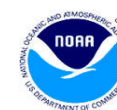


Replacement HOV Design Status

Bob Brown



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13-14 June 2005



Replacement HOV Project Status



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Current Status

- Personnel Sphere Design & Fabrication Request for Proposal (RFP) submitted to Oversight Committee and NSF for Review
- Personnel Sphere RFP submitted to Southwest Research Institute (SwRI) for proposal
- Proposal currently being completed by SwRI
- Contract let with Phoenix Int. for Lithium battery study
- 33 lb/cu.ft syntactic foam developed by Emerson & Cuming. Development continuing for lighter foam.
- RFP for vehicle design and fabrication under development



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Syntactic Foam

- **SwRI recalculating weight and balance to determine weight margins for different density foams**
- **If sufficient margin exists for 33 lbs./cu. ft. foam, than pursue ABS approval and first article testing**
- **First Fallback – Determine if a depth limitation based on a 31 lbs./cu. ft. foam would be acceptable**
- **Second Fallback – Explore possibility of conducting R&D necessary to qualify ceramic sphere/syntactic foam matrix material**



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Vehicle RFP Development

- Internal review (*Alvin* Eng, *Alvin* Ops, DSL/ROV)
- Oversight Committee and NSF review
- Submit to prospective bidders



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Phased Approach

To address areas of higher risk the project has been broken into two phases:

Phase One

- Feasibility testing for prospective energy system
- Qualification testing for syntactic buoyancy foam
- Preliminary vehicle design for sphere attachments
- Design and forging of personnel sphere

Phase Two

- Completion of personnel sphere
- Complete design and fabrication of remaining vehicle



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More Information and Community Input

http://www.unols.org/committees/dessc/replacement_HOV/replacement_hov.html

- Video
- Specifications
- Schedule
- Various background documents
- Press releases
- Photo gallery
- Provision for on-line comments and feedback



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