

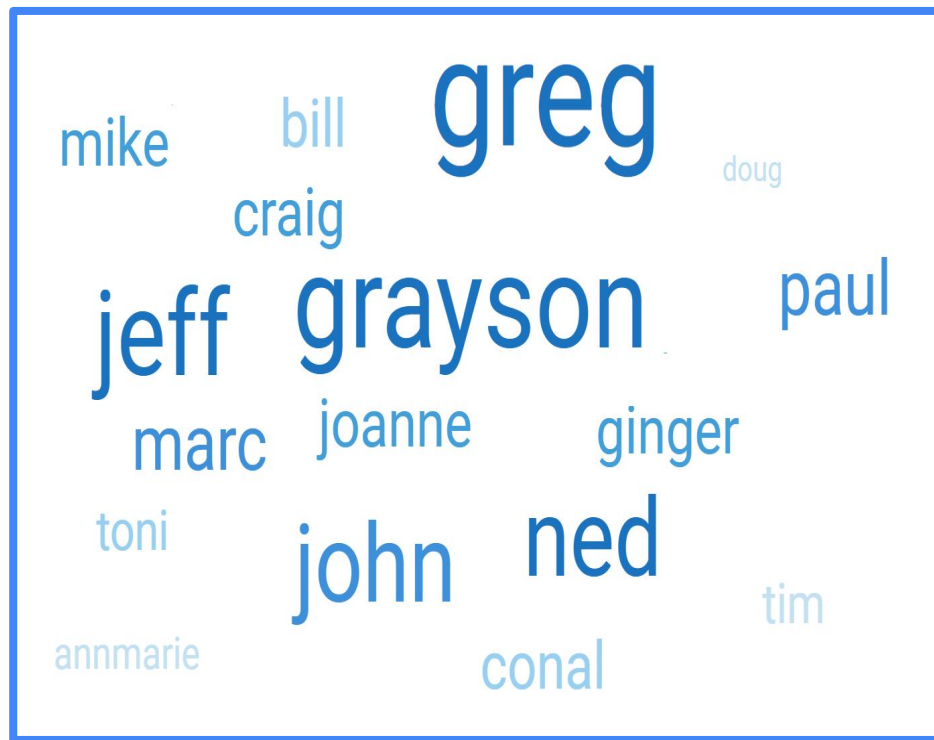
The Groveland Grind Mtn Bike Race

The logo for the Groveland Grind mountain bike race is a horizontal, stylized graphic. It features three circular elements connected by a central blue band. The left circle contains a silhouette of a mountain peak. The right circle contains a silhouette of a forest of evergreen trees. The central blue band contains a white circle with a horizontal line and arrows at both ends, with the text 'ABOVE' above the line and 'SEA LEVEL' below it.

A Lot Happened!

The words 'GROVELAND' and 'GRIND' are written in large, bold, light green capital letters, positioned above and below the central text respectively.

Once upon a time...



...all helped as
part of the

***TCARES* Ham
Radio Team***

providing radio
support for the
2025 Groveland
Grind gravel
bike race!

