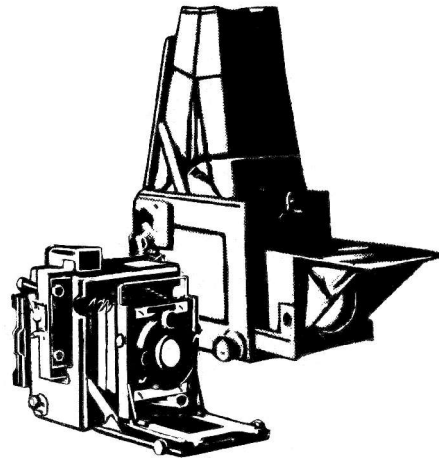


GRAFLEX HISTORIC QUARTERLY

Since 1996



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FIRST QUARTER 2008

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U. S. Navy Photography Part I

By
Ken Metcalf

With
Art Giberson

Unlike other service branches, naval photography has been documented in a fine book, *Eyes of the Fleet*, by Art Giberson. Mr. Giberson, a retired Chief Photographer's Mate, had the incentive and resources to tell the Navy story. As with

prior articles, this article excludes aerial cameras, while focusing on hand-held cameras, and draws heavily, with permission, from Mr. Giberson's book.

Although the first photographs of the Navy are credited to Matthew Brady, who in 1862 exposed wet plates in photographing a small group of officers and men on the Federal Ironclad Monitor, very little use of photography was made by the Navy until after the turn of the century and the advent of photographic dry plates.¹

Official naval photography started very unofficially in 1914, when the USS Mississippi dropped anchor at a former Navy shipyard in Pensacola, Florida. While others surveyed the shoreline, off-duty cook Walter Leroy Richardson, an amateur photographer, took pictures. The Navy's mission was to establish their first Naval Aeronautic Station. Because of his mechanical skills, Richardson was soon transferred to shore duty and assigned full-time (though no Navy photographer rating yet existed) as a photographer. He set up a crude photo lab and was issued two 5x7 Speed Graphics and a 5x7 Press Graflex.

Mr. Giberson found that Richardson, in addition to his expanding photographic duties, was also tasked with testing photographic equipment submitted to the Navy by a variety of inventors and manufacturers. It is also recorded that because an aerial camera he was testing was not ready, Mr. Richardson used a 5x7 Speed Graphic ("He locked the lensboard on infinity and placed cigar-box boards around the bellows of the camera for protection against the wind.") for aerial shots.



"In 1915 W.L. Richardson made the first U.S. Naval aerial photographs at Pensacola, FL, while flying in a Curtiss single engine open seat seaplane with a 5" x 7" dry plate 'Graflex' type camera, with LT Johnson, Naval aviator, as pilot of the aircraft."¹ This widely circulated photo of an AH-14 appears to be of Richardson and Johnson.

According to Mr. Giberson, many amateur photographers were concurrently working as unofficial "ship's photographers," throughout the fleet. "These private picture businesses continued until early 1918 when the Navy Department started furnishing Kodak cameras ... for all ships and stations."² One "camera party" (a group of specialized photographers), in 1920 on the USS Lebanon, "had several Eastman 3A Kodak cameras 3¼ x 5½, postcard picture size, one photo copy camera 6½ x 8½ and two view cameras 6½ x 8½, also two R.B. Graflex 4 x 5 cameras and one Graflex 5 x 7 camera."¹

A Navy Bureau of Ordnance program was started in 1915 to photograph splashes of fall-of-shot during fleet gunnery exercises. "The first formal naval camera party was organized in 1916 under the Office of the Director of Gunnery Exercises and Engineering Performances in the Navy Department, Washington, DC.

