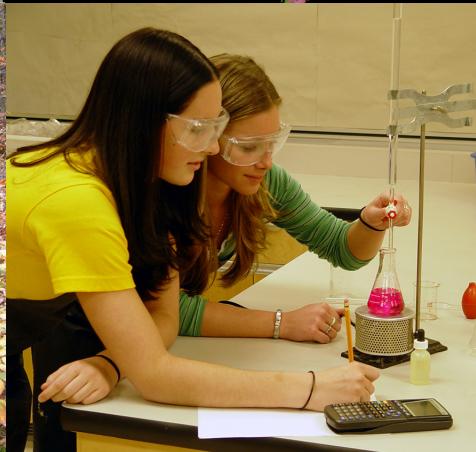
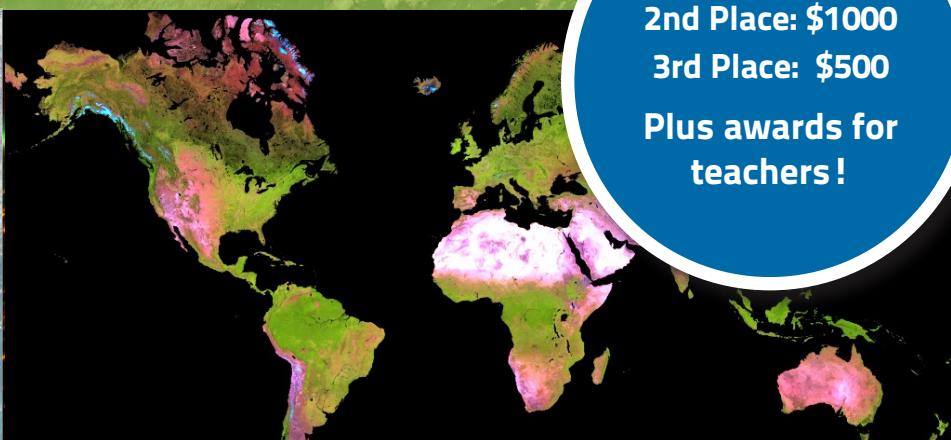


IGES announces the

2014 Thacher Environmental Research Contest

Grades 9-12

1st Place: \$2000
2nd Place: \$1000
3rd Place: \$500
Plus awards for teachers!



Entries must be received by:

May 5, 2014



For more information on how to enter, please visit www.strategies.org/ThacherContest

INSTITUTE
for **GLOBAL ENVIRONMENTAL STRATEGIES**

2014 Thacher Environmental Research Contest



Entries must be received by:
May 5, 2014

The Institute for Global Environmental Strategies (IGES) announces the 2014 Thacher Environmental Research Contest! This national competition for high school students was founded in honor of IGES board member Peter Thacher, who died in 1999. Peter Thacher was former deputy executive director of the United Nations Environment Program, an advisor to NASA, and, at the time of his death, president of the Earth Council Foundation/U.S. He was a leader in promoting the use of satellite remote sensing.

This year's contest asks students to focus on U.S. protected areas and the potential for remote sensing to play a key role in their preservation. Over the course of 2013, we saw many natural disasters threaten U.S. protected areas, including the California Rim Fire, which burned over 250,000 acres of forest in and near Yosemite National Park. Homes and businesses were destroyed, and air quality was impacted hundreds of miles away. However, scientists and government officials were able to utilize remote sensing technologies to create plans for fighting this fire, thereby mitigating some of the damage it could have potentially caused.

Given the importance of understanding the past, present, and future of protected areas, the 2014 Thacher Environmental Research Contest challenges high school students to examine U.S. protected areas using geospatial tools and data to determine the challenges and potential for future changes in these areas.

Awards

Cash awards will be given to the top three projects - \$2,000 for first place, \$1,000 for second place, and \$500 for third place. In addition to prizes for the winning students the teachers of the 1st-, 2nd-, and 3rd-place students/teams will receive a \$200 Amazon.com gift card. If the student's participation is part of an after-school club or other activity independent of school, the student can identify on his or her entry form an adult "coach" who would be eligible for this award (e.g., a parent, club leader, etc.). Only one teacher or coach recognition award will be provided for each winning entry.

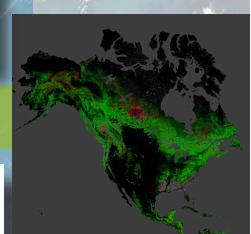
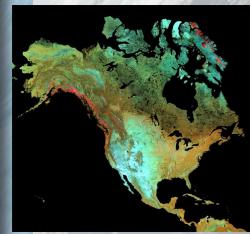
Eligibility

1 Any student who is enrolled in and attending high school (grades 9-12; public, private, parochial, Native American reservation, or home school) in the United States or U.S. territories; or —

2 Any student who is a United States citizen and enrolled in a high school (grades 9-12) attending a:

- Department of Defense Dependents' Overseas School or an accredited overseas American or International School; or
- Foreign school as an exchange student; or
- Foreign school because his/her parent(s) are temporarily working and living abroad.

3 Entries can be submitted by individuals or teams. In the case of team entries, the cash award will be split equally among the winning team members. All team members must meet eligibility requirements.