Call Sign
KE6KYI
K6NED
K6TNI
KM6NCU
KM6VYI
KN6RLM
WA6HNA
N6NEZ
AA6NH
N6SSN
KN6CWT
KO6GHO
KM6RFT
N6JWT
KG6PWB
KO6BLI

*TCARES = Tuolumne County Amateur Radio & Electronics Society

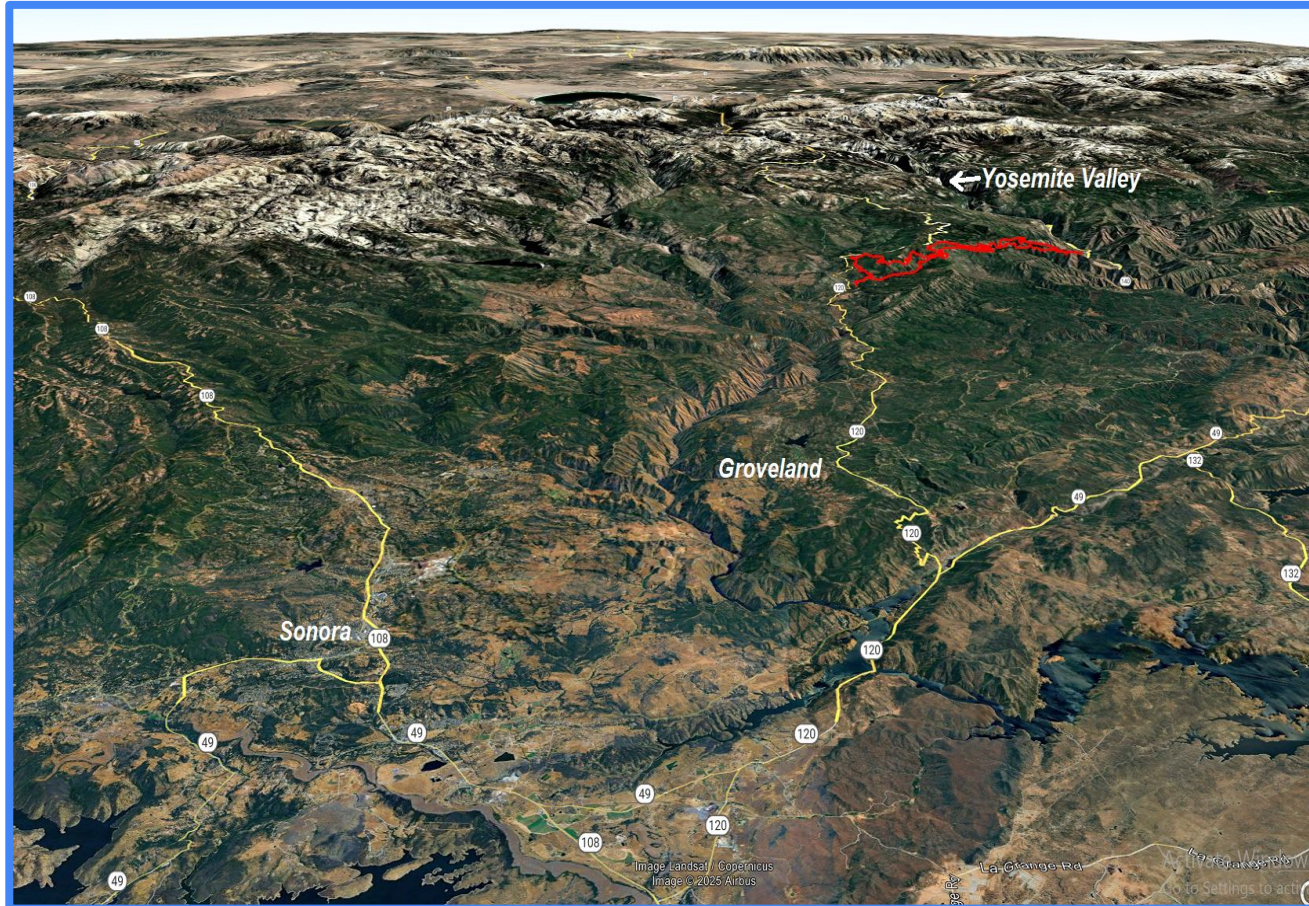
What is the Groveland Grind?

- Gravel Bike/Mountain Bike Race
- Takes place on US Forest Service (USFS) roads just outside of Yosemite National Park (YNP)
- **3 Courses**: a) Short = **21** miles; b) Medium = **30** miles; and c) Long = **48** miles
- Categories included: a) Professional Men; b) Sport Men & Sport Women; c) E-Bike Men & E-Bike Women; and d) Tandem
- **107** Riders finished the 3 courses this year
- What TCARES Does: Provides volunteer communications support
 - Amateur Radio Service: (Duckwall Linked VHF repeater + local temporary onsite crossband repeater system)
 - GMRS Service: Local temporary onsite repeater
 - FRS Radio Service: Unlicensed Route Marshals were provided with FRS walkie talkies

Where is the 2025 Groveland Grind Bike Race?

Where the heck **IS** this race?!!

It's above (east of) Groveland, on the way to Yosemite National Park on the USFS Groveland District. Some volunteers drove >1 hour & 15 minutes to get there...by **6:45 am**, to set up in time for the race.



TCARES Volunteers Placements

A total of 17 TCARES volunteers were spread throughout the course to give the best radio comms coverage possible. Call signs are shown on the map to the right. Some non-licensed FRS Route Marshal stations are also shown.



