

## SCHOOL

## BRIEFS

## Educator webinar date

KETCHIKAN (KDN) — The monthly webinar focusing on educator evaluation and support is scheduled for 3:30 p.m. on Dec. 17.

The webinar is part of a series created by the Alaska Departments of Education and Early Development to share information between districts and to deliver the latest updates from DEED on a regular basis, according to a DEED newsletter.

The Dec. 17 webinar will focus on lessons learned about student learning data.

More information is available at [www.livebinders.com/play/play?present=true&id=1816085](http://www.livebinders.com/play/play?present=true&id=1816085).

## Writing contest detailed

KETCHIKAN (KDN) — The University of Alaska Anchorage, Alaska Dispatch News and Alaska Center for the Book have announced the 34th annual Statewide Creative Writing Contest.

The contest is open to all Alaska residents of all ages, and prizes of \$25 or \$50 will be awarded in fiction, nonfiction and poetry categories for children and adults, according to a contest flyer.

There is also a \$200 grand prize and a \$100 prize for editor's choice. Each contestant may enter one work of fiction and nonfiction of 5,000 words or less, and up to three poems.

Panels of Alaska writers, journalists and teachers will judge the contest, and a separate panel of judges will select

See Briefs, Page B-3

## SCHOOL

## EVENTS

## Debate tournament

KETCHIKAN (KDN) — Ketchikan High School's Debate, Drama and Forensics team will host a regional tournament — Kayhi's only home meet — on Friday and Saturday at Kayhi.

More than 100 students from schools all over Southeast Alaska will compete in the tournament, according to Kayhi debate coach David Mitchel.

Mitchel said there are 120 two-hour judging slots required to put on the tournament. As of Tuesday, Mitchel said all but 25 judging slots were filled. The team will host a judging clinic at 6 p.m. on Wednesday in the Kayhi library. The clinic is not a requirement, but Mitchel said the debate form has changed this year and the refresher could be beneficial for judges.

## Holiday programs

KETCHIKAN (KDN) — Public and private schools in Ketchikan are hosting winter musicals and programs in the coming weeks.

- Ketchikan High School's winter music concert is at 7 p.m. on Wednesday in the Kayhi auditorium.

- Ketchikan Charter School's winter concert, "Christmas at the OK Corral" featuring Kindergarten through third-graders and the middle school choir, is at 6:30 p.m. on Friday in the school's gym.

- The school's fifth-grade band, and middle school band and choir will also perform.

- Gateway Christian School's annual Christmas program is at 7 p.m. on Friday at Gateway Baptist Church. The program, "A Day in the Manger," will be followed by the school's annual gift auction.

- Point Higgins Elementary School's sixth-grade classes, as well as the fifth- and sixth-grade bands, will perform at 2 p.m. on Dec. 15 in the school's gym.

- Schoenbar Middle School's winter concert is at 7 p.m. on Dec. 15 in the Kayhi auditorium.

- Holy Name Catholic School's holiday concert, "The Christmas Pageant of St. Francis," is at 6 p.m. on Dec. 16 at Holy Name Catholic Church.

- Fawn Mountain Elementary School's winter program is at 6 p.m. on Dec. 16 at the school.

- Houghtaling Elementary School's holiday concert is at 6 p.m. on Dec. 17 in the Kayhi auditorium

## SCHOOL LUNCH

## MENUS

## KETCHIKAN SCHOOL DISTRICT

- **Wednesday:** Gold rush chicken nuggets.
- **Thursday:** Baked Alaska halibut sandwich.
- **Friday:** Saucy beef sliders on a whole wheat bun.
- **Monday:** Savory baked chicken.
- **Tuesday:** Cheesy mac and ham.
- **Dec. 16:** Ultimate burger with lettuce and tomato.

