

Let The Games Begin!

SeaSonde® Mapping Currents at Olympic Sailing Race Area in Qingdao

For those asking, “what can top the colorful and dynamic Beijing 2008 Olympics opening ceremony?”, we have the answer: SeaSonde-derived current maps of the sailing race area in Qingdao!

At the stroke of midnight 8 August (Beijing Standard Time) the North China Sea Marine Forecasting Center of State Oceanic Administration (SOA) began posting SeaSonde-produced hourly surface current maps on their Olympic Games Environmental Observation and Forecasts web site. Data will be provided to the public throughout the Olympic and Paralympic sailing event periods, taking place in August and September, respectively. The SOA is also using SeaSonde data along with other environmental data sets as input to Princeton Ocean Model creating marine environmental forecasts of the region.

The SOA North Sea HF network consists of two SeaSonde radar units spaced approximately 20 km apart. The SeaSonde unit on isolated Dagong Island requires only 300 watts power that is generated by wind turbine feeding into a battery array. Data from both radar units are transmitted hourly back to SOA North Branch headquarters office via wireless microwave radio relay.

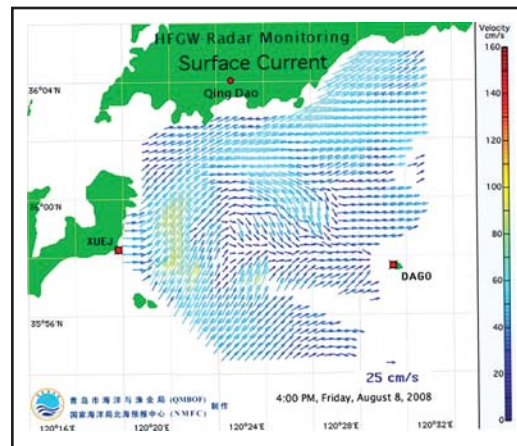
CODAR company President and Co-founder Don Barrick had this comment, “since my days at NOAA during the 1970’s there has been discussion of using HF radar data in support of sailing race events. I have waited too many years, and it may be half a world away, but it is now being done, and quite well! I applaud the China State Oceanic Administration for breaking new ground in the application of HF radar data from our SeaSonde systems. Thank you for pushing the envelope forward.



Snapshot of the SOA web page:
<http://www.nmfc.gov.cn/db1/index.aspx>



SOA scientists and Laurel Technologies engineers review the SeaSonde central management system residing at SOA North Branch headquarters.



An all-in-one combined transmit-receive SeaSonde antenna operates atop building, with microwave radio communication link positioned to left of building



Typically winds play a major role in race strategy; nonetheless, knowledge of the currents may provide an edge needed to win. However Qingdao is notorious for occasional periods of extreme calm during summer season, and under such conditions knowledge of the ocean current structures may take on greater importance. Shown here is a snapshot of the SOA's HF radar web page, where near real-time maps are posted hourly. The current maps, on a 500m resolution grid, reveal a very strong tidal signature in the Qingdao region. Particularly strong jets reaching current velocities in excess of two knots are seen occurring inside the race circles (these are very near to shore) during portions of the tidal cycle. With the race events just starting, there are sure to be more interesting current patterns revealed. Be sure to bookmark the SOA's data display page: <http://www.nmfc.gov.cn/db1/index.aspx> and check often!



**View of Dagong Island.
SeaSonde antenna is within
the yellow circle on small building.**



**SeaSonde antenna at Dagong Island.
SOA engineering team are at left.**



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