water
- Virtually every company needs local partners to sell & service

- **Blue Tech / Blue Jobs are critical for U.S. & the world:**

- Food, medicine, power, real estate & water for growing world population
- As oceans rise in many new ways



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Why is **The Maritime Alliance** necessary?

PREMISE: There is no national inventory of maritime technologies & companies and no national maritime technology promotion policy:

- **Need to organize & promote San Diego maritime tech cluster**
- **Need to promote national & international collaboration**
 - Maritime technology companies – not maritime security companies
 - Need for a national inventory of maritime technologies / companies
 - Need to promote U.S. maritime technology companies worldwide
 - Need for significant cross industry and cross agency collaboration
 - Need for this important, growing industry sector to be more visible
 - Need to find innovative maritime technologies from around world

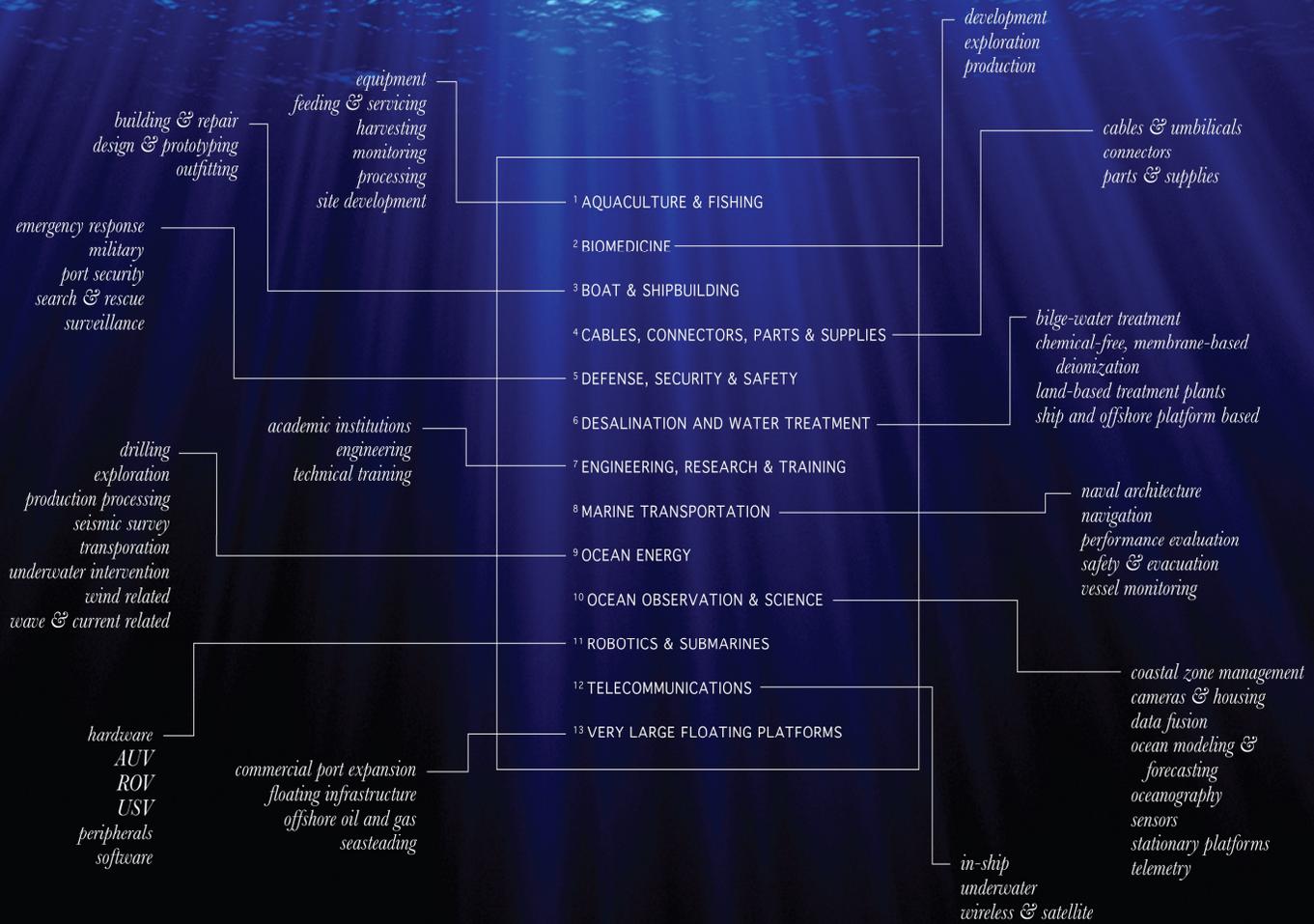


Why a big maritime cluster in San Diego?