When: Saturday Morning, June 7th at 6:45 am

The TCARES team members greeted one another, then assembled, and received instructions for the day.

After gathering equipment and supplies, volunteers then headed into the field to different stations along the 3 courses, based on needs of the race organizers.



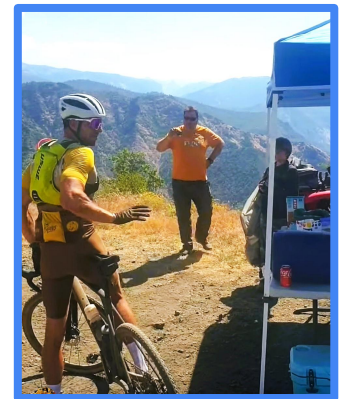
All Was Going Well!

- **Amateur Radio** → Crossband repeater set up by Greg, WA6HNA, at Aid Station 1
- **GMRS Radio** → Repeater set up by John, KN6RLM/WROX508 at Aid Station 1
- TCARES Volunteers were using both **Ham**, **GMRS**, and **FRS** radios in the field
- **No interference** on UHF between Ham and GMRS - woo hoo!
- **FRS** comms between Carl, John, and Jeff was functional
- Radios were tested and all systems were GO!
- The race started and riders were on the course!



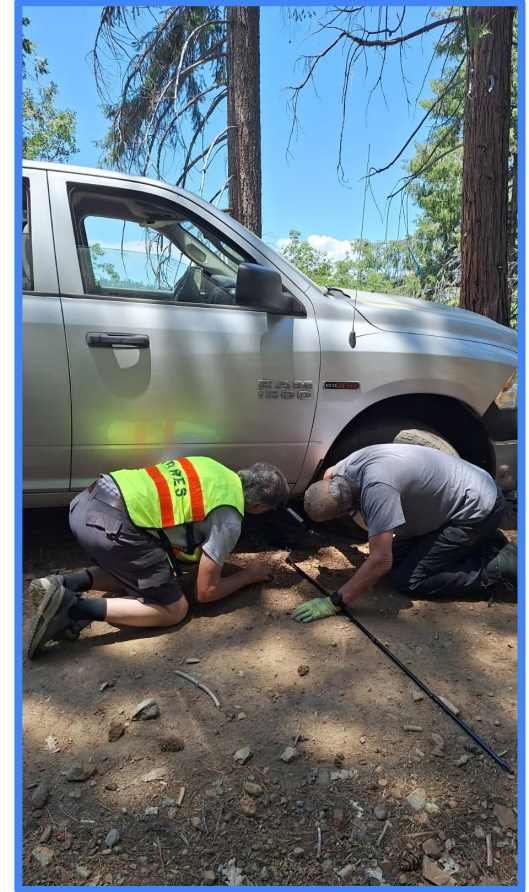
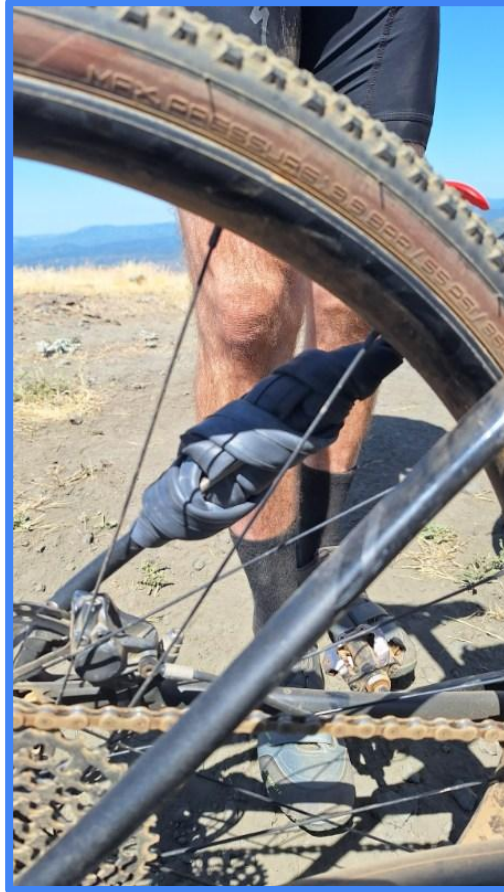
Race Winner Brently Rousset's Comments

"I've done a lot of, like, bigger gravel races and you guys are like, aid stations everywhere, somebody to tell you at every turn where to go – you guys are running a great race!" –Brently Rousset, Winner of this year's Pro Race



Uh Oh...

