

ACTIVE SSC PROJECTS

This section covers the active SSC projects. They constitute the current program. Table 4-1 lists the ongoing SSC projects. The majority of projects span one fiscal year, but there are some multiyear projects funded incrementally on an annual basis.

TABLE 4-1 Active Projects

SSC Number	FY Project Number	Project Title
SR-1434	02-16	In-Service Performance of Aluminum Structural Details
SR-1440	JIP	IMPRESS: Improved Fatigue Performance of High Strength Steels
SR-1441	04-24	Hydrodynamic Pressures and Impact Loads for High Speed Catamaran/SES
SR-1442	04-11	Investigation of Plastic Limit States for Design of Ship Hull Structures
SR-1444	04-07	Comparative Study of Naval and Commercial Ship Structure Design Standards
SR-1446	05-03	Mechanical Collapse Testing on Aluminum Stiffened Panels for Marine Applications
SR-1447	05-08	Fracture Mechanics Characterization of Aluminum Alloys for Marine Structural Applications
SR-1448	05-15	Aluminum Structure Design and Fabrication Guide
SR-1449	06-23	Reliability-Based Performance Assessment of Damaged Ships
SR-1450	06-11	Welding Distortion Analysis of Hull Blocks Using Equal Load Method Based on Inherent Strain
SR-1451	06-12	Review and Update SSC Website Case Studies
SR-1452	06-03	Feasibility, Conceptual Design and Optimization of a Large Composite Hybrid Hull
SR-1453	06-14	SSC Impact Study

SUMMARY OF COMPLETED SSC PROJECTS

Table 5-1 lists the reports completed from 1996 to present. Reports published prior to 1996 are included on the SSC CD-ROM Library. Abstracts and/or electronic copies are available on the SSC Internet web site at www.shipstructure.org. These reports are also available from the SSC Executive Director. Requests may be mailed to:

Commandant (G-MSE/SSC)
U. S. Coast Guard
2100 Second St., SW
Washington, DC 20593-0001
or e-mail requests to jdelaney@comdt.uscg.mil

TABLE 5-1 Completed Projects

Project Number	Report Number	NTIS Number	Project Title	Complete Date
SR-1335	412	00-108444	Interactive Nature of Cathodic Polarization and Fatigue	Sep 00
SR-1344	398	97-141584	Assessment of Reliability of Existing Ship Structures	Apr 97
SR-1345	392	97-109961	Probability-Based Ship Design: Implementation of Design Guidelines	Oct 96
SR-1349	393	97-109979	Evaluation of Ductile Fracture Models for Ship Structure Details	Jan 97
SR-1356	394	97-131353	Strength Assessment of Pitted Plate Panels	Jan 97
SR-1357	431		Retention of Weld Metal Properties and Prevention of Hydrogen Cracking	Jun 04
SR-1358	396	97-141600	Optimized Design Parameters for Welded TMCP Steels	Feb 97
SR-1360	395 Vol. 5 /1371	97-142863	Fitness for Purpose Evaluation of Critical Structural Details in Tanks	Feb 97
SR-1360	395 Vol. 4 /1371	97-142855	Fatigue Classification of Critical Structural Details in Tankers	Feb 97
SR-1360	395 Vol. 3 /1371	97-142848	Repair Management System for Critical Structural Details in Ships	Feb 97
SR-1360	395 Vol. 2 /1371	97-142830	Study of Fatigue of Proposed Critical Structural Details in 2 Hull Tanks	Feb 97
SR-1360	395 Vol. 1 /1371	97-142822	Program Summary and Rational Basis for Corrosion Limits on Tankers	Feb 97
SR-1362	414	00-108446	Probability-Based Design (Phase 4), Synthesis of the Reliability Thrust Area	Sep 00
SR-1363	PFSS-95	97-141568	Prevention of Fracture in Ship Structures	Feb 97
SR-1365	407	99-159881	Optimal Strategies for the Inspection of Ships for Fatigue and/or Corrosion Damage	Aug 99
SR-1367	403	98-111651	Design Guide for Marine Applications of Composites	Dec 97
SR-1368	418	03-101114	Compensation for Openings in Primary Ship Structure	Sep 02
SR-1370	404	98-172455	Ship Structural Integrity Information System	Sep 98
SR-1373	401	98-111651	State of the Art in Hull Monitoring Systems	Oct 97
SR-1374	402	98-100449	Guide to Damage Tolerance Analysis of Marine Structures	Oct 97
SR-1375	408	99-159873	Detection Probability Assessment of Visual Inspection of Ships	Aug 99
SR-1377	397	97-141576	Commercial Ship Design and Fabrication for Corrosion Control	Feb 97
SR-1378	399	97-156178	Strength and Stability Testing of Stiffened Plate Components	Apr 97
SR-1379	400	97-193031	Weld Detail Fatigue Life Improvement Techniques	Aug 97

