

TRIPOLI GERLACH

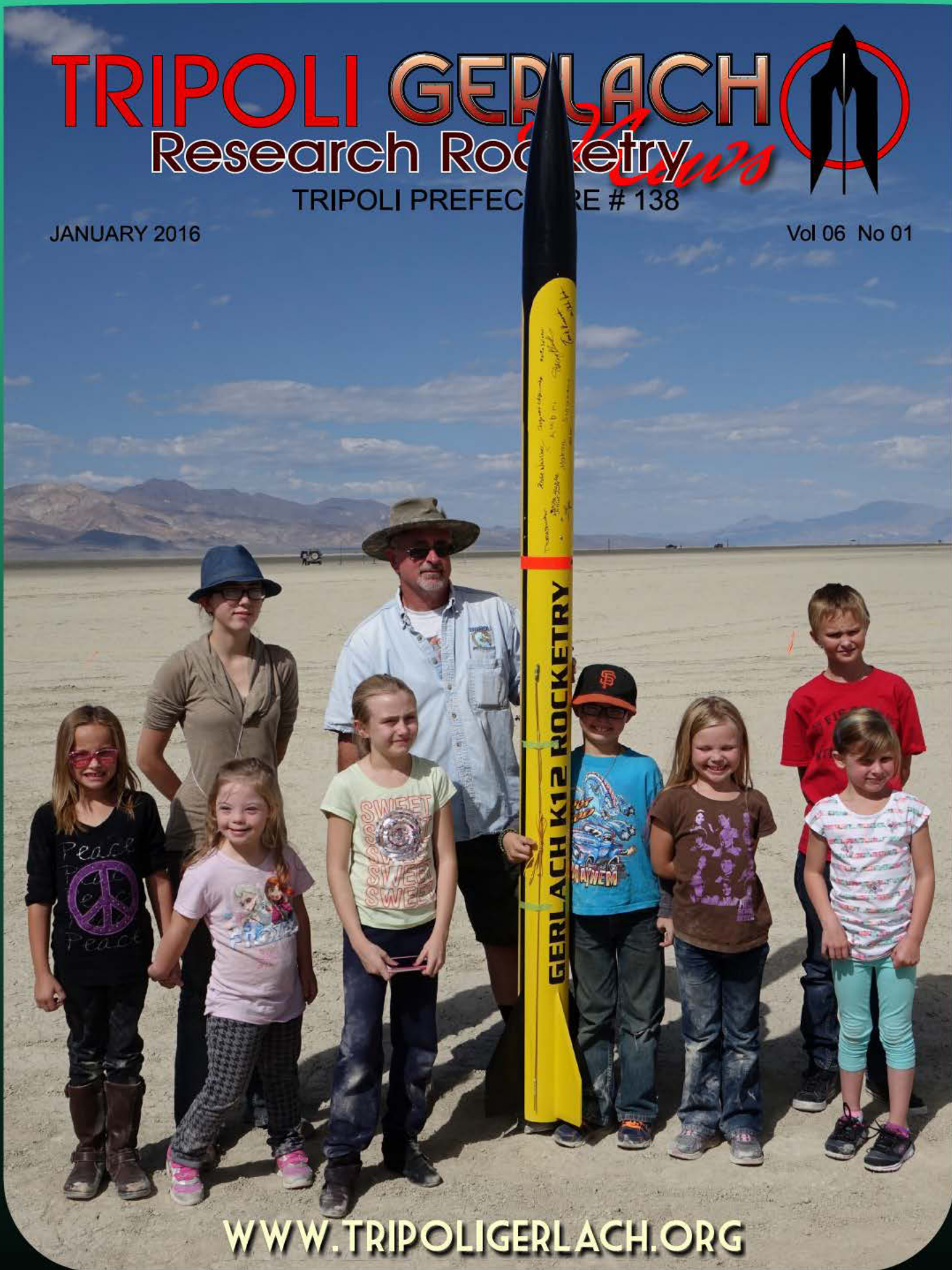
Research Rocketry



TRIPOLI PREFECTURE # 138

JANUARY 2016

Vol 06 No 01



WWW.TRIPOLIGERLACH.ORG



JANUARY 2016

Vol. 06 No. 01

**PUBLISHED EXCLUSIVELY FOR
THE MEMBERS OF TRIPOLI GERLACH
AND ANYONE ELSE INTERESTED**

All Content Copyright ©2016 by TRIPOLI GERLACH

Tripoli Gerlach was founded as a National Prefecture under the Tripoli Rocketry Association, Inc. Devoted to Research Rocketry and the Black Rock Desert area of Nevada, we welcome all National Tripoli Members, no matter their location or Certification Level.

Our Executive Officers are;

Paul Holmes (566)
PrefectPlano, TX
paulholm@att.net

Tom Blazanin (003)
Secretary
Valencia, PA
shadow@pghmail.com

Dave Rose (7126)
Treasurer
N. Huntingdon, PA
drose191@comcast.net

If you have anything to contribute in the way of information, articles, photos or whatever, please send them to Tripoli Gerlach Headquarters. Visit our WebSite on-line at:

WWW.TRIPOLIGERLACH.ORG

ON THE COVER Larry Benek stands with the GERLACH K12 ROCKETRY rocket and the kids of the Gerlach K12 School. They were all part of Tripoli Gerlach's project to bring rocketry to the kids of Gerlach by conducting in class building sessions and launch. You can read all about it on page 7..

MAGAZINE STAFF

EDITOR & LAYOUT:

Tom Blazanin

CONTRIBUTING STAFF:

Chris Pearson

OFFICE:

Tripoli Gerlach
748 Galloway Drive
Valencia, PA 16059

THE EDITOR

TRIPOLI GERLACH NEWS is back on-line due to members requests and promises of article content for future issues. The time is now to submit these articles.

