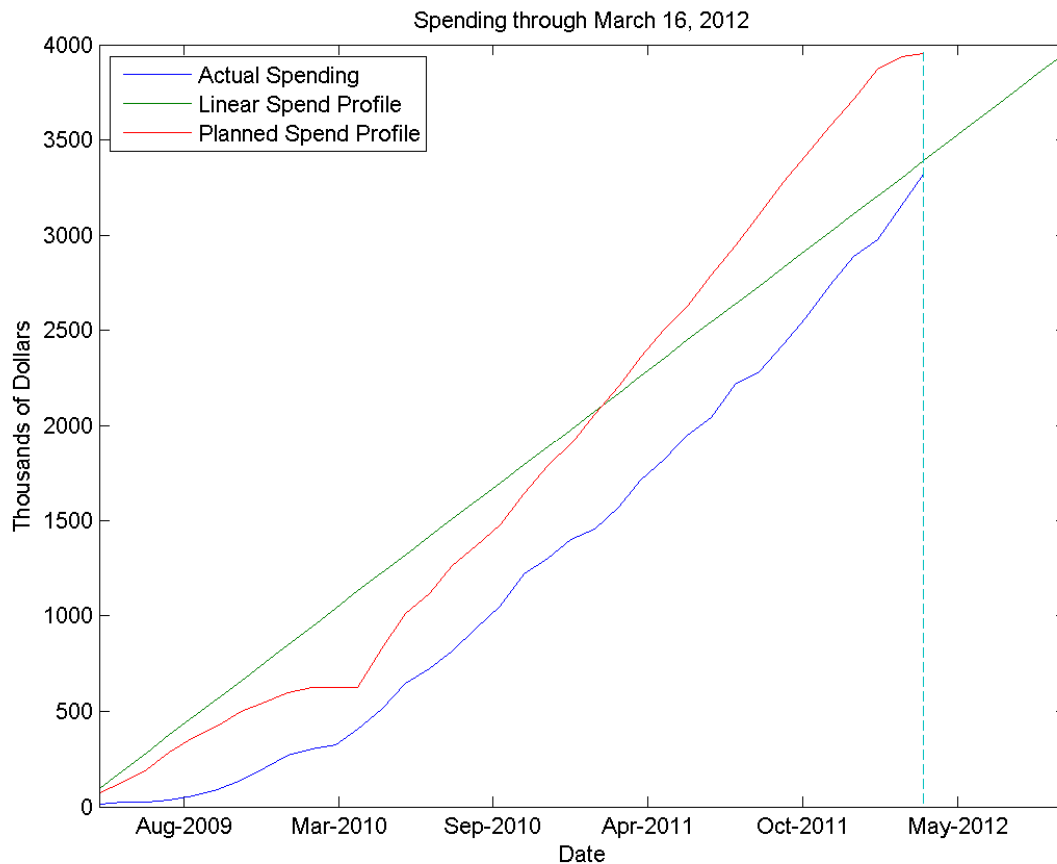
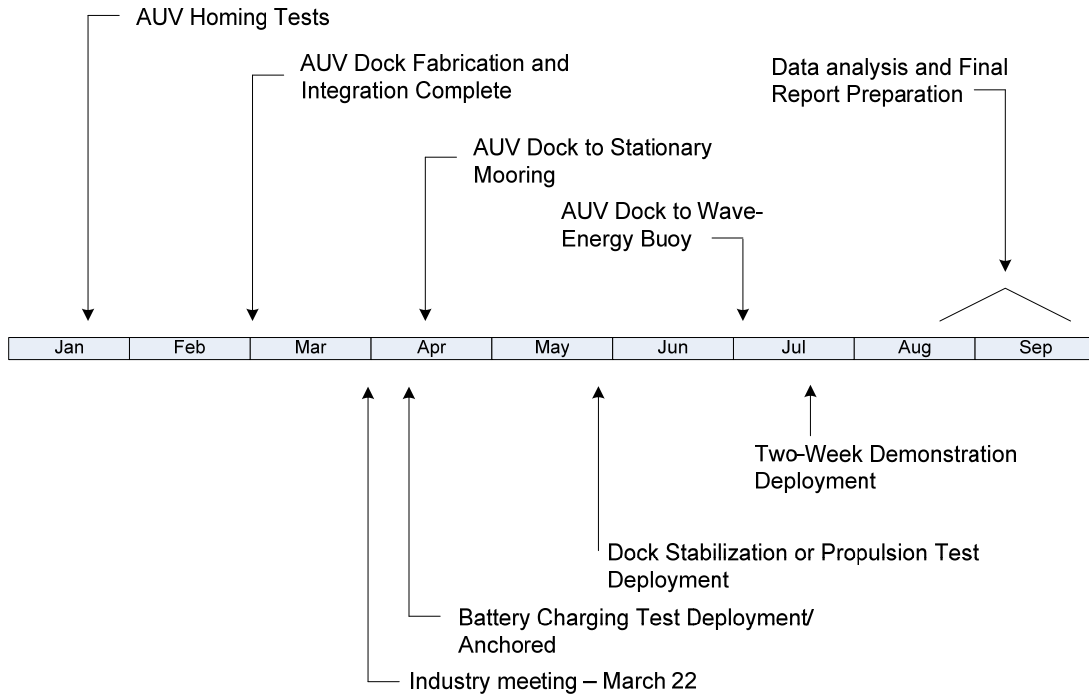


