

LundHalsey

Designed for the Mission. Built for the Operator.

HOW LUNDHALSEY ENGINEERED A 24/7 SECURITY CONTROL ROOM CONSOLE SOLUTION FOR A U.S. FEDERAL AGENCY

Security operations centers run 24 hours a day, seven days a week. Operators monitor critical infrastructure, coordinate responses, and maintain situational awareness across multiple live feeds, shift after shift, without margin for error. When a major US federal security agency needed to consolidate and upgrade its control room, the brief was precise: a compact, highly secure environment that could support continuous high-stakes operations. The standard console market had nothing that could meet it.

The agency turned to Legrand | AV, the exclusive North American reseller of LundHalsey's world-leading control room consoles and technical furniture for mission-critical applications, to develop a bespoke solution based on the Kontrol Plus console. The result, the Kontrol Plus console series, remains in active service today and has since become a reference configuration for related environments within the agency's broader portfolio.

THE BRIEF THAT OFF-THE-SHELF COULDN'T ANSWER

The challenge was not fitting monitors and keyboards into a room. It was designing a working environment where operators could perform at the highest level for hours at a time, under pressure, in a restricted space, without the cognitive or physical fatigue that degrades performance in critical moments.

The footprint was limited, but the information density was not. Multiple operators needed to monitor simultaneous feeds across a large display array while a supervisor maintained unobstructed sightlines across the entire suite. Operators carried firearms, so console surfaces had to withstand the daily wear of weapons belts without degrading. Flat, uncluttered work surfaces were non-negotiable: in a 24/7 environment, misplaced equipment is a safety and efficiency risk.

Installation would be handled by the agency's internal team under a tight timeline, in a secure facility where external access is tightly controlled. The complexity of a custom build had to be matched by an assembly process the installation team could execute precisely, without Lund Halsey engineers on-site.



"The brief was high-density, high-endurance, and high-security," said Brandon Ivey, National Solutions Manager- Fed/Gov/ DoD, Legrand | AV. "Everything we specified had to serve the operator first, because in a 24/7 control room, the furniture is not decoration. It is infrastructure."

ENGINEERING AROUND THE OPERATOR

LundHalsey's response was a custom-designed curved console suite, using the infinitely customizable Kontrol Plus series as the base, engineered specifically for the space, the workflow, and the demands of continuous operations. The configuration combined a primary operator arc, a secondary supervisor station with motorized sit-stand capability, and an integrated wall-mount display array, all resolved within the room's footprint constraints.

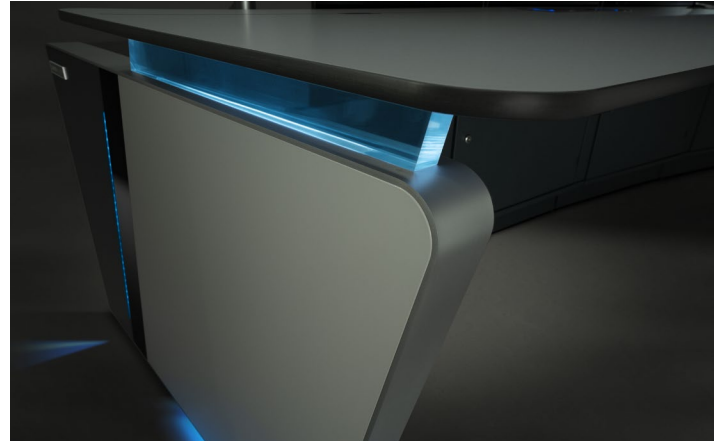


OPERATOR WELLBEING AT THE CORE

In mission-critical environments, fatigue is an operational risk. Every display arm was fully articulating, allowing operators to fine-tune screen angle, height, and distance to their individual working posture. Viewing angles to the wall-mounted array were calculated precisely: 35 degrees from a 3-foot standoff on the primary configuration, and 33 degrees with a 12-degree tilt on the secondary, ensuring comfortable viewing over extended shifts without neck strain or eye fatigue.

The supervisor station was specified with an automated sit-stand mechanism, programmable to adjust on a timed schedule with manual override, to promote movement and reduce musculoskeletal fatigue. Console geometry was designed to minimize handover disruption between alternating shift pairs. Dedicated flat surfaces at each position accommodated paper logs and operational documentation, reflecting the reality of how people work in high-security environments where digital-only workflows remain uncommon.

DURABILITY FOR THE WORKING ENVIRONMENT



Console surfaces were finished in black laminate, selected for its ability to withstand the daily contact of holsters and equipment belts without showing wear. Edges and corners were engineered to eliminate snagging points. In an environment where operators are physically present and active around the clock, surface longevity is not an aesthetic preference; it's a maintenance and operational continuity consideration.

SIGHT LINES AND SPACE EFFICIENCY

The curved console geometry served two functions: it maximized the number of active operator positions within the available footprint, and it gave the supervisor station a clear, unobstructed view across all operator screens. The curved section of the suite was designed so that a single supervisor could maintain visual oversight of two operator positions, effectively enabling two people to perform the monitoring and response workload of four, without creating supervisory blind spots.



A standalone supervisor pod with motorized sit-stand capability was positioned to complement the main arc, providing an elevated oversight position that could be adjusted dynamically depending on the operational phase and the supervisor's preference.

INSTALLATION ENGINEERED FOR A SECURE FACILITY

Lund Halsey produced a custom video assembly guide delivered via secure link, giving the agency's internal installation team repeatable, precise reference at every stage of the build. Each pod incorporated a rear pull-out drawer for a PC tower, integrated cable management provisions, a 1U 19-inch rack-mounted 6-way switched PDU for managed power distribution, and a hinged lockable rear door with vent grille to keep the infrastructure secure and serviceable.

"The requirement to support two operators doing the work of four, in a space designed for a fraction of that density, is not something you solve with catalogue furniture," added Ivey.

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Brandon Ivey

National Solutions Manager



WHAT MISSION-CRITICAL REALLY MEANS

The federal security vertical places demands on AV and furniture infrastructure that most commercial environments never encounter: continuous operation, physical durability under working conditions, ergonomic standards tied directly to human performance, and installation requirements constrained by security protocols. Meeting those demands is not a matter of specifying better products from the same catalogue, it requires design thinking that starts with the operator and works outward.

The LundHalsey project demonstrates what that approach delivers in practice. A compact room supports a staffing model two people deep. Operators sustain focus through long shifts because the environment was designed to support them physically. A supervisor maintains oversight without moving. And the entire system was installed cleanly, in a secure facility, by an internal team working from a video guide delivered through a secure link.

For AV integrators and specifiers working in mission-critical government environments, this project is a working reference. The design decisions that made it successful — ergonomic display positioning, sit-stand automation, durable surface specification, custom assembly documentation — are replicable. The principle behind them is consistent: in a control room, the room is part of the mission.



LUNDHALSEY WORLD-LEADING CONTROL ROOM CONSOLES AVAILABLE EXCLUSIVELY IN NORTH AMERICA THROUGH LEGRAND | AV

LundHalsey is a leader in the design and manufacturing of control room furniture solutions. For over 40 years, LundHalsey has delivered innovative solutions for a wide range of applications, including air traffic control, broadcast television, government security, industrial, oil and gas, utilities, transport, the armed forces, and the commercial sector.

LundHalsey has partnered with Legrand | AV to deliver its innovative consoles to North America on a single PO with all of the company's solutions including C2G, Connectrac, Chief, Da-Lite, Luxul, Middle Atlantic, On-Q, Vaddio, and Wiremold.