In the past TRIPOLI GERLACH NEWS has been the work of mainly one person. With the help of a few good people I have managed to produce the magazine BUT the few good people can not supply a steady flow of material in a timely manner. There is absolutely no blaming these few people since their contributions are consistent and the word dedicated can be used.

There are a number of people who said they would submit articles. The problem lays with these people. Many are very knowledgeable in specific areas of rocketry both non and professional. They have promised to submit but nothing ever shows up.

I moved this issue back to a January date waiting in hopes articles would show up. But to this day I have received nothing. So it can be considered this will be the only issue for 2016 unless people submit.

Please enjoy the Launch Coverage of HAMSTER DANCE 5 and the complete report on the Gerlach Projects. We made a lot of kids happy and they want us back.

DISCLAIMER

Tripoli Gerlach does NOT promote nor certify any activities presented here as safe nor appropriate to all readers of this Publication. Information is for educational purposes only. Tripoli Gerlach, its members & officers, the authors of articles presented and the Tripoli Rocketry Association, Inc. are not responsible for reader's activities, conduct or participation in the use and pursuit of any content presented.

UNSUNG HEROS

All groups have their center core people. These are the people who do it all, not for the sake of the members but, for their hobby. At this past BALLS we had several of these people who did it all. Setting up and tearing down the range, running the range, keeping things under control, etc. Many of them go unsung and just do it as something that needs to be done.

BALLS 25 had three people who went unsung and are the prime example of our "Heros". The first two are Chuck & Brenda Rogers. Sunday morning when things began to slow the two of them walked the entire range picking up and collecting pieces & parts of scrap rocket debris (ignitors, broke cases, fiberglass, wadding, fins, propellant, you name it). Nobody really paid attention to what they were doing nor did they make it known what they were doing, they just did it. THANK YOU.

The third person has been doing something for several years that nobody knows about. Tripoli Gerlach has a Gerlach storage space. At the end of the launch all of our equipment is somewhat randomly placed in storage. During the process desert dirt and crap is drug through the building we store everything in. The area itself becomes filthy with desert environment. And we get in our cars and drive away.

It was noticed when we arrive to get our equipment out and out to the Playa; the place is nice and clean. The owner claims he's never touched anything and thanks us for cleaning things up when we leave.

We found out our elf is Waysie Atkins who stays over Monday to do this. The biggest surprise is on his Monday stay over Waysie take his shovel, rakes and

broom out to our launch site and does a follow up cleaning. He single handedly does what the Burners do for Burning Man.

Waysie covers the range removing signs that we were there. He fills in holes, rakes & sweeps tracks, cleans up remnant camp fires and picks up any junk left in the prep areas. This he does on his own, not for the members but because he feels it is the right thing to do. THANK YOU.

Next year when you see these people give them thanks and maybe chip in yourself to leave Black Rock as we found it. A little bit of effort rewards big time, even if it is just inside you.

THANK YOU THANK YOU THANK YOU

RENEWAL DEADLINE

OK it's January 1st, 2016 and our Tripoli Gerlach Renewals are DUE. Per our By-Laws everyone, no matter what time of year they join, must renew their Tripoli Gerlach Membership by January 1st. The exception to this rule is if you joined at, or after, our 2015 Meeting in Gerlach.

There is actually a very small number of members who have not renewed. All people NOT renewed by January 31st will be dropped from our Membership Roster. There will be no exceptions. You are important to us. Please help support us with your renewal. Great things are our future.

Please print out the form below, fill it out and send it to Dave with a check for \$20.00.

Please fill out this form completely. It is necessary to supply us with your TRA number and certification level. Membership runs from January to December. Renewal will be January 1st,

YEARLY DUES ARE \$20.00

Make Check for \$20 Payable to

DAVE ROSE

13385 Lincoln Way
N. Huntingdon, PA 15642

If at all possible please E-Mail your photo to be posted to:

justtom@rimworld.com

MEMBERSHIP APPLICATION

NAME _____ TRA# _____
ADDRESS _____ CERT LEVEL _____
CITY _____ STATE _____ ZIP _____ EXP DATE _____
E-MAIL _____ @ _____
PHONE (____) _____ - _____ CAN WE PUBLISH (YES) (NO) _____
HOME PREFECTURE _____
PERSONAL WEBSITE _____

As a member I will abide by all rules set forth by the Prefecture as well as those set forth by the National Organization. I pledge to pursue a commitment to the Prefecture's designated Launches & Activities and support the Prefecture to the best of my ability.

SIGNATURE _____

DATE _____



TRIPOLI GERLACH
Research Rocketry
TRIPOLI PREFECTURE #138

www.tripoligerlach.org



THE "TOWN" OF SULPHUR

For all the years rocket people have attended launches at Black Rock when night falls the lights of the town of Sulphur radiant across the playa. Everyone knows it's the town of Sulphur and they leave it at that.

But who lives there and what do they do there? Other than the people who work at the Hycroft Gold Mine, nobody lives in Sulphur. They all live in Winnemucca.

Sulphur, NV is situated in the Rabbit Hole mining district just northwest of Rabbit Hole Springs about 35 miles from Humboldt House Station on the Southern Pacific Railway. This is on the edge of the Black Rock desert a desolate volcanic region in which there is little to rest the eye or cheer the spirit. The mines are in the form of pits open cuts and drifts exemplifying in every case that ancient truism 'Easy is the descent to Avernus.

Sulphur used to be a town at one time. Sulphur was first

The above photo shows the Hycroft Gold Mine operation in Sulphur. It can not be seen from the road but those wishing to trek the hills can get a good view of it - for awhile.