All lunches include milk

## Drone's-eye view

## K-town kids contribute to NASA, NOAA research

By MEGAN PETERSEN

Daily News Staff Writer

After the white Syma X5C Explorer, a quad-copter drone with flashing orange and green lights, got caught up on a rope and whicker basket full of pencils on top of a file cabinet, Ketchikan High School senior Katherine Karvelas got serious. As her classmate Matthew Guevara untangled the drone from the basket, Karvelas threw off her knit cap and assumed a wide-legged stance. She focused on an imaginary target zone on the other side of a table about 12 feet away.

Guevara placed the drone in a three-foot square landing zone outlined in tape on the floor in front of Karvelas, and, using the remote control, she piloted the drone up to a hover before flying it to the opposite side of the classroom. She rotated the drone 180 degrees, and — piloting backwards — returned it to the landing zone at her feet.

Karvelas and Guevara are two of six Kayhi seniors in Julie Landwehr's oceanography class who are working with Trillium Learning on the development of an earthquake forecast system and a tsunami debris mapping project.

Over the past month, Guevara, Karvelas, Jaden Leavitt, Tiara Manalo, Justin Ming and Kurt Powers have been learning to pilot drones in a five-level program. The students began the training about a month ago, and spend a little less than an hour each day practicing their drone-piloting skills under the direction of Kepa Wong, a software engineer for the school district who has experience with similar projects through his career in the U.S. Army and Navy.

Wong said the six seniors are working through a five-step learning plan that will have them piloting drones of different sizes and at varying levels of difficulty. One challenge the group recently faced was the power of wind — specifically, the school's central heating system.

In that particular drill, the pilot directed the drone to hover near a spot marked on a white board that was in the path of ceiling air vents, and an added challenge involved a floor fan. The task was meant to help students learn to account for and counter air flow, according to senior Justin Ming.

"You can't see the wind, but it's whipping around right there, so it's very hard to hold it steady. We had a big circle on (the whiteboard) that said 'Kurt's nemesis' on it," Ming said, referring to his classmate, Kurt Powers.

The students were working through the first level during their fourth-period class on Dec. 3 with the hope of eventually using a DJI Inspire drone — which has an independently operated camera system mounted to it — to identify and map tsunami debris along the coasts of Southeast Alaska.

"The goal (of the five-level program) is to use the drone for some kind of educational, scientific or commercial application," Wong said. "In this case, we're going to be able to map tsunami debris on our coastal (areas), and they'll use these drones to take pictures, and they'll stitch them together and map the debris."

When they finish the training, and when the weather allows, Landwehr's students will fly drones and operate cameras from local beaches and from the Jack Cotant, the district's fishing and research vessel, Landwehr said.

The project is part of a partnership between the Ketchikan Gateway Borough School District and Trillium Learning, which provides "educational training services for globalizing business systems," including language arts and science, technology, engineering and math projects, according to its website.

Ron Fortunato, the president of Trillium Learning, said another goal of the drone project is to be able use the drones to find and collect debris with the hope of identifying invasive species in collaboration with the National



Ketchikan School District software engineer Kepa Wong demonstrates a drone flying drill Thursday at Kayhi.

Staff photo by Taylor Balkom



Ketchikan High School senior Katherine Karvelas operates a Syma quad-copter drone on Thursday at Kayhi.

Staff photo by Taylor Balkom

Oceanic and Atmospheric Administration.

"We're still discovering debris all the way from Alaska down to South America from Japan, and they still have these invasive species on them that we know can really hurt our fisheries," Fortunato said during a monthly visit to Ketchikan on Nov. 20. "... We're setting up a program where we're going to try to identify (and ask), if they do find marine debris, 'Can we identify what biological organisms are actually on there that don't belong here?' NOAA has done a lot of study on invasive species in Alaska, so we have a lot to work with for that."

The work will involve more than the six seniors in Landwehr's oceanography class. Fortunato said he's been working with Marisa Frey's and Janice Wood's sixth-grade classes at Point Higgins Elementary School to develop a survey for locals who have collected debris to create a catalog.

