

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave Blank)		2. REPORT DATE December 2000	3. REPORT TYPE AND DATES COVERED Final Report	
4. TITLE AND SUBTITLE DeSoto Canyon Eddy Intrusion Study Vol. II: Technical Report			5. FUNDING NUMBERS 1435-01-96-CT-30825	
6. AUTHOR(S) Peter Hamilton, Thomas Berger, James Churchill, Robert Leben, Thomas Lee, James Singer, Wilton Sturges, Evans Waddell				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Science Applications International Corporation 615 Oberlin Rd., Suite 100 Raleigh, North Carolina 27605			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Department of the Interior Minerals Management Service Gulf of Mexico OCS Region 1201 Elmwood Park Boulevard New Orleans, LA 70123-2394			10. SPONSORING / MONITORING AGENCY REPORT NUMBER OCS Study MMS 2000-080	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Unlimited			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) During this study <i>in-situ</i> current measurements, hydrographic data, and satellite images were used to document and characterize LC intrusions and interactions with the northeastern Gulf. These data provide a basis for an examination of the dynamical processes of momentum, mass and vertical vorticity exchanges occurring during LC-slope interactions. Our understanding was enhanced of the frequency of LC, LC rings and secondary eddies interactions with the northeastern slope, and the exchanges of vorticity, momentum, and mass fields associated with the eddy-slope interactions. The study helped elucidate the role of the DeSoto Canyon as it affects the LC and eddy processes as well as the Canyon being a route of mass and momentum exchange between the shelf and deep water of the northeastern Gulf.				
14. SUBJECT TERMS Gulf of Mexico, DeSoto Canyon, Loop Current, eddies, rings, currents, hydrography, sea surface height, sea surface temperature, circulation, field measurements, transport, slope, shelf break			15. NUMBER OF PAGES 275	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT SAR	