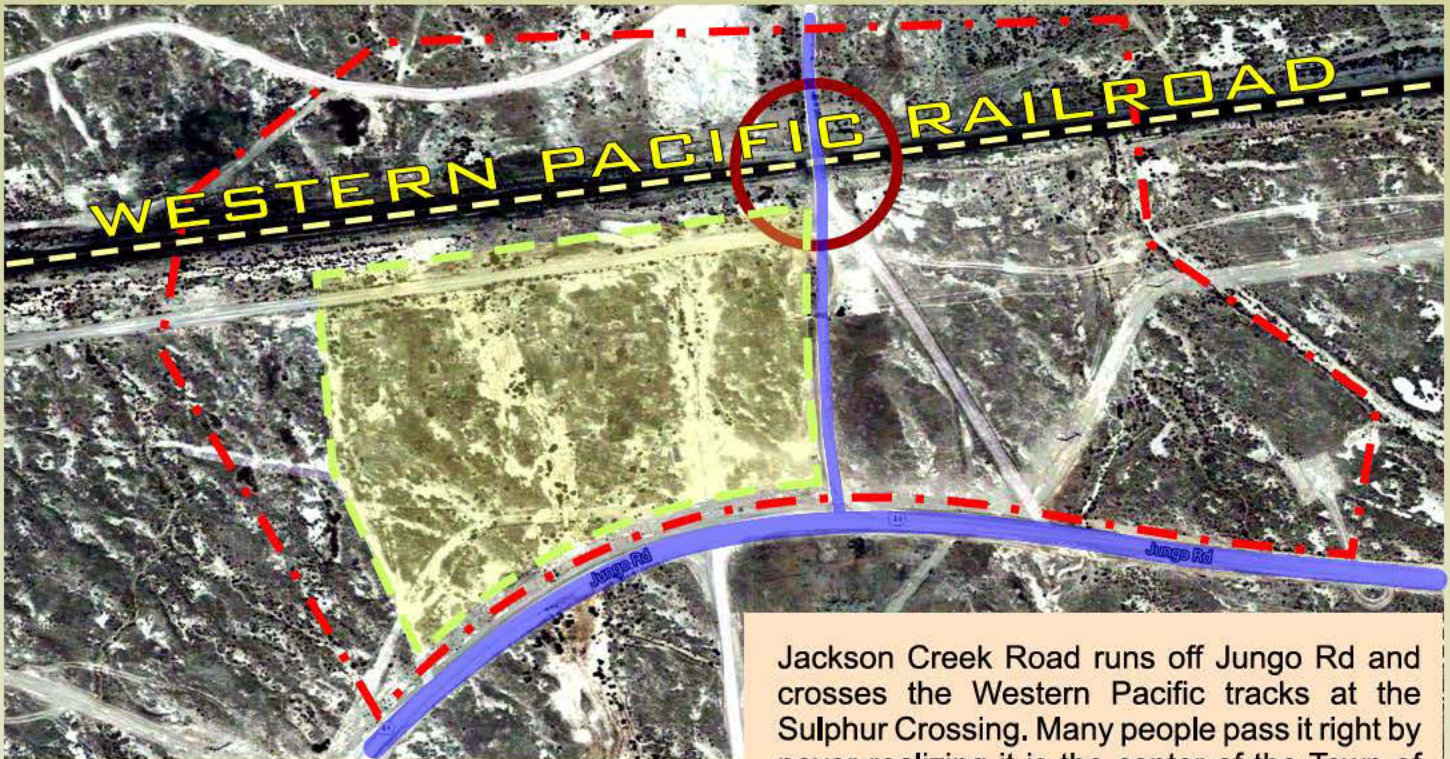
It is run using gigantic equipment seen in the photo looking like tiny hot wheels.

discovered by an Indian who sold the site to two men for a horse, blanket and saddle - which he never received.

The two partners quarreled over their profits until one of them killed the other cut him up put him in a sack and buried him thereabouts.

For a long time the ghost of the murdered miner had things all his own way. The appearance of the Nevada Sulphur Mine Company in the field in 1900 put an end





Jackson Creek Road runs off Jungo Rd and crosses the Western Pacific tracks at the Sulphur Crossing. Many people pass it right by never realizing it is the center of the Town of Sulphur.

The photos in this article were all taken in the yellow area east of the crossing.

to his monopoly. The new company entered at once on the active production of sulphur and brimstone.

Sulphur became a full pledged town around 1875 with a post office, store, and stage line to Winnemucca. Shortly after other locations were made in this area by Messrs. Hale and Wright who sold their claims to the Pacific Sulphur Co. This company erected a refinery and operated it for about 8 years, producing from 6 to 7 tons of sulphur per day. In 1900 the deposits were acquired by the Nevada Sulphur Co. of San Francisco, which operated for several years.

Prior to 1911 the sulphur produced was hauled 35 miles to Humboldt, a station on the Southern Pacific Railroad, formerly Central Pacific Railroad. In 1911 the



Hardly visible from the road; people pass by the Town of Sulphur just about everyday and never see it.



transportation cost was reduced by the completion of the Western Pacific Railroad, which passes within 1½ miles of the actual sulphur deposits. In 1917 the deposits were purchased by the California Rex Spray Co.; this company and others were intermittently active up to 1929.

Today all that is left of the Town of Sulphur is the flattened out remains of wooden buildings and structures. The Hycroft Company came on the scene to extract Gold from the nearby hills and today they are the dominant entity. But, they are not the Town of Sulphur.



If you decide to Trek out to Sulphur take Jungo Rd. It's a little rough in places but rather easy. As usual take water and a camera but if at all possible take a metal detector. There is so much debris left over you're gonna find some good stuff.

Rock hunters will find it interesting as well. The place abounds with various minerals especially Sulphur. Actual Sulphur crystals can be found if you just look.

While the flattened remains of the town's building lay all about be careful of the large holes in the ground. These are food cellars which were usually under buildings. Just like mines and caves be extremely cautious and just stay out. Snakes and scorpions use them for shade in the hot desert days and critters use them both day and night.

