PANACAM II

THE CREATIVE VIDEO REFLEX

INTRODUCTION

Until the introduction of the PANACAM II, video producers were forced to choose between cumbersome equipment designed for multi-camera studio production, or simple ENG cameras, inadequate for the demands of high quality production.

Using the experience of the world's best cameramen as our guidelines, we set out to create a camera uniquely qualified to shoot quality tape productions using film-style techniques.

To help you appreciate some of PANACAM's special capabilities, we've reprinted two articles dealing with applications for which the Panacam was absolutely essential.

The first involves Clive Tickner and the PANACAM II in taping a theatrical production of THE BEGGARS OPERA. The second describes the blending of tape and film in the production of a Toyota commercial directed by E.E. Gregg Snazelle.

Above: A setup using the Tulip crane.

Camera

Clive Tickner

Panacam and Lightflex on *The Beggar's Opera*

I was the director of video cinematography on a production over a period of six days, of the National Theatre Play *The Beggar's Opera*. Director Richard Eyre re-blocked, re-staged and slightly edited the original show, so that it could be shot as a four wall drama, although he chose to refer to its stage origins at the beginning and end by including two wide shots of the audience, filmed during one evening performance.

The original stage show itself was generally low-lit, which I chose to emulate, but with conventional film lamps, in order to achieve shallow, differential focus, such as is common on film. Heavy side lighting provided strong contrast normally impossible to use on tape and foreground faces were filled and flattened with a camera basher. To use the existing lamps would have been to invite many boom and camera shadows, apart from the rather flat appearance that their positioning provides.

Over the last three years I have been involved more and more with video productions and have shot many commercials and several programs on tape, including the five hour *Oresteia* for Sir Peter Hall, also at the National Theatre. The most common camera used has been the Sony BVP330p, but for *The Beggar's Opera* we used the Panacam. I found the difference between the image quality of the usual ENG cameras and the Panacam to be enormous. To my eye, regular cameras seem to deliver pictures like corn flake package art. The colors are overpresent and figures seem to have an outline, whether near the camera or distant. Foreground and background are equally detailed. As on such graphically designed packages the 'ideal family house' behind, is as strongly colored and delineated as is the 'ideal mum' on the surface of the box, providing a weird two dimensional image.

In contrast with the Panacam it seemed possible to paint oil paintings; and, as with film, it 'sees' gentle tones and strong contrast, retreating soft backgrounds and punchy highlights. It grades distance and delivers a contrast ratio similar to that of film. It does not over-react to primary colors at all, whereas normal video hates them, especially red. Hard backlight and bright windows or smoke, all exploited in *Beggar's Opera*, do not appear as pools of

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boiling mercury, and, panning over hot-spots such as candles, no longer leaves comet tails. Bright areas with which film could not cope can be compressed into acceptability at the flick of a Panacam switch.

Because of the National Theatre's busy timetable, it was imperative that we complete our shoot in six days. Producer Sandy Leiberson had been generous with equipment because the rental period was short. It was also required that the gear we had – lights, cameras, cables, sound, dollies etc. – all be removed from the stage by 7 p.m. each evening to allow a public performance. Recording therefore had to stop at 5 p.m. The play had been in repertory for some months and, consequently, the actors knew the piece by heart. This familiarity was a major aid to the speed of shooting as we never once had to go again for performance nor wait for the director to decide what should follow.

Also, from Richard Eyre's experience with taped drama at the BBC, he decided that a rehearsal period with a full crew would be beneficial. So, in the two days prior to recording, we 'conceptually' filmed the whole piece, with dollies, cameras and cranes, as if for real. As soon as it was obvious that a shot would work, notes were made and the next moves planned and executed. In consequence, when we were actually shooting everyone knew what was to happen next at the completion of each shot.

The script girl had noted lens size and height, the moves made, and which parts of the boarded floor had been laid or removed during rehearsal, from which a convenient filming order had been devised. The result was 25 minutes a day of properly constructed drama, and not the grabbed recording of a live show. It was like a high speed feature shot on one small self-contained set. Our crews were two operators, two focus pullers, two cable bashers (!) and three camera grips, using Elemack Cricket and Fisher 10 dollies plus a Tulip Crane.