"(The sixth-graders are) going to go around the community, and they're going to identify and take pictures of (collected debris) and try to get the approximate date and location where we got it, so we can back-date a lot of this stuff that (the community has) already collected on the shore," Fortunato said. "Then from this point forward, (students will) create new data that will go to NOAA, as far as what tsunami debris is hitting our shores still."

The district's partnership with Trillium Learning extends beyond the tsunami debris project. Landwehr's six seniors are also continuing the work that students in the Tribal Scholars Pro-

gram started last year on Ketchikan's "Global Earthquake Forecast System" sensors, which is another Trillium Project that also involves students in Kodiak, as well as the NASA Ames Research Center and the International Centre for Earth Simulation in Geneva, Switzerland.

Fortunato said the theory behind the system is that earthquakes could be predicted using data on magnetic field activity, as well as on electrical currents and ozone levels, that could indicate the initial shifting of tectonic plates before an actual quake.

In January, Tribal Scholars Program students installed earthquake sensor stations, which are meant to collect pre-earthquake indicators, on the roof of Kayhi. A sensor was also installed on the roof of Craig High School, though it is currently being maintained and not recording data, according to Fortunato.

Landwehr's oceanography class has been working to identify a baseline in the past month.

The data is "noisy," meaning other consistent sources of electric and magnetic currents could hide pre-earthquake signals, so the six seniors have been using a magnetometer app on school iPads to identify the noise, Ming said.

"What we're trying to do is weed out all the static, so that we can actually fine-tune the magnetometer to look at what we're looking for, which is anomalies in the magnetic field," Ming said. "But right now, since (the sensor's) out there on the balcony by the science wing, there's a lot of stuff going on there."

Ming said simple and mundane events show up on the magnetometer, including typical science class experiments and cars starting.

When the students gather enough data, Landwehr said the project will expand into Kayhi's statistics class, where students will crunch the numbers from the earthquake sensors and the experiments conducted.

Contributions made by Kayhi's seniors and Point Higgins sixth-graders are going to directly affect the work that happens at large and prestigious research institutions, like NASA and NOAA, Fortunato said.

"It's hard to get your arms around how important this work is, this student work is, because it's such a true, real-time, real-world project that has critical ramifications with other research," Fortunato said. "When (organizations like NASA) say, 'We need you to do a baseline study,' it's because they can't send a team up here to do it. They're actually relying on the students to do it, so we're training the students and the teachers to perform those types of tasks and the skills in order to do that, to get the professional level of data that they need, and then we're part of the team."

Ming said he feels lucky to be involved in the projects.

"There's not really a lot of opportunities for high school kids to get involved with organizations as big as NASA and NOAA," Ming said. "... There's really not a lot of opportunities to help out with that, so we're really, really lucky to be able to contribute to

See Drones, Page B-3

## Met sixth-grader writes novel

By MEGAN PETERSEN

Daily News Staff Writer

Although the red, squiggly line that indicates spelling errors can be a burden, nuisance and distraction to writers, it was completely ignored during the month of November.

At least, it was in Metlakatla Middle School paraprofessional Kandi McGilton's after-school writing challenge for National Novel Writing Month.

"I told (the six middle school students who participate), 'If you've got those red, squiggly lines under your words, that's OK. Don't even correct them as you write. Even if you make mistakes, that's fine,'" McGilton said, adding, "the whole point of NaNoWriMo is to get words down. It's not about content. As long as you get your words, you're good."

It paid off for sixth-grader Lucas Echenique, who finished a 30,000-word novel in less than a month while participating in the NaNoWriMo Young Writer's Challenge.

NaNoWriMo is an annual, national challenge that sets the goal of finishing a 50,000-word novel for adults and a 30,000-word novel for writers 17 years old and younger. The challenge is open from Nov. 1 through Nov. 30.

