

Soap Box: Future Manned Hydrospace: Stewardship of our Industry – William Kohnen

Mr. William Kohnen, born in Germany, grew up in rural Quebec, Canada, where he obtained his Bachelor and Masters degree in Electrical



Engineering at McGill University, in Montreal. He moved to California in 1986 working for the aerospace industry where he found fascinating parallels between inner and outer space. As president and co-founder of SEAmagine Hydrospace Corp in 1995, he has gained a great deal of experience developing and bringing manned submersible technology in the US, the Caribbean and Europe in accordance with local, ABS and US Coast Guard certifications.

Beginning in the late 1950s, manned submersibles came to their apex of glory in the 60's and early 70's. ROV's emerged and established themselves in the 80's and 90's and today AUVs offer new set of possibilities. Throughout this evolution commercial diving has continued to grow. Vehicle technology is unlikely to replace divers but it can have a significant impact of the subsea industry's efficiency and safety.

Today, manned submersibles are largely considered a vestige of the past. The only perceptible public awareness is of highly scientific deep submergence research. The rest of the manned submersible industry has remained an eclectic collection of disparate commercial ventures. The resulting public perception of manned ocean activity is that it is quasi non-existent, which in turn contributes to an absence of political influence for the funding of underwater programs.

Is manned hydrospace, in all its forms, an essential part of our future or is it destined to be a relic of the past? The question evokes two thoughts. First, funding will always be at the center of the issue and only the public interest, garnered through a broad array of human underwater activities, can generate political visibility and influence needed for proportional funding, something remote instruments cannot inspire. For example, most

people, if asked their thoughts of the future of manned space programs would mention the moon, Mars or Space Station. It is almost guaranteed that the same question regarding manned hydrospace would produce total blanks. Just as the manned space program has proven to be an effective political vehicle for public awareness and funding, so can manned hydrospace play a key role.

Second, the cost and scope of underwater projects will continue to increase every year: the cost of more complex operations, the cost of regulations and the safety risks imposed on the commercial divers. One can safely predict that these costs will increase disproportionately compared to any future funding. If budget increases are unlikely, then what are the options? Wait for a disaster and hope for large scale crisis funding? For all its positive powers, hope is not a strategy. Government funding is not realistic either - the only alternative is for the industry to step forward and learn to do more with the existing funding. This means gaining higher levels of productivity. Without a doubt, a Herculean increase in productivity will be needed over the next decades to deal with all the sub sea challenges; whether it is for ocean science, research, commercial and, infrastructure work or security.

Productivity derives primarily from efficiency, planning and making correct decisions, which are all directly related to human intelligence and experience. Smart prioritization can also prove to be extremely effective to achieve higher productivity, but it is a tool that requires judgment calls. Manned submersibles remain omnipotent in their ability to bring human wisdom of experience on site and in context. There is no single bigger gain in productivity that can be achieved than the ability to safely and cost effectively bring senior managers or experts underwater for overview, inspection or prioritization of a problem. Large land projects are constantly managed in this manner, which in terms of productivity, lead by at least a factor of ten to one over the cost of similar underwater work. Direct access offers better information, allows managers to prioritize work and budgets, produce more precise

execution plans, efficient operations and higher safety levels for divers.

Manned submersibles must take their place in the future of sub sea operations. Only our involvement, persistence and determination as an industry will create the momentum, the magic that arises when we can tackle a variety of problems with energy, ideas and discussions. Building credibility as an industry is imperative to become part of a trusted arsenal of tools on which clients can depend to build strategic long term plans.

Industry stewardship should not be left to popular media agents in search of a cover story to sell magazines. Order, discipline and credibility will entail a collective consciousness set within a framework of rules and standards. This is paramount to establish an edification of the industry, making it predictable and reliable. Classing agencies must play an integral part of the industry's future, as they provide a forum to develop rules and standards for the benefit of clients and manufacturers. Better regulations will encourage more people to work within them and build the industry. The search for excellence in safety must involve industry and regulatory bodies in an interactive process that counts on the integrity and professionalism of everybody. To gain this equity in interaction, the industry needs organization.

What can we do? A simple first step is to get together in New Orleans at the Underwater Inter-vention conference in February 2004, and attend the expanded manned submersible track. There are a number of speakers who will dedicate their time and effort to present papers and ideas. Just as importantly, however, is the willingness of everyone to take part in the discussions. There are a colossal number of issues to broach, too many to cover in a single conference. We should plan to move steadily forward over the next years to raise the level to an international scope and open up to all sectors that involve human presence underwater.

Come to the conference and participate in a dialogue on manned submersible's role and possibilities. This is a small first step in an attempt to bring out the best ideas and solutions from everyone involved in the industry.