Data collected from Landsat 8 as part of the University of Maryland Global Forest Change Project.

[www.strategies.org/
ThacherContest](http://www.strategies.org/ThacherContest)

2014 Thacher Environmental Research Contest

Contest Rules

- Only one entry per student or team.
- Student reports should not exceed 20 pages (including title page, abstract, text, maps/charts/tables/images, and any appendices).
- Students should pick a presentation style that best suits their project. However, all reports should contain a title page (with project title, all students' names, teacher/coach name, and contact information); abstract (a short description of the project, no more than 300 words); discussion of the procedures that they followed, results, and what they learned; and references.
- Every submission must include a completed entry form.
- Page format: 8.5 x 11" single-sided paper, 1-inch margins (top, bottom, and sides), 12 point font, and double spacing.
- All sources and references used (including websites) must be credited/referenced. Students may use the style guide of their choice. There are several major style guides from which students can choose, e.g. Chicago Manual of Style, Strunk and White's The Elements of Style, and stylebooks of several newspapers (New York Times, Wall Street Journal, etc.).
- No project will be eligible that involved human or non-human vertebrate animal experimentation.
- For hard copy entries, submit two sets of the entire entry (one original and one copy), including entry form, to IGES. For PDF entries, email by 11:59 pm entrant's local time, May 5, 2014, to: ThacherContest@strategies.org.
- Signed complete entries must be postmarked by May 5, 2013.
- Late or incomplete entries will be disqualified.
- All entries will become the property of IGES, and will not be returned.
- Winners agree that information and photographs related to their entries can be used on the IGES website and in IGES publications (e.g., brochures, annual reports), press releases, and for other publicity purposes.
- As a condition of entry, entrants agree that IGES shall have the right to use, copy, reproduce, publish, modify and make available the entry to the public via the IGES website for any purpose, including but not limited to, advertising and promotion of the contest.
- Acceptance of a prize constitutes permission and consent for IGES to use a winner's name, likeness, and entry for advertising and promotional purposes without additional compensation.
- IGES plans to periodically contact winning students (e.g., annually to track academic and career paths). Winning entrants agree to respond to brief follow-up surveys.



The greatest challenges we face over the coming decades are related to the environment, including climate change and variability.

Through this contest, IGES seeks to further students' ability to design and communicate creative approaches to environmental issues using 21st century technologies.

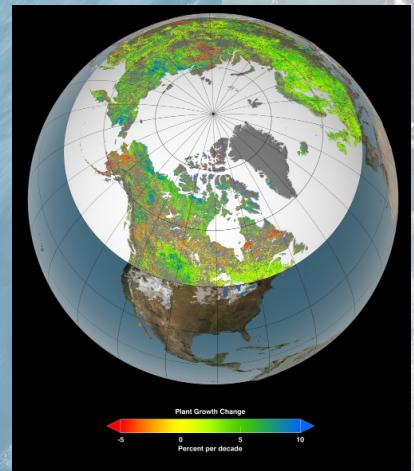


Image showing shifting growing seasons in Arctic. Credit: NASA

Judging

Entries will be judged by IGES staff based on the following criteria: scientific/technical accuracy; creativity/originality; quality of presentation; thoroughness of research/methods/procedures; quality of conclusions; and demonstration of knowledge gained.

2014 Thacher Environmental Research Contest

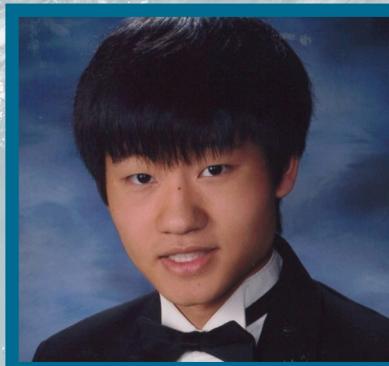
Submitting Entries

Email PDF entries (by 11:59pm local time, May 5, 2014) to:

ThacherContest@strategies.org

Or, send two sets of the entry (one original and one copy) to:

Institute for Global Environmental Strategies
Attention: Thacher Contest
1600 Wilson Blvd, Suite 600
Arlington, VA 22209



Previous Thacher Contest Winners (clockwise, from top left): Yimin Yao (1st place, 2003), Ehsan Jafree (2nd place, 2012), Dillen Maurer and Paul David (3rd place, 2012), and Darwin Li (2nd place, 2011).

Guiding Questions

Following are suggestions for questions that will help guide student projects:

- How is this protected area unique? Consider the area's physical characteristics (size, location, etc.), biodiversity (plants and animals), and history.
- How does the protected area contribute to society? Specify a variety of benefits enabled by this protected area locally, regionally, or nationally.
- How has this area changed over time? What data and methods will you use in your investigation?
- Has this change impacted any of the ecosystem services and

benefits you outlined above? How?

- What is the potential for future change in the protected area? Is it due to climate change, policy, or another reason? What do you recommend could be done to address or manage this change?
- If you were able to visit this protected area in person, what kind of fieldwork would you do? What would you like to confirm about your research, or see for yourself?
- What are additional questions related to the specific area you are studying that you believe are important to explore?

Looking for Resources?

Go to
www.strategies.org/
ThacherContest
for links to suggested resources.

Entries due: May 5, 2014