We all found the Panacam system very similar in use to the Panaflex, except that there was no 'On' switch! The follow focus controls are identical, and the pellicle viewing system similar, although allowing less light to the eye as the video camera takes 80% of that available, leaving 20% only for the operator. A top or side mounted B/W video monitor is available to operate in very low-light situations but, for us, the Panaglow feature in the regular eyepiece was sufficient and the monitor

Author Tickner adjusts the basher mounted under the Lightflex.

was only used by the focus assistant. Two shaded monitors were provided on the set for reference. The pictures on these, we were advised, represented exactly what was being recorded on the tape. Director, producer, editor, script girl and I all worked from these.

Our two cameras were mounted on Super Panaheads on which were also fitted Lightflex units and underslung Panalights. Counterweights were required for even balance. We used the Panavision zoom, which, when used on the Panacam has an effective aperture of T1.7. As I found this phenomenon hard to comprehend we set up the following test:

I lit a grey scale so that with the zoom wide open a perfect exposure was recorded on the waveform monitor. Then, replacing the zoom with a Panavision Ultraspeed lens with a similar field of view focal length as was set on the zoom, recorded the same scale. With this lens normally theoretically two steps faster than the zoom, I had expected the reading on the scope to go through the roof. However, as Brian King our Video Engineer had predicted, the reading was identical, proving that all lenses used on the Panacam have effectively the same maximum aperture. This phenomena allowed us to use the convenience of the zoom and still light as if for fast prime lenses. (Editor's note: For further explanation of this see "Video Lenses" in our September 1983 issue or the Electronic Production Techniques reprint).

The "boffins" on the vision engineering, headed by Brian King, had a whole section at the rear of the theatre for their equipment, this area being referred to by my crew as "the labs."

The Cottesloe Stage of the theatre was occupied by other plays in rep until the day of the shoot, meaning that the lighting had to be devised in a vacuum, as the *Beggar's Opera* set was not to be installed until after our lighting was in place. I was able to work from designer John Gunter's model of the set to plan lamp positions, and gaffer Johnny Harman converted these drawings to fit the theatre's ground plan. From this he and the sparks built our lighting rig, assembling and disassembling it each day. A 7 a.m. call for the electrical crew meant that we were ready to shoot at 8, even though up to 50 lamps had to be placed and cabled. We were able to use circuits which passed through the theatre's dimmer panel which was not only useful for light changes in shot, but as it incorporated a memory, it was easy to match lighting when shooting setups out of sequence. Space lights and north lights were wired so as to be switchable to full or half, and many lamps were duplicated so that several colors could be used at different times without the necessity of access to lamps for filter changes. I used straw, chocolate, several grades of blue's, CTO's and WFG.

The set was designed to be dingy and the costumes shabby. My reflected light reading varied from T1.4

Operator Steven Alcorn and focus puller Nigel Willoughby rehearse a shot.

in the shadows to T5.6 in the bright areas. The Panacam accepted tracking shots through these changes without the need for stop changing, delivering pictures such as are normally never seen on tape.

I had previously experimented with the equipment at Samuelson's, and Wilfred Eades of Lightflex Organization had lent me a new lightweight unit to play around with. Lightflex, Gerry Turpin's light reflecting system, familiar to many in the film business, to my knowledge, had never before been used to modify a video image. It turned out to be a major video aid using it, as we did, throughout the production. We noticed a tendency for low-lit flesh tones to go maroon on tape, but this was immediately correctable with the use of the Lightflex studio fill. It also allowed me to let the darks go black, as I could take the curse off these no-exposure areas with a 60-volt reading on the Lightflex dimmer. It added to the flexibility of my lighting scheme generally for, as I have mentioned, I had to pre-plan illumination for all contingencies without the benefit of the set in place. The unit can also achieve an appearance of 'supafrost' filtering, by winding up the voltage without giving any sign of milkyness. In the two candlelit scenes we used a yellow Lightflex ochre color overlay effect.

The Panacams were initially set up each morning (without the Lightflex being switched on) by shooting a TV grey scale which has an ultimate black hole in the centre. When the Lightflex was switched on, the black level on the waveform monitor increased above zero. The camera's black pedestal was then readjusted to set the black hole to zero. This external bias light, which the Lightflex is, affects mainly the video camera's red and green tubes and this is confirmed on the vectorscope monitor. After Brian King had set up the cameras each day, he did not ever adjust the colorimitry, leaving the color to be controlled by my lighting.