## Financial Progress through March 16, 2012

The graph below shows the projects spend profile through March 16, 2012. The red line shows the original spending plan (from the original proposal), the green line shows the linear spend rate from the project inception to an end date that reflects a six month extension in the period of performance. The blue line shows the actual spend rate and shows the increased spending rate resulting from the build and test of equipment.



**Current Plan:** No longer feasible.



| Activity                                  | Date        | Labor (weeks) | Material Cost | Ship Costs | Total Cost (burdened) |
|-------------------------------------------|-------------|---------------|---------------|------------|-----------------------|
| At-Sea Test of Battery Charging           | March 2012  | 4             | \$2,500       | \$8,000    | \$41,268              |
| AUV Homing                                | 8-Nov-11    | 2             |               |            | \$12,707              |
| AUV Dock Design and Fabrication           | March 2012  | 4             | \$5,000       |            | \$32,963              |
| AUV Dock Test to Stationary Mooring       | April 2012  | 16            | \$16,000      | \$8,000    | \$137,893             |
| AUV Dock Test to Wave-Energy Buoy         | June 2012   | 12            | \$15,000      | \$8,000    | \$110,970             |
| Propulsion Testing                        | June 2012   | 8             | \$12,000      | \$8,000    | \$81,027              |
| Two-week Demonstration Deployment         | August 2012 | 8             | \$8,000       | \$8,000    | \$74,987              |
| Numerical Model Packaging for General Use | TBD         | 4             |               |            | \$28,879              |
| Analysis and final report preparation     | 25-Sep-12   | 6             |               |            | \$43,318              |
| 10% Contingency                           |             | 6             |               |            | \$52,069              |
| <b>Total</b>                              |             | <b>70</b>     |               |            | <b>\$616,081</b>      |