Mines, open shafts, drifts going into mountainsides and old buildings, are all **DANGEROUS**. Be aware of your surroundings, and let someone know where you are, especially if your plans change.



HAMSTER DANCE 5 LAUNCH REPORT

CHRIS PEARSON

Hamster Dance is billed as the “weenie EX launch”, being that only Research motors can be used but they must be single use, with no metal casings, and no reloadables. Making a single use motor is harder than you would think. Several flyers had their motors cato, or otherwise malfunction. Other rules are that the rocket can’t weigh more than five pounds at lift-off and there is a 15K altitude limit. Hamster Dance has become an altitude competition whereas years before it was an effort for participants to even get their motors to work.

The launch was originally going to be held at the Three Mile entrance to the lake (near where Burning Man is held) but at the last minute the FAA had issues with that so the decision was made to hold it at the BALLS site after the Thursday set-up.

George Pike had two rockets to fly this year. The first was about the size of an Estes Alpha called “If I had a Hamster” and fitted with a F35(ish) cored end-burning composite motor using Tigertail propellant in an Estes E15 casing”. Upon ignition, the motor became a “road flare” and proceeded to destroy the plastic launch pad. Nevertheless, George won the “Lightest Rocket” award.



A Weenie Rocket is cooked on the pad.

Dave Rose brought out his minimum diameter “HD-5” rocket loaded with a 38mm J219 motor that was a curious combination of 2 grains of purple propellant, 2 grains of slow propellant and 1 grain of red propellant. Speculation was that these propellant grains were found when he cleaned the floor of his shop and he decided not to waste them! The 3 lb. 5 oz. rocket hit an altitude of 8,610 feet and was recovered perfectly.

Larry Benek brought out his 4.15 lb. 54mm rocket called “Red White” with a 38mm I348 motor packed with NASSA Slow propellant. His rocket hit an altitude of 6,668 feet.

Ken Finwall flew his black and pink minimum diameter 3.6 lb. rocket called “The Charm” with a 38mm J101 D-grain motor using Black Dragon propellant. The rocket left the launch pad at a steep angle toward the mountains most probably because of the low thrust of the motor and was never seen again.

Bill Good Sr. loading his “Minotaur” rocket, which won the “Best Looking Rocket” award. It bore a strong resemblance to an EAC Arianne. Loaded with an H88 White motor, however it unfortunately



George Pike
Won the Lightest Rocket



Dave Rose
Hit 8,610 ft



Larry Benek
Got it Up to 6,668ft

cato'ed upon ignition and never left the pad.

Gary Rosenfield came "loaded for bear" this year with a 54mm minimum diameter carbon fiber

rocket called the "CF3D" featuring a 3D printed fin can. The rocket was loaded with a "high solids White Lightning style" K535W-16 motor. That's right, it was fitted for apogee deployment! No electronics except for the Jolly Logic altimeter to record peak altitude. He had to do some hacking at it to get the rocket under the 5 lb. weight limit, but he just made it. The rocket made a perfect flight to 10,164 feet and much to everybody's surprise, was recovered. Gary won the award for "Heaviest Rocket".

David Wilkins once again made the long trek from Australia for Hamster Dance and BALLS. He flew the same rocket he had last year, probably because it never left Gerlach! Called the "Woomara 3". This unpainted 54mm rocket, actually a LOC/Precision Caliper ISP, was flown with a 38mm I366 motor using NASSA Purple propellant. We didn't get an altitude for it because we don't know if he ever got it back!

George Pike's second entry was his homage to the Pittsburgh Steelers. He was originally intending to fly it on one of his own Research H motors, but Chris Pearson gave him one of the two 29mm I235 motors he brought to the launch. The lift-off was flawless, but the rocket experienced total electronics failure and crashed. George didn't have very good luck that weekend with all of his rockets crashing.

ROCKETS of HIGH POWER



2016

All Photos by Nadine Kinney, Except as Noted
Layout by Bruce Kelly
Graphics by Taha Bazantini
Cover Photo by Trevor Boyd, ARTDU

Photos By

NADINE

\$15.00

+\$3.00 S&H

Make Check or Money Order
Payable To: NADINE KINNEY

Mail To

PHOTOS BY NADINE

P.O.Box 50534 • Colorado Springs, CO 80949

Or Order Direct From Our WebSite

www.photosbynadine.com



Ken Finwall

Got Into The Air But Was Lost.

Gary Dickinson brought his "Greyhawk 38" 3 lb. 9 oz. minimum diameter rocket still in primer loaded with a 38mm J572 motor using Mad River White propellant. Gary is the reigning Alpha Hamster winning the altitude competition for the last two years. He didn't disappoint us with once again taking the top prize with an altitude of 11,578 feet.



Bill Good Sr

Won Best Looking Rocket



Gary Rosenfield

Won Heaviest Rocket

Three Hamster Dance entries that weren't flown on launch day (henceforth called "Hamster Dance Rejects") were those of Ron Freiheit with his "Gort" rocket featuring a nose cone made from a solid cast resin model of the robot from the original "The Day the Earth Stood Still" movie. The certificate of authenticity was glued to the

When Kate Talks, People Listen

This system features a synthesized voice named Kate that reports the rocket trajectory in real time during the flight based on GPS and accelerometer telemetry data. A GPS locator is also built into the receiver and will guide the user directly to the landing site. An easy to use software program automatically generates a flight summary report, data plots, Excel file and Google Earth trajectory for the flight.



TelemetryPro™ Receiver

The receiver is a battery operated handheld unit that can receive telemetry data from the transmitter inside the rocket and also send commands to it. The receiver has an internal GPS that allows it to determine the location of the rocket with respect to itself. During flight, a synthesized female voice (Kate) gives updates as to altitude, velocity, distance, bearing, descent rate, ground speed, direction, drift rate and so on. After the flight, the receiver can also guide the user to the landing site to recover the rocket. No need to transfer GPS coordinates to some other GPS navigation device. It is all built in. This is a fully integrated system and very easy to use.