Many other effects can be achieved by increasing the voltage of the Lightflex then re-narrowing the electronic gap by crushing the blacks. It is obvious that the Lightflex has now as important a role to play in video production as it has in film. The television boys agreed that there were no alternative electronic adjustments available to give the same results.

There are areas to watch when using the Panacam, however. Care should be taken to avoid the camera having an inadvertent 'look' at a light whilst setting up a shot, as 'burns' on the tubes take a very long time to remove. Cap up lenses between set-ups. Time also must be allowed for registration, colour and white balancing and lens back focus testing. In general, the video engineers arrived an hour before the crew, to get the apparatus warmed up and ready to go. Tidyness is a must as, with more than one camera, cable knotting is a constant danger. Care must also be taken that some large and/or poorly earthed equipment is not being used on the same circuit as the video racks, otherwise all sorts of horrid, irremovable things may occur on the picture. The T-stop is always set by the video engineer, off the floor, so it is to him that the lighting cameraman should speak regarding the brightness of the scene required.

Following this experience I feel that Panavision has made a camera that may be used exactly as a film camera can be. Apart from the 'look,' precision of composition and tightness of moves, normally alien to video, are achievable. A one man operator-focus-grip with a camera on a pedestal dolly and moving according to demands heard with or without warning through his hand-set, can hardly be expected to match a film crew's stylish result. ■

Snazelle Blends Film and Tape in Unique Series for Toyota

Spots Bring Out Best of Both Formats

By GARY LINEHAN

Film is film and tape is tape — of course. Each has its own nuances of image, its own particular applications in the production arena. But the two recently were creatively intertwined in a series of 30-second Toyota commercials designed to take advantage of the characteristics that make each medium unique.

Produced by **Snazelle Film and Tape Inc.**, San Francisco, for agency **Dancer Fitzgerald Sample Inc.**, New York, and the Chicago Toyota Dealers Association, each of the four commercials begins with a "man on the street" statement from the talent describing what each desires in a new automobile. The action then cuts to running shots of the vehicles, followed by a return to the talent for close-up testimonials. Film and tape are blended in each spot with the talent sequences lensed on videotape using a **Panacam Reflex II** and the action footage recorded on film utilizing a **Panavision Panaflex.**

Directed by E.E. Gregg Snazelle, executive produced by Melodie Woods and lensed by director of photography Felix Alcala, all four spots were shot on location in and around San Francisco for broadcast in the Midwest. Shooting sites included Golden Gate Park, the Opera Plaza Complex, Bell Market and the Fashion Institute of Design, all in San Francisco; Mt. Tamalpais and Point Reyes in Marin County; and Sears Point International Raceway in Sonoma County.

Cameraman Felix Alcala dollies in for interior shot of Toyota truck.

The decision to combine both film and tape in a single commercial was reached by agency representatives Michael Moriarty, producer, and Jack Goldsmith, senior vice president/ creative director, who wanted to elicit a feeling of immediacy in the taped statements while retaining the aesthetic appeal of film for the action sequences and product close-ups. The agency originally had planned to use handheld video cameras to obtain the hard, realistic look often associated with news footage, but Snazelle recommended that the sophisticated Panacam be used to present a softer, more compatible image.

"The thing I like best about Panacam is that you can get closer to the film look," Snazelle explained. "What I've always disliked about