The plot thickened as we settled into our routines → spills, broken frames, flat tires, and more...



Medical Incident: Rider Down!



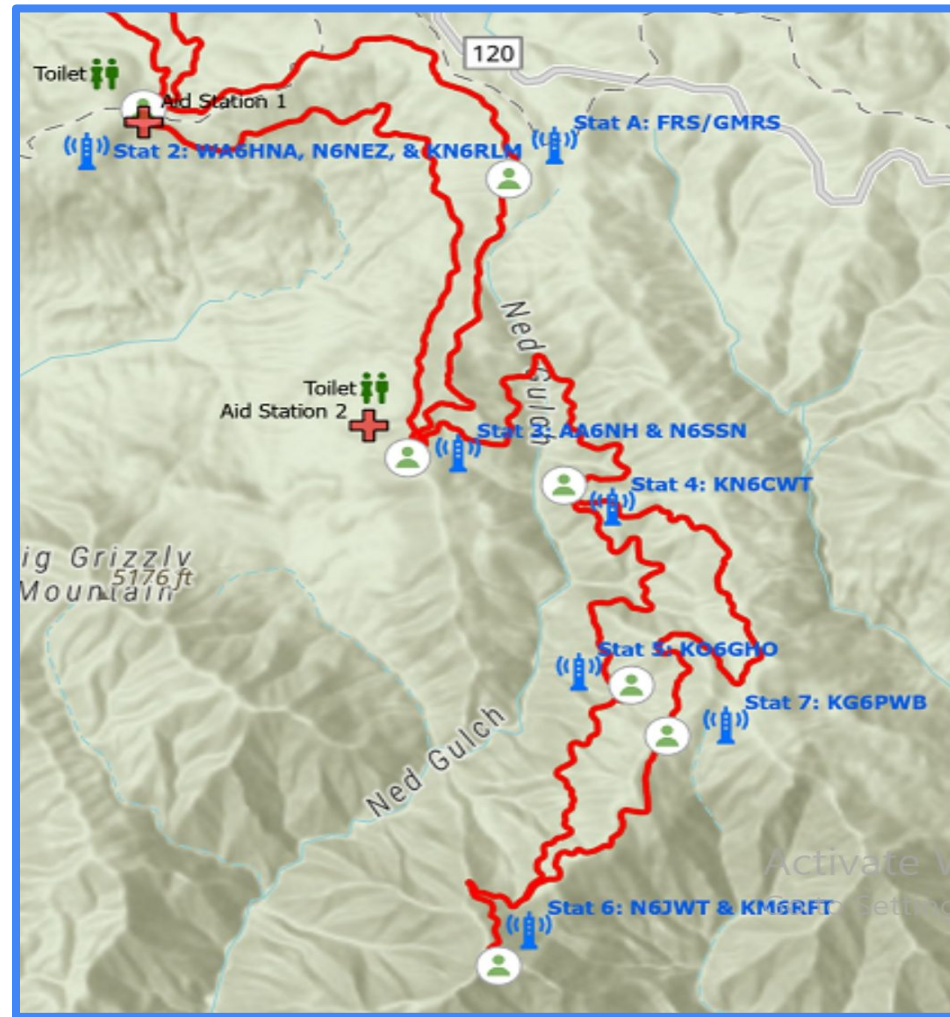
Carl



Carl used FRS to relay a message to me, on FRS, then to John, on GMRS, then to Ham radio. Alexi, a route marshal, had GMRS, and was monitoring from Trumbull Pk.



John



The Not Knowing...

Problems:

- Who was he? No Bib Number...
- Where was he on the course? GPS location?
- How bad off was he? Heat stroke...? Vomiting - how bad?
- We couldn't get a regular vehicle to him due to course conditions.
- Who was in charge of the situation? Route Marshals? Med Tent? TCARES?
- Should someone call 911?