TelemetryPro™ Transmitter

The transmitter is a finished product that is ready to fly, right out of the box. It is not just a bare board that requires a custom mounting sled or bulkhead to be built for it. The antennas, battery and power switch are fully integrated into the finished unit. There is no battery mounting, no switch mounting, no antenna mounting nor wiring harness to worry about. It is a self contained unit that is easy to move from one rocket to another.



kate
www.multitronix.com



Multitronix LLC
Engineering Innovation and Technologies

www.multitronix.com

MORE THAN JUST A PRETTY VOICE!



David Wilkins

Had A Good Flight With No Data



George Pike

Second Rocket Didn't Fare Well



Jim Cornwell Disqualified

With His Overweight Mosquito

rocket! He didn't fill out a flight card so we don't know what motor he used.

Andy Limper brought his "R2FU" rocket that actually is NOT an Estes kit, but a cookie jar converted to fly! Once again, no flight card was submitted, but we do know that Andy flew the only non-APCP motor at Hamster Dance. R2FU was flown with a "sugar motor" (actually made with sorbitol), which cat'ed on ignition and R2FU never left the pad!

The third entry in the "Hamster Dance Rejects" was Chris Pearson's 3.5 lb. 38mm "Hamster Dance 2" rocket, definitely the most colorful rocket at the launch. The colored monocoque actually covered a botched paint job! Chris brought the rocket to the launch only to discover it didn't have an altimeter in the electronics bay! He had to wait for the first day of Balls to purchase an altimeter from one of the vendors and fly it. Flown with the second 29mm I235 motor loaded with NASSA Slow propellant he brought, the rocket soared straight up to 6,143 feet, got lost against the

Three Contestants Missed The Launch Times And Ended Up Flying During The BALLS Event



Ron Freiheit

With his GORT Comeback



Andy Limper

With His Comeback R2FU



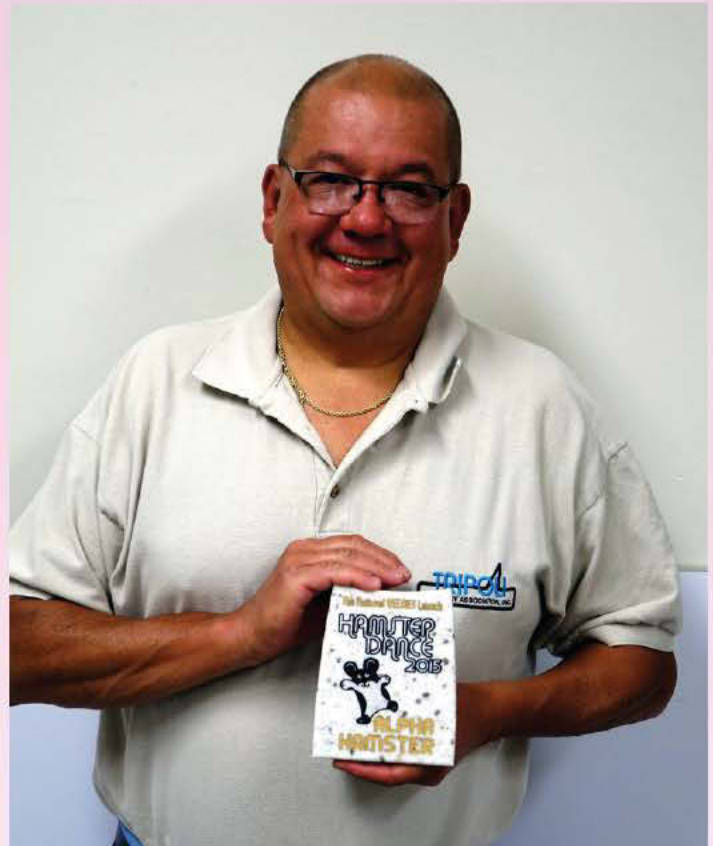
Chris Pearson

Finally found an Altimeter Too Late

clouds and was recovered after a search in the car with George Pike. Chris is planning on upgrading to a 38mm 90% I motor in a lightweight minimum diameter airframe next year in an attempt for more altitude.

The annual Tripoli Gerlach Banquet, Meeting and Hamster Dance Award "Ceremony" was held Friday evening with food being prepared by the ladies of the Gerlach Senior Center.

On the right: Gary Dickinson with his "three-peat" Alpha Hamster award. The two "Gary's" (Rosenfield and Dickinson) are already locked in a pitched battle for the prize next year. Gary Dickinson was seen happily walking away from the Aerotech booth with 54mm fiber-glass motor tubes and internal motor parts for next years rocket and Gary Rosenfield is already talking about more 3D printed parts and a lighter rocket. It was generally thought that Rosenfield would have won the award if his rocket had weighed less because of the larger and higher performance motor.



HAMSTER DANCE 6

September 22, 2016 Black Rock

Are You Big Enough To Join

The World's Smallest Research Launch?

TRIPOLI GERLACH

Research Rocketry

MERCHANDISE

TEE SHIRTS SWEAT SHIRTS LICENSE PLATES
MUGS THERMOS DECALS



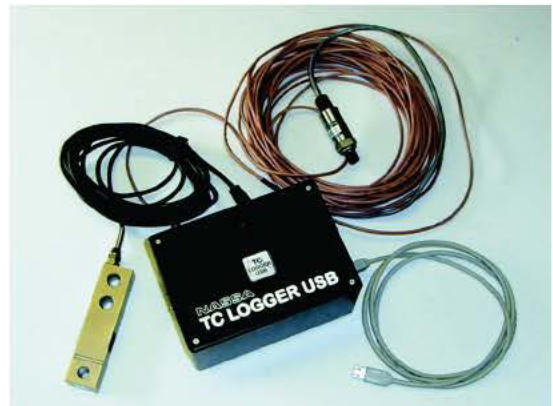
Help support our Prefecture with a purchase of our top quality branded merchandise. ALL profit from sales goes directly to Tripoli Gerlach. Visit our WebSite and click MERCHANDISE. - Thank You

WWW.TRIPOLIGERLACH.ORG

DATA ACQUISITION Made easy

NASSA TC LOGGER-USB

Flight Thrust Curves
Propellant Characterization



Complete Systems just about virtually ready to go.

