



5 TOP PROFESSIONAL 35mm CAMERAS



As photography instructors for the last 15 years, we find the most common question asked is, "Which is the best camera to buy to get professional results?" Actually, the answer is very complex. There is no one camera that is going to provide professional results for all photographers, because a camera is only

as good as the photographer behind the lens.

Most professional cameras on the market today are so close in quality that even the best professional photographers could not distinguish which camera produced which photos—assuming the photographer was as good as the camera used. So, what

makes one professional camera different from the next, and why buy one brand over another?

In this report we will try to point out the various features and differences among five top professional 35mm cameras in hopes that this information will assist you in choosing your new camera.

Which One Is Uniquely Right for You?

by Jack and Sue Drafaahl

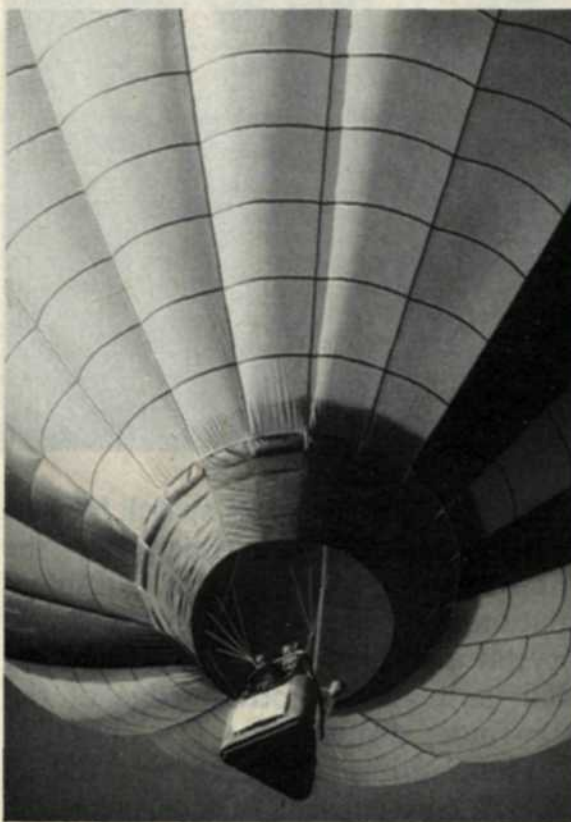
CANON NEW F1

For the professional photographer demanding reliability and durability, yet desiring the option to select his or her own camera metering system, the Canon New F1 (to differentiate it from the original F1) may be just the ticket. What makes this system unique is the way that it meters the image. Instead of metering from behind the mirror as most cameras do, the F1 meters through the side of the focusing screen, allowing three basic types of metering through more than 30 different screens.

If average metering is required, 13 different screens are available for a center-weighted average metering system. If a smaller area is selected to be metered, then 13 more screens are available. The third group of six screens allows the photographer to zero-in on a 3% spot in the middle of the image.