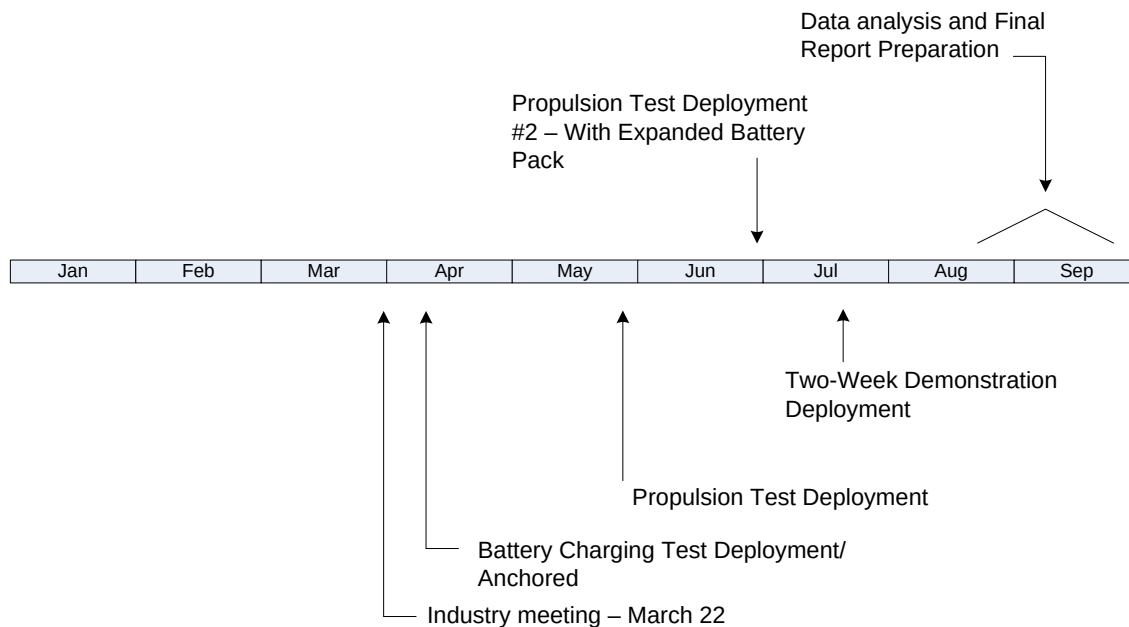
**AUV Docking SubTotals**

| Activity                            | Date       | Labor (weeks) | Material Cost | Ship Costs | Total Cost (Burdened) |
|-------------------------------------|------------|---------------|---------------|------------|-----------------------|
| AUV Homing                          | 8-Nov-11   | 2             |               |            | \$12,707              |
| AUV Dock Design and Fabrication     | March 2012 | 4             | \$5,000       |            | \$32,963              |
| AUV Dock Test to Stationary Mooring | April 2012 | 16            | \$16,000      | \$8,000    | \$137,893             |
| AUV Dock Test to Wave-Energy Buoy   | June 2012  | 12            | \$15,000      | \$8,000    | \$110,970             |
| <b>Total</b>                        |            | <b>34</b>     |               |            | <b>\$294,533</b>      |

**Option 1:** Curtail docking activities, expand power-buoy propulsion exploration and testing (for instance).

**Notes:**

- No Extension Required
- Money currently planned for docking activities would be absorbed by more work on implementation of propulsion and the design/build of the required battery pack.
- Docking results to date would be included in final report.