Basic units starting at \$300

Software • Load Cells • Transducers
Test Stands • Test Motor Cases

www.tclogger.com



THE GERLACH PROJECT

Gerlach, to most of us, is a gateway to the Black Rock Dry Lake Bed and the world's greatest non-professional rocketry activities. But to the less than one hundred residents of Gerlach it is home sweet home, with very little to do.

What about the 10 kids who attend the Gerlach School? Everyday it is get to school, classes and go home.

In 2014 the entire school took a field trip to the BALLS 23 launch and it really sparked the their interest in rockets. Tripoli Gerlach entered into the picture with the Gerlach Project, a way to bring model rocketry to the ten kids who remain in Gerlach long after we are gone.

The concept was simple: obtain a supply of model rocket kits and motors, have the kids build their own rockets and learn rocket basics and then hold a launch in their football field behind the school. Great fun huh? - you don't know the half of it!

Once the Gerlach members agreed to the Project Bob Utley stepped forward stating MDRA would donate a supply of Estes Kits and motors along with a supply of

ROCKETS DVDs and back issue of ROCKETS Magazine.

Charley Savoie of QUEST AEROSPACE, of Cedar City Utah, also stepped in offering Kits and Motors as well. With all of this material available The Gerlach Project was off to a good start.

The Magazines and Videos where sent to school before the 2015/16 school year began so the staff could have material to start working the students interests. They began by constructing kraft paper rockets and decorating them with photos clipped from the duplicate magazines. Each one reflected each students ideas.

Early in September 2015 Tom Blazanin arrived in Gerlach and made contact with the school to arrange the days for building rockets and a date to launch them. September 15th Gerlach K12 Rocketry began.

For those familiar with Gerlach the school is the sprawling buildings near directly behind Bruno's Country Club. With only 10 students only the rear Elementary School is used for the K thru 12th grade activities.

The first day saw Tom distribute the QUEST kits to the students. With all the kits being the same it made for an easy instructing and teaching the kids the basics of Model Rocketry. The kids identified and laid out all of their pieces and parts and step by step eagerly awaited Tom's next instruction.

It was amazing to see kids enthusiasm as they listened to Tom, checked their instruction (even though some had problems reading) then proceeding to accomplish the steps. The biggest problem was that some younger rocketeers had problems tying shock strings knots but over all everything went well for everyone.

With the younger students Tom had to apply the wood glue where needed to avoid beginners glue globs.

The QUEST Kits used on the first day build were easy to build provided the instructions were read and things



The whole elementary and middle school works at one tables.

were done in the order read. Some students were able to jump ahead a step or two which gave Tom and teacher Stacey Black time to work with the younger kids.



Tom watches the girls to make sure things are done right, which they were.



Mrs Black, the schools only teacher, helps tie knots on shock cords.

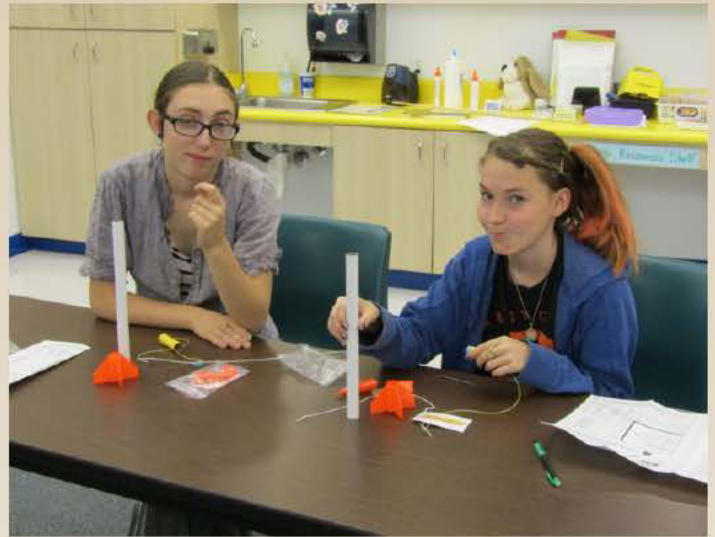


Only real interventions were the need of help tying shock cords and gluing in thrust rings but overall all of the kids had no problems.

Once the QUEST Rockets were finished the students were ready for art class. They all had a chance to decorate their rockets with markers to personalize them. Everyone enjoyed the easy time and day one was over really fast.



Maria helps Sioux read her instructions before she preforms the next step.



No one had problems working with rockets from first grade Cassidy on the left to Cheyenne and Katie above, the entire Gerlach Senior School.

Day two began with Tom setting out the bigger Estes Kits and the kids all had a chance to pick which kit they wanted to build.

This time, unlike the day before, everyone had a different rocket to build. This was something Tom somewhat dreaded thinking he'd have to assist everyone in their builds. After helping one rocketeer placing rubber bands on a helicopter recovery nose cone Tom found that literally all of the kids had assembled their rockets and were awaiting inspection. This was amazing to see everyone proudly ready with what they had done on their own.



Tom sets up the Estes Kits for the second day Building Session; Mrs Black watches.



Top Left: Tom checks work done by Maria, Souix and Makayla.

Top Right: Aubri is ready with her gumball rocket.

Left: Makayla and Junior get questions answered.

Bottom Left & Right: Junior proudly shows his creation and everyone is ready for launch.



