



TOUGH STUMP RODEO | JUNE 1-5, 2026

TSR 2026

EXECUTIVE SUMMARY

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THE RODEO

Momentum

The Rodeo — Seven Years Running

From scratch, we built a weeklong event that has become nationally recognized as the epicenter of innovation purpose-built to stress test the latest technology and the ability to integrate into fully functional, operationally relevant scenarios.

Word cloud — customer feedback on the 2026 Rodeo



Synonyms, plurals, and closely related variants consolidated into single concepts.

THE RODEO

Defined

“

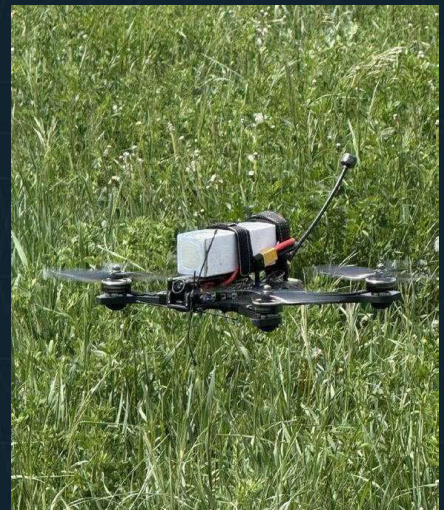
A live stress-testing and proving-ground environment that pairs operators with technology in austere terrain to close capability gaps.

Real Operators

Real Capability Gaps

Real Technology

Real Terrain



THE RODEO

A Different Kind of Event

Not Your Milk Toast Trade Show



Not a static trade show

Technology is expected to move, connect, communicate, integrate, and perform.



Not a scripted showcase

Real operators and mission conditions create honest questions and useful friction.



Not pay-to-access government

Sponsorship does not purchase influence or preferential treatment.



Not a certification promise

Readiness activities support preparation — not a guaranteed certification outcome.

THE RODEO

The Rodeo Operating Tenets

Ten Non-Negotiable Principles

These tenets protect the event's authenticity, maintain sponsor credibility, and ensure every activation produces useful operational learning.

- 1 Real operators**
Practitioners with direct operational experience.
- 2 Real capability gaps**
Built from validated needs and demand signals.
- 3 Real technology, live**
Products work the problem in the field, not slideware.
- 4 Real terrain**
Elevation, weather, and logistics are part of the test.
- 5 Unrestricted sandbox**
Minimal limits, within safety and legal bounds.
- 6 Full integration**
Vendors, operators, and funders connect for follow-on action.
- 7 Stress-tested to its limits**
Reveals performance boundaries — doesn't hide from them.
- 8 Test day, then dry run**
A no-observer rehearsal precedes live execution.
- 9 Clean, fair environment**
Consistent rules and equitable treatment for every vendor.
- 10 Authenticity over scale**
Density and realism are never diluted to grow bigger.

SPONSORS

Qualcomm

Platinum

SAMSUNG

**Booz
Allen**

 **KNOWMADICS**

Gold

SRS STRATEGIC
ROBOTIC
SYSTEMS



sherpa

Silver

 **ACI**
COURAGE · INTEGRITY · ACCOUNTABILITY

Boston
Dynamics



 **Darley**

goTenna

 **Skydio**

KÄGWERKS®
NEVER A FAIR FIGHT

 **RAIN**
TECHNOLOGY
SOLUTIONS

Friends of Tough Stump

 **BLACK DIAMOND**
ADVANCED TECHNOLOGY



CloudRF



EPIC BLUE



 **GALVION**



Juggernaut Case™
PROTECT - MOUNT - CONNECT

 **Marshall**
RADIO TELEMETRY

EVERYWHERE



TrellisWare®

TECHNOLOGIES

MVP
ROBOTICS

SKYFI®

OVERVIEW

Tough Stump Rodeo 2026 (TSR26) was an intensive, field-based technology demonstration designed to solve real problems at the tactical edge. The event brought together diverse vendors to operate in demanding, signal-denied environments and showcase how their systems integrate and perform under mission-relevant conditions.

By replicating the pressures of the field and focusing on tools that support the individual at the “X,” TSR26 illustrated how advanced technologies can combine to enhance situational awareness, communication, and command and control. What truly distinguishes this event is its commitment to collective problem solving—prioritizing unified, practical outcomes over isolated successes. It’s about collaboration, capability, and delivering solutions that work where they are needed most.

BY THE NUMBERS

525 sq mi

TOTAL OPERATING AREA, DAY 2

17

TAK SERVERS FEDERATED

2,500+

REAL-TIME ONLINE VIEWERS



TSR 26 DAY 1

Day 1 Demonstrations — Upper Canyon Outfitters / Maritime: Vendors had the opportunity to showcase their individual and combined technologies across five dedicated demo areas, each designed to highlight unique capabilities.

Demo Area 1

Focused on sUAS and FPV platforms, featuring a challenge course built by BAH and collocated c-UAS systems for hands-on observer interaction. This area also enabled operators to fly systems using ATAK and the UAS Tool plugin.

Demo Area 3

Accommodated vendors whose capabilities did not require drone integration, offering a platform to showcase ground-based systems and other capabilities.

Demo Area 5 — H2O/Maritime Lane

Showcased above-surface, surface, and underwater unmanned systems, rounding out a diverse and highly dynamic set of demonstrations.

Demo Area 2

Supported demonstrations involving sUAS, robotics, and MANET radios.

The NETT Warrior Demo Area

Provided a rare opportunity for vendors to integrate with ACI and the Army's Program of Record NETT Warrior tactical network—an invaluable test environment.

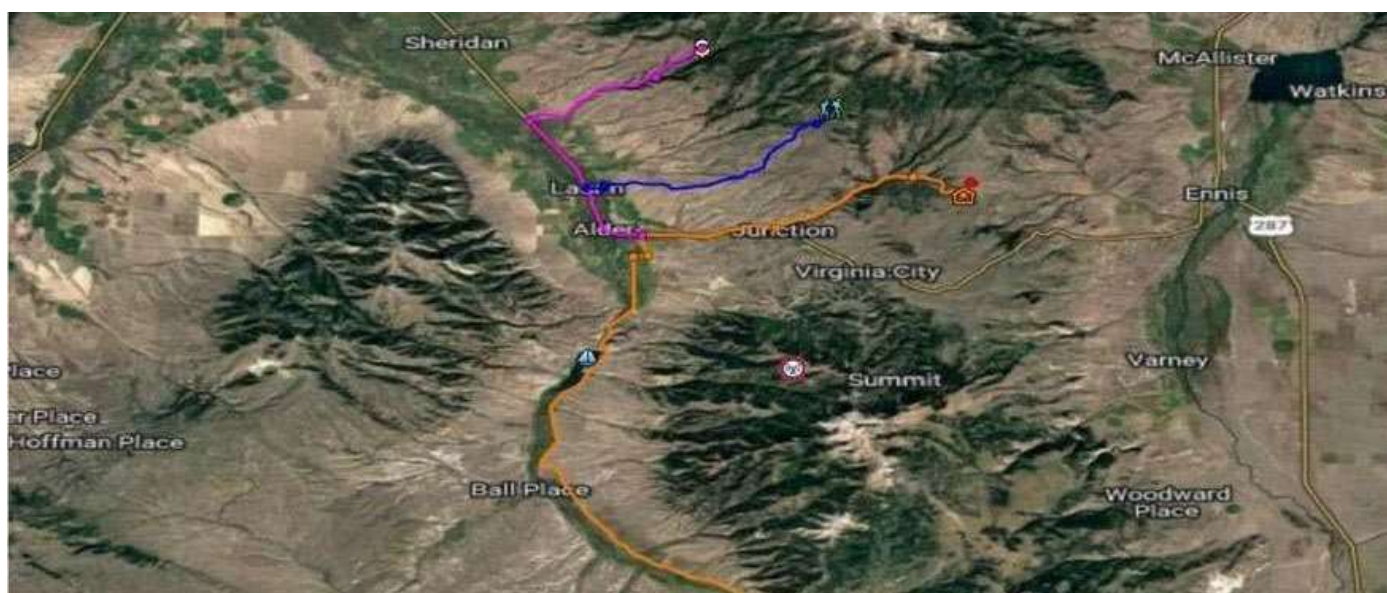


TSR 26 DAY 2

Participating vendors seamlessly integrated their technologies to drive mission success, delivering end-user-focused solutions built for high-risk operational environments. Operating across a sprawling 525-square-mile area, each demonstration pushed systems and teams to their limits, proving capability under authentic, stress-tested conditions.

The event showcased real-world problem solving at its finest, driving home the importance of collaboration that mirrors actual mission demands. Teams pushed both equipment and personnel to their limits, executing scenarios spread across significant distances—three of the four operating more than 30 miles from the Ops Center, with the closest still 20 miles out. This deliberate stretch tested capability, resiliency, and true joint effectiveness.

TSR26 lit up audiences worldwide—broadcast live on YouTube, where viewership continues to climb, and powered by the Ops Center's work streaming real-time sensor data and PLI via TAK to 15 countries and 35 states. With over 17 TAK servers federated, the event delivered an unprecedented level of connectivity, drawing more than 2,500 active viewers in real time.



SCENARIOS

SUB-T STRIKE

The enemy's base of operations, concealed within a mine shaft, created a complex Sub-T challenge for the Assault Force (AF). A Recce Team maintained eyes on the target and fed actionable intelligence back to the AF staged at the Operations Center (Outfitters), enabling coordinated planning and rapid decision-making. The mission successfully integrated multiple data sources—including multiple robotic systems, thermal and EO/IR imagery, sUAS live-streams, LiDAR, and personnel data via non-GPS tracking capabilities—and transmitted them across a 30-mile operational area using an ad hoc MANET/MESH network. This data provided real-time situational awareness to the Operations Center, where ATAK was used to track, visualize, and assess all incoming information. The combined capability enabled timely decision-making, improved coordination, and more effective management of the Recce Team to identify and neutralize the enemy.

Trellisware MANET radios formed the backbone of this network, relaying voice, data, and video traffic across the operational area.

Objectives

- Heavy Lift Drone delivery of BD robotics dog
- SPOT using LiDAR forms cave and identifies TGTs
- FPVs launch to neutralize TGTs
- MANET/ADHOC radios send DATA back to OPs Center via BLOS and Terrestrial network means.
- ATOS GPS tags marking personnel and equipment
- ATAK is the Common Operating Picture (COP)

Technologies

Trellisware

Mobile ad-hoc network (MANET) radios that relay voice, data & video traffic

Sherpa 6

Technology integrator

Cleo Robotics

Small robotics w/ FPV fiber drone / multiple sensor caps

MVP Robotics

Small, versatile robot for rapid mission changes

Cloud RF *

Real-time RF modeling for mission planning

Epic Blue

3D non-GPS tracking for complex indoor operations

LifeLens

Tactical wearable tracking physiology, enviro & biomechanics

BlackWire *

Efficient video/data compression for constrained networks

HoverFly

Tethered multirole drone

Notch Technologies *

Tactical beam forming antennas

MP Antenna *

Tactical frequency tuned custom-built antennas

Marshall/TS ATOS tags

GPS tracker that has an organic TAK Plugin

goTenna *

White Cell backbone providing critical coordination via ATAK

 * Communications & networking backbone



SUBTERRANEAN STRIKE: FOLLOWING THE MISSION UNDERGROUND

The Sub-T lane began with a difficult question: could a team maintain communications, positioning, sensing, and command-and-control after entering a mine where GPS and conventional line-of-sight links no longer worked?

Sherpa 6 led the network and systems integration effort with **MVP Robotics**, **Cleo Robotics**, **Notch**, **TrellisWare**, **CloudRF**, **Epic Blue**, **LifeLens**, **Hoverfly**, **MP Antenna**, **Blackwire**, **Marshall Radio** / Tough Stump ATOS, and other partners. **MVP Robotics** moved the network forward on an unmanned ground vehicle, turning the robot into a mobile communications relay. **Cleo Robotics** launched a Dronut from the portal and pushed deeper into the tunnel to map the interior with LiDAR and locate a target.

