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BUF Technology: The FORCE Behind The NFL's Instant Replay Challenge

The FORCE(TM) Behind The NFL's Instant Replay Challenge BUF Technology Hardware Controller Used Exclusively in Leitch System

San Diego, CA -- BUF Technology, the "control freaks" of the television industry, has been selected by Leitch Technology Corporation to help them fulfill the National Football League's (NFL) recent order for 31 Leitch VR(TM) FORCE(TM) video server systems, used as the exclusive instant replay system this season for all NFL games at each of the league's 31 stadiums. BUF has provided Leitch with the hardware control boxes that will aid officials in meeting one of the NFL's requirements of the Instant Replay Challenge--a 90-second time period in which to review the play. With approximately 2,300 plays per week in the NFL, the league did not want the games to lose momentum; a system that combined speed and reliability was needed.

Engineers from BUF and Leitch combined their talents to create a system with the right combination of hardware and software for the FORCE user interface, which also includes a touch-screen. During an Instant Replay Challenge, a technician and an assistant work separate BUF controllers and a Leitch designed touch screen that selects the plays for review. The BUF controllers include a jog/shuttle knob and a slow-motion button to allow careful review of a play. Play and replay clips are created on the VR300 system by a Replay Technician using the FORCE-1000 panel. Picons (pictorial icons) immediately show up on the touch screen, ready for replay. Using the FORCE-1000 panel, a Replay Assistant browses the clips to look for officiating discrepancies. Once he leaves one clip to look at another, the clip's picon updates to the last frame viewed. If a replay challenge is requested, a quick touch on a picon recalls a view parked at the point where the Replay Assistant left off, giving the officials optimum use of the allotted 90 seconds.

According to BUF President **Bruce Bredon**, the NFL was looking for a system controller that *"had the feel of a traditional controller but with the ability to handle the custom features that the NFL required."* The most critical elements being ease of operation, reliability, and speed of operation. Bredon also coined the term FORCE--Football Officiating Replay Challenge Expediter.

According to Bredon, what made controlling the Leitch (ASC) VR300 video server so versatile was Leitch's desire to work with third-party vendors and providing protocol documents and information free of charge. BUF has been controlling Leitch servers for three years, taking advantage of modifications to standard control protocols with a sophisticated control system. According to Bredon, "Leitch felt that since we already had a great head start for what the NFL requested with very short notice, we could do the job. We delivered 12 systems within two weeks of the order by Leitch, with the complete order for 35 systems (including 4 spares) delivered within 33 days."