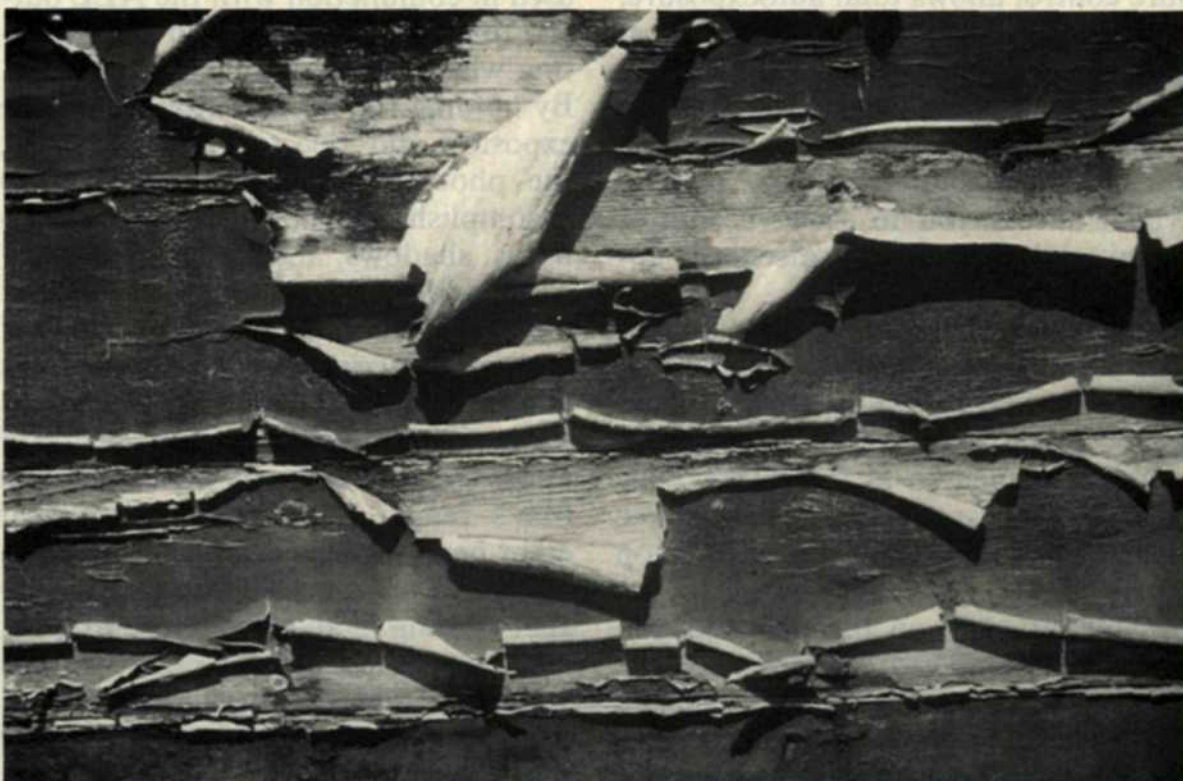
For many photographers who like to meter the same way for each scene, no matter what the situation, this system would be great. We found we liked using different types of meter configurations for the same roll of film, however, and found changing screens in the middle of a shoot to be somewhat difficult.

On the right side of the camera is the main shutter speed control that includes a range of $1/2000$ down to eight seconds. If your battery dies, the camera will still work from $1/2000$ down to $1/90$, or you can attach a power cord from the motor drive, and retrieve all shutter speeds. When using the F1 by itself, aperture-priority autoexposure is possible, by setting the shutter dial to A. If the power winder or motor drive is added, then shutter-priority



autoexposure is possible by setting the aperture ring to the letter A.

Unfortunately, with all this fancy



exposure manipulation at hand, Canon still left off the exposure lock that we enjoyed so much with some of the other cameras. This missing function is important when one metering of a scene could be taken and used for the entire shoot. This can only be accomplished on the F1 by going to manual.

On the left side of the camera you will find the standard ISO dial and the \pm override dial for critical exposure corrections. Right behind this dial on the back of the camera is the three-position meter mode dial: in normal position, the meter is activated only while the shutter button is depressed halfway. In "hold" position, the meter stays on for 16 seconds; in "light" position, the viewfinder display stays on for 16 seconds and is illuminated.

On professional cameras we prefer motor drives or winders for faster shooting, and better continuity between images, so it would be natural to include the Canon motor drive that consumes a 36-exposure roll in a little

more than seven seconds. Now if you add the Canon Speed Finder N, which rotates a full 360°, you definitely have a working professional camera.

There are about 52 lenses available for the New F1, from 7.5mm fisheye to 800mm telephoto. The \$1219 list

price for body with 50mm f/1.4 lens brings with it membership in Canon Professional Service for qualified pros—those who have had photographs published.

As you may have noticed, the Canon F1 is somewhat conservative in

comparison to many of the other cameras on the market with all their gadgetry. It is our belief that Canon wants to ensure that professionals today have a good solid working camera that has all the basics necessary to get the job done right. □

MAXXUM 9000

The Maxxum 9000 is an extremely sophisticated autofocus professional camera that has a multitude of special features. When you first hold the camera you will find the autofocus system has gone to work before you have even framed the subject. The shutter release is designed so that as soon as human skin touches it, focus is achieved. At first this feels a little uncanny, as the camera continues to focus while your finger rests on the shutter release, but give it a chance—it will grow on you.