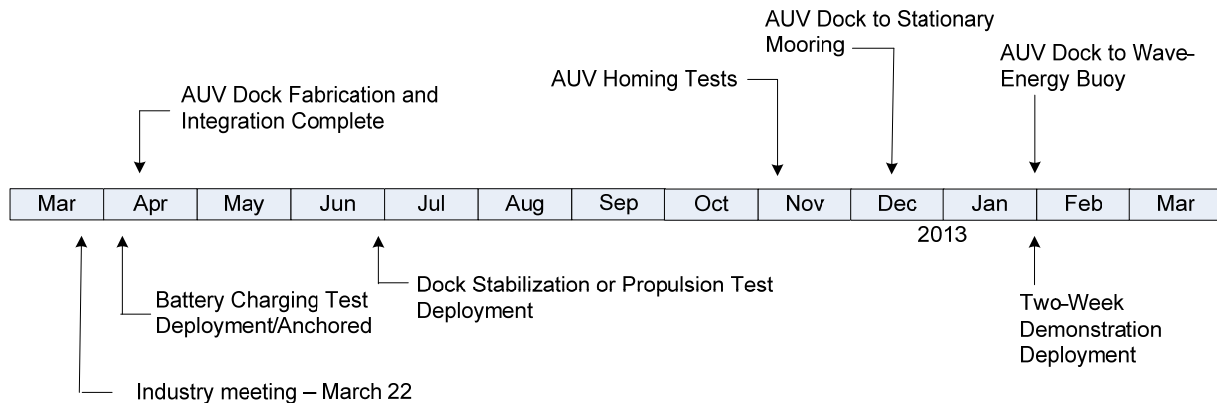


| Activity                                  | Date        | Labor (weeks) | Material Cost | Ship Costs | Total Cost (burdened) |
|-------------------------------------------|-------------|---------------|---------------|------------|-----------------------|
| At-Sea Test of Battery Charging           | March 2012  | 4             | \$2,500       | \$8,000    | \$41,268              |
| Propulsion Testing                        | May 2012    | 12            | \$12,000      | \$8,000    | \$106,440             |
| Fabrication of Battery Pack               | June 2012   | 8             | \$30,000      |            | \$96,127              |
| Propulsion Testing Deploy #2              | June 2012   | 12            | \$12,000      | \$8,000    | \$106,440             |
| Two-week Demonstration Deployment         | August 2012 | 8             | \$8,000       | \$8,000    | \$74,987              |
| Numerical Model Packaging for General Use | TBD         | 4             |               |            | \$28,879              |
| Analysis and final report preparation     | 25-Sep-12   | 6             |               |            | \$43,318              |
| 10% Contingency                           |             | 5             |               |            | \$45,414              |
| <b>Total</b>                              |             | <b>59</b>     |               |            | <b>\$542,872</b>      |

## Option 2: Delay docking activities.

### Notes:

- Remaining AUV booked through October, 6 month extension required.
- ~\$140,000 in additional costs for component replacement and re-establishment of existing calibration level.
- Costs somewhat dependent upon the decision to replace the lost vehicle or not. There is less material costs if a replacement vehicle isn't built, but there are higher operational overheads involved in interleaving these activities with other demands on the vehicle.



| Activity                                  | Date        | Labor (weeks) | Material Cost | Ship Costs | Total Cost (burdened) |
|-------------------------------------------|-------------|---------------|---------------|------------|-----------------------|
| At-Sea Test of Battery Charging           | March 2012  | 4             | \$2,500       | \$8,000    | \$41,268              |
| AUV Homing                                | Nov 2012    | 2             |               |            | \$12,707              |
| AUV Dock Design and Fabrication           | April 2012  | 4             | \$5,000       |            | \$32,963              |
| AUV Dock Test to Stationary Mooring       | Dec 2012    | 16            | \$16,000      | \$8,000    | \$137,893             |
| AUV Dock Test to Wave-Energy Buoy         | Jan 2013    | 12            | \$15,000      | \$8,000    | \$110,970             |
| Propulsion Testing                        | June 2012   | 8             | \$12,000      | \$8,000    | \$81,027              |
| Two-week Demonstration Deployment         | August 2012 | 8             | \$8,000       | \$8,000    | \$74,987              |
| Numerical Model Packaging for General Use | TBD         | 4             |               |            | \$28,879              |
| Analysis and final report preparation     | 25-Sep-12   | 6             |               |            | \$43,318              |
| 10% Contingency                           |             | 6             |               |            | \$52,069              |
| <b>Total</b>                              |             | <b>70</b>     |               |            | <b>\$616,081</b>      |

### **AUV Docking SubTotals**

| Activity                            | Date       | Labor (weeks) | Material Cost | Ship Costs | Total Cost (Burdened) |
|-------------------------------------|------------|---------------|---------------|------------|-----------------------|
| AUV Homing                          | 8-Nov-11   | 2             |               |            | \$12,707              |
| AUV Dock Design and Fabrication     | March 2012 | 4             | \$5,000       |            | \$32,963              |
| AUV Dock Test to Stationary Mooring | April 2012 | 16            | \$16,000      | \$8,000    | \$137,893             |
| AUV Dock Test to Wave-Energy Buoy   | June 2012  | 12            | \$15,000      | \$8,000    | \$110,970             |
| <b>Total</b>                        |            | <b>34</b>     |               |            | <b>\$294,533</b>      |

**Additional Funds Required**

| Activity                                           | Date | Labor<br>(weeks) | Material<br>Cost | Ship<br>Costs | Total Cost<br>(Burdened) |
|----------------------------------------------------|------|------------------|------------------|---------------|--------------------------|
| USBL Replacement                                   |      |                  | \$30,000         |               | \$30,000                 |
| Integration of Docking Components into new vehicle |      | 4                | \$5,000          |               | \$32,963                 |
| USBL Calibration                                   |      | 2                |                  |               | \$12,707                 |
| Redeployment of "Mock-Dock"                        |      | 2                |                  | \$6,000       | \$21,767                 |
| Retesting of Homing                                |      | 4                |                  | \$3,000       | \$29,943                 |
| 10% Contingency                                    |      |                  |                  |               | \$12,738                 |
|                                                    |      | 12               |                  |               | \$140,118                |