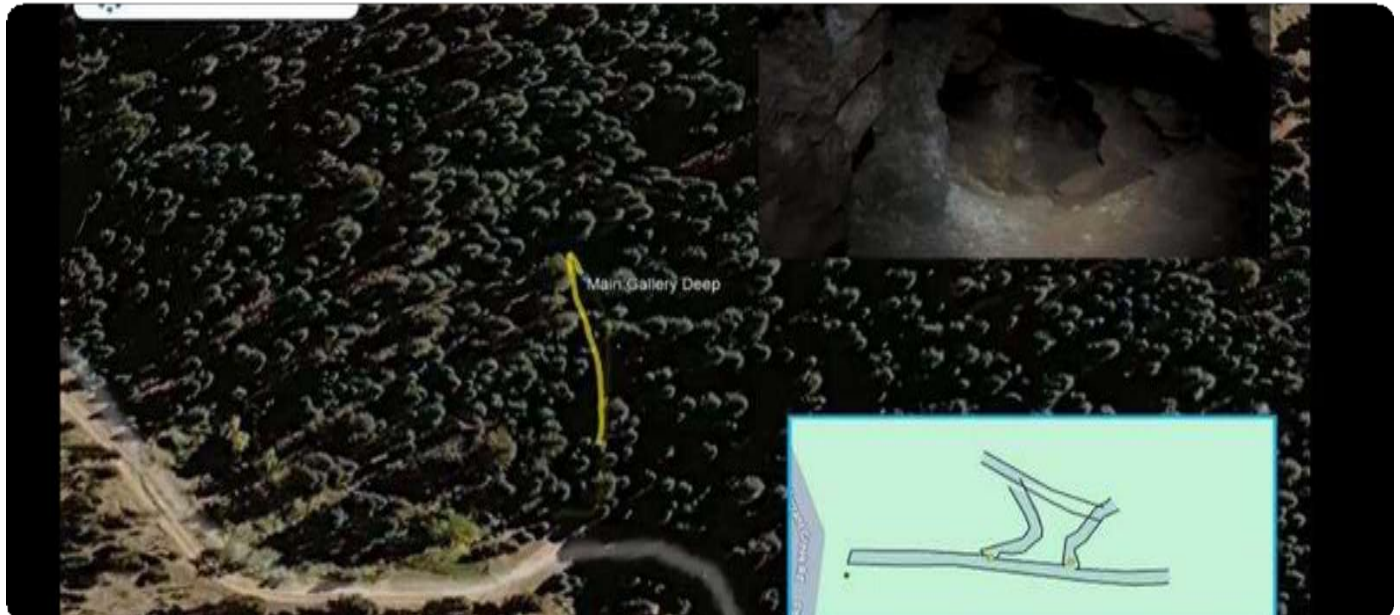


Teams worked from the mine portal while robotic and aerial systems extended the mission farther underground.

The network was deliberately layered. Fiber, millimeter-wave links, tactical mesh radios, terrestrial routes, and beyond-line-of-sight paths carried command traffic, sensor data, and video between the mine and headquarters roughly 35 miles away. **Notch** antenna technology strengthened the air-vehicle link, and **CloudRF** modeled propagation to help select relay positions before teams committed people and equipment to the terrain — validated by successful site selection, fewer hops, lower equipment requirements, and no wasted relay-site movements.

Inside the mine, **Epic Blue** maintained continuous three-dimensional personnel tracks without relying on GPS. Those tracks were passed into ATAK, and repeated runs created an initial indoor map from positioning breadcrumbs. **Marshall Radio** and Tough Stump ATOS tags provided additional asset and platform accountability, while **Blackwire** helped move video through constrained pathways. **LifeLens** and other medical and tracking partners explored how personnel state could remain visible alongside robot and sensor data.

SUBTERRANEAN STRIKE: FOLLOWING THE MISSION UNDERGROUND



GPS-denied tracking and mine mapping remained visible on the TAK common operating picture.

The lane was valuable because it exposed both success and unfinished work. Some integrations came together in minutes because teams had compatible interfaces and prior familiarity. Others revealed where multicast support, plugin-to-plugin data flow, and pre-event integration planning still needed improvement — not failures, but exactly the technical risks the event was designed to uncover.

OPERATIONAL OUTCOME

The Sub-T team converted a conceptual multi-robot, multi-network approach into a field-proven reconnaissance chain. Remote observers received a live common operating picture, the robotic team found and mapped the target area, and participants identified concrete improvements for the next iteration.

SCENARIOS

SAR / LANDSLIDE MASCAL

A major landslide struck the backcountry of Montana, just north of Alder and Nevada City. Search-and-Rescue teams—supported by K-9 units—actively swept the area for missing or injured personnel. With numerous casualties already located and the search radius expanding, teams using cutting-edge technology worked to identify priority zones where SAR and medical assets should concentrate their efforts. The mission successfully integrated multiple data sources—including thermal and EO/IR imagery, sUAS live-streams, medical sensor information, and personnel location data—and transmitted them across a 30-mile operational area using an ad hoc MANET/MESH network. This data provided real-time situational awareness to the Operations Center, where ATAK was used to track, visualize, and assess all incoming information. The combined capability enabled timely decision-making, improved coordination, and more effective management of the search effort.

DTC established the primary tactical mesh network, anchoring voice, data, and video communications for the mission.



Objectives

- Drones to Find/Fix locations of casualties
- Use delivery drones to patients hard to reach
- Establish Mass/Cal collection point
- Equip each patient w/Bio/Medical sensors
- MANET/ADHOC radios send DATA to OPs Center via BLOS and Terrestrial network means.
- ATOS GPS tags marking personnel and equipment
- ATAK is the Common Operating Picture (COP)

Technologies

DOMO (DTC)

Mobile ad-hoc network (MANET) radios that relay voice, data & video traffic

NVIS Communications *

BLOS HF communications

Skydio drones

Autonomous, high-resolution drones with AI capabilities

PDW drones

Multi-mission sUAS with a 10-lb payload capability

CRG Defense

Voice capable drone / battery & fuel cell inventors

LifeLens

Tactical wearable tracking physiology, enviro & biomechanics

Rain Technology

Medical monitoring dashboard

MaXentric Technologies

Biosensor & data transport solution

WearTAK

TAK display on a watch interface / bio sensor

QRC Technologies

SAR BLE/WiFi locating sensor

Everywhere *

Iridium burst communications (BLOS)

 * Communications & networking backbone

MVP Robotics

Small, versatile robot used for casualty transport

Kagwerks *

Small integrated soldier radio systems

Practical Scientific Solutions *

Comm integrator

Notch Technologies *

Tactical beam forming antennas

MP Antenna *

Tactical frequency tuned custom-built antennas

Ditto Live *

Multiple pathway cross band wave form integrator

Juggernaut

Rugged TAK EUD cases & mounts

SkyFi

Multiple imagery tasking / download from ATAK

Marshall/TS ATOS tags

GPS tracker that has an organic TAK Plugin

goTenna *

White Cell backbone providing critical coordination via ATAK

SEARCH, RESCUE, AND MASCAL: FROM DETECTION TO EVACUATION

The SAR/Landslide lane connected aerial search, casualty detection, medical monitoring, logistics, communications, and evacuation into a single workflow.

Skydio X10D aircraft and other unmanned systems provided persistent overwatch and long-range intelligence. **QRC Technologies** and **EVERYWHERE Communications** evaluated sensing concepts and deployment methods, including payload delivery with **Skydio**. **SkyFi** imagery gave teams optical, SAR, stereo, and multispectral products that could be placed directly into ATAK for terrain familiarization, mission planning, and target-area understanding.



Unmanned systems supported the casualty search and medical-response chain across austere terrain.

DTC established the primary tactical mesh across the extended operating area, while **CODAN HF** and **NVIS Communications** supported resilient beyond-line-of-sight paths. During a cloud TAK outage, the team shifted to contingency communications and maintained situational awareness and command-and-control — a real-world demonstration of the value of PACE planning, not just a description of it.

Rain Technology Solutions, **MaXentric**, **LifeLens**, **WearTAK**, **CRG Defense**, and partner medical systems turned casualty information into an operational data stream. Vitals and injury information were monitored at the edge, visualized in ATAK, and used to support evacuation decisions. **MaXentric's** STRETCH monitors and CORAL transport were exercised over mesh and HF pathways; CORAL demonstrated rerouting and isolation behavior when threats were introduced. **Rain's** HAIL environment consumed biometric data and presented it to remote decision-makers.

SEARCH, RESCUE, AND MASCAL: FROM DETECTION TO EVACUATION



Operators integrated aerial platforms, TAK workflows, and partner applications in the field.

MVP Robotics then closed the loop. Its unmanned ground vehicle moved a casualty using a litter configuration, while location, route, and estimated arrival information remained visible in ATAK. **PDW** and other UAS partners supported resupply and logistics concepts. **Kägwerks** used DTC-connected DOCK Ultra systems to demonstrate soldier-worn and tailgate-based drone control, showing how flight operations, mission planning, and payload control could be divided across users without leaving the common network.

The scenario also generated honest lessons: some medical data paths were constrained by Wi-Fi architecture and multicast limitations, clarifying where edge processing, HF transport, and interface changes should be pursued before the next event.

OPERATIONAL OUTCOME

The SAR collaboration proved that casualty detection, biometric monitoring, mission command, and robotic evacuation can operate as one connected process. It also validated communications continuity during a server outage and produced actionable engineering tasks for the next development cycle.

SCENARIOS

WILDLAND FIRE & AIR DROP

A wildland fire has been identified in the vicinity of grid 12T VR 309 229. The terrain is extremely austere, and conditions demand immediate action. A smokejumper crew has been dispatched to contain the blaze. Before their insertion, various technology and sensors were deployed to gather firsthand intelligence on fire movement, terrain hazards, and the optimal jump location to ensure the safest and most effective deployment of the team. Once on the ground, the fire team used technology to locate, fight, and direct coordination on extinguishing the fire. They also used BD SPOT to place ATOS tags to establish a digital Landing Zone (LZ) where FW aircraft could be used to resupply the fire team and act as a casualty evacuation point. All data (thermal, EO/IR, pictures, live-stream sUAS video, ATAK/ATOS GPS tags, & PLI) was sent back to the Ops Center using a MANET/ADHOC (data) radio system, where three live streams were viewed simultaneously.

Persistent Systems radios carried the robotic video feeds to headquarters, anchoring the network.

Technologies

Persistent Systems

Mobile ad-hoc network (MANET) radios that relay voice, data & video traffic

Boston Dynamics

Agile and durable all-weather ground robot for use in a broad range of unstructured urban and natural environments

BlackWire

Efficient video/data compression for constrained networks

EagleNXT

90-minute FW drone with FMV capability

HoverFly

Tethered multirole drone

Miss Montana

C-47 WWII airplane digital airdrop platform

MP Antenna *

Tactical frequency tuned custom-built antennas

Notch Technologies *

Tactical beam forming antennas

WearTAK

TAK display on a watch interface / bio sensor

Rain Technology

Medical monitoring dashboard

Juggernaut

Rugged TAK EUD cases & mounts

Velocity Explorations

Voice/data analytics edge AI computing software

Marshall/TS ATOS tags

GPS tracker that has an organic TAK Plugin

goTenna *

White Cell backbone providing critical coordination via ATAK



Objectives

- Insert SPOT via parachute autonomously
- Insert Smoke Jumpers
- Drones to Find/Fix of hotspots/personnel
- Water dropped via plane marked by ATOS tags
- MANET/ADHOC radios send DATA to OPs Center via BLOS and Terrestrial network means.
- ATOS GPS tags marking personnel and equipment
- ATAK is the Common Operating Picture (COP)

WILDLAND FIRE AND AIRDROP: BUILDING THE LANDING ZONE TOGETHER

The wildland fire lane required the team to see the hazard, protect the airspace, track the jumper, establish a landing zone, and keep every part of the mission visible from the mountain to the Operations Center.