If you want to freeze the focus at a certain point, simply press the shutter button halfway down, and the focus will not change. If you want the autofocus to continue, release the pressure and continue gently touching the shutter release—no pressing down the shutter release halfway to activate the autofocus system.

Just think of the potential—sports, action and newspaper photography will be a snap as the camera follows focus on all the action-packed events. As soon as you see a subject and start to bring the camera onto the scene, the camera is already focusing the lens. No more coming in second while you were to be photographing number one.

Behind the shutter release you will find the mode dial, which selects four basic operations. The program exposure control allows total autoexposure, where the camera takes the lens focal length, film speed, and light intensity into consideration before making the exposure. Clockwise on the dial you will find the shutter-priority setting, which allows you to select a shutter speed while the camera selects the appropriate f-stop.

Clockwise again, one click puts you into manual control, where you can set the f-stop and any shutter speed from 30 seconds to $\frac{1}{4000}$. A bulb position has a built-in timer, so as the shutter button is depressed, the seconds are counted off and displayed on the top of the dial.

Another click on the dial and you will find the aperture-priority setting. Here you select the f-stop, and the camera selects the corresponding shutter speed. All four controls can be



shifted with a special \pm switch located on the left side of the camera near the multifunction meter system. All information for exposure control is liquid crystal displayed in the middle of the dial, and at the bottom edge of the viewfinder display.

The multifunction metering dial on the left side consists of four positions. An average meter is first on the dial, followed by three spot meter settings—gray, highlight, and shadow. The highlight and shadow spot settings must be used in conjunction with the AEL button that locks the meter into that setting while the exposure is being made. By holding the AEL button in for one exposure and releasing for the next, the photographer has the ability to accomplish fast spot metering in highlights, shadows, and midtones.

An additional advantage of the spot meter is verification of exposure range. By spot-metering the important areas in a scene, and knowing the film's latitude, the photographer can decide if all the important parts are within the film's range. For instance, a typical color negative film has a latitude of -2 stops and $+4$ stops. If you take a gray spot reading of an object close to gray, and the darkest subject reads -1 stop while the lightest subject is $+3$ stops, then you know you are within the range of the film.

Just below the meter dial you will find the ISO key. Depressing this button changes the display on the exposure control dial to ISO settings. The ISO dial has an extreme range of 6 to 6400, allowing the photographer to use very slow copy films in the studio and very high-speed films for extreme low-light situations.

A small AA battery pack located inside the hand grip on the front of the camera powers all the functions of the Maxxum 9000 camera.

On the back, you will find a diopter correction for people with eyeglasses, a shutter to prevent light entering the eyepiece, and a double-exposure button. A unique rewind knob lifts up and angles down to form a rewind lever.

The autofocus lenses attach with a bayonet mount and a clockwise turn. The top of the lens displays focus and depth-of-field information through the autofocus window. Twenty-six autofocus lenses, from 16mm to 600mm, are presently available for use with the Maxxum 9000 camera.

With the Minolta 1800AF, 2800AF, and 4000AF flashes, the Maxxum 9000 can focus and take pictures in total darkness at $\frac{1}{250}$ using a short burst of red light which is just enough for the autofocus to lock onto.

The MD-90 motor drive is a must for the action photographer, but the motor drive and basic power pack almost double the size and weight of the camera. The motor drive has the basic motor drive controls, plus a speed/focus dial. This dial allows the photographer to select low (2 fps), medium (3 fps), or high (5 fps), as well as single exposures.

A special focus-priority position has a variable-speed motor drive, depending on how fast the camera can refocus the lens. This position is excellent for fast-moving subjects. As you pan with the subject the camera refocuses and fires as soon as possible, up to 4 fps. For example, as you pan a fast racing car, the camera would focus as fast as it could, shoot, refocus, shoot, and refocus up to 4 fps, as long as you held your finger on the shutter release.

Two program backs are also available for the Maxxum 9000 camera. The Program Back 90 imprints basic date information, and provides intervalometer and long exposure func-

tions. The Program Back Super 90 has seven exposure modes, including automatic bracketing of up to nine exposures, intervalometer with full control over exposure, concealed imprinted data, and spot metering that stores up to eight different readings.

