

Scanning the GEORGE OLSON

Coos Bay, Oregon

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When the Oregon Coast has an oceanic event called an El Niño one year followed by a La Niña the next, coupled with a series of violent winter storms, things on the coastal beaches change. And they change drastically. As explained by a local TV weatherman, that's how it happens. Weather or not—the fact remains there was a lot of beach and dune erosion in the winter of 2007–2008. So much so, that a lot of interesting things started poking out of the sand. Cannons at Cannon Beach, “ancient” tree stumps, and parts of shipwrecks long forgotten and unseen for years were exposed on the beaches.

One such newly discovered wreck was exposed just north of Coos Bay, eclipsing

the news of the upcoming salvage efforts of the grounded 1999 hulk of the *New Carissa*. In mid-February there was a lot of buzz on the TV and in the local papers about the wreck. Which wreck was it? How old? Does anybody know? And, of course, too much speculation from various people not in the know. Finally an archeologist with NOAA at the National Marine Sanctuaries in Santa Barbara, California had an answer. A positive identification of the ship was made using a shipyard photograph from 1917. The *George Olson* was back in town, at least for a while.

That is to say “the shifting sands of time” let no man delay. The old saying “here today gone tomorrow” is as appropriate here as it ever was. Now you see

it, now you don't. Who is to say that the *George Olson* won't be covered again by the typical dune-building north summer winds, or that a late spring gale won't batter the fragile ship's remains to pieces overnight. Either situation is plausible. Winter high tides swirl around the wreck twice a day and in just a few days we saw enough sand come in to cover up almost three feet of the exposed portions of the wreck. The *George Olson* could quickly be gone for another 64 years, or even longer.

The *George Olson* was a steam powered lumber schooner built in 1917 by the W.F. Stone shipyard in Oakland California for the J.R. Hanify Company. The ship was 223 feet long, one of the largest from that shipyard. She was first named the *Ryder Hanify* before being renamed the *George Olson*, making trips between the west coast and South America. In 1944 the *George Olson* ran aground in Coos Bay, was towed out to sea just off Coos Bay and cut loose to wreck on the spit. Rumor has it lumber from the grounded ship was purchased and used to build a local church before the dune sands covered the remains of the hull.

Our survey mission was to obtain a 3D high definition laser scan of those parts of the ship that were recently exposed. Time was critical—the wreck was in snowy plover habitat and the beach closes to vehicular traffic on March 15. The resident snowy plover gets to have a break from the tourists during the summer nesting season. The beach wouldn't



Visible bow portions of the *George Olson*

be open again until October and the wreck would likely be covered by sand. We could walk to the site, but access by vehicle during the summer months would not be allowed. Now, one would say surveyors are used to walking. Gosh, we do it every day. There was, however, no doubt in my mind the crew would mutiny if asked them to pack the scanner, batteries, targets, tripods, GPS, and total station three miles down the beach. Now that would be cruel and unusual punishment. Our real day job work schedule allowed for only a small window of opportunity. We made arrangements for a rainless Oregon coastal day on March 13 to do our survey, just two days before the beach closure. You laugh. Ha! No rain on the Oregon coast in mid-March for a whole day? Ha ha! We got the last laugh—low tide and no rain.

The Bureau of Land Management (BLM) office in Coos Bay, in conjunction with Oregon State Parks Department is responsible for activities along that portion of the Coos Bay North Spit. Our BLM contact, Steve Samuels, was very helpful and interested in arranging our activity for the high definition scanning survey. The BLM was intrigued that we could survey and produce a 3D computer model with millimeter accuracy in such a short time without so much as touching the ship. They mentioned the ground penetrating radar people would be there in the fall to look for remaining portions of the wreck buried in the dune. They wondered if we could geo-reference the scan data so the GPR folks could find the site if the dune



Erin Heatherstone scanning from the beach



All 3D scans are geo-referenced

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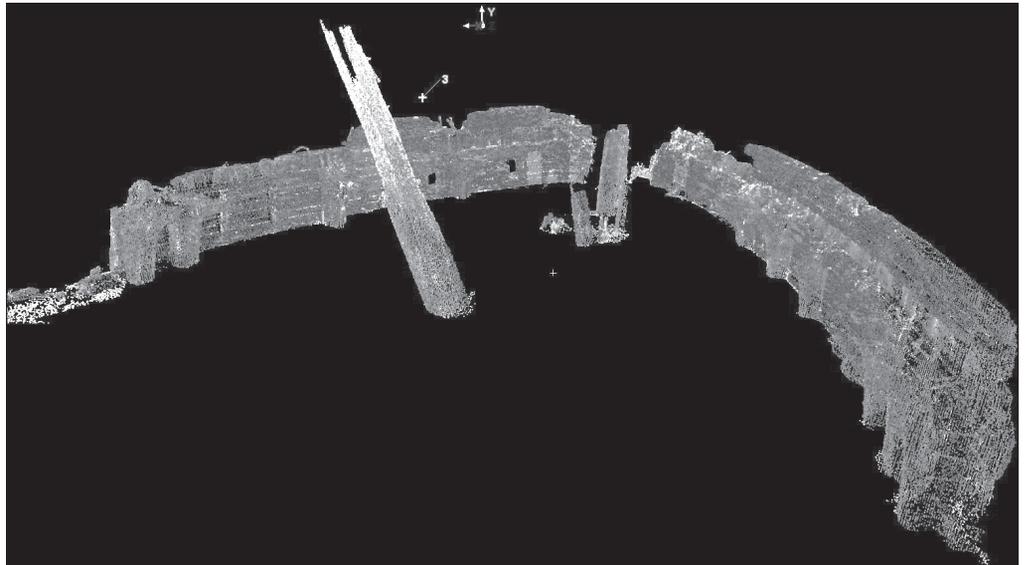
covered the wreck over the summer months. Our immediate response was in the negative. As we were there only to record the historical nature of the remaining hull we hadn't seen the need. But, what the heck, why not? All in the name of historical archeological preservation right?

With that, the BLM's interest picked up a little, but not enough to show us any of those coveted U.S.-backed Federal Reserve Notes, if you know what I mean. So basically we were back to being adventurers and went off to collect shipwreck data for the sake of the 3D survey project fools that we are. As my photogrammetric friends say, "We don't know what we'll do with it, but the job is in the can."

And in the can it is. A fully modeled, non-destructive, geo-referenced 3D high definition laser scan of the bow of the *George Olson* as was exposed on March 13, 2008. Now is that exciting or what? In 1917 a photographer took a picture of the ship in the Oakland shipyard and probably said much the same thing. Lo and behold, it was that photograph that helped identify the *George Olson* some 91 years later. To find that photo was exciting and provided the key to the Coos Bay mystery ship. I'll give it another 91 years and see if anyone gets excited about our 3D scan picture. In the meantime we're off scouring the coast for more shipwrecks. If anyone has a need for the *George Olson* 3D data before 2099 rolls around we'd love to talk about it. ◉



Bow portion—note the scan target to the left.



3D Scan "Point Cloud" cleaned for presentation

REFERENCES

Coos Bay Bureau of Land Management
NOAA at the National Marine Sanctuaries in Santa Barbara, California
Crew Members: Erin Heatherstone, Phil DeMartin

ABOUT THE AUTHOR

Dave Wellman, PLS is owner of D. Wellman Surveying, based in Eugene. D. Wellman Surveying is a full service survey firm with 3D high definition scanning survey capability. Other high profile projects include projects in Easter Island and Kauai, Hawaii.