

# *No Moving, No Breathing, No Blinking*

by

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Originally posted May 2009 on [JimConrad.INFO](http://JimConrad.INFO)

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## *Shoot Productions the Ludovico Way!*

What's a "Ludovico production"? Have you ever seen (or read) [A Clockwork Orange](#)? If not, I recommend the film over the book; Burgess wrote like James Joyce, literally inventing language as he went along.

Makes for difficult reading, to say the least. Try my "thumbnail" description instead:

Plot - in a dim urban future, street gangs amuse themselves with brutality and even murder. Subject "Alex," imprisoned for his young life of crime, is offered hope of parole - if he'll volunteer for a medical experiment.

Nothing left to lose, he agrees.

An injection is administered; an aversion-inducing substance to discourage violent behavior. (Similar to real aversion therapy in which a medication induces nausea upon tasting - or even smelling - alcohol.) He's then strapped down, eyelids clamped back.

Eyes forcibly held open, he's forced to watch footage of atrocities and propaganda films. (This instills a Pavlovian aversion to committing acts of violence.) Repetition of this "Ludovico" treatment eventually reduces Alex to a nearly vegetative state.

Strapped down, held motionless, and not even permitted to blink. Forced to watch images of abominations.

Sound familiar?

Sure; in AV, the camera operator shoots Ludovico-style.



## “...got some ‘splainin’ to do”

- Ricky Ricardo: to Lucy, "I Love Lucy" (1951)

Ever try to explain what you do for a living to a stranger?

Because we're professionals in media production, people are naturally curious about what we do. We've all tried to explain our line of work to a stranger. And learned something.

If your job has to be explained, good luck. Any other human's line of work is probably FAR removed from ours. Our explanations may not clarify *anything*.

We look them in the eye, hoping to see some understanding setting in. But they're even more puzzled. After all, few industries have as much lingo, jargon, or in-humor as ours.

The saving grace: in showbiz, we understand *each other*.

Don't we?

Sometimes.

Two specialists from different areas don't know each other's job. That's a "given." But even other camera operators don't fully understand what I do when I operate camera in A-V, or events. Staging.

(Corporate theater is the youngest euphemism coined for it...and rightfully draws the most ridicule).

For all they have in common, two camera operators can fail to speak the same language unless their respective specialties are *very* close. Other AV pros (audio, lighting) may understand more about my job than another camera operator from, say, film, sports, or studio.

So the “understanding gap” doesn't just apply to strangers. For this gap to apply to professionals in the same trade, some *very* specific aspects of the work must account for it.

When people ply their trade day-in, day-out, they perform automatically. They've mastered their profession, and work by rote. So they stop thinking about it.

I've continued thinking about the work.

The specific demands of operating camera for events production creates a unique camera professional. What conditions in AV are so specialized for the camera operator?

# The Job

Centerline camera operation is the most intense job in AV.

More intense than directing the show.

I didn't say the job is more important than another job.

Or more complex.

Or more difficult.

What I said is: centerline camera is a more intense position than any other. Other jobs may involve greater

- responsibility
- technical knowledge
- so-called multi-tasking ability

But no other production job is as *unrelenting*.

Especially if that centerline camera is either "solo" or virtually solo - often the case.

Far too often.

Meaning: it's the only camera in the production. (Or the only *really* useful camera in the production.)

Another camera might be present; a "relief" cam suitable for a few walk-up shots. This hardly offsets the workload for the centerline camera - it always carries nearly all of the weight.

By definition, the centerline camera has the primary view of the show. People on the control deck (and much of the audience) see the show from this same, symmetrical perspective.

So it bears a very disproportionate burden of time spent on-screen. Even more so when the agenda is hours of presenters (speakers) with wireless microphones.

In AV, that's a typical show.

# The Jobsite Environment

All forms of production have their unique problems. Location productions may have bad weather. Insufficient electricity. Acoustics. Studio productions are constrained by the dimensions of the studio. Etc.

In event production, each department (audio, lighting, video) has logistical hurdles to overcome. Because the space to be covered in a large venue is imposing, distance becomes a decisive factor.

For lighting, the problems may involve hanging the rig; hang points. For audio, reverb time of the room may be troublesome. Etc.

The production riser or control deck is usually at FOH...the front-of-house. (The term FOH is counterintuitive; it does not mean downstage. Instead, FOH is what most people would naturally call the *back* of the room.)

This is usually home to two of the three principal departments, audio and lighting; their consoles are usually placed here. Video department control gear is usually backstage, behind pipe-and-drape.

Placing the production riser at FOH prevents unsightly support hardware - and production personnel - from blocking the view for attendees.

# Relativity VS. Production

For every production action, there is some reaction. It's like the theory of relativity applied to production. A better understanding might come from what economists and historians call *the law of unintended consequences*.

This principle tells us that a well-intentioned solution often causes a new problem. Such tradeoffs are as old as man's first cooperative efforts. Production is no exception.

