

RICHARDSON, JSU
DHS COASTAL RESILIENCE CENTER
APS™ Business Plan
YEAR 5 PROGRESS REPORT
July 1, 2019 – June 30, 2020

I. INTRODUCTION

Project Title: ADCIRC Prediction System™ Business Plan Development

Principal Investigator Name/Institution: Tom Richardson, Jackson State University

Additional Research Participants/Partners: Nancy Maron and Kimberly Schmelzinger, Blue Sky to Blue Print, LLC; Jason Fleming, Seahorse Coastal Consulting; Brian Blanton, University of North Carolina at Chapel Hill; Robert Twilley, Louisiana State University; Rick Luettich, University of North Carolina at Chapel Hill

Short Project Description:

We intend to transition products and services associated with the real-time 24/7 ADCIRC Prediction System™ (APS™), comprised of the ADCIRC Surge Guidance System (ASGS), the Coastal Emergency Risks Assessment decision support web portal (CERA) and the ADCIRC storm surge model. Based on several years of development and pilot testing supported by the Coastal Resilience Center of Excellence (CRC), we believe a base of stakeholders exists who place high value on the products and services the APS™ can provide. The challenge is to develop a viable business model for the APS™ that will allow us to transition innovations from CRC projects into stakeholder desired products and services and to ensure their continued operation and expansion past the end of the CRC funding cycle in 2020. Setting up the APS™ business model involves three primary activities: (i) the development of a business plan to support the APS™ ; (ii) the continued build out of the APS™ by transitioning recent CRC innovations into its product offerings; and (iii) stakeholder identification and the expansion of the stakeholder community via enhanced outreach and training activities. This scope of work describes the first of these activities, the development of an APS™ business plan. The continued buildout of the APS™ and the identification / expansion of stakeholders are described in scopes of work to Seahorse Coastal Consulting (Jason Fleming, PI) and Louisiana State University, (Robert Twilley, PI).

II. PROJECT NARRATIVE

1. Project overview: APS™ has been developed and operated primarily with funds provided under a Cooperative Agreement between the Department of Homeland Security and the University of North Carolina at Chapel Hill. Supplemental funding has come from the Louisiana Sea Grant program. The Cooperative Agreement will terminate 30 days after the start of the 2022 hurricane season, and will receive reduced funding for most of the 2021 season. If APS™ is to continue providing high-resolution, near-real-time surge forecasts,

there is an urgent need to establish a business plan for continued support and to begin implementing that plan during or shortly after the 2020 hurricane season.

2. Results: In September, 2019, a contract was established with BlueSky to BluePrint, LLC, to lead development of the APS™ business plan. Activities during Year 5 have centered largely around providing the information and data needed to support that contract and its efforts. Results during Year 5 included market assessments via surveys and individual interviews and development of a detailed cost and revenue model. A project support team was formed that consists of the PI plus the additional research partners listed above. During Year 5, this support team met in person 3 times and virtually approximately 25 times. Other related activities during Year 5 included exploring data visualization options with several companies and platforms already active in the field of natural hazard risk assessment. Several of these options appear promising and will be explored in more detail in Year 6.
3. End users: End users who participated in the project during Year 5 included the 668 registered CERA users plus over 35 individuals representing key market segments in the Federal government, state and local agencies, academia, and the private sector.
4. Transition: In early April, 2020, a survey was sent (<http://tiny.cc/5z0kmz>) to the 668 registered CERA users to assess their patterns of interacting with CERA, how they were using APS™ products, and what additional capabilities they would like to see. Soon thereafter, individual interviews were conducted with many of the 35 individuals mentioned in item 3 above. These interviews explored product use and potential market needs in much greater detail.
5. Project Impact: The impact thus far of this project on APS™ has been to help identify structural, governance, and financial issues that will be key to its success in the post-Cooperative-Agreement environment. Since APS™ originated in academia and grew somewhat organically in its early years, it lacked many of the features and characteristics common to small businesses. The process of developing a business plan has highlighted the need for a more focused approach to the overall enterprise.
6. Unanticipated Problems: Although BlueSky to BluePrint, LLC, had broad experience in helping transition products and systems from academia to “the real world”, they were completely unfamiliar with the highly specialized field of numerical modeling and storm surge prediction. They were selected in part because this unfamiliarity would help ensure a fresh perspective, which it has. However, we underestimated its effect on the learning curve necessary to be able to give sound business advice. Therefore, project spin-up was slower than originally planned.
7. Student Involvement and Awards: NA
8. Interactions with CRC education projects: NA

III. STATUS OF CONTRACT TASKS A/O JUNE 30, 2020

Phase	Description	# Days	Timings
Project Initiation	Kick-off meeting & project set-up	2	
	Interview members of project team (5-8)	2	Month 1
	Attend PI Meeting Chapel Hill	2	
Phase I: Defining the Product/Service and its Competitive Positioning			
Landscape Review	Scan of environment	3	
	Develop interview guide and interview up to 10 experts	5	Month 2
	Draft findings, including recommendations for positioning vis à vis partners, competitors	2	
Audience Assessment	Develop segmentation and identify interviewees	3	
	Draft interview guide & develop product/service concepts	3	Months 3-5
	Up to 20 Interviews with members of these segments	7	
	Draft findings	2	
Product Definition	Facilitated meeting - review findings, define product	3	Month 5
Phase II: Strategic Assessment of Operations and Finance			
Financial Analysis	Develop projections based on possible revenue streams	5	Months 5-6
	Develop pricing model for leading option	5	
	Develop forward operational budget, P+L format	5	
Marketing/Sales Strategy	Based on revenue projections, develop 6- & 12-month strategy for client acquisition, including guidance on marketing and outreach	5	Month 7
Governance	Gather data from partners/stakeholders	3	
	Develop documentation - terms of reference; staffing role descriptions; participation guidelines, governance model -showing decision-	4	Months 8-9
	Meet with leadership team to review & revise plan	2	
Final Report	Production of final recommendation report	2	Month 10

< All Complete

< Complete

< Complete

< Underway

< Complete

< Complete

< Complete

< Initiated

< Shift to Year 6

< Partial Complete

< Shift to Year 6

< Shift to Year 6