In 2014, more than 325,000 writers — including more than 80,000 in the young writers program — participated in the challenge. Only some 58,000 writers completed the 2014 challenge, according to the program website. That's an 18-percent completion rate.

McGilton said she's participated in the challenge on-and-off since 2011 and was thinking about creating a community NaNoWriMo challenge this year, but decided to test the concept out on sixth- through eighth-grade students during the middle school's after-school 'encore' program that focuses on special projects.

Metlakatla Middle School teacher Kathy Anderson, in whose classroom McGilton works, said most of the school's students stay for an extra hour or two after class to work on projects like the NaNoWriMo challenge or robotics.

Besides prompts to help students through writer's block and sprint exercises to maximize word counts, McGilton said the work was largely individual.

"The fun thing about NaNoWriMo for them was they didn't have to show us any work," McGilton said. "They could write about anything they wanted, and they didn't have to worry about it being edited or getting nit-picked at. It was just their own creativity running wild — that was the whole point of it."

Echenique was the only student in the school to complete the challenge. McGilton said another student wrote about 8,000 words.

Echenique's novel, titled "Welcome to the Red Planet," is the story of two boys "that end up on Mars and fly home in a homemade spaceship," he said.

"A whole bunch of things happen to them on Mars, like they're wanted so they can put them in a zoo for an exhibit, then they escape, and they also get in a plane crash and fall into a big crater," Echenique said. "There's a Native Martian village down there, and they get trapped, and they find their way out, and then, in a junkyard, they made themselves a homemade spaceship, and they stopped in a village to grab some food, and then they went back to Earth."

Echenique said he had never heard about the challenge before Nov. 1, when McGilton introduced to the concept to the students. But Echenique — who likes to write because he gets "to barf up ideas on paper" — wasn't initially interested in participating in the challenge.

"At first, I didn't feel like doing it," he said. "It was like, 'What's the point? I don't think I'm going to get anything in return.' Then my mom bribed me, and I did it."

"My mom sends me to bed at 9:40 p.m., and that's really annoying, so I told her, 'Now, if I do NaNoWriMo, you're going to let me go to bed at 10:30 p.m.'" Echenique added. He also said that he "finished (the novel) at school and used most of that time for watching T.V."

See Novel, Page B-3

## Kayhi ACDC places in tourney

## School takes 4 of top 10 spots

By MEGAN PETERSEN

Daily News Staff Writer

Ketchikan High School's Academic Decathlon team hosted competitors from Craig, Juneau-Douglas and Metlakatla high schools in the ACDC Regional Tournament this past weekend at Kayhi.

Students competed in 10 India-themed events, including essays, interviews, and a series of tests and speeches, according to Kayhi ACDC coach Peter Stanton.

Several Kayhi students placed in the top 10 — Liz Vossen placed third overall, with Lora Starr taking fourth place, Max Valera taking seventh place, and Sage Acteson taking ninth place.

Kayhi competitors also placed in individual events.

Acteson took first place in both science and math events, and Vossen placed first in interviews. Acteson also placed fourth in economics.

Vossen also took third place in the essay event, fourth place in art, and fifth place in both social sci-

ence and speech events.

Starr placed second in essay, third in art, and fifth in both economics and science.

Gabrial Canfield took second in economics, as well as fifth in social science.

Adrian Antonio placed second in math, as well as fifth in social science.

Anna Warmuth placed third in music and fifth in social science.

There was a three-way tie between Kayhi students for fourth place in math — Frances Barry, Largin Zhuta, and Starr shared the fourth-place prize.

Max Valera placed fourth in essay, as well as fifth in art, social science and science.

Emme Andersen took fifth place in art, and Lydia Sumrall placed fifth in both interview and music.

The next ACDC event is the GCI Academic Decathlon 2016 Competition from Feb. 24 through 27 in Anchorage.

[Editor's note: KDN reporter Megan Petersen was a speech judge in the ACDC Tournament.]