Eagle NXT's eBee Vision provided persistent reconnaissance from 400 to 1,000 feet, remained effective in strong winds, followed the smokejumper during descent, and confirmed the landing. When the aircraft briefly lost link, established lost-link procedures restored control and let the mission continue. **Hoverfly's** tethered Spectre system supported airspace awareness, counter-UAS detection, network extension, and long-duration overwatch — its elevated position also helped extend networks and support FPV training in collaboration with **MVP Robotics**.

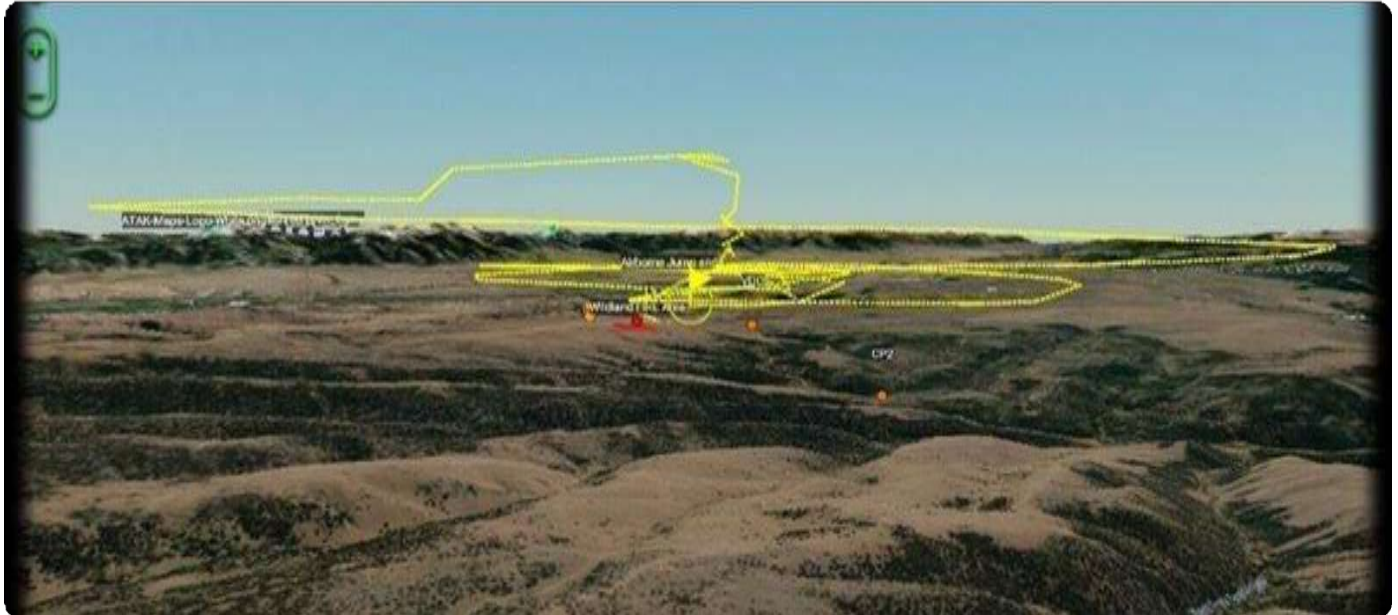


A field kit supported reconnaissance aircraft operations during the wildland fire lane.

Boston Dynamics, **Tough Stump Technologies**, **Persistent Systems**, **MP Antenna**, and **Blackwire** combined ground robotics, communications, antennas, and video compression. One Spot robot moved across rugged terrain and used visual and thermal sensors to examine the fire area. A second Spot used its manipulator to place ATOS tags in a rectangular pattern, creating a digital landing zone visible in ATAK. The robots' video was compressed by **Blackwire** and transported over **Persistent Systems** radios back to headquarters roughly 50 kilometers away.

goTenna and **Rain Technology Solutions** connected the airborne human to the same picture. A smokejumper carried a minimal kit — a wearable interface and a **goTenna** radio. The mesh network tracked position and altitude from approximately 20 miles away without cellular service, while **Rain's** HAIL application displayed live medical information. **Marshall Radio** / Tough Stump ATOS tags tracked aircraft, personnel, robots, and dropped assets across the lane, including the Miss Montana C-47 as it approached from more than 30 miles away.

WILDLAND FIRE AND AIRDROP: BUILDING THE LANDING ZONE TOGETHER



The jumper's position and altitude remained visible over an off-grid network during the airborne insertion.

Velocity Explorations deployed its compact Echo Edge system to process and contextualize live communications without cloud access. By consolidating multiple channels into a cleaner operational stream, the system showed how edge AI could reduce cognitive load during a complex incident. **Qualcomm, Ditto, RTX BBN**, and other partners separately demonstrated how device-to-device links, multi-transport synchronization, and TAK data could keep moving when conventional infrastructure was unavailable.

OPERATIONAL OUTCOME

The lane produced an integrated air-ground picture: the fire and landing area were observed, the airspace was monitored, the jumper and aircraft were tracked, the landing zone was digitally marked, medical status was visible, and compressed video and communications reached the command post over long distances.

SCENARIOS

MARITIME

A plane has crashed in the reservoir, prompting an immediate multi-domain search effort. Above-surface, surface, and sub-surface UMX platforms were deployed to scan, search, live-stream, and pinpoint sensitive items in and around the water. The detailed data collected by these systems guided dive teams as they conducted targeted underwater recovery of identified items. All data (sonar, thermal, EO/IR, live-stream underwater UMX systems video/sensor data, ATAK/ATOS GPS tags, & PLI) was contained in an established Local Area Network (LAN) and transported back to the Ops Center using the SquidLink communication system. This allowed the Incident Commander (IC) to access initial data, intel & assessments guiding recovery diver response teams where to dive more efficiently and rapidly—and gave the Ops Center a clear, complete view of the scene.

Private Tier Solutions served as the core integrator, establishing the local network architecture that connected every platform into a single operating picture.

Objectives

- Surface/Sub-surface vehicles conducts search for sensitive items
- Produce full bottom scan for pinpointing interest
- Drones Find/Fix items/monitor surface activities
- Transport equipment via unmanned vehicles
- Demo ability to recharge UMX's on the water
- MANET/ADHOC radios send DATA to OPs Center via BLOS and Terrestrial network means.
- ATOS GPS tags mark all personnel and equipment
- ATAK is the Common Operating Picture (COP)



Technologies

Private Tier Solutions

Core integrator powering maritime comms architecture

Strategic Robotic Systems

Rapid-transition undersea platform for ROV, AUV, and diver-controlled missions

Bryodyn *

BLOS data network aggregation

Greensea IQ

Underwater UMX systems

Ditto Live *

Multiple pathway cross band wave form integrator

Bunker Supply

Rugged TAK cases/mounts & mobile desktop capability

Marshall/TS ATOS tags

GPS tracker that has an organic TAK Plugin

goTenna *

White Cell backbone providing critical coordination via ATAK

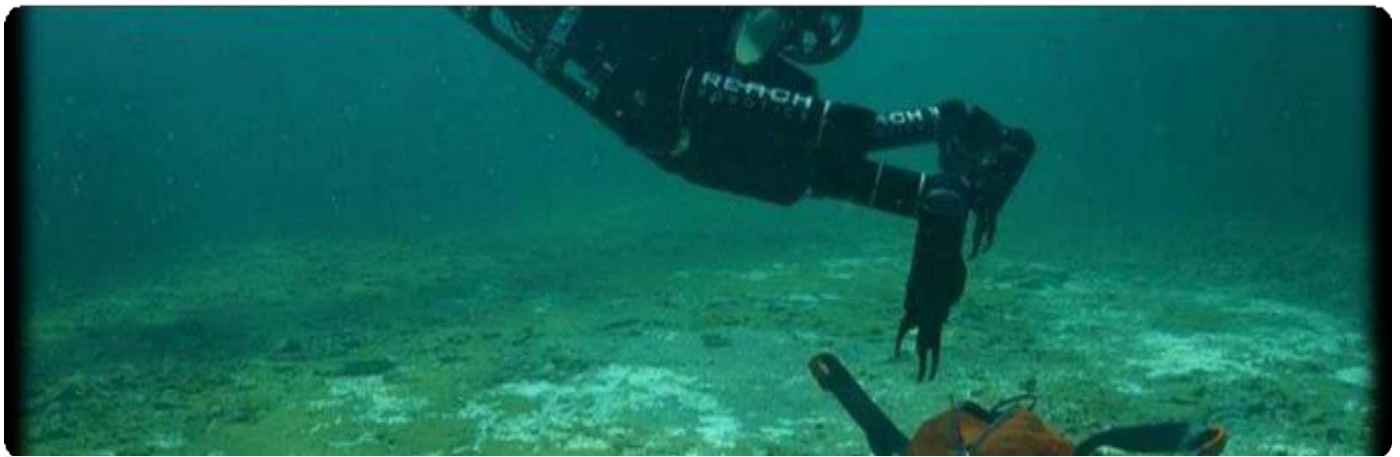
 * Communications & networking backbone



MARITIME RECOVERY: CONNECTING THE WATER TO THE COMMON PICTURE

The maritime lane brought government platforms, commercial unmanned systems, underwater sensors, local networking, and wide-area communications into one expeditionary architecture.

Private Tier Solutions served as the principal integrator and established the local network that let the U.S. Navy Mobile Gateway Buoy, the Marine Corps Autonomous Underwater Ground Vehicle, **Strategic Robotic Systems'** FUSION vehicle, **Greensea IQ's** Bayonet system, and **Bryodyn Technologies'** Squidlink communications capability operate as a connected team.



The SRS FUSION vehicle contributed underwater sensing and recovery capability within the shared maritime architecture.

FUSION moved between remotely operated, autonomous, and diver-control roles while collecting underwater video, sonar, navigation, and mission data. **Greensea IQ** and **Private Tier Solutions** worked through the practical details of moving Bayonet data into TAK so personnel outside the immediate water site could share the same situational awareness. **Bryodyn's** Squidlink bridged the local tactical network to the wide-area network and command nodes.

The most important work happened between demonstrations. Engineers, operators, program managers, and developers stood side-by-side to refine configurations, troubleshoot protocol and routing issues, and validate the path from underwater sensors to the common tactical picture. Participants estimated the week compressed roughly three months of integration and experimentation into a single focused field event.

OPERATIONAL OUTCOME

The maritime team demonstrated that government and industry systems could be connected into a cohesive operational ecosystem. The event reduced technical risk, clarified network and protocol requirements, and accelerated future unmanned maritime development.

OPERATIONS CENTER OVERVIEW

The Operations Center was purpose-built to manage TAK server connections and served as the central nerve center for TSR. Samsung provided the display infrastructure that supported live demonstrations, operational scenarios, presentations, and after-action reviews—allowing participants to visualize ATAK data, full-motion video, and mission activity at scale in real time. Throughout the event, the Operations Center functioned as the primary hub for data integration and distribution, enabling seamless coordination across multiple networks and systems. Leveraging BAH's SITx, RTX BBN servers, and Bryodyn's TIG routers, the Operations Center pushed data to more than 2,500 online viewers across 35 U.S. states and 15 countries.

A total of 17 TAK servers were federated, transmitting mission data to two Combatant Commands and directly into their MAVEN smart systems to enhance operational visibility. Data feeds included Cursor-on-Target (CoT) messages, ATOS-generated GPS tags (BFT), and full-motion video (FMV), all streamed directly from the Tough Stump Rodeo in Montana. The Operations Center enabled both in-person and remote audiences to monitor, coordinate, and react in real time—demonstrating the power of integrated tactical networks and live mission data flow across a distributed environment.

