

TRANSMISSION TIMES



Our Mission: Your Success

At PSSI Global Services, our mission is simple, but powerful: **be the worldwide experts in engineered transmission solutions.**

What does that mean?

It means every job and every detail matters, and we take pride in being the best in the industry. It means we invest in the best cutting-edge technology. It means we recognize that preparation and planning are vital to achieving consistent success. It means we treat each client and project with the same commitment to quality. And, most importantly, it means our clients can count on us to deliver the exceptional results they deserve and have come to expect.

That's our promise.



4K

The Future in 4K

4K continues to grow in popularity, and the PSSI Global Services team has been very much enjoying the new opportunities, challenges and excitement it brings. We take pride in staying at the forefront of the latest transmission techniques and technologies, and 4K transmissions are no exception.

Recently, we had the honor of providing 4K transmission services for the first legal and sanctioned bare-knuckle fighting event in the U.S. since the 1880s. This project was also a first for us in that it involved two separate 4K paths and two HD paths with distribution to two separate satellite trucks. For DirecTV, we transmitted a 4K signal at 60 Mbps and an HD signal at 11 Mbps. We also transmitted both a 4K signal and an HD signal for In Demand, this time each at 18 Mbps.

This event was definitely a team effort. Engineer in charge (EIC) Rick Varney and senior engineer Rick Ball worked together to build a state-of-the-art encoding kit that would enable our team to seamlessly monitor

all eight channels of video needed for a two-path 4K broadcast. John May joined them for the fight with our CK48 truck, and Todd Harvey made sure everything went smoothly in C47. We're pleased to report that the transmissions went flawlessly — and we're looking forward to more 4K bare-knuckle fights in the future.

Of course, that's not all we're doing in the world of 4K. We put in more than 51 hours of time over the course of four days providing 4K satellite transmission services for the U.S. Open. We've also been regularly providing 4K services for Major League Baseball games and UFC pay-per-view events. Plus, we've got another full season of 4K transmissions for NCAA college football on the horizon.

As we take on more and more 4K projects, we're also continuing to upgrade our equipment to offer better and better performance. For PSSI Global Services, the future is bright in 4K.



UFC International Fight Week

If there's a significant UFC event, you can guarantee that PSSI Global services is there, working side by side with our partners at Concom to provide the finest production and transmission services in live television. We raised the bar even higher at this year's UFC International Fight Week.

Here's a quick look at what this massive project entailed:

- Two separate sites
- Five trucks
- Seven antennas
- 15 individual transmit paths
- 125 hours of satellite transmission

After a full day of setup on the Fourth of July, our team kicked things off with the satellite media tour, promotional press conference, UFC Fan Expo and Hall of Fame Induction Ceremony at Palms Casino Resort's Pearl Theater on July 5.

At Palms, our CK35 mobile teleport was on hand to transmit every second of the excitement. Meanwhile, we also had CK25 parked down the strip at T-Mobile Arena to provide additional services throughout the week.

On July 6, we helped bring fans the finale of The Ultimate Fighter 27, live from Palms, as well as the pay-per-view (PPV) weigh-in earlier in the day. Our team also handled transmission services for the surrounding studio shows from our setup at T-Mobile Arena.

The week drew to an end on July 7 with the much anticipated UFC 226 PPV at T-Mobile Arena, where our Atlas truck and NT30 joined CK25 on-site. C15 was also there to provide transmission services for DirecTV's 4K broadcast.

For us, there's nothing quite like the thrill of an action-packed week of transmission services — and we're already looking forward to doing it all again next year. Until then, PSSI Global Services and Concom will continue to push the envelope with cutting-edge broadcast transmission services for UFC on each and every event, throughout the year and around the world.



Did You Know?