The Maxxum 9000 is a technological wonder. Its features are much more sophisticated than the other SLRs. The big question is whether or not autofocus will become the accepted mode for the pro photographer.

The skin-touch focus and the focus-priority AF of the Maxxum 9000 are outstanding features, especially for use in sports and fast-action shots. We were amazed at how quickly and accurately the camera came to bear on the subject.

The controls are positioned comfortably with the exception of the rewind knob. We felt its design is unique, but not very practical. Of the five cameras tested, this rewind was the most difficult to use.

The exposure system is extremely accurate, and allowed us a lot of options with the spot meter. The liquid crystal display dial was very well organized and allowed quick decisions to be made.

Minolta's Professional Services Division is open to any pro who uses the Maxxum 9000, and offers quick 1-3-day repair and loan of special lenses to members, currently around 300. List price for the Maxxum 9000 body is \$821 at this writing. □

NIKON F3HP

For the professional photographer who wants a rugged, high-quality camera that can be configured with an remarkable amount of accessories, then the Nikon F3 is the answer. The F3 comes from a long line of professional cameras dating back to 1959 with the introduction of the Nikon F camera.

The first change from previous Nikons is the addition of the body grip, allowing the camera to be held in comfort while your finger gently rests on the shutter control. Depressing the shutter button will activate the camera meter circuitry.

The shutter speeds are displayed with a liquid crystal display inside the viewing system. To the left of the shutter is the shutter speed dial which includes shutter speeds from 8 seconds to $\frac{1}{2000}$ for manual exposure, X sync, time exposure, and "A" for automatic aperture-priority exposure control.

A small lever on the front right edge of the camera allows for double exposures. Simply swing the lever out once, and then move the advance lever. The shutter is reset, but the film does not move. This device is very handy for making multi-image photographs on devices such as the Wess Mount Grouper.

At the center of the camera you will find the finder system that accommodates six different professional finders, including action, high-magnification, waist-level, and a high-eyepoint finder that allows viewing up to one inch away from the camera. The user also has the option of using over 20 different types of focusing screens.

The left side of the camera houses the rewind knob and the ISO dial. To change the ISO (range 12 to 6400), simply lift the dial up, turn to the proper value, and release. Just to the right of the ISO dial you will find a \pm lever which is used for correcting special lighting situations.

On the front of the F3 you will find



a combination exposure-lock button and mechanical release lever. The exposure lock allows the photographer to meter a specific area, depress the button to hold the exposure, and then reframe the scene using the exposure taken from metered area.

The mechanical release lever en-

sures minimum operation even if batteries die. The flash contacts for Nikon TTL flash are located around the rewind knob. If you desire a different brand TTL flash, a special adapter can be purchased for use on the F3. Normal flash sync can be also achieved with any flash connected to the standard PC flash contact found on the front of the F3.

The camera is powered by two small 1.5V silver-oxide batteries, unless the MD-4 motor drive is attached; then the power is taken from that battery pack. This type of setup would be recommended for the cold weather photographer when the smaller batteries might be likely to fail.

The MD-4 motor drive is a very simple and yet very professional addition to the F3 camera. With standard batteries, 3-4 fps can be achieved, while a NiCd pack can reach 6 fps. A small window on the back displays the number of frames left on the roll. The counter can also be set so the motor drive stops after an indicated number of exposures.

The F3's 59 lenses cover the full gamut of professional photography from 6mm fisheye to 2000mm telephoto, and the vast system of accessories



includes a variety of data backs, flash units, close-up equipment, radio controls, and intervalometers.

The Nikon F3HP is truly a professional 35mm camera. Ruggedness and professional service come to mind when we think of this camera. We have used the F3 in a variety of situations from aerial work to open-heart surgery with no misgivings. It's true that this tank of a camera lacks a lot of the fancy gadgets the other four cameras possess, but we found our-

selves using all the controls on the camera, something we couldn't say for the other four cameras. For the photographer who needs those extras, you can select the feature and then add it to your system.

Camera batteries can make or break a professional shot, and that's why we like the idea of the motor drive taking over the camera batteries' obligation using its own eight AA batteries or NiCd pack. The Nikon Professional Service is great, with its fast turn-

around for NPS cardholders needing camera repair or special types of Nikon equipment.