Technologies

BAH

SITx Server / TAK / video lead

RTX BBN

GOTS Server / TAK / video lead

Bryodyn

BLOS data network aggregation

Samsung

Monitors / video / TAK phone support and devices

Qualcomm

Telecommunications / AI & edge computing

BlackWire

Efficient video/data compression for constrained networks

Cloud RF

Real-time RF modeling for mission planning

goTenna

White Cell backbone providing critical coordination via ATAK

Ditto Live

Enables cross-platform talk / Rodeo App

Cyntony Corp

EW, DF, signal intercept / mesh radios

Aeronautix Innovations

Radio gateway / bridges legacy to modern

Squarehead

cUAS passive audio detect

ACI

NETT Warrior PR & integrator

Darley Defense

Integrator

Bunker Supply

Rugged TAK cases/mounts & mobile desktop capability

SkyFi

Multiple imagery tasking / download from ATAK

Juggernaut Case

Rugged TAK EUD cases & mounts

Velocity Explorations

Voice/data analytics edge AI computing software

Reveal Tech

FMV real-time edge processing

wolfSSL

Cryptography implementors to existing non-secure comms

Knowmadics

EW / Cyber / Emissions experts

OMTAC Defense

Secure & scalable comms / cell phone sensor locator

Parsons

SmartCam 3D sensor

Primordial Labs

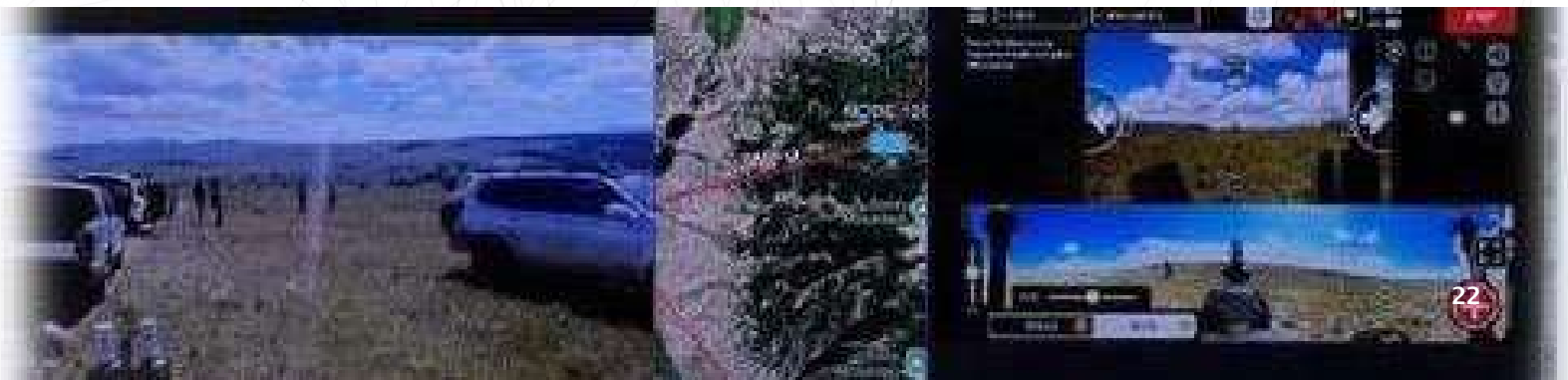
Voice to machine tasking / AI

Entropy Robotics

AI learning, targeting, auto FPV flight

Marshall/TS ATOS tags

GPS tracker that has an organic TAK Plugin



THE OPERATIONS CENTER: WHERE SEPARATE FEEDS BECAME ONE DECISION SPACE

Every lane depended on the ability to move information to people who weren't physically beside the sensor or platform.

Booz Allen Hamilton's Sit(x) and GVStreamer, **Bryodyn's** backhaul, **RTX BBN's** TAK servers and video services, **Samsung's** displays and Tactical Edition devices, and federated TAK environments combined to make the Operations Center the event's nerve center. Participants could view personnel locations, video, sensor reports, imagery, medical status, aircraft and robot tracks, and mission annotations in one operational context.



Field activity, aerial feeds, and operational overlays were discussed and visualized in a shared command environment.

RTX BBN worked with **Skydio** and **Reveal Technology** to move multiple drone feeds through TAK Video Restreamer while **Reveal** generated three-dimensional models in near real time. **RTX BBN** and **Qualcomm** demonstrated TAK data over 5G Sidelink without a cellular tower. **BBN** also showed TAK GPT, TAK TALK, and the Unified Management Tool to explore on-device AI, bandwidth-efficient multilingual voice workflows, and rapid account onboarding.

Reveal Technology repeatedly generated and shared Farsight products from field imagery. **Parsons** integrated SmartCam3D data. **Primordial Labs** paired voice-to-machine tasking and robot-selection workflows with partner systems. **Entropy Robotics** worked with **Booz Allen Hamilton** to connect its platforms through the ATAK UAS Tool. **Squarehead** validated that detections, tracks, video, alerts, and sensor control could enter TAK through its dedicated plugin.

THE OPERATIONS CENTER: WHERE SEPARATE FEEDS BECAME ONE DECISION SPACE



Federated TAK services and rapid user onboarding helped connect participants across networks.

Ditto synchronized data over Bluetooth, LAN, peer-to-peer Wi-Fi, cloud connections, and emerging tactical radio links, bridging **ATAK**, **WearTAK**, and **TAKAware**. **WolfSSL** rebuilt TAK components with FIPS-ready and post-quantum cryptographic libraries, showing how the same operational ecosystem could be strengthened without replacing the applications operators already use.

Additional partners contributed the less visible but equally important parts of the chain. **ACI** provided mission-focused integration. **Black Diamond** demonstrated a lighter radio-to-end-user-device power and data interface. **Bunker Supply** and **Juggernaut** supported rugged mounting, power, and device management. **ACI** and **NETT Warrior** teams created a Program of Record integration environment. And **Knowmadics**, **Cyntony**, **OMTAC**, **CRG Defense**, **MP Antenna**, **Notch**, and others tested sensing, emissions awareness, secure communications, and range-extension concepts against the same shared architecture.

OPERATIONAL OUTCOME

The Operations Center demonstrated the real payoff of collaboration: information from unrelated companies and mission domains could be normalized into a picture that operators could understand and act upon. It also exposed the security, administration, bandwidth, and interface work required to scale that picture responsibly.

WHAT THE COLLABORATION PRODUCED

By the end of the week, the strongest results weren't product claims. They were observable mission chains and specific engineering lessons.

Qualcomm validated resilient UAV and device-to-device communications concepts. **Samsung** demonstrated a secure endpoint and display ecosystem spanning field users and command posts. **Booz Allen Hamilton** and **RTX BBN** showed that federated TAK, edge and cloud processing, video, and rapid user management could support a large, distributed audience. **Bryodyn** earned Best Vendor recognition while carrying data across both maritime and enterprise-scale operational links.



The people behind every lane — the teams that built, tested, and refined these capabilities together on the ground.

CloudRF validated time-sensitive RF planning with successful relay-site selection. **Epic Blue** maintained GPS-denied tracks underground. **MVP Robotics** turned conceptual subterranean teaming into a working capability and also supported casualty evacuation and FPV training. **Boston Dynamics** and partners created a digitally marked landing zone with robots. **goTenna** and **Rain** maintained off-grid jumper tracking and medical awareness. **DTC** and **NVIS** sustained operations through a cloud outage. **Private Tier Solutions** and maritime partners compressed months of integration work into a week.

Not every objective was fully achieved. **Eagle NXT** and NETT Warrior validated TAK connectivity but identified additional integration work. **LifeLens** found limitations in the available multicast architecture. **Ditto's** event application experienced stability issues when communications dropped. **Textron Aviation** couldn't fly because of last-minute aircraft issues, and **Galvion** withdrew for real-world commitments. These outcomes belong in the story, because credible field experimentation includes the constraints, not just the successes.

WHAT THE COLLABORATION PRODUCED

The common thread was that each company arrived with one piece of the problem. The Rodeo created the conditions for those pieces to meet: radios connected robots, sensors informed medical teams, edge processors reduced bandwidth and cognitive load, imagery guided operators, cryptography strengthened transport, and TAK made the combined result visible. The collaboration converted a vendor field into an operational system.

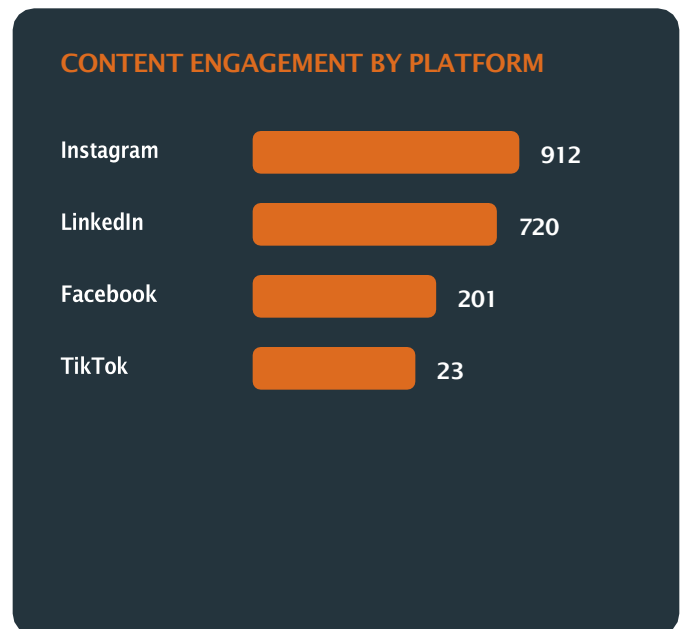
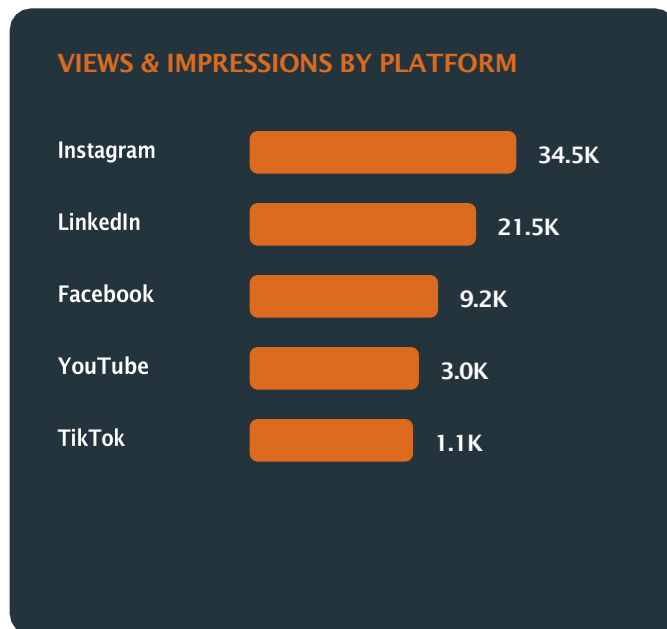
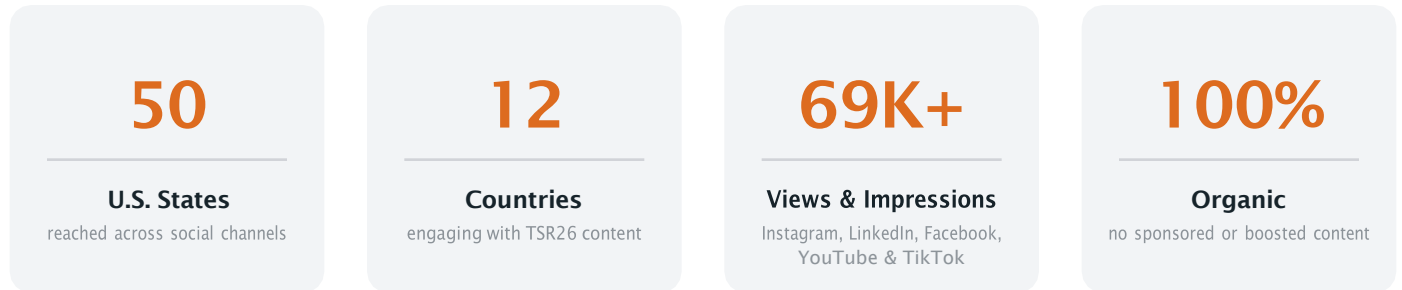
THE BOTTOM LINE

TSR26 showed that the fastest path to operational capability is disciplined collaboration in realistic conditions. The result wasn't a single winner or a single technology — it was a clearer understanding of how the entire ecosystem can work together, and exactly what must improve before the next mission.



TSR26 SOCIAL MEDIA METRICS

During and immediately following Tough Stump Rodeo 2026, social media activity across Tough Stump channels generated the following results — every view, reaction, and share of it organic.