PSSI Global Services' Strategic Television division, which handles the event management side of our business, has coordinated and overseen transmission services for every single bout involving *Mike Tyson*, *Floyd Mayweather* or *Oscar De La Hoya*. **This amounts to roughly 150 fights across the country and beyond.**

Extreme Makeover: Frontline Edition

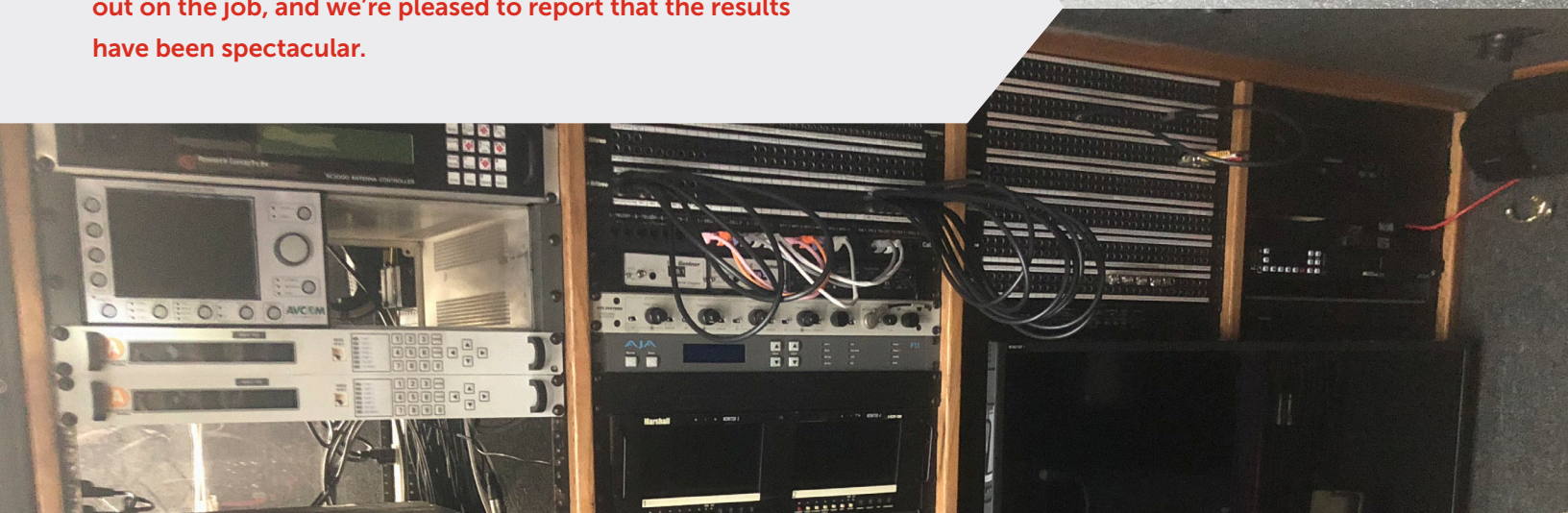
As our fleet continues to grow and evolve, PSSI Global Services has been making some changes and upgrades to our trucks to better meet our clients' needs. One of our most recent projects involved converting the Frontline truck from Ku-band to C-band, and transforming her into one of our top trucks in the process.

