Request for Research Funding for FY 2019-2020			
Requesting Office	CO Structures Office	**Priority**	4 of 5
Proposed Title	Update Vessel Past Point Data		
Justification	This proposed research effort is to perform a survey and analysis to update our vessel past point data within the Structures Design Guidelines. The currently used vessel past point data that is utilized for the design of bridge substructures and bridge fender systems is based on a survey conducted 20 years ago. Updating this survey will ensure that current bridge and fender designs are utilizing the most recent data and that the data moving forward can accommodate growth and/or change. This update will also set a precedence for updating future past point data. This project will provide and understanding to how the past point data has changed over the last 20 years, if any.		
Impact	This research will ensure bridges and bridge fender systems are designed appropriately, neither overdesigned and costly, nor under-designed and less safe.		
Affected Offices			
Existing Work	Determination of Barge Impact Probabilities for Bridge Design, 2016 Estimation of Vessel-Bridge Collision Probability for Complex Navigation Channels, Journal of Bridge Engineering, Volume 20, Issue 7, 2015, Content ID 04014091 Validation and Implementation of Bridge Design Specifications for Barge Impact Loading, 2014 Analysis, assessment and mitigation of barge impact load on bridge piers, 2013 Risk Analysis and Management of Ship Collisions with Bridges, The First International Symposium on Transportation and Development – Innovative Best Practices (TDIBP 2008), 2008, pp 332-337 Bridge System Safety and Redundancy, National Cooperative Highway Research Program, 2009, Completed		
Keywords Used In Existing Work Search **(Cannot leave blank)**	bridge vessel collision design		
Related Contracts (Give contract numbers)	BDK75 977-31, BDV31 977-21		
Funding Request	150,000	**Anticipated Duration**	1.5 years
Project Manager	Andre Pavlov/Sam Fallaha	**Contracting Method**	Direct to UF (Dr. Consolazio)
Urgency	4	The urgency is dependent on the potential changes within the past point data, which is unknown without this research. Given the priority of topic the urgency is given a 4.	
Implementability	1	This is a continuation of previous research, already implemented. No implementation barriers are foreseen. This research will be a simple update of the existing past point data within the Structures Design Guidelines.	

Project Benefits (Succinct, complete explanation)

Improved design parameters will ensure consistent safety levels for all bridges designed for vessel collision.

Project Benefits **(Select all that apply and explain)**	**Quantifiable Benefits (units, dollars, etc…if applicable)**	**Methodology or Data Sources Used to Determine Quantifiable Benefits. If not applicable, please give justification of project benefits**
o Materials Enhancement		
o Materials Savings		
o Time Savings		
o Lives Saved/Injuries Prevented		Improve bridge safety.
o Other (Explain)		

*Comments should explain and support urgency, financial benefit, and implementability scores