The 2013 Student Design Competition challenges students to design The HealCopter, a helicopter aimed at rescuing victims of a natural disaster. It must be capable of reaching the scene of the disaster rapidly with a large payload. It also requires equipment for the helicopter to operate safely.

The consequences of a severe earthquake in China in 2008 were dramatic, hitting areas with high population density which were difficult to access both because they are located in mountainous areas and because the earthquake destroyed the existing infrastructures. Rescue efforts were deployed internationally, but they encountered major difficulties for multiple reasons. First, the roads were completely damaged or blocked off by landslides, so that emergency aid could not be distributed via the roads. Second, the extreme terrain conditions precluded the use of helicopter evacuation in many cases. As a consequence, there were numerous examples of population being stranded in their demolished village for several days without food and water before rescuers could finally arrive. Authorities ordered the deployment of more than 150 helicopters, but they appeared to not be adapted to the specific atmospheric conditions (fog), leading to some accidents. Satellite images provided some help, but it appeared that the means used to rescue the population were not satisfactory. It is common belief that at least one natural disaster will happen in the world every year. This RFP addresses that issue.

Prizes will be awarded in the following categories: graduate (1st place $1,300, 2nd place $700), undergraduate (1st place $800, 2nd place $400) and Best New Entrant ($300). A representative of each winning team in the graduate and undergraduate categories will be expected to present a technical summary of their proposal at the 70th AHS Annual Forum and Technology Display to be held May 20-22, 2014 in Montreal, Canada. Complimentary registration for that day of the AHS FORUM will be provided. Also, this year’s sponsor – Eurocopter – will provide the first-place graduate and undergraduate winners with $1,000 stipend to help defray the cost of attendance at the Forum.

A Letter of Intent to participate must be received no later than February 1, 2013 and must include the team members, whether it is a graduate or undergraduate team, their faculty sponsor and email addresses for all participants. Requests for information and clarification will be accepted continuously but must be received by February 28, 2013. All responses will be posted by March 15, 2013. Proposals must be submitted by June 28, 2013 and AHS Headquarters will notify the winners by August 16, 2013. AHS recommends that you read the white paper “Judging the Student Design Competition”, which is found at: [http://www.vtol.org/education/student-design-competition](http://www.vtol.org/education/student-design-competition). Please address correspondence to: Ms. Kay Brackins, AHS International, 217 N. Washington St., Alexandria, VA 22314-2538; (703) 684-6777 Ext 103; e-mail: KBrackins@vtol.org.