"The Triangulation Camera units used by this camera party were a battery of two still cameras mounted on top of each other, thus producing two 9" x 3" overlapping photographs of the target area. The Triangulation Cameras were among the first, if not the first, large camera picture size in the Navy to use roll film which was specially manufactured and spooled by the Eastman Kodak Company for the U.S. Naval Bureau of Ordnance."¹ Although not specified in the Graflex serial number book, ordnance-named cameras were being made (some for

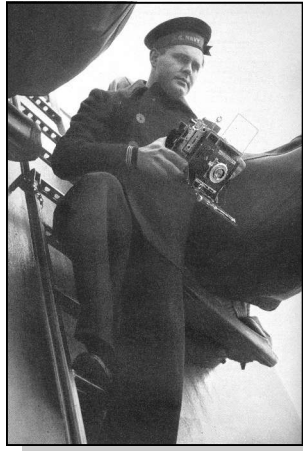
the Army, GHQ, Vol. 11, Issue 2) by Graflex. I have, however, found no evidence that this camera was made by Graflex, although reference is made to the use of 4x5 Graflex cameras for "short range gunnery exercises." Later, fall-of-shot pictures were done with aerial cameras.

World War I suspended many areas of interservice rivalry, thus in 1917, newly promoted Aviation Machinist's Mate First Class Richardson was sent to the newly established Army Aerial Photography School at Langley Field, Virginia. Immediately after graduation, he was sent to the Naval Observatory in Washington, D.C., to establish a Photographic Section. Soon afterward, and as an Ensign, he opened the Naval School of Aerial Photography in Miami, Florida. "The cameras used in this photographic school were 4 x 5 Graflex[es] with 12-plate magazines, 6½ x 8½ view cameras with holders carrying two plates each, and a 4 x 5 handheld F&S aerial camera with a 12-plate magazine."¹ The first rank designation was Printer (Aviation). Mr. Giberson says that in 1918 for one to obtain a photograph, it had to be "printed," thus the few people designated as photographers were simply called aviation printers. To the Graflex person, this type of logic is typically explained as The Graflex Way!

Mr. Giberson records that Ensign Richardson, in 1918, returned to Pensacola, which was using Army training manuals, to oversee the preparation of a Navy photo manual for their schoolhouse use, by Lyman Goodnight and J. N. Giridlian. However, the first honest-to-goodness fleet-wide Navy photo training manual (in two volumes) was not printed until 1944, and it was printed through 1953. As an example, in the 1952 edition, the "Speed Graphic," the "R.B. Series D" and the "R.B. Super D" are shown and described without the generic description or nomenclature typical of Signal Corps manuals. The Anniversary Speed Graphic is shown, but not the then current Pacemaker model. In addition the Navy depended heavily on private industry to teach photographers what they needed to know.

Interestingly, in 1942 the Navy prepared a 56-page "non-technical manual" (Commence Shoot-

ing!) on war photography (“Restricted”) with the “collaboration” of the editors of Life Magazine and the March of Time Newsreel. One of its goals was to “guide those photographers who have not had the benefit of specialized schooling in pictorial journalism.” Only Graflex still cameras were shown, and one (an adaptation of the earlier ringside camera) was rarely used.



Nomenclature. Unlike the Army Signal Corps, the Navy did not develop, except in a few cases, a structure where camera specifications were created, and various manufacturers bid for contracts. The Navy used a system consisting of a class number and stock letter, probably until 1991, when the Joint Photographic Type Designation System was started.

“In December 1919...a photographic laboratory was the first to be established in the Navy Department building on Constitution Avenue in Washington, DC. This laboratory contained the necessary rooms and facilities and equipment for ground cameras still photography, aerial cameras, laboratory copy cameras, 35mm motion picture cameras, printing-developing equipment, and necessary operating supplies.