THE BIG ROCKET



With everyone's rockets completed they moved onto some serious learning about the big yellow & black GERLACH K12 Rocket.

Chris Pearson of Ohio donated all the LOC tubes and nose cone for the project. Dave Rose of Pittsburgh assembled the rocket, installed the electronics and parachute and Tom did the finish and painting. The K12 was placed on the table and Tom proceeded to teach the students all the parts of the rocket, how it worked and all the information they would need to know when they presented their school pride to the flyers at the BALLS 24 launch.

The students were very attentive and soaked in Tom's information regarding the K12 Rocket. They measured

the length: 9ft 2in. They measured the diameter: 5.75"

They learned about the rockets components and just what do they do. Their basic knowledge of motors learned in the building session brought wow to them when they learned the moto was an L-897.

Even more exciting was when they learned their K12 rocket would go 8,600 feet straight up. They did the math and found that to be 1.629 miles. - WOW!

Tom quizzed them repeatedly so they could all learn as much about the rocket as possible in such a short time. They were little sponges just soaking it all in.

As a reward for their dedicated attention and to add to



their enthusiasm They all got to sign their name on the rocket. This would be the payload they would send up a mile and a half.

All will agree the two days of learning about rocketry and building model rockets went very fast. The students were really into the project, to a person they were attentive and took the whole thing with undivided attention.

ON TO THE LAUNCH!



Aubri



Makayla



Sioux



Junior



Sierra



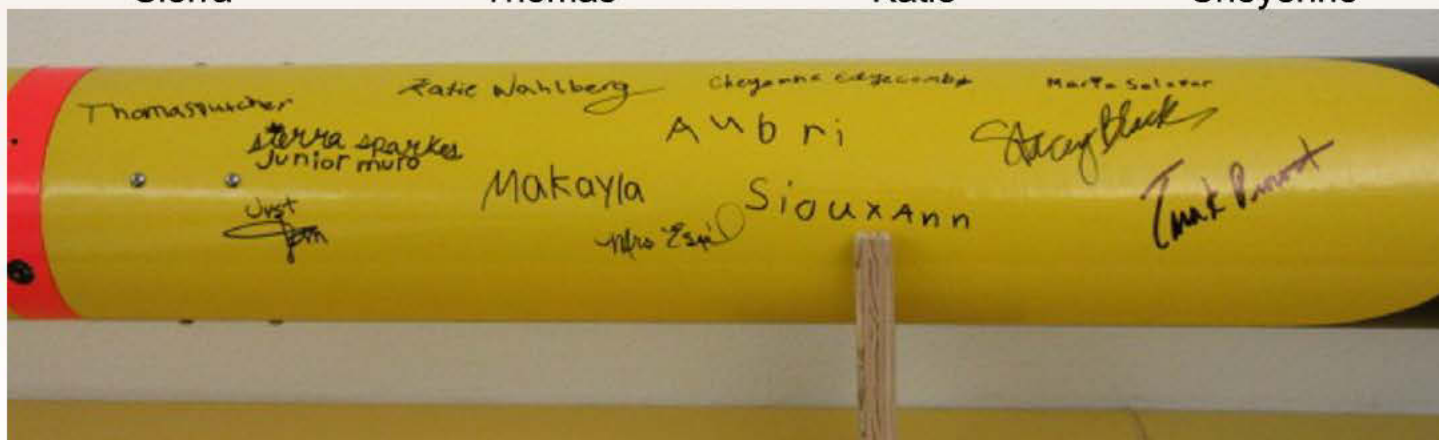
Thomas



Katie



Cheyenne



GERLACH K12 Ready For Launch. Even The Staff Got To Sign Their Names

FIRST ANNUAL GERLACH K12 ROCKET LAUNCH

Six am the morning of the launch Gerlach skies were black with ominous turbulent clouds. The sunrise was nowhere to be seen. Thoughts of scrubbing the launch were in mind. The kids arrived at school with frustration. But, typical of Black Rock weather, little by little patches of blue began to break through the black. By eight o'clock the world was smiles and the launch was a GO.

The students came out to the football field, almost in a parade. The field was a little damp from morning dew. Apparently with all of the dark clouds it had not rained the night before. Of course the fields sprinkler system didn't help.

First was a Safety Meeting and a lesson on installing ignitors. We also had to repack all the parachutes since for some reason they all fell out. Everyone helped get everyone else's rockets ready to launch.

Maria was first to launch with a perfect flight awing everyone and building the excitement.

Thomas was next. He forgot to remove the safety cap on the launch rod and his rocket got snagged at the top and everyone cheered as it hung burning propellant.

This was typical of the launch. Good flights got cheers and bumner mishaps got cheers. The kids were amazed to see one rocket burn a hole in the blast plate.



Cheyenne, Maria, Katie, Thomas & Junior



First the standard Safety Meeting





Teachers and parents who showed up watched and enjoyed the enthusiasm the kids had. One rocket blow up, one drifting out of the area, one landing on the school roof - nothing deterred the rocketeers at the first Annual Gerlach K12 Rocket Launch.

Building rockets in the classroom and learning about rockets, and actually launching rockets they built, had the kids wanting more. Several were ready to do this on their own and seemed to be capable. While the Gerlach school has a small number of students they all gave complete attention to their rocket activities - to the surprise of the staff. Next year we will do it again.

TOP LEFT: Maria helps Makayla with stuffing her parachute.