DATE OF INCIDENT: _____ TIME OF INCIDENT: _____
 INJURY ILLNESS (Circle one)
 RIDER VOLUNTEER SPECTATOR (Circle one)
 NAME OF INJURED/ILL PERSON: _____ AGE: _____
 MOBILE NUMBER: _____ BIB #: _____
 NAME OF GUARDIAN IF PATIENT IS A MINOR: _____
 MOBILE NUMBER: _____

INCIDENT LOCATION (APPROX. LOCATION ON COURSE): _____

BRIEFLY DESCRIBE HOW INJURY OR ILLNESS OCCURRED: _____

PRIMARY INJURY/ILLNESS		BODILY PART INJURED		DISPOSITION	
Abrasion	Heat	Head	Chest	Continued Riding	Self-Transported to Medical Tent
Laceration	Exhaustion	Neck	Back	Transported to Medical Tent	Released to personal vehicle
Head	Cardiac	Face	Abdomen	Transported by EMS	Released to Parent/Guardian
Face	Nausea/Vomiting	Shoulder (L/R)	Pelvis	Ambulance	Refusal of Care
Contusion	Dizziness	Arm (L/R)	Leg (L/R)	Helicopter	
Sprain/Strain		Wrist (L/R)	Knee (L/R)		
Dislocation		Ankle (L/R)	Foot (L/R)		
Fracture	Other Illness	Hand (L/R)			
Sting/Bite					