The camera ... equipment available in this Navy Department laboratory was as follows:

- One R.B. Graflex Camera 4 x 5
- One Camera 3-1/4 x 5-1/2. 3A Special Kodak [probably an Eastman camera]
- One Camera Circuit Outfit No. 8 [by Graflex]
- One Camera View, 6-1/2 x 8-1/2
- Several Aerial Cameras ... and the F&S 4 x 5 Type
- One R.B. Enlarging Camera 8 x 10 [Probably Graflex]
- One Circuit printing frame 8" x 6 feet [some

non-Graflex equipment excluded]”¹

A second photography school, primarily for aerial photography, was established in 1920 at Anacostia, Virginia. “The camera equipment available in the first class ... was: Folmer & Schwing (F&S) 4 x 5 hand-held aerial cameras, two or three roll film experimental aerial mapping cameras, view camera 6-1/2" x 8-1/2" plate size, telescopic Graflex 4 x 5...”¹ The school was relocated to Pensacola in 1924.

In a memorandum dated 1920, a 4x5 Graflex was listed as part of the equipment for a Marine expeditionary force.

In 1921 Navy photographers finally received a rating and insignia of their own (see top of article). Also in this year, the photographic rating was moved from aviation to general service.



Navy Publicity Office photographers on assignment in New York City, holding 4x5 R. B. Tele Graflex cameras, c. 1921-1922.

¹Eyes of the Navy, A History of Naval Photography, by George Carroll, LCDR, USN (Ret.). An unpublished manuscript.

²Eyes of the Fleet, a History of Naval Photography, by Art Giberson.

FOR SALE

- 3 Heiland solenoids and 2 Graflex solenoids
- 5 45a flashgun reflectors
- 6 45b flashgun reflectors (for no. 5 bulbs)
- 4 old style reflectors (for no. 5 bulbs)
- 5 flat pan type reflectors for Heiland guns
- 16 4x5 film holders
- Several lenses & other equipment (call for list)

Morey Engle (303) 322-4928



Bill Folmer's Lunchbox

Copyright 2008 Les Newcomer

Two of these odd boxes have passed through the portals of eBay in the last 10 years, and I managed to not let this one get by. Once in my hands, the mystery only grew, and I'm calling on [GHQ](#) subscribers to help me solve the mystery of what it was used for.

The clues are these:

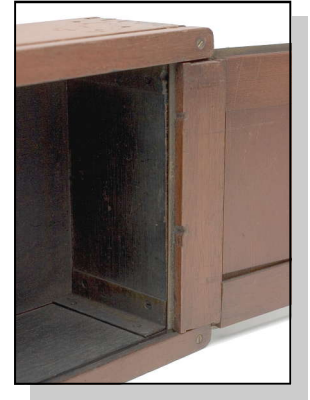
Stamped into one side is
"Manufactured by Eastman Kodak Company
Successor to the Folmer & Schwing Co.
Rochester, New York"

The *successor* to moniker lasted a very short time. Found mostly on plate magazines, the term was used for less than a year in 1906-07 when George Eastman moved the separate companies of Folmer & Schwing Co. and Century Camera Co. under the yellow umbrella, where they became internally known as the Folmer-Century Division and outwardly as the Folmer & Schwing Division. So I'm pretty certain that this box was made in 1906-07.

The dimensions of the box are the same as a Graflex plate holder, and the similarity of this box and a plate magazine is unmistakable. See lunchbox and mag bag above. The grooves on the long side of the box closely resemble the grooves on a Graflex holder, but they seem to be a bit farther back. The dark slide is unique in the Graflex world. First off, it's trapped; it cannot come out of the box. And while its parquetry design resembles more of an English plate holder than a Graflex item, I suspect the reason for the multi-piece wood dark slide is its ability to wrap around the box, and from the ghost markings, there was a latch to lock in that position.

This unique dark slide sits flush with the front of the box, which means the normal Graflex style light trap doesn't exist.

The interior is painted black, convincing me that, despite the title of the article, this box needed to hold something light sensitive. While the box is made with sturdy finger joints, the interior corners are further reinforced with brass. Did these corners protect the finger joints from gouging glass plates, or were they there to keep the glass plates from rubbing the sides of the box?



Now for the confusing, confounding conclusions.

The box shows wear. Not just shelf-wear, but use-wear, meaning whatever it did, it worked. The grooves suggest it attached to a camera, maybe not a regular camera, but a camera nonetheless.