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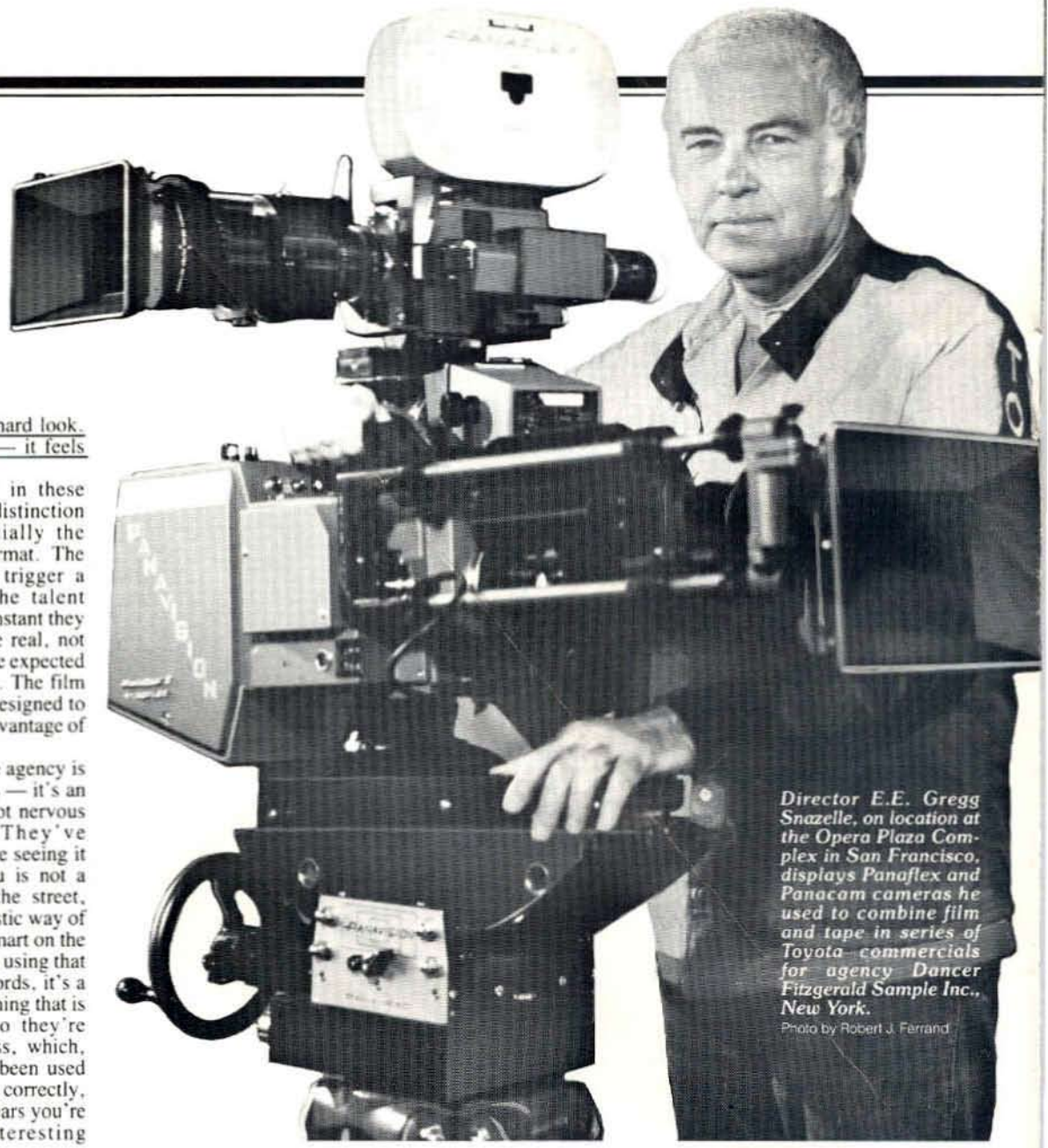

Director E.E. Gregg Snazelle, on location at the Opera Plaza Complex in San Francisco, displays Panaflex and Panacam cameras he used to combine film and tape in series of Toyota commercials for agency Dancer Fitzgerald Sample Inc., New York.
Photo by Robert J. Ferrand

video is the razor-eged look, the hard look. For me, Panacam comes closest — it feels more filmatic."

A fundamental consideration in these commercials, however, is the distinction between film and tape, especially the subliminal influences of each format. The taped portions are designed to trigger a response in the viewer that the talent statements are taking place at the instant they are seen and that the speakers are real, not actors. As a result, their remarks are expected to be perceived as more veracious. The film segments, on the other hand, are designed to accentuate the product by taking advantage of the visual appeal of film footage.

"From a creative standpoint, the agency is putting its feet in the water on this — it's an experiment to them and they're not nervous about it," Snazelle said. "They've conceptualized that tape says we're seeing it now, that the guy talking to you is not a sellout, you've caught him on the street, while film is a more aesthetic, artistic way of working. And I think that's very smart on the part of the agency, because they're using that tape as a creative tool. In other words, it's a tool that fits rather than just something that is cheaper, faster or whatever. So they're beginning to say this is a process, which, creatively in production, has not been used correctly, has not been explored correctly, and I think in the next couple of years you're going to see some really interesting experiments in tape/film mix."