Reactions, comments, shares & content interactions · Plus 45.5 hours of YouTube watch time and 8h 25m on Facebook · 4,000+ unique Facebook viewers

Source: platform analytics, June 1–30, 2026 • Tough Stump Technologies channels

PRESENTING SPONSOR



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CAPABILITIES DEMONSTRATED AT TSR26

5G Sidelink

Multihop Mesh Relay

Long Range Wi-Fi Mesh

Snapdragon Mission Tactical Radio

AI-Capable Edge Processing

PRODUCTS SUMMARY

Qualcomm demonstrated resilient multi-communications links to UAVs: Sidelink (UE to UE 5G communications) between ground nodes and with a UAV relay. Multihop mesh communications between (3) quad copter UAVs to extend BLOS communications with a fixed wing UAS; using Long

Range Wi-Fi mesh. Longbow; long range spread spectrum, device to device comms protocol. All UAVs were flying an integral assembly of Qualcomm modems (Snapdragon Mission Tactical Radio) and AI capable edge processors.

Engineered in America.
Built for the world

Powering intelligence across the compute continuum.

We bring intelligent
computing **everywhere.**



Qualcomm's full product line overview continues on the next page →

QUALCOMM

Qualcomm Technologies delivers intelligent computing everywhere — leading-edge AI, high-performance low-power compute, and unrivaled connectivity spanning mobile, PC, automotive, IoT, and data-center infrastructure. Product lines most relevant to tactical and edge deployments include:

- **Snapdragon**

- MOBILE & COMPUTE**

- Integrated CPU/GPU/NPU/modem platforms powering flagship smartphones, Copilot+ Windows PCs, tablets, XR headsets, wearables, gaming handhelds, and automotive cockpit/ADAS systems.

- **Snapdragon Tactical Radio**

- & EDGE AI**

- Mission-configurable modems and AI-capable edge processors for resilient device-to-device and UAV mesh communications — the same modem family Qualcomm demonstrated at TSR26.

- **Dragonwing**

- IOT & EDGE**

- Hardware, software, and services for industrial, robotics, and edge-AI deployments, extending Qualcomm silicon and AI tooling to ruggedized and embedded use cases.

- **Qualcomm Dragonfly**

- DATA CENTER AI**

- A data-center platform roadmap for scalable, agentic AI infrastructure, built for sustained, high-efficiency AI workload growth.

- **Cloud AI 100 Ultra**

- DATA CENTER AI**

- High-performance, power-efficient AI inference accelerators for data-center-scale generative and agentic AI.

- **Wi-Fi, Connectivity**

- & 6G RESEARCH**

- Wi-Fi chipsets spanning consumer to infrastructure-grade networking, plus Qualcomm's published roadmap for 6G as the next intelligent network standard.

Across every TSR26 lane, Qualcomm's Snapdragon and Dragonwing platforms provided the mesh communications and edge-AI backbone linking UAVs, ground nodes, and operators.

PLATINUM SPONSOR

SAMSUNG



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PRODUCTS SUMMARY

For TS26, Samsung demonstrated how its ecosystem of secure mobile devices, Tactical Edition solutions and display technologies enable mission operations from the command center to the tactical edge. Samsung technologies supported situational awareness, operational coordination, mission planning, exercises and executive briefings throughout the event.

Samsung Galaxy Mobile Devices: Samsung's diverse portfolio of Galaxy devices supports purpose-built mobile solutions for complex field operations, including ATAK integrations for drones, wearables and sensors. Galaxy devices offer ATAK users the performance, connectivity, durability and security they need for tactical success. From the sleek and innovative Galaxy S26 Ultra and Galaxy Z Fold, to rugged and reliable XCover series smartphones and Tab Active5 and Tab Active Pro tablets, to field-ready wearables,

Samsung offers a device option for every mission. This includes specialized Galaxy Tactical Edition devices that provide ATAK users with GPS, secure communications and data sharing across LTE, LMR, Tactical Radio Networks and satellite communications.

Samsung DeX: Samsung DeX transforms compatible Galaxy devices into a desktop-like environment supporting mission planning and command post operations from a single device.

Drone Control: Samsung devices serve as trusted UAS controller endpoints with TAA-compliant options and custom software configurations. Samsung devices support integrating video, sensor, drone and external GPS data into ATAK and other mission applications, enhancing situational awareness and accelerating operational decision-making.

Command & Control: Command-and-control centers rely on accurate data visualization for monitoring, coordination and decision-making. Secure, TAA-compliant displays support visualization of operational data, live video, and ATAK-enabled workflows, helping teams maintain a common operating picture across command posts and operations centers.

Operations Center: Samsung provided the display infrastructure supporting live demonstrations, operational scenarios, presentations and after-action reviews, enabling participants to visualize ATAK data, full-motion video and mission activities in real time. In addition, Samsung's Galaxy Tactical Edition devices supported event staff, partners and observers by providing a secure

mobile platform for communications, technology demonstrations, partner integration and field evaluations throughout the event.

PLATINUM SPONSOR

BOOZ ALLEN HAMILTON



WEBSITE

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PRODUCTS SUMMARY

Booz Allen Hamilton OPs Center TM

Booz Allen Hamilton (BAH) provided the operational technology backbone for the 2026 Tough Stump Rodeo (TSR26) by establishing and operating the event's Technology Operations Center (TOC). The TOC transformed TSR26 from a collection of individual technology demonstrations into an integrated operational environment, enabling real-time collaboration among technology vendors, event observers, and mission partners.

At the center of the architecture was Sit(x), Booz Allen's TAK Server capability, which supported TAK-enabled users throughout the event. The Sit(x) environment enabled a shared operational picture by integrating user locations, geospatial data, and operational information for several hundred concurrent connections from participants representing 10 countries. The architecture

included 13 TAK server federations connecting TSR26 with third-party organizations through a secure backhaul service provided by Bryodyn Technologies.

In addition to Sit(x), BAH provided live video integration capabilities through GVStreamer, supporting the movement of video data from field systems into the operations tent. GVStreamer was deployed using a hybrid architecture combining cloud-hosted services with local edge compute laptops, enabling flexible video

processing and distribution in both connected and bandwidth-constrained environments. This capability demonstrated the integration of live video feeds into TAK-enabled workflows, providing users with visual intelligence within a common operating environment.

The TSR26 Operations Center showcased multi-agency operational technology by demonstrating how TAK, video streaming, cloud services, edge computing, and federated architectures can work together to support complex missions. The BAH deployment validated a scalable approach for public safety, emergency management, and disaster response operations where multiple organizations require a common operating picture while maintaining interoperability and data-sharing flexibility.

Booz Allen Hamilton TAK UMS Team

Demo Area 1 Lane - Conducted air boss / ATC activities to facilitate live flight ops for a multitude of drones and setup types. All drones either had Remote ID or ATOS tags for redundant tracking. Drones that were utilizing ATAK UAS Tool and were able to hit reach back to SitX or TAK Server were shown in the Ops Center (UCO).

Notable events conducted:

FPV flight ops against the MVP Robotics - Robot Drone Net (see video and images). Flew a 5" FPV into the...

PLATINUM SPONSOR

KNOWMADICS



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PRODUCTS SUMMARY

Tough Stump Rodeo 2026 (TSR26) provided a valuable opportunity for government, industry, public safety, and defense organizations to evaluate emerging technologies in realistic operational environments. Unlike traditional trade shows, the event emphasized interoperability, collaboration, and mission-focused problem solving through hands-on demonstrations and operational scenarios conducted in austere terrain.

Participants included military personnel, federal agencies, law enforcement, search-and-rescue teams, wildland fire professionals, and technology vendors. Demonstrated capabilities included tactical communications, unmanned systems, robotics, sensors, tracking technologies, artificial intelligence, and situational awareness tools. Vendors worked collaboratively to integrate technologies and address real-world operational challenges rather than showcasing standalone products.

Operational scenarios included search and rescue, wildland fire response, subterranean reconnaissance, maritime operations, and long-range communications. These activities highlighted the importance of resilient communication, data sharing, and effective situational awareness in complex environments.

The AI-Driven Situational Awareness and Tactical Interoperability panel provided valuable discussion on artificial intelligence, edge computing, interoperability, and human-machine teaming. Discussions reinforced the importance of open

standards, communications resilience, and maintaining the human decision-maker at the center of operational workflows.

As a first-time participant, TSR26 exceeded expectations in technical collaboration, operational relevance, and networking opportunities. The event...



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Private Tier Solutions

Tough Stump Rodeo 2026 provided a unique venue for government and industry partners to collaboratively advance the integration, networking, and operational employment of unmanned maritime systems within a realistic expeditionary environment. The event brought together representatives from Naval Information Warfare Center (NIWC), Marine Corps Systems Command (MCSC), Private Tier Solutions, Strategic Robotic Systems (SRS), Greensea IQ, and Bryodyn Technologies to demonstrate and experiment with the integration of multiple unmanned platforms

and supporting communications architectures.

Private Tier Solutions served as the principal integrator and enabler of the maritime communications architecture, establishing and maintaining the local area network (LAN) infrastructure within the

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maritime operations lane. This network formed the foundation upon which multiple unmanned systems and supporting communications technologies were integrated, tested, and evaluated. Through this effort, disparate government and industry systems were successfully connected into a common operational architecture, enabling the movement of sensor and mission data from the tactical edge to command and control (C2) systems.

Government-furnished platforms included the United States Navy Mobile Gateway Buoy (MGB) and the United States Marine Corps Autonomous Underwater Ground Vehicle (AUGV). These systems were integrated alongside Strategic Robotic Systems' Fusion ROV and Bryodyn Technologies' Squidlink communications solution. Bryodyn's Squidlink capability provided the critical bridge between the local tactical network and the wide area network (WAN),...

GOLD SPONSOR



Sherpa 6

Sherpa 6, Inc. served as the network and integration lead for the subterranean (SubT) lane, partnering with MVP Robotics, Cleo Robotics, and Notch to deliver an end-to-end, multi-domain robotic reconnaissance capability inside a mine shaft. The objective was to demonstrate that a forward, subterranean point of presence could be established and sustained — and that observers at the UCO headquarters, approximately 35 miles distant, could maintain full, real-time visibility of subterranean robotic operations while the

platforms were operated forward, just outside the mineshaft portal.

Sherpa 6 anchored the network with three RAB relay nodes — one at the UCO headquarters, one at the mineshaft portal entrance, and one integrated onto an MVP Robotics unmanned ground vehicle (UGV) — with Starlink providing the long-haul reach back

between the portal and headquarters. The robot-mounted RAB turned the UGV into a mobile network node that extended IP transport forward as it advanced into the tunnel. A heterogeneous backhaul — combining millimeter-wave (mmWave) links, fiber, and Trellisware tactical mesh radios — carried traffic through the shaft. Over this fabric, operators positioned just outside the mineshaft portal launched and flew a Cleo Robotics Dronut ducted unmanned aerial vehicle (UAV), which mapped the tunnel using onboard LiDAR and located a target inside it; every feed was carried back across the network so that observers at the UCO headquarters watched the operation unfold in real time. Notch antenna technology extended the range of the Microhard RF link to the Dronut, providing reliable command- and-control and data connectivity to the air vehicle deep inside the tunnel. Externally, the SubT lane network infrastructure was supported by robust...

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SRS Fusion

The SRS FUSION is the world's most versatile underwater vehicle — engineered to adapt to any mission from a single, modular platform. Purpose-built for defense, commercial, and scientific operations, FUSION seamlessly transitions between three distinct modes: ROV (Remotely Operated Vehicle), AUV (Autonomous Underwater Vehicle), and DCM (Diver Control Mode) eliminating the need for multiple systems in the field.

Depth-rated to 305 m (1,000 ft) with 3 – 4+ hours of endurance per charge, FUSION delivers exceptional performance in demanding underwater environments. Its advanced propulsion system — featuring four vectored, two vertical, and one pitch brushless DC thrusters — provides precise, multi-axis control in any condition.

Equipped with a UHD 4K camera, forward- looking multibeam sonar, DVL, GNSS, IMU, and optional side-scan sonar, FUSION captures high-fidelity subsea data with unmatched accuracy. Automated features including auto depth, heading, altitude, waypoint navigation, station hold, and return-to-home ensure operators stay focused on the mission — not the...