Lunchbox in open position.

The wraparound dark slide leads me to the possibility that this was used in the air, where a normal dark slide could get lost or broken by the slipstream to catastrophic consequences. While it looks like a bag mag, there's no bag! Nor was there ever a provision for a bag, which means that while you may have a dozen plates in the box, there was no way to shuffle them.

The unique dark slide creates a unique feature: once completely open, there's nothing to stop the plates from falling out! On a bag mag, the frame is slightly smaller than the septums, and the rear spring keeps the plate flush with this frame. With this box, there's no evidence of a spring, because if there was one, as soon as you opened the dark slide, the plates would jump out like some spring coiled snake in a fake peanut can!

So we've got an Edwardian era Graflex plate box in which you can't shuffle the plates nor can you keep them in register. Your suggestions and ideas on this enigmatic lunchbox are most welcome. LNPhoto@twmi.rr.com





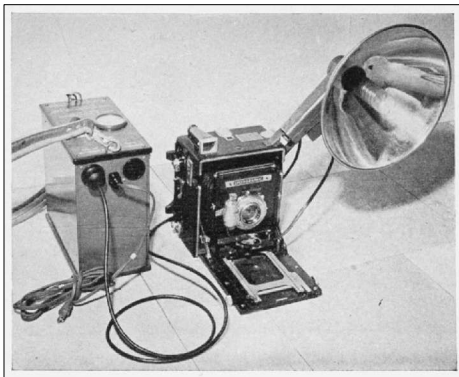
GRAFACTS....

Strobo Research/Graflex and the Electronic Flash

Copyright William E. Inman, Sr.

The father of the electronic flash was Harold Eugene Edgerton. He received his B.S. in electronic engineering in 1925. In 1926 he entered MIT and began his studies of the strobe light, receiving a masters and a doctors degree and later becoming a faculty member. In 1931 he developed and perfected ultra-high speed and still motion photography and did pioneering work with an electronic stroboscope. In 1933 he applied for a patent for an "electric system" which was granted in 1949 and licensed by his company (EG & G) to Graflex in 1955, presumably for key elements of the Strobo Research electronic flash.

Edgerton tried unsuccessfully in 1938 to sell the concept of the electronic flash to major U.S. camera manufacturers, but only the press corps seemed to be interested in this new concept.



Eastman Kodak eventually came around in 1940 and, with the help of Edgerton, produced the Kodatron Speedlamp studio electronic flash, based on Edgerton patents. Later, Kodak also produced a 16-pound battery powered "portable" electronic flash unit to be used with a 4x5 Anniversary Speed Graphic.

Others interested at the same time in this new medium were Edward Farber, Frank Scherschel and Egon Grim of the Milwaukee Journal. Farber in 1941 designed the first portable battery powered electronic flash, weighing only 13½ pounds. After 1940 electronic flash photos of sports events were regularly published in major newspapers. Leading the way was the Milwaukee Journal.

Strobo Research was founded in 1945 to manufacture electronic flashes. Many major newspapers throughout the U.S.

adopted these electronic flash units, along with some major corporations, because of their versatility for auditorium pictures, athletic events, banquets and commercial photography. As the uses of electronic flash grew, the photo industry began to recognize their value.



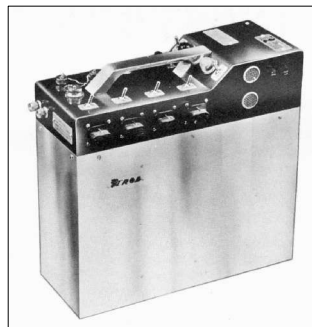
Monostrob II

Farber (of Strobo Research) and his staff designed three AC current studio electronic flash units. The first was a five-pound, self-contained 110-watt-second unit called a Monostrob II, which was sold with various attachments, a big improvement over traditional flashbulbs.