All good things have drawbacks, and the F3 is no exception. The price for quality (\$1215 for the body alone) is hefty, but what can you do? We suggest that if you decide Nikon, buy one F3, and when you need a backup camera, pick up an FM2 mechanical camera body, or, if you like autofocus, try the N2020. Both work great as companions to an F3. □

OLYMPUS OM-4T

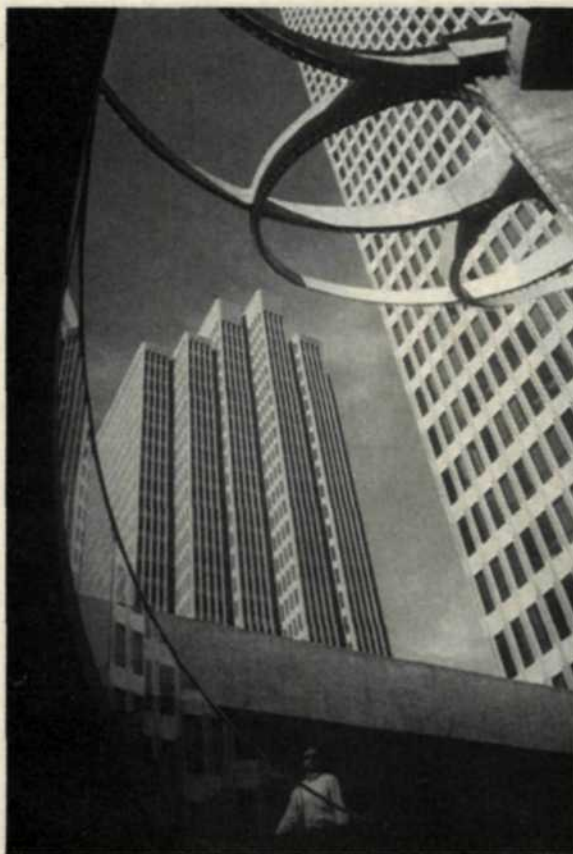
If size and weight are your concern in a camera, then the OM-4T might just be your answer. Of the five cameras reviewed, this camera is definitely the most compact, while not sacrificing dazzling features.

The controls on the top are relatively simple, yet do a lot. On the right you will find the shutter release. As with most of the cameras, the meter turns on when the button is depressed halfway, except that with this camera, the meter remains on for a minimum of two minutes.

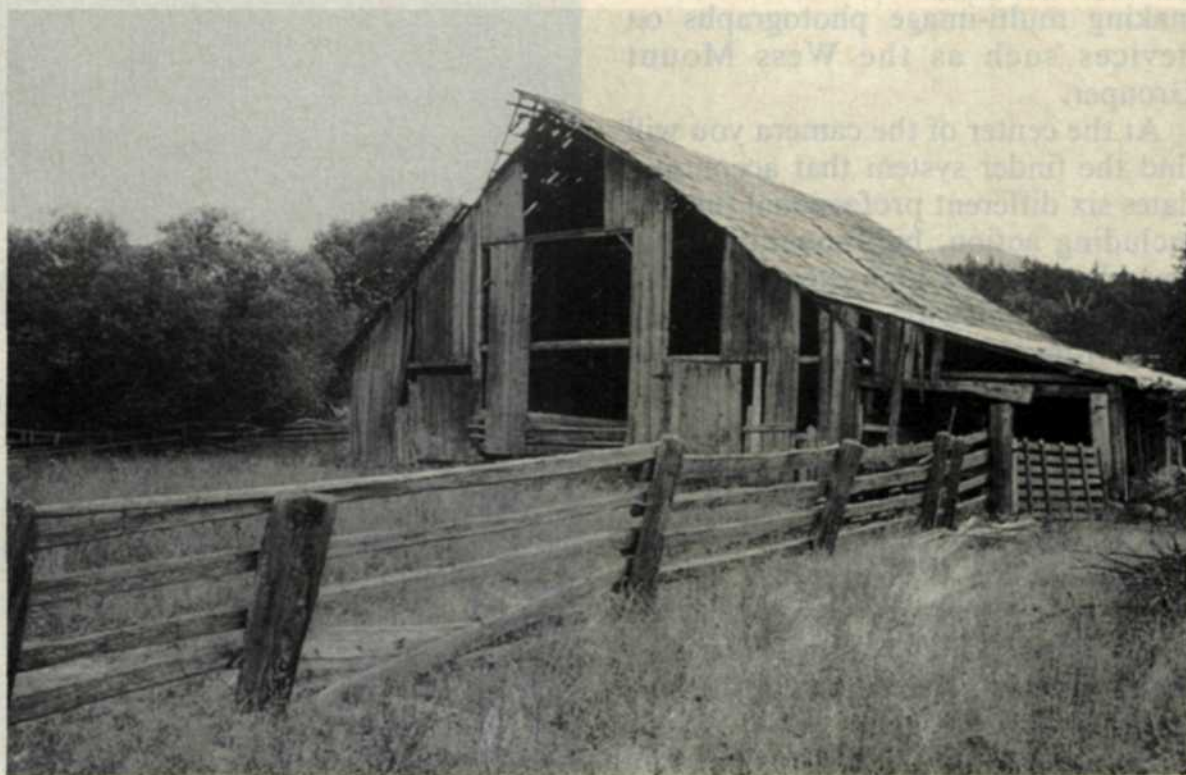
Just to the left is the multifunction meter control. If you put the camera in autoexposure and skip the spot meter functions, an average meter exposure will result. Depressing the spot meter button will take a spot meter reading of an area approximately the size of the split image device. Depressing the shutter button will use the spot meter reading as the main exposure. The next exposure will revert to an average meter reading unless the small lever on the side of the shutter release is used. This lever locks the exposure in memory for the remaining exposures, until it is cleared from memory by reversing the lever. When you have an exposure in memory, the camera will blink a small red light every few seconds to remind you that the camera is using a memorized exposure setting.