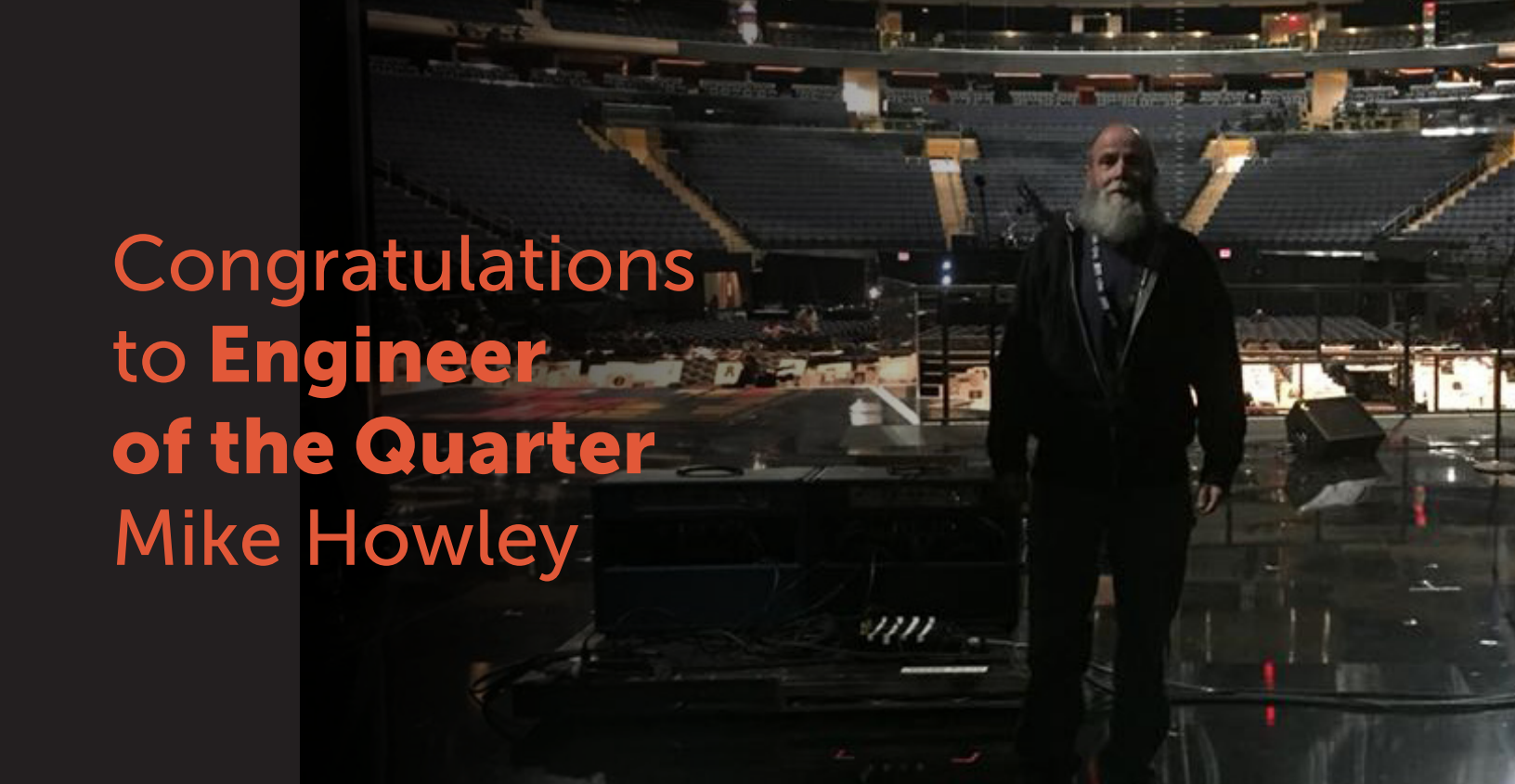
The Frontline's makeover began in Van Nuys, California, where our LA crew conducted inspections and repairs to make sure the engine and body were in perfect condition for the next steps.

From there, the Frontline traveled to our Las Vegas location, where our engineering team took over. After stripping down the inside of the truck, they fully rewired her to accommodate up to 14 encoders, adding extensive monitoring systems and other equipment. With these upgrades, the Frontline is capable of facilitating a full-blown at-home transmission while keeping a small physical footprint in any TV compound or news location.

The final stop for the Frontline was our Satcom division in Orlando. There, we swapped the Ku-band antenna for a C-band antenna, performed RF upgrades and conducted extensive quality control testing.

We've already gotten to try the new and improved Frontline out on the job, and we're pleased to report that the results have been spectacular.



A photograph of Mike Howley, a man with a long white beard and balding head, standing in the center of a large, dimly lit arena. He is wearing a dark jacket and pants. The arena floor is dark and reflective, showing some equipment and lights. In the background, the tiered seating of the arena is visible, mostly empty, with some lights and structures illuminated. The overall atmosphere is professional and celebratory.

