

Entry_ID	salton2010	salton2011
NGDC_Number		
DataClass	Field,Processed	Field,Processed
DataType_at_MSDC	MCS	MCS, OBS
Theme_Keyword_Thesaurus	GCMD Science Keywords Valid	GCMD Science Keywords Valid
Theme_Keyword	EARTH SCIENCE > Solid Earth > Seismology > Seismic Profile	EARTH SCIENCE > Solid Earth > Seismology > Seismic Profile
Place_Keyword_Thesaurus	GCMD Location Valid	GCMD Location Valid
Place_Keyword	Salton Trough	Salton Trough
General_Keyword_Thesaurus	none	none
General_Keyword	rifting, hazard, fault, San Andreas Fault	rifting, hazard, fault, San Andreas Fault
Platform	Sea Ark	
PlatformOrganization	USGS	barge
Beginning_Date	2010-05-06	2011-03-05
Ending_Date	2010-05-14	2011-03-20
SurveyDatum	WGS84	WGS84
Data_Set_Progress	complete	complete
rrentness_Reference	ground condition	ground condition
Originating_Organization_ID	SIO/GRD,USGS	SIO/GRD,USGS
Data_Organization_ID	UTX-AUSTIN/IG	UTX-AUSTIN/IG
Access_Constraints	limited	limited
Use_Constraints	UTIG use rules apply, no commercial DB or Web use without permission	UTIG use rules apply, no commercial DB or Web use without permission
Abstract	The U.S. west coast is subject to significant risk of very large earthquakes, and heavily populated Southern California is particularly vulnerable owing to its proximity to the San Andreas Fault. The linkage of this fault system through the Salton Sea region is poorly understood, in part because the structure beneath the Salton Sea has not been defined. The project, conducted in conjunction with a deployment of on-land seismic stations, will address that problem by deploying an array of ocean bottom seismometers (OBS) on the floor of the Salton Sea, and conducting a complementary multi channel seismic survey aimed at imaging the structure beneath the Salton Trough. Improved understanding of the Earthquake hazard in this region has direct societal benefit. The project will also contribute to science education in California, and support the Ph.D. research of a young female graduate student at UCLA.	The U.S. west coast is subject to significant risk of very large earthquakes, and heavily populated Southern California is particularly vulnerable owing to its proximity to the San Andreas Fault. The linkage of this fault system through the Salton Sea region is poorly understood, in part because the structure beneath the Salton Sea has not been defined. The project, conducted in conjunction with a deployment of on-land seismic stations, will address that problem by deploying an array of ocean bottom seismometers (OBS) on the floor of the Salton Sea, and conducting a complementary multi channel seismic survey aimed at imaging the structure beneath the Salton Trough. Improved understanding of the Earthquake hazard in this region has direct societal benefit. The project will also contribute to science education in California, and support the Ph.D. research of a young female graduate student at UCLA.
Purpose	The objectives were to image the structure beneath the trough and to improve the understanding of the San Andreas Fault system and earthquake hazard in the region.	The objectives were to image the structure beneath the trough and to improve the understanding of the San Andreas Fault system and earthquake hazard in the region.
AwardTitle	Marine Seismic Reflection and Refraction Study of the Salton Trough	Marine Seismic Reflection and Refraction Study of the Salton Trough
Project_Name	Salton Seismic Imaging Project 2010	Salton Seismic Imaging Project 2011
Funding_Organization_ID	NSF	NSF
Funding_Award_Number	0927446	0927446
Funding_Beginning_Date	2009-08-01	2009-08-01
Funding_Ending_Date	2013-09-30	2013-09-30
Data_Release_Date		
Cruise_Report		
Browse_Graphic_File_Name		
Browse_Graphic_File_Description	Navigation for available field and processed data from the cruise, overlaying bathymetric/topographic data grid of Smith & Sandwell (1997, Science, 277:1956-1962).	Navigation for available field and processed data from the cruise, overlaying bathymetric/topographic data grid of Smith & Sandwell (1997, Science, 277:1956-1962).
Browse_Graphic_File_Type	JPEG	JPEG
Cruise_Filename		
Cruise_Navigation	salton2010.ts.tar.gz	
Cruise_Start_Port		
Cruise_End_Port		
Line_Names_Comment	MCS: 1_12, 14_17, 19, 1a, 2a,2b, 2c, 4a, 8a, 9a, 10a, 14a	MCS: 01_07, 09_12, 01a, 05a, 07b, 11a
SNO_Region	np09	np09
Other_Archive_Files	salton2010.observerLogs.zip	

Intro_Paragraph

Part of the Salton Seismic Imaging Project (SSIP), this 2010 survey of the Salton Trough collected 24-channel MCS data with an acquisition system tailored to enhance vertical resolution. <http://www.ig.utexas.edu/sdc/cruise.php?cruiseIn=salton2011> was a companion survey in 2011.

Part of the Salton Seismic Imaging Project (SSIP), this 2011 survey of the Salton Trough collected 48-channel MCS and OBS data with a deep acquisition system tailored to enhance penetration. A 17 m motor vessel towed a 30 m barge from which the instruments were deployed. <http://www.ig.utexas.edu/sdc/cruise.php?cruiseIn=salton2010> was a companion survey in 2010.

ProcessingDescription

Processing included included velocity analysis, CMP stacking and predictive deconvolution using 2% prewhitening, bandpass filtered from 30-200 Hz using SIOSEIS. In-house MATLAB modules were used for CMP, gathering, stacking and deconvolution.

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Links**Comments**