SR-1382	411	00-108443	Evaluation of Effect of Construction Tolerances on Vessel Strength	Sep 00
SR-1383	420	03-101115	Failure Definition for Structural Reliability Assessment	Sep 02
SR-1384	415	00-108447	Crack-Arrest Toughness of Steel Weldments	Sep 00
SR-1385	428	03-106851	In-Service Non-Destructive Evaluation of Fatigue and Fracture Properties for Ship Structures	Sep 03
SR-1386	405	99-159931	Fatigue Resistant Detail Design Guide for Ship Structures and Short Course on Fatigue and Fracture Analysis of Ship Structures	Aug 99
SR-1388	406	99-159923	Sea-Operational Profile for Structural Reliability Assessments	Aug 99
SR-1392	413	00-108445	Effect of Welded Stiffeners on Crack Growth Rate	Sep 00
SR-1395	410	00-108442	Fatigue of Aluminum Structural Weldments	Sep 00
SR-1396	427	03-106850	Life Expectancy Assessment of Ship Structures	Sep 03
		05-108997	Fire Degradation, Failure Prediction and Qualification Methods for Fiber Composites	Sept 05
SR-1397	441			
SR-1398	425	03106848	Fatigue Strength and Adequacy of Weld Repairs	Sep 03
SR-1400	422	03-101117	Modeling Structural Damage in Ship Collisions	Sep 02
SR-1403	419	N/A	Supplemental Commercial Design Guidance for Fatigue	Nov 01
SR-1406	432		Adaptation of Commercial Structural Criteria to Military Needs	Jan 04
SR-1407	416		Prediction of Structural Response in Grounding Application to Structural Design	Nov 01
SR-1409	417	00-108448	Risk Based Life Cycle Management of Ship Structure	Mar 03
SR-1410	409	00-108441	Updating the Guide to Damage Tolerance Analysis	Jul 99
SR-1416	423	03-104869	Green Water Loading on Ship Deck Structures	Mar 03
SR-1419	434	04-105931	Predicting Motion and Structural Loads in Stranded Ships	Mar 04
SR-1420	424	03-104870	Evaluation of Accidental Oil Spills from Bunker Tanks (Phase 1)	Sep 03
SR-1422	426	03-106849	Post-Yield Stability of Framing	Sep 03
SR-1425	435	04-105932	Predicting Stable Fatigue Crack Propagation in Stiffened Panels	Nov 04
SR-1426	437	05-101706	Modeling Longitudinal Damage in Ship Collision	Jan 05
SR-1427	421	03-101116	Risk-Informed Inspection of Marine Vessels	Sep 02
		05-101516	Effect of Fabrication Tolerances on Fatigue Life of Welded Joints	Jan 05
SR-1428	436			
SR-1429	430	04-101321	Fracture Toughness of A Ship Structure	Nov 04
SR-1430	429	04-101320	Rapid Stress Intensity Factor Solution Estimation for Ship Structures Applications	Nov 04
SR-1431	433	04-105930	Interactive Buckling Testing of Stiffened Steel Plate Panels	Nov 04
SSS-2k	SSS-2000		Ship Structure Symposium 2000 Proceedings	Nov 01
SSS-96	SSS-96		Human and Organizational Error in Marine Structures	Dec 98
		05-107484	Deterioration of Structural Integrity Due to Chemical Treatment of Ballast Water	May 05
SR-1432	440			
		06-101510	In-Service Non-Destructive Estimation of Remaining Fatigue Crack Initiation Life of Welded Joints	Nov 05
SR-1433	444			
SR-1435	439	05-106310	Comparative Structural Requirements for High Speed Crafts	May 05
		05-108998	Labor-Saving Passive Fire Protection Systems for Aluminum and Composite Construction	Sept 05
SR-1436	442			
		05-104887	Structural Optimization for Conversion of Aluminum Car Ferry to Support Military Vehicle Payload	Mar 05
SR-1437	438			
		05-109000	Design Guidelines for Doubler Plate Repairs of Ship Structures	Aug 05
SR-1438	443			
SR-1439	445	06-101511	Structural Survivability of Modern Liners	Nov 05