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GoTenna

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goTenna returned for our 5th year to the 2026 Tough Stump Rodeo, operating across a roughly 500 square mile operations box in the canyon terrain outside Ennis, Montana. This year's deployment set a new coverage record, approximately 900 square miles of modeled and validated RF coverage. This off-grid network included areas from the UCO to the northernmost lane 30 miles through the canyon, and 30 miles east to Ennis Airport.

As in previous years, goTenna ran two parallel networks: an A-Network supporting Tough Stump organizers with reliable TAK- based situational awareness in the complete absence of cellular coverage, and a B-Network dedicated to testing of new product developments. On the B-network, we demonstrated beyond line of sight (BLOS) fronthaul and backhaul, passing off- grid traffic from the OPS Center to off-grid users in Puerto Rico, leveraging next- generation goTenna technology on one end, and Everywhere Communications inReach Mini 2 on the other....

SILVER SPONSOR



Kagwerks

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PHONE: 518-577-5280

Kagwerks successfully demonstrated a rapid prototype of the DOCK Ultra Kontroller, leveraging custom software on the DOCK Ultra system to enable plug-and-play MAVLink drone control using any USB controller and any Android device as a user interface. This validates an additional capability set of the DOCK Ultra and illustrates its value as a soldier-mounted or replaceable ground control station. Kagwerks leveraged the Tough Stump Rodeo's DTC mesh radio ecosystem to join the TOC mesh and demonstrate having

multiple DOCK Ultras (with built-in DTC radios) connected to perform flight operations directly from a chest-mounted soldier-worn position with concurrent mission planning and payload control from a separate DOCK Ultra with laptop or tablet on a tailgate. Within the TAK ecosystem accessible on the mesh, this also exposed additional data fusion and awareness for UAS operators using DOCK Kontroller....

SILVER SPONSOR



ACI

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Augustine Consulting Inc. (ACI) is a premier full stack engineering firm specializing in complex mission-critical architecture design and integration for Department of War and Energy systems. ACI provides integration services designed to optimize performance and interoperability across systems, networks, and warfighters. With focus on delivering end-user-driven, mission-focused solutions, ACI ensures that the technology delivered aligns directly with operational needs. By prioritizing operational readiness and rapid deployment capability, ACI bridges the gap between sophisticated laboratory development and tactical edge implementation.

SILVER SPONSOR



Boston Dynamics

WEBSITE: <https://bostondynamics.com>

CONTACT: Shaun Ray

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PHONE: 757-285-8132

Boston Dynamics partnered with Tough Stump Technologies, Persistent Systems, MP Antenna and Blackwire-ts to complete the Wildland Fire Airdrop Scenario. Two Boston Dynamics Quadruped Spot Robots were deployed to serve in conjunction on the mission. One Spot robot traversed rugged terrain to gain situational awareness of wildfire in the form of high-definition video using the Spot CAM+IR. The operator was able to investigate the fire using the 30x zoom camera along with its thermal camera. Utilizing the Pan/Tilt on the camera, the operator was able to track Miss Montana, a C-47 plane when the smoke jumper deployed. The second Spot robot located and identified a proper LZ zone for the jumper. The Spot Manipulator Arm was utilized to pick and place ten ATOS tags in a rectangular layout to signify the LZ. The ATOS tags are GPS tags which populate in ATAK for the jumper to identify safe landing into the fire zone. All of Spots video feeds were pushed back to the UCO 50km away leveraging the compression of the Blackwire-ts software and the Persistent Systems MPU5 radio. Sending compressed video back to the UCO rather...

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Darley Defense

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Event was great, would like to be added value next year and provide AV solutions at each lane to include an administrative network with Polaris RZR's

SILVER SPONSOR



Rain Technology Solutions

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While at the rodeo, Rain Tech supported the SAR lane during demo day, providing full monitoring for patients on the lane. Coordinated most closely with MVP Robotics, MaXentric, DTC, and goTenna at the lane. Using the DTC and goTenna networks for redundancy, we were able to monitor patient vitals, document injuries, and call in for CASEVAC. Data was visualized back at the Ops Center on ATAK. The MVP UGV was used as the CASEVAC vehicle with the entire process (along with ETA) visualized in ATAK. Also coordinated with PDW, LifeLens, WearTAK, and CRG to help plan and network a smooth demonstration.

SILVER SPONSOR



Skydio

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Skydio's participation in Tough Stump Rodeo 2026 demonstrated the newest software release for the Skydio X10D, which positions the X10D as a highly interoperable ISR platform capable of operating effectively across austere terrain, extended ranges, and communications-degraded environments representative of real-world DoD, SAR, and public safety missions. In the long-range SAR/Landslide MASCAL scenario, multiple X10Ds provided persistent aerial overwatch and real-time intelligence to support casualty location, situational awareness, and search-and-rescue coordination across a widely distributed operational area.

Looking ahead, participants also received a preview of our new software release focused on TAK-first operations: - Direct TAK server connectivity (publishing/consuming data without intermediate tooling in the loop)

- Augmented Reality CoT visualization, enabling rapid comprehension of nearby tracks/markers and associated context in 3D space...

FRIENDS OF TOUGH STUMP

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BLACK DIAMOND
ADVANCED TECHNOLOGY
Black Diamond

WEBSITE: <https://www.bdatech.com/>

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BDATEch supported the ACI lane by demonstrating the MA-4163 Mission Extender and a direct radio-to-EUD interface for the AN/PRC-163. The solution enables external power injection to extend radio battery life while maintaining full data connectivity to the EUD. This capability demonstrated a reduced-size, lower-SWaP alternative to the standard hub architecture, providing operational users with a lightweight solution that maintains mission-critical communications and data exchange.

FRIEND OF TOUGH STUMP



EPIC BLUE

Epic Blue

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Epic Blue participated in TSR26 to get technology into the hands of the people who will use it. Fielded validation has been Epic Blue's core philosophy since day one — as relevant for mature technology as for early-stage R&D.

The natural home for Epic Blue was the Sub-T Strike Lane: what happens to your position when you take the Hyper Location TAK Plugin into a mine shaft? Would the Fellowship of the Ring have fared better in the Mines of Moria? As it turns out — yes. Hyper Location delivered full round-trip coverage, maintaining continuous 3D tracks on the TAK Common Operating Picture throughout each run....

FRIEND OF TOUGH STUMP



Galvion

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Unfortunately Galvion had to pull out last minute due to real world commitments.

FRIEND OF TOUGH STUMP



CloudRF

Cloud RF

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CloudRF make operator focused apps for radio planning today. Our flagship RF coverage server, SOOTHSAVER, integrates with ATAK for offline dynamic network mapping.

CloudRF is a UK SME that develops radio planning software for diverse RF technologies with a focus on ease-of-use. We attended TSR for the first time in the Sub-T Lane to test our offline planning capabilities and ATAK plugin. Prior to the event, we published RF coverage plots for the high points as well as local cellular...

FRIEND OF TOUGH STUMP



EVERYWHERE
Everywhere

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PHONE: 910-987-2651

The primary objective for EVERYWHERE Communications was to support and validate sensor-related activities associated with the ongoing Small Business Innovation

Research (SBIR) effort being conducted in partnership with QRC Technologies. The event provided a valuable opportunity to assess sensor performance in operationally relevant environments, collect data to inform future development efforts, and identify key areas for continued refinement and integration....

FRIEND OF TOUGH STUMP



Juggernaut Case
PROTECT - MOUNT - CONNECT

Juggernaut

WEBSITE: <https://juggernautcase.com/>

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Juggernaut. Case provided all of the cases, mounts and cables for the Observers and Participants to employ the EUD's (End User Devices) provided by Samsung for the week's exercises and tests. Several VELOX

6-Bay Data-Charge Docks were also provided for Provisioning and Fast-Charging the devices in the Ops Center. There were many interactions all week in the UCO Tent with several key end-user groups as well as other industry partners at the event. Specially kitted cases and mounts were also provided for the Wildland Airdrop and SAR Missions. Overall, another great week of testing and evaluation of our latest kit...

FRIENDS OF TOUGH STUMP

FRIEND OF TOUGH STUMP



Marshall Radio Telemetry

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Marshall Radio's ATOS GPS tags and Command Link, developed together with Tough Stump Technologies, were successfully deployed at the 2026 Tough Stump Tech Rodeo in Montana. The tags enabled rapid tagging and real-time tracking of personnel, unmanned systems, canines, Spot, and critical assets, integrating directly with Android Tactical Awareness Kit (ATAK), the event's common operating picture.

Engineered to be bomb-proof and virtually indestructible, the ATOS tags performed flawlessly under extreme field conditions, including high-speed drone flights, aerial bundle drops, and smokejumper landings. ATOS also operated as an independent...

FRIEND OF TOUGH STUMP



Sky Fi

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SkyFi successfully demonstrated the operational value of commercial satellite imagery and ATAK integration at Tough Stump Rodeo 2026. All vendors and sponsors were able to upload SkyFi- provided satellite imagery, load it into ATAK, and apply it to their mission workflows. SkyFi provided imagery products participants could use inside ATAK. Optical, SAR, stereo, and multispectral data supported multiple mission sets. Vendors and sponsors successfully applied imagery to mission workflows.

Day 1 established the test environment: - Terrain familiarization, scenario layout, & a known SAR target with a recorded ATAK position....

FRIEND OF TOUGH STUMP



Wear TAK

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Demonstrated ATOS tag tracking on watch map and forwarding up to TAK server with Ditto Edge Sync for DDIL and T Sat as backhaul.

FRIEND OF TOUGH STUMP



MVP Robotics

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MVP Robotics successfully demonstrated a first-of-its-kind autonomous subterranean capability utilizing the M2P family of unmanned ground vehicles in both tethered and untethered configurations. The system employed resilient fiber optic and directional millimeter-wave communications, with an M2P Lite acting as an autonomous communications relay node to extend operations deep into GPS- denied tunnel environments.

Integrated with the Cleo Robotics Dronut platform and enabled through collaboration with Sherpa 6 and Trellisware, the capability provided distributed sensing, resilient...

FRIEND OF TOUGH STUMP



Trellisware

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2026 Rodeo: Sub-T Strike Scenario Report Executive Summary The 2026 Rodeo paired TrellisWare Technologies with a robust vendor ecosystem, including CloudRF, Sherpa6, MVP Robotics, Cleo Robotics, BlackWire, and EPIC BLUE. Together, the team successfully executed the Sub-T Strike scenario. The scenario presented a complex underground challenge: the enemy's base of operations was located inside a mine shaft, creating a severe subterranean (Sub-T) obstacle for the Assault Force (AF). To overcome this, a Recce Team observed the target mine shaft and relayed critical intelligence back to the...

BEST VENDOR AWARD — 2026



BRYODYN TECHNOLOGIES

WEBSITE

<https://www.bryodyn.com/>

CONTACT

Chad Hayes

EMAIL

chad.hayes@bryodyn.com

PHONE

(703) 554-9239



Bryodyn Technologies leveraged the bonding and aggregation of WAN links on our Tactical Internet Gateway (TIG) solutions to combine several commercial BLOS transport methods, providing resilient and redundant backhaul support across the Tough Stump Rodeo demonstration areas.

bonded four Starlink terminals — two Mini, one

From Brodyn's mobile communications trailer, we

Standard, and one High Performance — through our TIG MAX device. At the reservoir, 21 miles away, we supported the maritime demo using our TIG SQUIDLINK device connected to a Starlink terminal, which linked BLOS back to the TIG MAX at the communications trailer. This allowed us to pass video and CoT data from the underwater system across the network and into TAK....

VENDORS



Black Diamond

FRIENDS SPONSOR

WEB
<https://www.bdatech.com/>
EMAIL
sales@bdatech.com

CONTACT
Benny Santiago
PHONE
423 409 6048

PRODUCTS / EVENT SUMMARY

BDATech supported the ACI lane by demonstrating the MA-4163 Mission Extender and a direct radio-to-EUD interface for the AN/PRC-163. The solution enables external power injection to extend radio battery life while maintaining full data connectivity to the EUD. This capability demonstrated a reduced-size, lower-SWaP...