Congratulations to Engineer of the Quarter Mike Howley

*By Gavin Williams, PSSI Global Services project manager
(and longtime friend of Mike's)*

Each quarter, the senior engineers at PSSI Global Services select one engineer from our team to recognize as Engineer of the Quarter. The honor acknowledges exemplary work in the field — and our most recent honoree is the one and only Mike Howley.

Though he has only been on the PSSI Global Services team for two years, Mike has been part of the broadcast industry for the past 35 years. It's this experience and dedication that earned Mike the Engineer of the Quarter honor.

This quarter, Mike's travels have taken him from New England to the Mid-Atlantic and up to Canada. He rang the bell for UFC fights in Atlantic City, New Jersey, and Brooklyn, New York. He roamed the East Coast covering the NBA Playoffs in Boston and Washington, D.C. He teed up for Golf Channel shows in Virginia, New Jersey and Massachusetts and kicked it for an international soccer match in Pennsylvania. Mike wrapped up the quarter with a trip north of the border for another international event — a cricket tournament in Toronto.

A veteran, Mike began his satellite career in the U.S. Army, assigned to 235th Signal. Detachment. Along with

stops in Georgia and New Jersey, Mike's deployments took him to Daegu, South Korea, and Comayagua, Honduras.

Following an honorable discharge, Mike's international travels didn't stop. He maintained earth stations and flyaway systems in China for coverage of the Tiananmen Square Massacre. He went to Poland to assist the White House Communications Agency and Chatham Island off the coast of New Zealand to support a Japanese television network. Mike also worked with the United Nations in Croatia, Bosnia and Serbia for the installation and maintenance of more than 50 VSAT terminals.

Back at home in the U.S., Mike uplinked for the original New England Satellite Systems. His longest tenured assignment was for the NBC affiliate in Boston. For close to 20 years, he traveled throughout New England and across the country as a news field engineer. During this time, Mike covered major stories including the Boston Marathon bombings, Sandy Hook school shooting, New Hampshire primaries, presidential elections, Super Bowls, World Series, Stanley Cup Playoffs and NBA Championships.

A huge congratulations to Mike on his tremendous accomplishments. We are lucky to have him on our team!

The Latest From PSSI International Teleport

Since our last newsletter, PSSI International Teleport (PIT) has added several new capabilities and technology upgrades to continue expanding its services.

We are in the process of adding four new antennas:

- 5.5 meter Ku-band transmit and receive system
- 11.3 meter C-band transmit and receive system steerable that will cover IS-34, IS-21 and the Domestic Arc
- 9.2 meter Ku-band transmit and receive system
- 9.2 meter C-band transmit and receive system steerable that will cover the International Atlantic Arc



To keep up with our growing business from sports and corporate clients, we have added eight Ericsson RX 8200 receivers and two AVP 3000 encoders to our inventory. We have also added a third quality control (QC) station equipped with QC monitoring; a two-channel scope for waveform, vectorscope and audio monitoring; and three DekTec stream analyzers to monitor incoming and outgoing signals. Like our other QC stations, it also features ASI and SDI panels from the Trinx 512 router for QC routing.

We've also been expanding our IP capabilities with the addition of a redundant set of Teledyne Paradise Datacom Q-Flex modems equipped with IP acceleration and data rates up to 200 Mbps. We already had the opportunity to use them to provide phones, internet access and streaming for the Amgen Tour of California and several NASCAR events – and we're happy to say they've been working great.

PIT's full-time fiber connectivity from Sydney, Australia, has also seen growth over the past couple months, and it has been a major asset for several key projects, including a UFC event in Perth, a UFC event in Singapore and a boxing event in Japan. We'll also be using this connection for an upcoming boxing event in Malaysia. Meanwhile, we are soon to establish full-time fiber connectivity from PIT to Europe. Our worldwide reach is expanding by the day.

It's an exciting time at PIT, and we have plenty more new developments to come.

