

RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS
REQUEST FOR PROPOSALS FOR RESEARCH
August 2005

The Research Council on Structural Connections (RCSC) is organized to stimulate and support such investigation as may be deemed necessary and valuable to determine the suitability and strength of various types of bolted or riveted structural connections, to promote the knowledge of economical and efficient practices relating to such structural connections, and to prepare and publish related standards and such other documents as necessary to achieving its purpose. We are presently supporting research in the following areas: the effect of surface treatments on hydrogen embrittlement; fatigue of bolts in tension; the effect of delay and weathering on tightening of TC bolts; evaluation of current resistance factors for bolted connections. For more information on RCSC please see www.boltcouncil.org.

The RCSC is soliciting new research proposals on any topic related to structural connections for funding up to \$40,000 per year for up to three years. There would be an opportunity to renew funding for worthy projects that might continue beyond that time frame. A list of research topics of interest to the RCSC is presented below, but proposals on other topics related to bolted joints will be considered. Priority will be given to funding projects with significant cost sharing or joint sponsorship.

Topics of interest to RCSC:

1. Investigation of recent developments in galvanizing and metallizing. Topics to be investigated include :
 - review of literature on liquid metal embrittlement, galvanized cope cracking, and effect of galvanizing on fatigue,
 - review of worldwide specifications,
 - new coatings,
 - potential for loss of pretension,
 - slip behavior,
 - necessity for wire brushing faying surfaces,
 - prequalify roughened galvanized surfaces to a minimum SSPC SP or roughness,
 - how many times can bolts be regalvanized?
2. Slip in oversized and slotted holes, including post-slip capacity. Provide guidance on use of slip-critical joints.
3. Effect of filler metal thickness on bolt capacity and requirement for development of fillers.
4. Elevated temperature properties of HS bolts and performance of bolted joints in fire.

Proposals must be limited to two pages of text plus any figures, tables and schedule and budget. The respondent's resume and list of recent publications must also be appended to the proposal. Send proposals by mail or email to:

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The deadline for submitting a proposal is October 31, 2005. The proposals will be evaluated and ranked by Committee A.2 Research of the RCSC. The funding will be approved by the RCSC in 2006 as funds are available. At this time it is anticipated that two such projects can be funded each year.