This type of meter function lends itself to situations where the light is constantly changing, and you don't want to have to re-meter each shot. A good example is when you are photographing people backlit by the sun. You would first spot-meter on the face, save that to memory, and use that exposure for the remaining shots. The camera would ignore the changing intensities of backlight, and use the basic spot reading saved in memory.

If you want to bias the spot meter to



read a white area, depress the highlight button. The same goes for exposing for dark areas; simply depress the shadow button after taking the spot meter reading. Up to eight different spot readings can be taken, averaged, and kept in memory—an amazing feat for any camera.



Around the rewind lever on the left side of the camera you will find the ISO dial and a three-position lever for battery check and manual/autoexposure control. After setting the ISO to the correct value, ± 2 stops compensation can be made with the exposure correction dial. TTL and normal flash sync can be achieved through the hotshoe on the top and the sync connector on the front of the camera.

The shutter-speed dial is located on the front of the camera and ranges from 1 second to $1/2000$, plus a B setting and the all-important mechanical $1/60$ setting for battery failures.

On most of the normal Olympus OM lenses, the aperture control is near the front of the lens. For those photographers used to other cameras, this new position for aperture rings may take some getting used to.

The OM-4T provides a choice of the Winder 2 or Motor Drive 2 to capture those action scenes. The Winder 2 allows up to 2.5 fps in single or continuous mode. The Motor Drive 2 allows up to 5 fps plus the possible addition of a 250-exposure back.

Accessories for the OM-4T include

ALL PHOTOS BY THE AUTHORS

14 different focusing screens, 43 lenses from 8mm fisheye to 1000mm telephoto, an extensive photomicrography group, complete macro lens and flash systems, and an incredible amount of other accessories.

One of the most impressive and innovative accessories for the OM-4T is the F280 flash. This incredible flash allows the photographer to take flash pictures at shutter speeds from $\frac{1}{25}$ to $\frac{1}{2000}$. This is accomplished by increasing the length of flash duration from one millisecond to 40 milliseconds. This means the photographer is able to take flash-fill pictures at very high

speed in bright backlit situations, without getting blurred background images. This makes flash-fill action photography a reality.

The Olympus OM-4T is a dream when it comes to metering systems. Its spot meter will easily compare to the most expensive handheld spot meters. Even the most complex lighting situations can be broken down into as many as eight different spot readings, if necessary, and then all averaged. We thoroughly enjoyed the meter memory function, for those situations where one extremely accurate reading is all you need for an entire shooting ses-

sion. Rarely did we find bracketing exposures necessary.