For the event planner, attendees shouldn't see a camera operator's backside. Well-intended solution: locate the camera adjacent to the FOH control deck...

Which separates camera from subject by dozens of yards. Unintended consequence of this solution: the shot is now taken from an enormous distance.

## Truth & Consequences

To the AV camera operator, the expanded distance between lens and subject creates new problems to be solved. The greater focal length means reduced depth-of-field.

Demand for precision focus is increased on the camera operator by orders of magnitude. Even in standard-definition video (rapidly vanishing), the expanded distance now obligates exacting scrutiny. It's a job for a professional up to a challenge.

Obviously, at a great distance, taming the shakiness in a telephoto shot becomes a delicate matter. Among the issues...

Ideally, a pair of approximately 4'x4' platforms accommodates camera and operator, respectively. But some companies forsake the expense of owning (and shipping) dedicated camera platforms.

So the substitute is whatever the venue has available. Almost invariably, either 6'x8' or 8'x8'. This creates an excessively large "footprint" on the floor, meaning potential traffic problems to and from the nearby control riser.

Needlessly large platforms are also peculiarly magnetic to attendees. Strolling attendees frequently stop by to "set up shop." Opening notebook binders. Starting laptop computers. Or even *sitting* on the camera platform - despite a ballroom full of available seating.

Suspended floors: most large venues will have one or more rooms built on a suspended floor. They shake.

The shot can only be as steady as the gear will permit; whether owned or cross-rented, even tiny flat spots in a fluid head's "pan axis" seem irritatingly obvious when projected on a huge screen.

## The Common Wisdom

The well-intended solution is in place - and now the camera is as far from the presenter as possible.

A respectable shot of a presenter onstage now requires a telephoto zoom lens of the class commonly called a "sports lens."

Frequently, attendees engage the crew in a game of "*How-much-does-that-cost?*" Many people would guess that the most expensive piece of hardware in a ballroom production is one of the enormous air-cooled video projectors hung from the lighting truss, or rig.

Or the sophisticated moving lights that now project both “gobo” images and video feeds.

Or the audio console (like one in a recording studio)...

It's the sports lens. Frequently a cross-rental, and not an cheap one.

Together, the lens, camera, and accessories is a “build-up.” The device used to mate such a sports lens to a field camera is what I call a *sled-mount adapter*.

If a camera on a broadcast jobsite (involving, say, a mobile facility, or TV truck) requires a powerful zoom lens, that camera head will be a large-bodied, full-format camera.

In AV, though, field cameras are almost universal.

Consequently, a sled-mount adapter can be an exotic device even to television network camera operators and broadcast engineers.

But intimately familiar to camera operators who work in AV.

Thus, the person most qualified to build up the sled-mount camera is frequently the same person most qualified to operate it. These operators are in the overlap of two subsets:

- multi-operators skilled in telephoto (tight-follow), and
- operators whose experience in AV insures familiarity in that jobsite environment (but may not extend to other areas, even within the video department)

Now that some sports lenses are capable of a range of focal lengths up to 100:1, the value of the lens can be well over \$100,000.

Should such a lens be shattered, the cost of the deductible would be catastrophic for any production to suffer.

Does the local hire chosen to build up a camera merit the responsibility?

## Expectations

Rest assured: the centerline camera's moving image is expected to have the same glassy smoothness audiences are familiar with when they watch network television...

Which is created in a studio. At close quarters. Usually just a few feet away, since the talent in a studio may have to read from a camera-mounted teleprompter.

Meaning: very short, forgiving focal lengths.

And highly post-produced, or edited. That is, requiring no contiguous takes of up to an hour.

*Which are common in every day of AV.*

Talent is appropriately coached. This could mean merely that they are instructed NOT to pace like a caged animal. (Incidentally, this is the very pattern most certain to instill distraction among viewers...)

## Behind the Viewfinder

A monotonous task, camerawork is largely a right-brained activity - it induces daydreaming. Relentlessly staring into the viewfinder triggers an otherwise alert mind to...wander.

Attempting to focus (both literally and figuratively) while following a pacing presenter creates a conflict. After thirty minutes or so, fighting the natural urge to merely glance away becomes difficult. Camera operators may experience headaches after an hour or so of uninterrupted close-follow.

If ever there was a job performed reflexively, it's running camera. The inherent cost of operating camera specifically for AV is unequalled tedium - it comes with the territory.

The ability to cope with these circumstances, then, is more than a skill. It's *conditioning*. Unlike a learned skill, *conditioning is only achieved after years of repetition*.

In the vernacular of today's popular culture, the camera specialist in AV is a sort of "*extreme attention professional*."

For years, I've challenged industry pros to think of even one occupation requiring comparable ability to scrutinize. When they "draw a blank," I offer an example which no one has yet challenged...

The uninterrupted gaze of an air traffic controller.



# No moving, no breathing, no blinking.

Long ago, in a galaxy far away, the AV industry began to grow...quickly. AV companies were increasingly patronized by more well-heeled Fortune 500 companies. Budgets grew. With bigger budgets came greater pressure to insure successful productions.