Cloud RF

FRIENDS SPONSOR

WEB
<https://cloudrf.com/>
EMAIL
alex@cloudrf.com

CONTACT
Alex Farrant
PHONE
+44.7786360142

PRODUCTS / EVENT SUMMARY

CloudRF make operator focused apps for radio planning today. Our flagship RF coverage server, SOOTHSAYER, integrates with ATAK for offline dynamic network mapping. CloudRF is a UK SME that develops radio planning software for diverse RF...



Epic Blue

FRIENDS SPONSOR

WEB
<https://www.epic.blue/>
EMAIL
michael.ilsbroux@epic.blue

CONTACT
Michael Ilsbroux
PHONE
(240) 387 9553

PRODUCTS / EVENT SUMMARY

Epic Blue participated in TSR26 to get technology into the hands of the people who will use it. Fielded validation has been Epic Blue's core philosophy since day one — as relevant for mature technology as for early-stage R&D. The natural home for Epic Blue was the Sub- T Strike Lane: what happens to your...



Everywhere

FRIENDS SPONSOR

WEB
<https://everywherecomms.com/>
EMAIL
mike.reagan@everywherecomms.com

CONTACT
Michael Reagan
PHONE
910-987-2651

PRODUCTS / EVENT SUMMARY

The primary objective for EVERYWHERE Communications was to support and validate sensor-related activities associated with the ongoing Small Business Innovation Research (SBIR) effort being conducted in partnership with QRC Technologies. The...



Galvion

FRIENDS SPONSOR

WEB
www.galvion.com
EMAIL
Chris.barb@galvion-usa.com

CONTACT
Christopher Barb
PHONE
757-769-5214

PRODUCTS / EVENT SUMMARY

Unfortunately Galvion had to pull out last minute due to real world commitments.



Juggernaut

FRIENDS SPONSOR

WEB
<https://juggernautcase.com/>
EMAIL
cstalzer@juggcase.com

CONTACT
Chris Stalzer
PHONE
602.790.5222

PRODUCTS / EVENT SUMMARY

Juggernaut. Case provided all of the cases, mounts and cables for the Observers and Participants to employ the EUD's (End User Devices) provided by Samsung for the week's exercises and tests. Several VELOX 6-Bay Data-Charge Docks were also provided for Provisioning and Fast-Charging th...



Marshall Radio Telemetry

FRIENDS SPONSOR

WEB
<https://marshallradio.com/>
EMAIL
kph@marshallradio.com

CONTACT
Kevin Harcourt
PHONE
(800) 729-7123

PRODUCTS / EVENT SUMMARY

Marshall Radio's ATOS GPS tags and Command Link, developed together with Tough Stump Technologies, were successfully deployed at the 2026 Tough Stump Tech Rodeo in Montana. The tags enabled rapid tagging and real-time tracking of personnel, unmanned systems, canines, Spot, and critical assets, integrating directly...



MVP Robotics

FRIENDS SPONSOR

WEB
<https://www.mvprobotics.com/>
EMAIL
info@mvprobotics.com

CONTACT
Sophia Mathias- Simpson
PHONE
571-329-3104

PRODUCTS / EVENT SUMMARY

MVP Robotics successfully demonstrated a first-of-its-kind autonomous subterranean capability utilizing the M2P family of unmanned ground vehicles in both tethered and untethered configurations. The system employed resilient fiber optic and directional millimeter-wave communications, with an M2P Lite acting as an...

VENDORS



Sky Fi

FRIENDS SPONSOR

WEB
<https://skyfi.com/>

EMAIL
ivan@skyfi.com

CONTACT
Ivan Kovalev
PHONE
217-417-4173

PRODUCTS / EVENT SUMMARY

SkyFi successfully demonstrated the operational value of commercial satellite imagery and ATAK integration at Tough Stump Rodeo 2026. All vendors and sponsors were able to upload SkyFi- provided satellite imagery, load it into ATAK, and apply it to their mission workflows. SkyFi provided imagery products participan...



Trellisware

FRIENDS SPONSOR

WEB
<https://www.trellisware.com/>

EMAIL
info@trellisware.com

CONTACT
Pete Garrett
PHONE
(858) 753-1600

PRODUCTS / EVENT SUMMARY

2026 Rodeo: Sub-T Strike Scenario Report Executive Summary The 2026 Rodeo paired TrellisWare Technologies with a robust vendor ecosystem, including CloudRF, Sherpa6, MVP Robotics, Cleo Robotics, BlackWire, and EPIC BLUE. Together, the team successfully executed the Sub-T Strike scenario. The scenario presented a...



Wear TAK

FRIENDS SPONSOR

WEB
<https://weartak.com/>

EMAIL
alex@weartak.com

CONTACT
Alex Gorsuch
PHONE
217-417-4173

PRODUCTS / EVENT SUMMARY

Demonstrated ATOS tag tracking on watch map and forwarding up to TAK server with Ditto Edge Sync for DDIL and T Sat as backhaul.



Bryodyn Technologies

BEST VENDOR AWARD

WEB
<https://www.bryodyn.com/>

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CONTACT
Chad Hayes
PHONE
(703) 554-9239

PRODUCTS / EVENT SUMMARY

Bryodyn Technologies leveraged the bonding and aggregation of WAN links on our Tactical Internet Gateway (TIG) solutions to combine several commercial BLOS transport methods, providing resilient and redundant backhaul support across the Tough Stump Rodeo demonstration areas....



Blackwire

VENDOR

WEB
<https://blackwirelabs.com/>

EMAIL
dames@blackwire-ts.com

CONTACT
John Dames
PHONE
314-276-7034

PRODUCTS / EVENT SUMMARY

Blackwire fielded FLEX, our software AV1 tactical encoder, across two lanes at TSR 2026 - primarily the Wildland Fire Lane, with additional work in the SUB-T Strike Lane.
Headline: over a Persistent Systems 3-hop MPU5 MANET network ~60 km back to...



Bunker Supply

VENDOR

WEB
<https://www.bunkersupply.us>

EMAIL
david@bunkersupply.com

CONTACT
David Martschinske
PHONE
360-609-7323

PRODUCTS / EVENT SUMMARY

The Tough Stump Rodeo provided an excellent opportunity to showcase the flexibility of the Bunker Supply ecosystem and strengthen relationships across the user and vendor community.
We demonstrated how Bunker Supply phone cases, tablet cases, mounts, and powe...



Cleo Robotics

VENDOR

WEB
<https://cleorobotics.com/>

EMAIL
simon@cleorobotics.com

CONTACT
Simon Czarnota
PHONE
267-792-4189

PRODUCTS / EVENT SUMMARY

Cleo Robotics, in collaboration with Sherpa 6, Trellisware, and MVP Robotics, successfully executed the Subterranean (Sub-T) Strike mission, demonstrating that complex, confined spaces can be navigated and reconnoitered to find, fix, and finish targets at extended range using robotic systems alone....



CRG Defense

VENDOR

WEB
<https://crgdefense.com/>

EMAIL
shea.martin@crgdefense.com

CONTACT
Shea Martin
PHONE
937-479-0169

PRODUCTS / EVENT SUMMARY

CRG Defense's participation in Tough Stump Rodeo 2026 from June 1 - 5, 2026, advanced the company's visibility in the special operations and mission technology community through live demonstrations, technology briefings, and direct engagement with government and industry...

VENDORS



Cyntony Corporation

VENDOR

WEB
<https://www.cyntony.com/>
EMAIL
amoschella@cyntony.com

CONTACT
David Moschella
PHONE
16174070753

PRODUCTS / EVENT SUMMARY

Cyntony Corporation returned to the Rodeo, this time to feature great technology from supplier GPSPATRON for detection of GNSS interference, jamming and spoofing. We demonstrated the capabilities of three GP- Probe devices, the NANO personal interference detector; compact DIN L1 jamming and incoherent spoofing...



Ditto

VENDOR

WEB
<https://www.ditto.com/>
EMAIL
steven.turner@ditto.com

CONTACT
Steven Turner
PHONE
410-371-1064

PRODUCTS / EVENT SUMMARY

-
EdgeSync over emerging tactical radio links (via Propagate): Once we configured it on-site, devices from Qualcomm found each other and the presence viewer came up live over the radio link. This shows multi-path radios are viable, and that Ditto...



DTC

VENDOR

WEB
<https://www.dtccodan.com/>
EMAIL
Tarry.Bailey@domotactical.com

CONTACT
Tarry Bailey
PHONE
1 (703) 229-3842

PRODUCTS / EVENT SUMMARY

Tough Stump Rodeo 2026 successfully demonstrated a resilient, multi-domain communications ecosystem capable of supporting Search and Rescue, medical response, autonomous systems operations, and command-and-control functions across a 41-kilometer operational area....



Eagle NXT

VENDOR

WEB
<https://eaglenxt.com/>
EMAIL
patrick.moore@eaglenxt.com

CONTACT
Pat Moore
PHONE
214-667-7118

PRODUCTS / EVENT SUMMARY

UCO: EagleNXT worked with ACI and NETT Warrior to establish a connection between the eBee Vision and NETT Warrior. While we did not manage to integrate the systems, we did validate our TAK integration. We also established the appropriate connections to lead to more integration moving forward....



Entropy Robotics AI

VENDOR

WEB
<https://entropyrobotics.ai/>
EMAIL
chris@entropyrobotics.ai

CONTACT
Chris Lemuel
PHONE
1-845-558-8487

PRODUCTS / EVENT SUMMARY

Good event where we were able to meet directly with relevant units and get feedback that directly impacted our product development roadmap. The opportunity to demo in field conditions to the units resulted in invitations to demo at the unit HQs and...



Green Sea IQ

VENDOR

WEB
<https://greenseaiq.com/>
EMAIL
bkeith@greensea.com

CONTACT
Bradley Keith
PHONE
707-484-9046

PRODUCTS / EVENT SUMMARY

Worked with Private Tier Solutions to establish the most efficient way to flow data from the Bayonet 250 and stream it into TAK for personnel to increase situational awareness and share the data with key personnel.



Hover Fly Technologies

VENDOR

WEB
<https://hoverflytech.com/>
EMAIL
john.amick@hoverflytech.com

CONTACT
John Amick
PHONE
757-619-4674

PRODUCTS / EVENT SUMMARY

Hoverfly Technologies' 6th annual participation in the Tough Stump Rodeo was a success. We stress tested and rapidly integrated with other industry partners and new friends. This year Hoverfly was able to help solve two major operational problems. Wildfire Safety & FPV...



Life Lens Technologies

VENDOR

WEB
<https://lifenlenstech.com/>
EMAIL
kcarpenter@lifenlenstech.com

CONTACT
Kevin Carpenter
PHONE
445-245-4410

PRODUCTS / EVENT SUMMARY

SAR=Collaborated with Tarry from DTC and John from Nivis (I believe) to pass our data from the SAR lane to the UCO. Jesse was the lane leader and did a great job trying to keep things organized. We attempted and were unsuccessful due to the WiFi end to end comms architecture was not multi-cast ready. We wanted to keep...

VENDORS



MaXentric Technologies

VENDOR

WEB
<https://maxentric.com/>
EMAIL
info@maxentric.com

CONTACT
Bryce D. Smith
PHONE
(201) 242-9800

PRODUCTS / EVENT SUMMARY

Product Overview

- CORAL: Secures data transport across untrusted networks using post- quantum encryption and blockchain technology.
- STRETCH: An advanced medical monitor designed for long-term tactical triage an...



MP Antenna

VENDOR

WEB
<https://www.mpantenna.com/>
EMAIL
bbaranek@mpantenna.com

CONTACT
Ben Baranek
PHONE
(440) 387-5968

PRODUCTS / EVENT SUMMARY

Tough Stump 2026 was a fantastic event. It was MP Antenna's second year in Montana and 2026 was better than 2025. Being able to showcase the difference our antenna's make, in person, and in live scenarios is what we strive for our users to do. This year we were able to reconnect with teams that we had worked with in 2025 a...



Notch Inc.