While the nature of the project is centered around the differences between film and tape, the general public may not even consciously notice the changes in style. However, both Snazelle and the agency principals are certain that the spots will evoke some kind of subliminal reaction.

"If you ask the average viewer if he can tell the difference between film and tape, I'd say probably nine out of 10 people couldn't. It really is subtle. They'll say some commercials look cheap and some look expensive—they can rationalize that—but I think the audience is really unconscious to it," explained Snazelle. "But you've got an entire audience out there now that has grown up with television and subconcious imagery. This subjective or subliminal information is already there, so you just have to set the style or the imagery or the conflict so that it slides in. If you do it correctly, there's nothing you can't do, the viewer cannot filter the process.

"I've always felt that television is the most potent means of communication ever devised," he elaborated. "It's devastating. Rationally, I don't think we're total robots, but subjectively and subliminally the power is there, and it's potent. The worst time is when you're watching something at night lying in bed. It's like an open channel. You wake up in the morning and you've filed an incredible amount of information that had no filtering process at all. Somebody can see a commercial and say they hate it, but when you look at their shelves, they're filled with that product. That's not rational, objective thinking. So I think this idea of the tape/film mix is a terrific application. It's really taking the best of both techniques and marrying them, at least at this point, probably the best that they can be married."

Panacam was chosen for this project for its sophisticated film-style look, allowing the tape to blend easily with the film, but its images remain unmistakably video. Explained Andy Romanoff, director of advanced systems for Panavision: "What you cannot change is this — you shoot film at 24 frames per second and you shoot video at 60 fields per second. Even if you made a camera that had the same color rendition, used the same lenses, had the same lighting and all that, they are still two different methods of handling information. Video is always going to look different. It's always going to feel different. The brain is going to process it differently."

For Alcala, the transition from film to video did not require a quantum leap in

"The thing I like best about Panacam is that you can get closer to the film look."

technique, due largely to the design of the Panacam, which, among other features, is the first professional video camera to offer a reflex viewfinder for precise framing. "They've given filmakers a physical piece of equipment they're used to working with and made it comfortable to work with," Alcala said. "In the old days, you'd get on the video camera and the focus would be over here, the TV screen was out here and it was bulky. Now they've adapted all the pieces we're used to working with every day and put them on an electronic machine."

Alcala said the major adjustment for him was in lighting. "Video is more difficult to light to get a better looking image," he explained. "It's electronic so it has a different look—that's given—but to make it look a little nicer, you need to take a little more time in lighting. With film, of course, you have the latitude. You can give and take with colors, you can do a lot of things I would never do with video. Film forgives my pushing it, but with video I can't lie too much because it catches me. Of course, a lot of us get caught up in the mechanics of it, which we shouldn't worry about, because it's just another way of capturing information — what we should be concerned about is the information. Now we can overcome that fear because this looks just like the other camera. You can walk right up to it and if you didn't know better, you'd have to think twice about it. The rest of the crew wouldn't even know the difference."

The development of the Panacam was the result of a need Panavision believed existed in the marketplace for a video camera that would allow the user to produce the sophisticated images previously reserved for filmmakers. Explained Romanoff: "In the past, there have been two basic types of video cameras. First came the studio cameras, those large, heavy machines on pedestals operated by one man. They were primarily designed as static cameras, with three to six of them lined up as observers of the action — and they were perfectly suited to that, especially for live television. Those cameras grew up as a response to having to get everything now. Then came the portable video cameras, the ENG cameras, which were especially designed to work all day long on your shoulder, to work with little or no support equipment and not much ability to modify the image.

"Film cameras came out of another tradition—participatiag with the actors," he continued. "You pick the perfect angle, the camera moves all the time and there are no compromises in the lighting. Film wants to make it intimate by getting in close. So when we set out to build a video camera, we set out to build a camera that was capable of the same kind of imagemaking. We're not talking about quality — it's different — we're talking about participatory imagemaking. Shooting film-style does not mean having 20 grips and a huge budget. Film-style is where the camera participates, where it gets in close and works with the actors. It becomes different people's points of view. It moves all the time and the eye is never disturbed by imperfections in the image. Audiences with high levels of visual sophistication expect sophisticated images in whatever medium they are seeing, however it is being transmitted to them."

