Project Goal: The " Klickitat" Ocean Floor Biological Survey robot will increase the safety, accuracy and efficiency of ocean floor biological surveys by performing remote controlled transect mapping of ocean floor habitats.

Project Summary:

Government agencies and energy companies have recently increased their oceanographic activities. The search for new oil fields and increasing activities in current off-shore fields, combined with heightened concerns about environmental impacts has led to a greater need to efficiently gather data needed for drilling feasibility and environmental impact studies.

Our current offering, the OFCD robot is already being used to reduce the amount of time marine biologists have to spend underwater by automating ocean floor sample collection. However, the OFCD robot cannot be controlled precisely enough for transect mapping studies, which count the number of species present in a defined cross-section of the habitat and map ocean floor terrain. Currently, divers have to conduct those surveys.

The OFBS Robot is an adaptation of our OFCD robot which can currently collect ocean floor soil and biological samples. To adapt the robot for transect mapping, we need to add additional sensor and touch navigation capabilities, and improve the precision of our motion control.

Integration Events:

Milestone	Est. Date	Actual Date
Subsyst A	8/31/06	8/31/06
Subsyst B	10/31/06	
Subsyst C	1/15/06	
System A	3/31/07	
System B	6/30/07	
Prod Proto	8/31/07	
Start of Production	10/31/07	

Project Metrics

Metric	Target	Actual
Path Accuracy (1 m)	< 3 mm	
Direct Material costs	< $815,000	
Unit sales, year 1	> 150	

Financial Summary:

	Target	Actual to date
R & D Expense	$5,200,000	$481,000
Tooling	$12,600,00	
Direct Material	$815,000	
Support Cost/Unit	$120,000	
Sales Price	$2,400,000	
Breakeven	4/15/08	
5 year ROI	32%	

Major Risks:

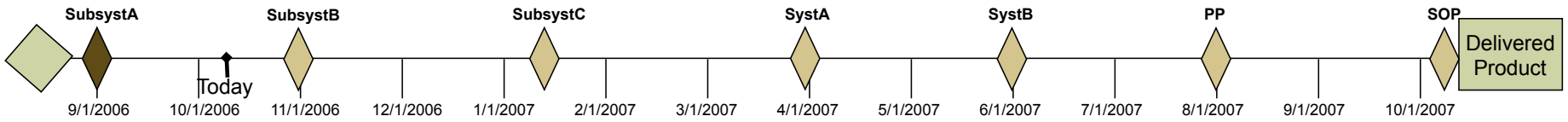
Risk	Owner	Status	Resolution
Precision motion control in wave conditions	SW	Mitigate	Extend wave testing
Waterproof housing to accommodate new attachments	JS	Monitor	
Early field testing results	KR	Mitigate	Schedule first field test at SS2

Current Issues:

Issue	Owner	Status	Resolution
Need replacement oceanographer for feedback on video and locomotion system	KR	Started	
Need one more sensor port on RCS brick	KR	Esc to RCX Team	
Current tank inadequate to test precision motion in wave conditions	KR	Resolved	Revised budget to fund new tank from field test budget

Klickitat Project Status Report

Last Update: 10/9/06
Project Leader: Katherine Radeka 503-701-3945

Next Actions:

Action	Owner	Due Date
Call Peter at Offshore Environmental Associates for help with new oceanographer for reviews	Katherine	10/15
Schedule design review of locomotion system with management team	Katherine	10/18
Schedule field testing time for SS2 with field test team	Katherine	10/20