VENDOR

WEB
<https://www.notchtechnologies.com/>
EMAIL
shahriar@notchtechnologies.com

CONTACT
Shahriar Khushrushahi
PHONE
617-286-4586

PRODUCTS / EVENT SUMMARY

Notch builds electronically steerable, metamaterial antennas — the MAGIC WIZARD and MAGIC ELF — that extend the range and resilience of tactical radio, video, and C2 links without the size, weight, power, and cost penalty of high-gain or mechanically steered arrays. They steer a beam in any direction electronically, plug...



NVIS Communication

VENDOR

WEB
<https://nviscommunications.com/>
EMAIL
info@nviscom.com

CONTACT
John Rosica
PHONE
(703) 554-9239

PRODUCTS / EVENT SUMMARY

Tough Stump Rodeo 2026 served as a large-scale multi-domain technology demonstration and Search and Rescue (SAR) exercise designed to evaluate the interoperability of tactical communications systems, ATAK-enabled technologies, autonomous platforms, physiological monitoring systems, and command-and-contr...



OMTAC Defense Solutions

VENDOR

WEB
<https://omtac-defense.com/>
EMAIL
sales@omtac-defense.com

CONTACT
Jade McKeon
PHONE
(972) 499-5002

PRODUCTS / EVENT SUMMARY

LifeSeeker is a search-and-rescue system that allows helicopters, aircraft, or drones to locate missing people by detecting their cell phones, even in areas without cellular coverage. Acting as a temporary cell tower, it connects to the phone automatically — no app or action is required from the victim. The system provides rescuers with the...



Parsons

VENDOR

WEB
<https://www.parsons.com/>
EMAIL
Ralph.Kohler@parsons.us

CONTACT
Ralph Kohler
PHONE
703.988.8500

PRODUCTS / EVENT SUMMARY

We demonstrated integration of SmartCam 3d with Skydio live and with the TAK Video Restreamer. I also had several companies use it as part of their flights separately. I also had some great networking opportunities during the week which was invaluable.



PDW

VENDOR

WEB
<https://www.pdw.ai/>
EMAIL
info@pdw.ai

CONTACT
Mike Rucki
PHONE
1-256-617-0759

PRODUCTS / EVENT SUMMARY

The 2026 Tough Stump Technologies Rodeo further demonstrated the versatility and operational effectiveness of the PDW C100 platform in austere environments. Through successful integration with multiple partner technologies and the execution of a realistic SAR mission, PDW validated the C100's capability to deliver critical...



Persistent Systems LLC.

VENDOR

WEB
<https://persistentsystems.com/>
EMAIL
dclayton@persistentsystems.com

CONTACT
Derek Clayton
PHONE
(646)540-8401

PRODUCTS / EVENT SUMMARY

Wave Relay® mesh networking once again proved its ability to deliver resilient, high-performance communications in austere environments during Tough Stump Rodeo 2026. Persistent Systems established a 50 km multi-hop network across the rugged mountains of Montana, enabling reliable connectivity for a wide range of operation...

VENDORS



Primordial Labs

VENDOR

WEB
<https://www.primordial-labs.com/>
EMAIL
jordan.dross@primordial-labs.com

CONTACT
Jordan Dross
PHONE
203-640-8812

PRODUCTS / EVENT SUMMARY

At TSR26, the Primordial Labs team continued focus on natural language command and control with Anura through a MANET network using Persistent Systems MPU5's. This enabled many-to-many control of multiple sUAS on the same network. This, combined with Blackwire's FLEX video compression software, allowe...



QRC Technologies

VENDOR

WEB
<https://qrctech.com/>
EMAIL
matt.cobey@qrctech.com

CONTACT
Matt Cobey
PHONE
540-446-2270

PRODUCTS / EVENT SUMMARY

Our goal for the SAR Lane was to illustrate how BlueFly® enables SAR teams to effectively search a large area when optics are limited by terrain or tree cover. This was also an opportunity to further demonstrate the power of TAK by presenting BlueFly® data across many miles. And given the remoteness of the area, take...



Reveal Technology

VENDOR

WEB
<https://www.revealtech.ai/>
EMAIL
henry@revealtech.ai

CONTACT
Henry Walsh
PHONE
1-406-570-2929

PRODUCTS / EVENT SUMMARY

Summary of Accomplishments
Over three days at the Tough Stump Rodeo, the team demonstrated Farsight 3D model- generation workflows across multiple UAS platforms and engaged with a range of event attendees and technology partners....



RTX BBN Technologies

VENDOR

WEB
<https://www.rtx.com/>
EMAIL
nathaniel.soule@rtx.com

CONTACT
Nate Soule
PHONE
617-852-6982

PRODUCTS / EVENT SUMMARY

The RTX BBN team participated in multiple demos as well as provided the TAK Server and Video Serving software infrastructure for the event.
TAK Video Restreamer (TVR) - The TAK Video Restreamer provides a video management solution with an intuitive web user interface. TVR can ingest video...



Squarehead Technology

VENDOR

WEB
<https://www.sqhead.com/>
EMAIL
jeremy@sqhead.com

CONTACT
Jeremy Wilson
PHONE
+1 (571) 299-6971

PRODUCTS / EVENT SUMMARY

Tough Stump Rodeo 2026 provided Squarehead Technology the ability validates interoperability with multiple MIL-STD communications and data transport systems, while also being able to work side by side with representatives from each manufacturer....



Textron Aviation

VENDOR

WEB
<https://www.textron.com/>
EMAIL
slebert@txtav.com

CONTACT
Selby LeBert
PHONE
+1 (401) 421-2800

PRODUCTS / EVENT SUMMARY

Due to last minute Aircraft issues Textron Aviation was able to fly for TSR26 event.



Velocity Explorations, Inc.

VENDOR

WEB
<https://velocityexplorations.com/>
EMAIL
lisa@velocityexplorations.com

CONTACT
Shaun Jones
PHONE
240-405-9377

PRODUCTS / EVENT SUMMARY

Velocity Explorations participated in Tough Stump Rodeo 2026 to field Echo Edge in a remote environment and continue testing Velocity TAK (VTAK).
The biggest accomplishment was the first field deployment of the compact Echo Edge system. We reduced the platform from a larger server-based deployment into...



Wolf SSL

VENDOR

WEB
<https://www.wolfssl.com/>
EMAIL
Scott.McClung@wolfssl.com

CONTACT
Chris Conlon
PHONE
408-391-5381

PRODUCTS / EVENT SUMMARY

WolfSSL highlighted how the FIPS 140-3 validated wolfCrypt cryptography library and wolfSSL SSL/TLS library could be integrated into TAK, ATAK, and communication solutions - to be used as a lightweight replacement to existing cryptography implementations, meet FIPS 140-3 validation requirements, or provide Post-...



SUPPORTING COMPANIES

Big Boy's Toy's

WEBSITE: <https://www.bigboystoysrentals.com/>
CONTACT: Ethan
EMAIL: dames@blackwire-ts.com
PHONE: 406-201-7259

Choosing Big Boys Toys Rentals comes with numerous benefits that make your outdoor adventures safe, enjoyable, and hassle-free.

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- Safety training

Contact us now to take advantage of these incredible benefits for your next outdoor adventure.

Mic Rentals

WEBSITE: <https://www.micrentals.com/>
CONTACT: Andrew Hunt
EMAIL: andrew@micrentals.com
PHONE: 844-736-3642

The MicRentals.com story began in 2015 with the help of partners like Elevate Audio Visual and church production legend Andrew Stone . The purpose was to be a resource for church production teams by giving them access to high-quality and professional microphones , wireless systems and small audio equipment, that would otherwise might not make sense to buy.

Upper Canyon Outfitters

WEBSITE: <https://ucomontana.com/>
CONTACT: Cassie Ubaldo
EMAIL: info@ucomontana.com
PHONE: 406-842-5884

Upper Canyon Outfitters is a family-owned ranch in

Montana's Ruby Valley, where our family has explored since 1910. Since 1981, we've welcomed guests to enjoy fly fishing, hunting, and riding with comfortable accommodations. Join us for some authentic western hospitality amid stunning scenery of the Snowcrest, Greenhorn, and

Gravelly mountains. We uphold the highest standards of cleanliness for a comfortable, unforgettable stay.

The Stockman

WEBSITE: <https://thestockmanmt.com/>
CONTACT: Jean Prough
EMAIL: Info@TheStockmanMT.com
PHONE: 406-842-5772

With a building constructed in 1887, The Stockman Bar has been a cornerstone in Sheridan, Montana. In 2022, new owners took over and began a significant renovation intended to maintain the legacy of the bar while adding some new features to make it one of the best bars in Montana.

Granite Ranch

WEBSITE: <https://skybridgetactical.com/skybridgecontracts/granite-creek-range-complex>
CONTACT: Bill Wood
EMAIL: dames@blackwire-ts.com
PHONE: 406-596-7618

Granite Creek Range Complex (GCRC) is a premiere, full service, comprehensive training facility and range complex enabling SOF Teams to conduct specialized training ranging from individual

shoot, move and communicate skill sets through Full Spectrum, Jointly Integrated, Full Mission Profile and Pre-Mission Training exercises.

GCRC has provided world class kinetic and non-kinetic training opportunities and support for multiple DOD, Interagency, and USSOCOM organizations ranging from SR, DA & UW scenario based events to high altitude long-range patrolling, medical, survival & pack animal training events.

WHAT'S NEXT

The 2027 Event

Upper Canyon Outfitters, Montana

Tough Stump is in the final stages of securing the 2027 event site for the second week of June 2027. The Montana setting provides the terrain, remoteness, elevation, and logistical realism a ballroom or exhibit hall cannot replicate.



June 2027

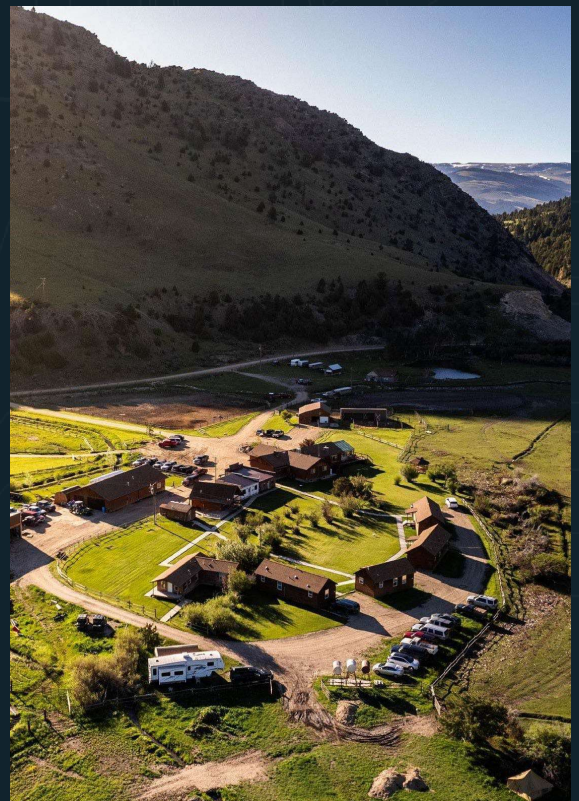
PLANNING WINDOW: SECOND WEEK

Montana

BACKCOUNTRY TERRAIN

10

LANES UNDER CONSIDERATION



WHAT'S NEXT

Test & Stress Lanes

Under Consideration for 2027

Evaluated for customer demand, operator relevance, terrain suitability, and safety. Final lanes are confirmed as venue planning progresses.

— Sub-Terrain (Sub-T) Strike

— Wildland Fire Airdrop

— Search and Rescue (SAR) / Landslide Mass Casualty

— Expanded Water Scenarios

— Counter-UAS / One Way Attack (OWA)

— Defense Innovation Unit (DIU) OnRamp Hub: Montana

— Flight Zone

— Netted Flight Cage

— Heavy-Lift Unmanned Platforms

— Direction-Finding & Comms



“

Put your capability in the environment where its value can be understood, tested, challenged, and advanced.



**TO LEARN MORE ABOUT THE TOUGH STUMP RODEO
OR SIGN UP FOR TSR27, VISIT WWW.TOUGHSTUMP.COM.**