He explained that the features that make Panacam attractive to traditional cinematographers include the reflex viewfinder, remote electronics and improved signal processing. With remote electronics, the technicians can prepare the camera at the beginning of the shoot as usual, but the director and cameraman also can use that time to rehearse the talent and camera moves. Minor adjustments can be made while the shoot is in progress as well.

The Panacam also includes a standard electronic video image in addition to the reflex viewfinder. "We have a 100 percent accurate frameline generator in the video viewfinder, a set of white lines that shows you exactly where the edge of the frame is, and that frameline generator is exactly matched to the ground glass lines," Romanoff said. "One of the advantages of the reflex viewfinder is that you can concentrate on and focus on that image because it is in color, it is lifesize and it is apparently brought to rest at infinity. There is no eyestrain looking through that viewfinder. You can spend hours looking at it and the eye feels comfortable."

On the advances in signal processing, Romanoff said: "One of the reasons video looks like video is because it's so overlit. That really comes from the early days of television when they had to put a lot of light on the subject and keep it flat. We thought that when people wanted to start making moodier pictures, they would want to have darker areas. But video cameras make noise in the dark areas. Film cameras also make noise in the dark areas, in the form of grain, but grain is less objectionable than video noise to the human eye. So we felt is was real important to develop a camera that stayed quiet in the dark areas and we're now showing a 60dB camera (the Panacam II).

"We also have a sophisticated enhancement scheme," he added. "Our camera makes softer edges than most, with smooth, subtle transitions, and it took a tremendous amount of development work to make that happen, to get just a little bit smoother in those enhanced areas. We've also stretched the tonal range with white compression, keeping the detail in the highlights, and black stretch, expanding the range of detail in the dark tones — and both are continuously and remotely adjustable."

Summing up the development of the Panacam, Romanoff stated: "For 25 years we've made cameras while listening to the demands of very demanding imagemakers. Virtually every film cameraman of any stature will tell you, 'I don't care about the camera, I don't love the camera. I want the camera to do things for me and I want it to be as transparent as possible and to give me the greatest possible range of possibilities.' Those are the ones we were listening to when we made these cameras and we've now transferred that over to video."

The film portions of the Toyota commercials were shot on **Eastman** 5247 and 5294 color negative stock. The video segments were taped on **Fuji** one-inch stock using a **Sony** BVH500A recorder. Film processing and telecine were handled by **Monaco Laboratory**, San Francisco, with on-line editing taking place at **Editel**, Los Angeles.

Other key personnel on the five-day shot included Linda Deal, production manager; Chris McCarty, production assistant; Varda Hardy, assistant director; Mike Santy, assistant camera; Darcy Cohen, script supervisor; Erica Bulecki, makeup; Kip Larsen, VTR operator; Richard Berkvam, mixer; Tony Santoro, precision driver; Judy Feil, wardrobe; Charlie Swanson, props; Jeff Bane, camera car driver; Gary Gill, gaffer; Peter Thomas, key grip; and Tim Ranahan, car prep. Talent included Pat Studstill, Barbara Irvine, John Heart, Fran Stonebraker, Ryan McNall and Melissa Caplan. ●

P A N A C A M II

users consistently create extraordinary pictures. Here's why:

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The best tool ever created to compose, frame and follow images. PANACAM II provides a life-size image with the color and depth cues an operator needs to make fine pictures.

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PANACAM II takes all the electronic adjustments out of the camera and puts them where they belong—in a separate control unit. This allows continuous availability of the camera's entire range of controls for creative manipulation or maintenance without interfering with the action on the set. No more side cover downtime with cast and crew at a standstill while technical adjustments are being made.

SIGNAL PROCESSING

PANACAM II's advanced signal processing enables you to create the look you want with the greatest range of control and the most sophisticated enhancement available in any video camera.

LENSES & ACCESSORIES

Every PANAVISION lens, every filter, in fact, almost every accessory we've ever made fits the PANACAM II. Now, the hard-won experience of the world's most creative cameramen is available in a video camera. Take advantage of our unmatched experience to solve your toughest imaging problems. The PANACAM II... You have to see, to see the difference.

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