Spotlight on Rob Lamb

Over the years, PSSI Global Services has grown from a small company with a single satellite uplink truck into a worldwide industry leader in engineered transmission solutions with a fleet of more than 70 trucks, advanced teleport facilities and beyond. This tremendous success is due in large part to the exceptional leadership of our co-founder and CEO, Rob Lamb — so we thought it only fitting to share a few things you might not know about the man behind the name.

Tell us about your journey to founding PSSI Global Services? What did you do before? What made you decide to found the company?

After attending the United States Naval Academy, I became an F-4 Phantom Radar Intercept Officer. A slight disability caused by a hole in my heart led to my retirement from the Navy, and I went on to get my master's degree in motion picture producing from the University of Southern California. After a

year or so in production, I was hired by Netcom to manage their production needs, and went on to manage their international services in partnership with CBS and the French

DGT (SERTE). After my wife graduated from law school, I ventured out on my own and, through a series of events, started PSSI with Chuck Storlie.

What are your favorite things about working in this industry?

I love the variety and scope of the events that we do and, in some cases, the positive impact they have on society.

What time of day do you do your best work?

I do most of my work after 9 p.m., but my best work is from 6–8 a.m.

What do you believe sets PSSI Global Services apart in this industry?

Primarily our people. We have the best staff of any company ever assembled together in the history of our industry.



Rob Lamb Continued...

What is your favorite PSSI Global Services memory?

There are many good ones that have to do with events we did and services we provided (and, of course, the fact that no one got hurt)! For example, one of my best memories was with Chuck Storlie when we did a perfect live drug bust special with Geraldo Rivera and the group that would eventually make the show COPS. Some of my other favorites include traveling and providing services in Europe for Tandem Computers, live services from Alcatraz and a road rally from Oaxaca, Mexico.

One other memorable moment was when Bob Beamon blew away the world long jump record at the 1968 Olympic Games in Mexico City. That record was thought to be unbeatable, but in 1991, Mike Powell surpassed it. We were asked to uplink a morning show interview with Bob Beamon and Mike Powell at the Beverly Wilshire hotel. I was in the room with the cameraman when the two met for the first time. After the live interview was over, I expected them to go their separate ways and figured I would catch up on some sleep in the room I had rented for the day. Well, they continued to talk for hours with each other, and it was both fascinating and memorable. It was well worth missing the sleep.

On a slightly different note, I also loved when the women in our office wrote and performed a fantastic song about PSSI Global Services at our 25th anniversary holiday party!

How has the industry changed since PSSI Global Services was founded, and what do you anticipate will be the biggest trends in the future?

Hmm, let me see ... Black and white to color ... In all seriousness, we've seen things shift from analog to digital, SD to HD, MPEG2 to MPEG4, and now, we're moving on to 4K, HDR/HEVC, etc. Ku-band challenged C-band as a new technology in the late '80s, and is now challenged itself by bonded cellular and fiber. C-band remains, but it is also challenged by the FCC's spectrum regulation and intense lobbying from the wireless industry to seize control of the C-band spectrum.

If you had to pick a different career, what would it be?