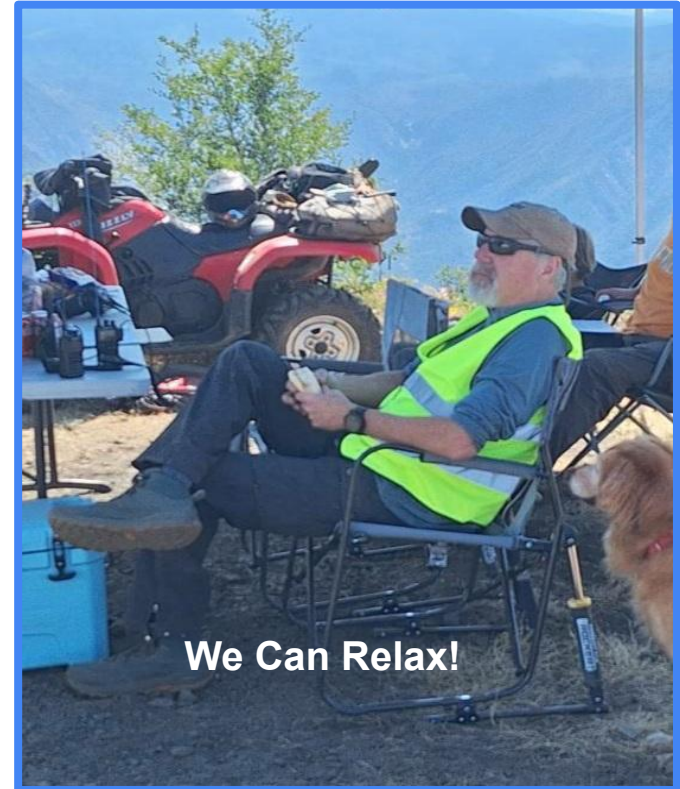
WITNESS NAME: _____ MOBILE #: _____

FIRST AID RESPONDER
 NAME: _____ MOBILE: _____

Coping With Uncertainty

Incident Response Started

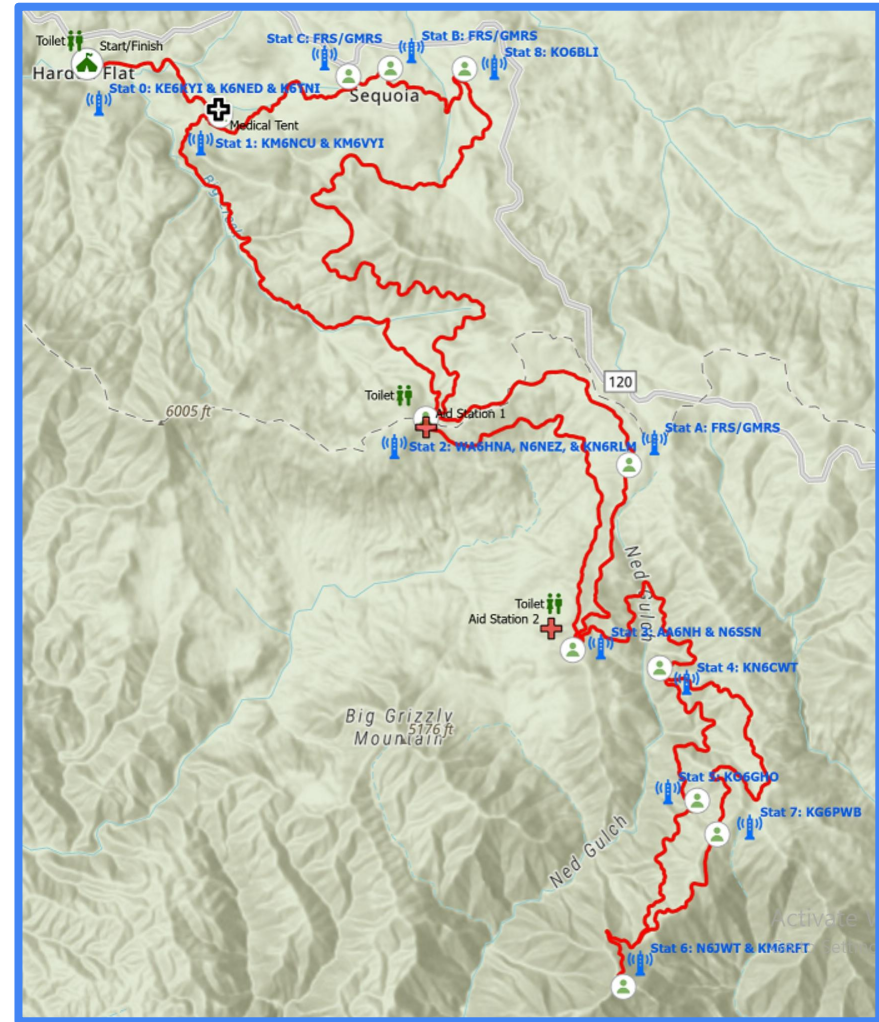
- Grayson, at Command Comm, took control
- Comms structure solidified:
FRS→GMRS→Ham traffic worked
- Approximate rider location established → Alexi will ride his quad to assess & bring rider to help
- Problem solved!



Not So Fast!!

Complications

- Alexi found the rider - but he didn't want to ride the quad to help!
- He said he could keep going
- We had help coming to Aid Station 2, but he wanted to continue on to Aid Station 1, which was *farther*
- Uncertainty about the rider's agency - could he make decisions on his own?
- Med Tent was 45 minutes away...



More Complications & Uncertainty

Problem-solving

- Ginger & I took on both radio & route marshal duties at Trumbull Pk
- TCARES vehicles @ Aid Station 1 couldn't leave that site; Med needed to come to the rider there
- Did the rider have heat stroke? Found out he'd OD'd on electrolytes - not heat stroke
- Med able to get to rider & took him back to HQ, where he recovered



Happy Ending!!

The Race is Over and...

- Our rider survived and sent a text to the GG team the next morning, thanking us all for our support
- TCARES performed the assigned duties very well → we're very well-respected; GG = v. grateful!
- TCARES went above, and beyond, our job description, in some cases
- We all got T-shirts!
- We're ***Heros***!!



Lessons Learned

Final Analysis

- Radio communications work; volunteers were professional and passed appropriate traffic to Command Comm
- Technical systems worked → repeaters on site performed as designed
- We integrated AMATEUR/HAM radio with GMRS & FRS services
- TCARES is only legally responsible for radio comms support
- GG is responsible for Medical incidents, etc.; TCARES could work with local CERT team for training
- GMRS could help with GG Route Marshalls; FRS gaps still; Recommend to REQUIRE GMRS for **all** Marshalls
- More maps! There was a need expressed by multiple parties for more maps with clearer, more understandable station place names
- Clearer comms terms → for example, labeling & using “Emergency Traffic” and “Priority Traffic”
- TCARES suggested a post-processing meeting to debrief, learn, and make appropriate changes for the future

The End



Photo by Marc Colton, N6NEZ/WRME405