A nice feature of the OM-4T that is not well known is the moisture seals found throughout the camera. Many times we accomplished shoots in the rain with no adverse effect on the camera. The Winder 2 for the OM-4T is very compact like the camera, inexpensive, and lightweight.

Olympus offers a pro service called the VIP Group, with membership open to Olympus-using pros who can provide tear sheets or other pro references of their work. List price of the OM-4T body is \$910. □

PENTAX LX

If you're looking for a camera that has the advantages of electronic shutter control, but still has an extended range of mechanical shutter speeds, the LX should be considered. The body is extremely compact, like that of the Olympus OM-4T, but the Pentax is much heavier. Pressing down on the shutter release turns on the meter system and activates the LED display inside the viewfinder system.

Manual electronic shutter speeds from 4 seconds to $\frac{1}{2000}$ are easily visible on the shutter-speed dial. When you turn the dial to autoexposure the dial locks into place and cannot be turned unless the release button is depressed. The autoexposure range is a stepless shutter from 125 seconds to $\frac{1}{2000}$. If the batteries die, the Pentax LX can still operate on mechanical shutter speeds from about $\frac{1}{75}$ to $\frac{1}{2000}$.

On the left side of the camera you will find the ISO dial with a range of 6-3200, and it includes a ± 2 -stop exposure correction. Instead of having the +2 marking common to other cameras, the Pentax reads 4X, which is essentially the same but takes some time to get used to.

The Pentax LX system has an impressive group of eight viewfinders, including three different eye-level, one magnifier, a system finder, an action eyepiece, a magnified eyepiece, and the waist-level finder. In addition, there are 12 different focusing screens to accommodate every possible situation.

The unique feature of the Pentax LX camera is "Random Access Multiple Exposure." Once your film is loaded, you can go backwards and forwards, and make multiple exposures after the fact. For example, suppose you take an early evening shot of a cityscape on frames 11, 12, and 13, and you remember that there was an



open dark area in the upper right portion of the sky. Late at night you find it's a full moon, but you are now on frame 25. Simply push the rewind button in and turn the crank until you are on frame 7 or 8. Place the lens cap over the lens, set the camera at a high manual shutter speed, and advance the film until you are at frame 11. Take the lens cap off, and make the exposures. It works great—perfect registration every time. Make sure you re-advance the film to frame 26 with the lens cap on, so you don't double expose the whole roll.

The motor drive LX is a welcome addition to the LX system. The back controls consist of a twin dial that includes single, and continuous exposure on the outside dial and a high/low speed dial on the inside allowing .5-5 frames per second.

More than 40 lenses, from 15mm wide-angle to 2000mm telephoto, allow the photographer the tools necessary to capture any situation. Over 200 other accessories include macro and micro equipment, flash systems,

slide copiers, copy stands, fine-focus adjusters, and much more.

Using the Pentax LX is like using two cameras in one with both electronic shutter, and the mechanical backup. The autoexposure range of $\frac{1}{2000}$ down to 125 seconds was impressive, especially for those long time exposures. When you add the motor drive, the LX has the look and feel of a pro camera, and certainly worked as well.

The random access control was a little hard to believe, until we ran a series of tests in our studio. After removing the lens we placed the shutter on B and pressed the release. After the shutter opened we marked each frame outline with a marking pen on the film frame. (Don't try this at home with your camera, as warranties may not cover this type of camera use.) After marking various numbered frame edges we rolled the film back to the third or fourth frame and advanced the film on B watching the film go by. It lined up every time.

The special finders for the LX are great, especially the super-bright sports-finders. The variable-speed motor drive is somewhat different, although we're not sure how important this feature would be to most professional photographers. List price for the LX body is \$1137.50.

FINAL WORDS

There are several questions to ask yourself before buying a new camera. One important one is, "Which camera feels most comfortable?" This should include the grip, location of the controls as well as their legibility, and ease of operation. Of course the ultimate question is, "How much can you spend on a professional camera?" The price tag of the camera may be justified depending on its versatility, ruggedness, special features, and track record as a professional camera. You can't go wrong with any of these top-name cameras, so give it a shot. ■