

NASA Mission Control Center during Gemini 5 flight, Houston, Texas 1965.

# Rooms With A View

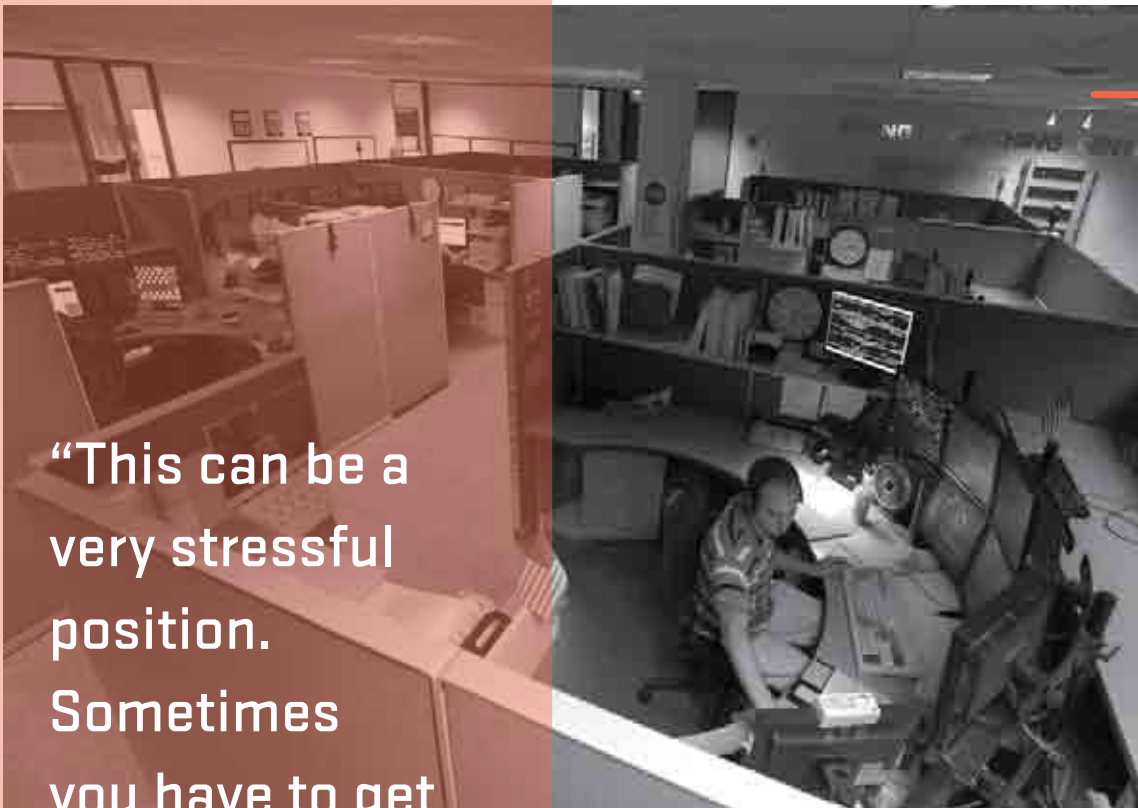
Mission Control, with its rows of people in front of computers, was the ultimate in high technology. Forty years later, that image is routine.

By Christof Spieler

**A**cross Texas and the whole country, largely anonymous men and women sit in dim rooms, controlling the infrastructure that supports our lives.

In a nondescript office building in Spring, Texas, two dozen **Union Pacific (UP) dispatchers**, corridor managers, superintendents, and directors control 200 trains a day on 5,000 miles of track, from Alpine and Laredo to New Orleans, Texarkana, and Oklahoma City. The same room holds BNSF and Kansas City Southern dispatchers who control those companies' trains, coordinating with UP where they share track.

Other control rooms are scattered across Houston. Freeway signs, traffic cameras, signals, safe-clear tow trucks, and METRO buses are controlled by Transtar off Old Katy Road. A windowless building on the road into George Bush Intercontinental Airport holds Houston Air Route Traffic Control



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Center, which controls the airspace over south Texas, Louisiana, and the Gulf Coast of Alabama and Mississippi. On Clinton Drive, the Coast Guard's Houston Vessel Traffic Service uses radio, camera, and armed patrol boats to monitor all traffic in the Houston Ship Channel, from kayaks to tankers. Downtown, the city's SCADA control room operates wastewater lift stations and treatment plants. The pipeline companies have their own control rooms, as does every chemical plant. And some Houston infrastructure is monitored from afar: the Texas electric grid is supervised from the ERCOT facility in Taylor, far from hurricane country, and there's a backup control room in Austin if it's ever needed.

In 1912, Italian Futurist Antonio Sant'Elia rhapsodized about power stations: "Many millions of kilowatts are distributed, broadcast in fertilizing abundance, but governed by switches under the fingers of engineers. Engineers who pass their days in high tension chambers where 100,000 volts shimmer between panes of glass." In a time where many of us spend our days in front of shimmering glass screens, that image no longer holds the same drama. But there are more switches than ever. 🏠

The screens behind **Tim Wooley** show every track and every train inside Beltway 8. David Ritchley: "This can be a very stressful position. Sometimes you have to get up and walk around."

**Stephen Foyt's** headset is for radio communications with train crews. David Ritchley: "Everything you do on the railroad is marked with initials, like signing a document. The largest problem is readback/hearback on the radio. We're trying to eliminate that. We can now send track crews authority over laptops."



**Tony Wronko**, dispatcher: "I just talked to this guy: 'You're going to meet two trains.' He knows he's meeting one at Waco. He knows that as soon as that train clears he'll get a signal. If he doesn't get a signal he'll call me."

"Right here, that's Downtown Austin—it doesn't look like anything [on the screen]. But you get to know it. We have the entire railroad on digital movies. They send you on road trips. You learn about the hills, the bad spots."