LEFT: Junior gets instruction on operating the Lunch Controller



SEPTEMBER 22ND, 2016



The Largest Selection Anywhere
of Rocket Oriented Designs

We specialize in small orders
for Club Shirts, Caps, Banners
and Custom Vinyl Logos

Graphix & Stuff

Visit Our WebSite
www.graphixnstuff.com



CUSTOM LETTERING FOR ROCKETS
CLUB BANNERS
CLUB VINYL & DECALS



Conner



Aubri



Makayla



The Typical Waiting Line
For A Pad



Junior



Thomas



Katie

THE LAUNCH OF THE GERLACH K12 ROCKET

On the first day of BALLS 24 the kids of Gerlach K12 came out to the Playa to show off their GERLACH K12 rocket and witness its launch. Set up in their own canopy they answered questions of passing people, which were plenty.

In the classroom they learned all of the basics of their K12 Rocket. When passer-bys asked questions there wasn't a single question unanswered. When someone asked what were the things at the rear of the rocket the answer was "they're the fins.", then a kindergardener said, "They keep the rocket straight". It was obvious their attention and knowledge went off great, Their teachers wish their other studies went as well.

Soon it was time to ready the rocket for flight. The kids got to handle their L897 motor - not an engine -for the first time. They were allowed, under supervision, to get involved in their Prject Rocket by loading and securing the motor. Great fun for new rocketeers.

BELOW: Thomas loads the L-897 into the K12

RIGHT: Aubri secures the motor in place

BOTTOM RIGHT: Souix finishes securing the motor and we're ready for launch





The time had come, the GERLACH K12 ROCKETRY rocket was on the pad. The countdown began and with a nice loud roar it was off to a perfect textbook flight. The kids visually tracked it for the entire flight. It's amazing the eagle eyes youth has.

A perfect landing down range made for an easy recovery. Back at the canopy the kids got to hear the on-board computer beep out 8,630 feet. They broke their expected 8,600 feet.



ABOVE: Larry Benek carries the K12 to the pad.

RIGHT: The crew tracks the K12 skyward.

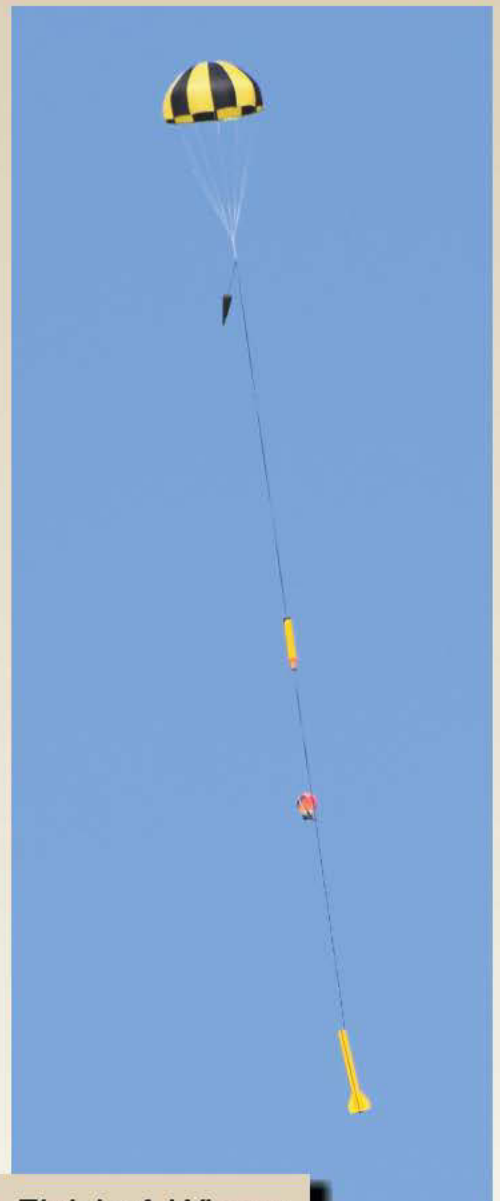
BELOW: David Wilkins explains the altitude being beeped out to 8,630 feet



With a whole week of rocketry the students at Gerlach K12 had a large experience in our little town of Gerlach. Two days in class learning rocketry, a launch in the school football field and the successful launch at Black Rock of their K12 rocket all brought interest and attention to their lives.

Next year we will return with more rocket kits & motors, information and a new K12 rocket set to break our school record. Wanna have fun, join us in September. The kids of Gerlach can use your attention.

Next year's schedule is set for September 13 & 14: Classroom rocket building. September 15: the Second Annual Gerlach Rocket Launch. Friday September 23rd, High Power Launch of the Gerlach K12² at BALLS 25. Why not join us?



GERLACH K12 Lifts Off For A text Book Flight, Start to Finish; A Winner.

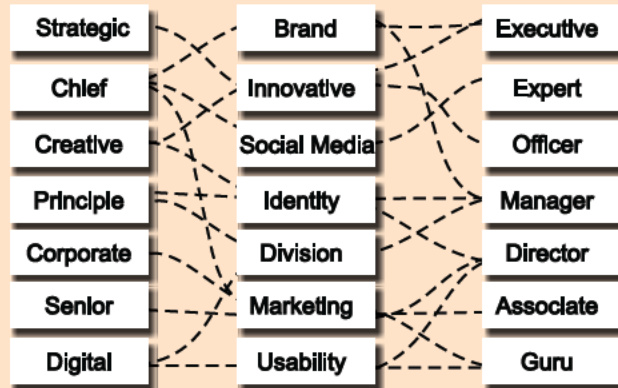
WE ARE GERLACH K12



JOB TITLES - 1950

Farmer
Worker
Businessman

JOB TITLES - 2015



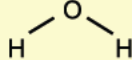
THE McDONALDS CURVE



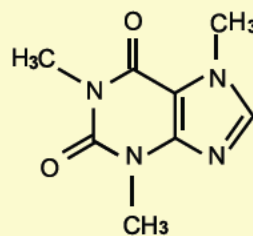
MOST VITAL COMPONENTS TO MAN'S SURVIVAL



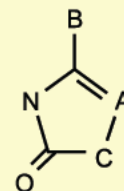
Oxygen



Water



Caffeine



Bacon