So AV - once a market for hourly-only employment - began to consume the services of day-rate professionals...

Including television camera operators.

"Instead of hourly employees," AV vendors said, "we'll use broadcast professionals because they know how to shoot a show they've never seen before..." (This is indeed pretty much how television production works. It has to. There's no way to rehearse, say, a sporting event in advance.)

Over time, things changed in AV.

As a condition of engagement, AV professionals are usually expected to endure long nights of "rehearsing" a simple parade of presenters with wireless microphones. Cumulative sleep deficit occurs when late nights are scheduled back-to-back with early mornings.

At which time everyone is expected to perform as if fresh.

Usually, no one can be released until a "perfect" rehearsal has occurred. Because a crew's performance is compromised by sleeplessness, note that *AV's obsessive pursuit of a "perfect" run-through is achieved only at the expense of the show actually SEEN by attendees...*

While this is bad enough for everyone in a production, it's nearly impossible for the camera operator.

Why? Because a combination of conditions induces a form of what's commonly called "highway hypnosis." Those conditions:

- telephoto compression
- unrelenting operation
- tight-following the "caged animal" (that lack of talent-coaching *despite time allotted for rehearsals*) and
- cumulative sleep deficit following pointless run-throughs

From their post, most crew members can at least stand, shift their weight, or stretch. But the telephoto camera operator can do NONE of these without compromising the shot. Truly powerful telephoto compression (as with, say, a 70x or 100x lens) even discourages the operator from healthy breathing - via diaphragm - as opposed to nasally.

If the production is configured for a single camera, the sleepless operator's job now requires a superhuman effort as one presenter seamlessly follows another.

Usually a local hire, the camera professional will be at *further* disadvantage.

How?

Having not been assigned (or offered) a hotel room in the venue of the show. Because these are big shows, they occur in big cities. Notorious for traffic and the vast distance between show venues and suburbs where people - like show personnel - live.

So the camera professional may have, on average, several hours' less sleep per day than the onsite professionals whose jobs actually permit standing, stretching, or breathing. By day four or five of a multiday show, not only is the cumulative sleep deficit the cause of poor performance...

It's dangerous when combined with two lengthy commutes per day.

These factors have, gradually and collectively, become status quo. That taken-for-granted status means that a blind spot is in place. Blind spots - being what they are - permit problems to go unnoticed. And exacerbated.

Increasingly lengthy days spent onsite in AV have become acute as the industry grew. Now commoditized like any other overdeveloped industry, the tabula rasa (or presumption) of many project managers may be that all run-of-show personnel are equally burdened.

The "reasoning"?

Because they have identical crew call times. Meal times. Crew-to-headset call times.

*"Hey, we're ALL tired...so why would the camera operator be different?"*

Or, *"The A2 was a local hire and HE didn't need a room; I don't get it..."*

## Fall Into the Gap

The absence of feedback is also to blame. Possible cause? Intimidated about being perceived as the local whiner amidst a traveling road crew. The local hire may be inhibited from observing that the onsite schedule exceeds human limitation for a lone, centerline close-follow camera.

So a stoic demeanor is adopted. *"Why, sure I can run camera fluidly for hours without blinking...after several sleepless nights..."*

Not that anyone would ask him (or her).

What I call a *feedback gap* exists, and a dangerous one. The industry hasn't heard enough from operators who've almost NOT made it through shows.

Like trying to prove a negative, how do we know this?

Because of the prominent spot in our memory saved for occasions when an operator HAS fallen asleep - and, usually, fallen from the platform. Since this creates an anecdotal event in our minds, we have it bookmarked. Like the metrics of anything symptomatic, extrapolating *known* anecdotal events tells us that many more shows have come VERY close to the same kind of pandemonium in front of client and attendees...

But the operator managed to cling to consciousness, completing the show. Enabling everyone to persist in thinking productions can *routinely* be scheduled beyond human limitation.

The Peter Principle in action – in our industry.

The camera professional's phone rings; a project manager inquiring about the camera operator's availability.

The operator asks, "*Roughly* how long can I expect continuous takes to be on this single-camera production you're trying to book me for? Obviously, I can't expect you to have in-depth information; just a neighborhood, ballpark kind of idea?"

Even the most progressive project manager almost invariably replies, "Do you want the job...or not?"

*This in response to a professional attempting to calculate the likelihood of disaster in front of the client's own attendees. No good deed goes unpunished.*

Fact is, by about day three, many single-camera shows may be *just a nod* away from the presenter's image going offscreen...as the operator finally succumbs to sleeplessness brought on by the rehearsal schedule.

## Anyone Can Do It!

When the tally light comes "on" for the operator of a single-camera show, the operator's burden is ponderously heavier than when the production is offset by other operators.

The common misperception - among people who've never done it - is that centerline camera is easy. Or a suitable entry-level position; perhaps because it's "simple." My response...

Simple? Maybe...sometimes. Punishing? *Always.*

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