Strob III



The second was the Strob III, a 200-watt-second unit with three GE Sealed Beam Flash Lamps with C-clamps, and used a 20-foot lamp cord. The power pack weighed 18 pounds. Each seal beam unit with cord and C-clamp weighed five pounds.



Multistrob II

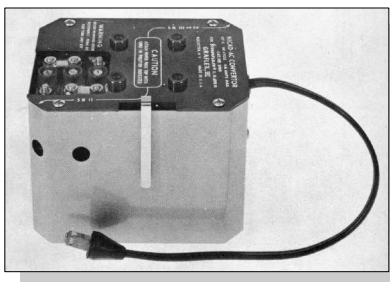
The third was the Multistrob II, a 1,000-watt-second unit that had four high voltage lamp outlets. As with the Strob III, this unit could use 20-inch reflectors mounted on dolly stands. The power pack alone weighed 70 pounds and had its own dolly.

In 1947 Stobo Research introduced the Strobflash II (a 100-watt-second, 7-pound 8-ounce light portable battery powered unit). It was an improved model of the original 13½-pound Strobflash, and it was extremely popular with the press.



1953 saw the introduction of the Strobflash III, a 200-watt-second, 9-pound 4-ounce portable battery powered unit, a larger version of the Strobflash II. In 1954 the Strobflash I, a light-weight 50-watt-second battery powered unit was produced in Milwaukee for Graflex.

At least as early as 1948, Graflex was the sales agent (along with Stobo Research as a distributor in three states) for a portable Dormitzer brand “strob light” called the Synctron, which was operable both from AC current and from self-contained batteries. Graflex recognized the need to have a full line of electronic flash units to complement the camera line, so they purchased Stobo Research in 1954, moving production to Rochester in 1955. The Strobflash I, II and III, along with the Monostrob II, Multistrob II, Strob III and Teleflash (see [GHQ](#) Volume 12, Issue 3), were first listed as Graflex products in the January 1955 Dealer Price List and the February 1955 issue of [Trade Notes](#). In 1956 Graflex introduced the Strobflash IV, with a 4-way Power Selector, which made it an improved version of the Strobflash III.



AC Battery Pack

In late 1956, Graflex introduced an AC Battery Pack for the Strobflash II, III and IV, which allowed the flash to run on AC current. Graflex cautioned that “It is not intended as a complete replacement for dry batteries, but is an optional power supply and will be useful to those who might not use all of the potential number of flashes in a set of dry batteries before they reach their normal expiration date.” The same year Graflex sold the Strob studio lighting line to Scheibe Engineering Inc. in Burlington, Wisconsin.

Model	Watt-Seconds	Guide No. (ASA 400)	Power Pack Weight	Price When First Sold
I	50	175	3 pounds 2 oz.	\$105.00
II	100	240	7 pounds 8 oz.	\$135.00
III	200	N.A	9 pounds 4 oz.	\$180.00
IV	50-200	165-330	9 pounds 8 oz.	\$186.00

The Strobflash I was dropped from the line in 1959, reinstated in 1961 and discontinued in 1970; the Strobflash II in 1970 (except for GSA); the Strobflash III in 1956; and the Strobflash IV in 1973.

References: Stobo Research data sheets; Graflex [Trade Notes](#) February and May 1955; 1955 Graflex Dealer’s Price List; The Lemelson Center (Internet) - Harold Edgerton and Edward Farber biographies; Kodak Studio Light-Centennial Issue (1980 Kodatron electronic flash unit); [Graphic Graflex Photography](#) 5th edition, 1943 (Speedlamp; Photography); and [Strobe the Lively Light](#) 1st and 2nd editions, 1949 and 1954 by Howard Luray.



[Trade Notes](#), November 1956. “Here is an important announcement of interest to every owner and future owner of a Strobflash I electronic flash unit. The new Strobflash I Belt Holster is a needed accessory for every photographer desiring a new, convenient method of carrying the highly portable Strobflash I.” Oh, really?

Tim Holden ...

