

CASE STUDY

Sebring FL 2021: Live Broadcast via Bonded Cellular by Greenlight TV for Trans AM Event Coverage



GOAL:

Greenlight TV needed a unique live streaming solution for use inside racing vehicles for drivers from the Trans AM Championship 2020 and 2021 circuits, so they turned to the experts at CP Communications and Red House Streaming.

The CP Communications engineering team was tasked with designing innovative systems that could be secured and fully function within high-speed moving vehicles under extreme environments and conditions with top speeds exceeding 130mph and temperatures of 170 degrees Fahrenheit.

CP Communications collaborated with Greenlight TV and selected Mobile Viewpoint's Agile Airlink portable video encoder for the project. A custom mounting

SOLUTION FEATURES:

- Bonded Cellular IP acquisition solutions using Mobile Viewpoint Agile Airlinks at CP Communications and Red House Streaming
- In-car racing shots with interface from vBox motorsports
- 18 Mobile Viewpoint agile airlinks on the track at Sebring; 11 in-car, 1 drone, and 6 handhelds
- Rock solid transmission -high broadcast-quality with low latency
- Event produced remotely by Greenlight Television
- Mobile Viewpoint encoders and NOC supplied by CP Communications

bracket was designed by CP Communications' engineering team to secure each encoder to

the vehicle roll bar systems. The results proved highly successful, as the original request in mid-2020 has grown from four in-car systems to almost a dozen in-car systems for 2021.

The Agile Airlink encoder connects via HDMI port to a dual camera system, known as the VBOX. The camera systems provide the driver's POV positions from inside the vehicle and lower third graphic overlays that show each vehicle's RPM, diagnostics, location on track, and sponsorship logos.

Trans AM created a subscription-based app, which users could download and watch their favorite drivers live during each competition. This system has added a new and exciting dynamic to live virtual racing for Trans AM fans, drivers, and pit teams. With the effects Covid-19 has had

on live events, this system allowed remote viewers to feel even more engaged and connected with each driver during the live events.

SUMMARY OVERVIEW:

More than eleven Airlinks from Mobile Viewpoint were provided by CP Communications, which were temporarily installed inside competition cars as "on-board units." Each Airlink was connected through its HDMI port to a VBOX dual camera system. The content was live streamed on the Trans AM app via their website (subscription-based app). The content captured was from the driver's POV inside each vehicle, and this was broadcast via the Mobile Viewpoint ecosystem through bonded cellular networks.



ON-BOARD SYSTEMS:

Each Airlink connected to a custom-made IDX plate with a 1.25" C-Clamp (Mega Clamp) and a Blueshape battery for power. Clamps were attached to the roll bars of each vehicle to secure Airlinks in place. A secondary steel safety cable with a carabiner was also attached to each Airlink through a custom metal plate designed by the CP Communications' engineering team. The drivers' pit crews were responsible for mounting the on-board systems safely within each vehicle, using the custom clamps and safety cables provided.

PRODUCTION COMPANY AND FIXED CAMERA POSITIONS:

Greenlight TV produced the event and provided additional Agile Airlinks for four fixed camera positions, one HH operator, and one drone position. Cameras with tripods were set up along the Sebring Raceway track which spanned over 3.74 miles. There were two cameras located at ground level positions, and two cameras were located within one scissor lift and one bucket lift at elevated positions over the track. There was a drone station and tent set up in the middle of the parking greens around the center area of the track. The live event was broadcast on February 20th and 21st, 2021.

CONTROL ROOM IN UK:

The master control room located in the Isle of Man in the UK. This location is Greenlight TV's main office and headquarters. All encoder feeds for on-boards, fixed cameras, and the drone were decoded by MVP Playout Servers at the Isle of Man Control Room. The team at Isle of Man switched the live show.

NOC SUPPORT:

Allen Harris from CP Communications supported the event remotely (monitoring each live stream video feed via LinkMatrix platform), from Nova Scotia. Network Operations Center (NOC) support was provided for the set up and rehearsals on February 19th, as well as during the live broadcasts on February 20th and February 21st, 2021.

CP Communications
9965 18th Street North
Suites 2&3
St. Petersburg, FL 33716
+1 800.762.4254
sales@cpcomms.com



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