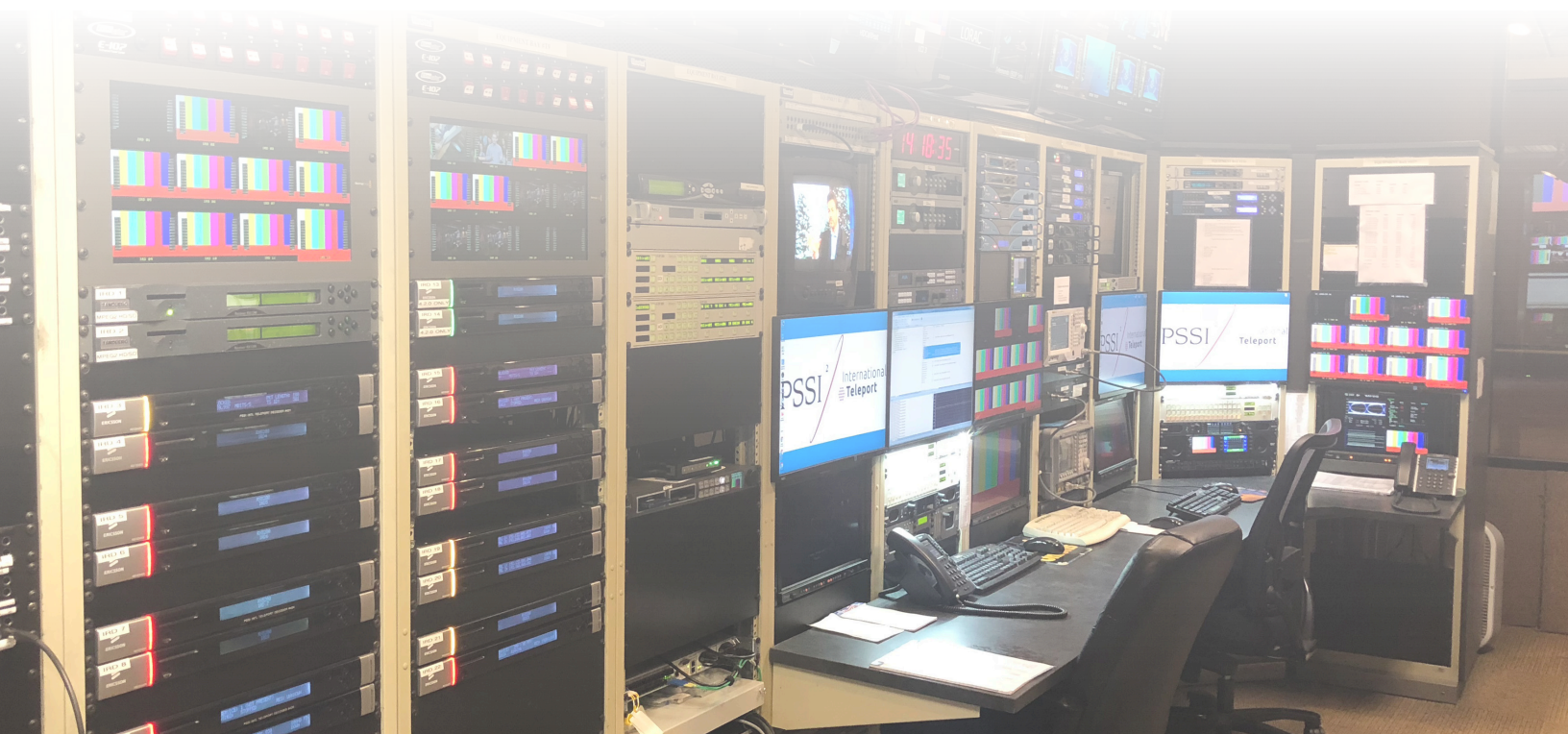
I wanted to be an astronaut, but my eyes failed me early. I would like to think that I would be a writer.

What's your favorite book?

It's between "Old Man and the Sea," "A River Runs Through It," "The Winds of War," "To Kill a Mockingbird," and "Trinity."

What's something else people might be surprised to learn about you?

I won the most valuable athlete award my senior year in high school — though I was not even close to being the best athlete — and was recruited to the United States Naval Academy as a quarterback.



Introducing PSSI² Global Services' New Production/Uplink Bus

Take your live broadcast up a notch

Our one-of-a-kind, customizable production studio and satellite uplink motor coach is equipped with spacious facilities and the latest cutting-edge technology to make your live broadcasting project simple, streamlined and successful



- Insert studio with talent positions and lighting
- Desktop seating for 15 and greenroom
- Panasonic eight input HD switcher
- Three Panasonic HD PTZ cameras
- Yamaha 16 x 8 digital audio console
- Cronus RTS intercom system
- 1.8 meter four-port Ku prime focus antenna
- MPEG 4 HD multi-path encoding and Mux
- Seven DirecTV receivers
- Two 25 kW generators