Many reasons including:

- Scripps Institution of Oceanography (started 1903)
- SPAWAR Systems Center Pacific (1st Navy West Coast Lab – 1940)
- One of the largest and busiest harbors in the world
- Enormous military presence incl. SPAWAR (U.S. Navy procurement & R&D)
- Multiple universities with industry expertise and grant experience
- Leading biotech center (produce bio & chemical sensors)
- One of the leading aquaculture technology centers
- Desalination industry – one of top 3 locations in the U.S. & the world
- Last shipbuilding on the West Coast (key for “Marine Highway” and VLFPs)
- Largest maritime technology cluster in the U.S. (probably in the world)
- Ideal Test Bed for innovative technologies & services
- Vibrant, entrepreneurial, collaborative community (& great weather all year)

{ SAN DIEGO OCEAN TECHNOLOGY CLUSTER }





San Diego Maritime Economic Impact

From 2009 study sponsored by Port of San Diego:

- Nearly 1,000 companies & organizations in the maritime industry (over 700 self-report that majority of work related to maritime activities)
- Maritime-focused companies & organizations (excluding military) employ nearly 28,000 individuals and that is expected to continue to grow
- **Largest industry cluster in San Diego and no one realized it**
- **Over 135 maritime technology companies & organizations:**
 - First study over 6,000 employed & in excess of \$2 billion in revenue (update)
 - Fastest growing sector with greatest opportunities for sustainable growth
 - More when count / include companies in their supply chain
- **A high tech sector interwoven with traditional industry**
- Interplay between military, universities and private sector key



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From SD Regional Technology Alliance (SDRTA) webpage (27 Oct 2011):

21st Century “Techropolis”

The San Diego Regional Technology Alliance in partnership with the San Diego Association of Governments has identified 16 major industry clusters.

These are:

- Biomedical Products
- Biotechnology & Pharmaceuticals
- Business Services
- Communications
- Computer & Electronics Manufacturing
- Defense & Transportation Manufacturing
- Entertainment & Amusement
- Environmental Technology
- Financial Services
- Fruits & Vegetables
- Horticulture
- Medical Services
- Recreational Goods Manufacturing
- Software & Computer Services
- Uniformed Military
- Visitor Industry Services

Amazing that maritime (*let alone maritime technology*) has not been recognized (until now) as a “major” industry cluster in San Diego.



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2011 Events

- 21 January – Desalination and Water Purification
- 4 March – Ocean & Weather Changes Impacting Business & Infrastructure
- 17 May – Greening of the Navy & Ports
- 28 July – *Promoting the Eco-System*: Maritime Economic Development in SD panel & Meet the Legislators reception
- August 23 – *Promoting the Eco-System*: “Banking, Financing and other Resources”
- August 26 – Mapping, Tracking & Visualization in the Ocean
- Nov. 3 – *Promoting the Eco-System* “Warriors to Engineers Program” SDSU
- Nov 29-30 – 3rd annual **Maritime Business & Technology Summit**
 - **Day 1 - Theme “Ocean Science & Business”** – desalination, mapping, environmental monitoring
 - **Maritime Gala Dinner & Awards Ceremony** – Sylvia Earle keynote speaker + 10 awards
 - **Day 2 - Theme “Maritime Domain Awareness & Security** – floating infrastructure, MDA, ocean observation, port & maritime security & safety, and robotics



Leading U.S. Maritime Tech Clusters

Where are they and what are the respective foci:

- Northeast – Represented by MOTN. Major drivers WHOI, MIT and long maritime tradition. Broad focus including ocean observation & robotics
- Florida – primarily recreational boating traditionally. A new maritime tech cluster being created in Tampa/St. Pete
- Gulf States / Texas (Houston) – primarily oil & gas based. Technologies such as cables & connectors, drilling equipment, oil rigs, and visualization.
- San Diego – Represented by **The Maritime Alliance**. Major drivers SIO, U.S. Navy, defense contractors. Broad technology focus.
- Monterey Bay / San Francisco Bay area – MBARI and Silicon Valley based. Focus includes ocean observation, robotics, software.
- Portland – Recent focus on ocean energy.
- Seattle – UW major influence. Ocean observation, robotics, specialty equipment.
- Hawaii – Major drivers. UH & Navy labs. Focus aquaculture, energy, military.



Leading Intl. Maritime Tech Clusters

Where are they and what are the respective foci:

- Canada – Have a national policy. St. John’s, NL and British Columbia big two.
- China – We are hearing of national focus. Buying advanced tech from U.S.
- Finland – National focus spearheaded by TEKES. 2,900 companies in Finnish maritime cluster with 43,400 direct jobs. Starting to focus on tech as sub-sector.
- France – Brest (Brittany) and Marseille (Provence) are the two national recognized and supported tech centers. Strong national maritime tech policy.
- Germany – Leading center in Kiel. State support but little at national level.
- India – We understand they are starting to focus on this field.
- Ireland – “Smart Bay” project with IBM
- Japan – We understand this is a national focus. Deepest dive vessel in world.
- Singapore – Only maritime tech VC fund in the world to attract companies
- UK – Has a national marine science strategy. Southampton is the leading center, but multiple locations have a focus. Many areas of expertise.



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Goals of The Maritime Alliance:

- **Continue to build eco-system for the San Diego cluster**
 - Develop regional maritime technology vision & broad support
 - Develop “connective tissue” & convergence opportunities”
- **Promote national (& intl.) awareness & cluster building**
 - Promote maritime tech clusters wherever viable
 - Incorporate/support companies from non-cluster areas
 - Promote creation of common database
 - Educate at local, state and national levels!!
- **Promote cross-cluster collaboration**
 - Establish a national coalition of maritime tech clusters
 - Promote & support regional strengths (avoid “destructive” competition)
 - Promote national cross-cluster business & speaking opportunities
 - Promote funding opportunities via maritime technology clusters
 - Create annual maritime technology cluster conference in DC



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Contact Information:

Michael B. Jones, President (ext. 141)

Bill Riedy, Executive Director (ext. 182)

The Maritime Alliance

2877 Historic Decatur, Suite 200

San Diego, CA 92106

Tel. (619) 450-4600

mbjones@themaritimealliance.org

briedy@themaritimealliance.org