[Due to declining health, Tim Holden is unable to directly help the Quarterly with Graflex questions. Fortunately, we have a number of correspondences from Tim. The following letter to Mike Hanemann relates to 35mm cameras sold by Graflex.]



The Graphic 35 Electric is a camera similar to the Kodak Retina Reflex and was made from 1959 to 1963.

All during the 50s and early 60s, we were courted by many German manufacturers to market cameras they would produce for us. I even have a very nice simple but good camera with the name "Adox." Yep, the film maker! Along came Mr. Wilhelm Witt, with a camera with an electric motor drive and interchangeable lenses, wide angle, normal and telephoto, all in complete cell fitting into the front of a Compur shutter. He would give us first bid if we would go for and order something like 10,000 units. This followed our disastrous experience with the Jet, and we were cautious. He then scaled his offer down, but wanted us to finance the whole undertaking, which included the tooling and production, with a few more strings as I recall. Unfortunately, I am the only one left who was involved in the discussions. Mr. Witt was a very persuasive salesman, as, I have observed, are all German engineers. However, we did not buy his package, and he was willing to let us act as a non-exclusive distributor and took off to find another source of sales. Oh yes, along the line we discovered that Mr. Witt's company was Illoca, which had more or less been forced out of the market by the competition, mostly from Japan. After a while, Mr. Witt returned to Graflex, with other offers, all of which involved more of a financial commitment than we were willing to make. Finally, he agreed to a minimum order of a few hundred cameras, as I recall, and he accepted it, since he had found no other takers.

When the cameras started to arrive, they were put through our rigorous inspection, and it was found that corrections and adjustments were necessary. All well and good, but the motors were not all that good, and AA batteries 45+ years ago were also poor, rarely supplying even 5 amps for very long. Worse, the camera had no means for manually advancing the film. Just because the camera worked when we shipped it,

there was no assurance that it would continue to work. We had only one man who seemed to be able to diagnose the problem and fix it quickly. Another blow for Graflex-supplied 35mm cameras!

During this time, H.A. Schumacher, our sparkplug V.P of Sales and Advertising, had left, General Precision Equipment had bought us out, and major decisions were made by G.C. Whitaker, who was not too good at it. Unfortunately, he also had a firm belief that the future of Graflex lay in the 4x5 camera, in addition to the audiovisual field in which we were very deeply involved.



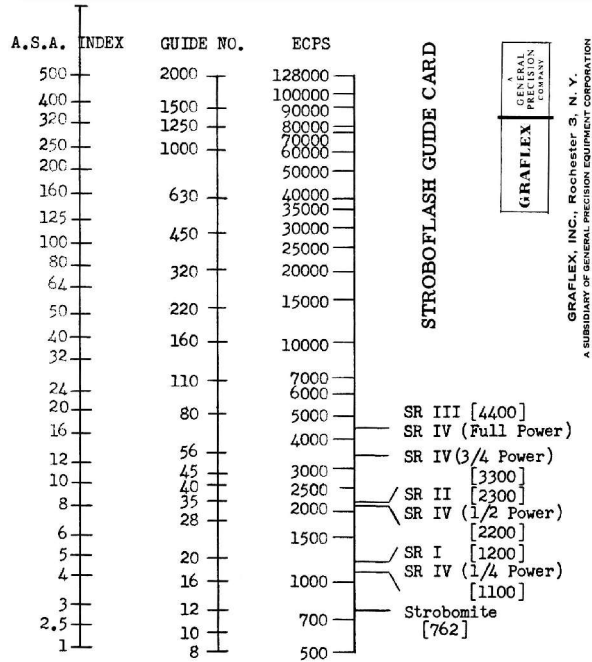
The Graphic Jet was a CO2, and later manual powered, camera sold from 1961 to 1962.

The Graphic 35 Jet was conceived as "an international camera" by our good president, G.C. Whitaker, son of N.L. Whitaker, who had revived Graflex after taking it over from W.F. Folmer and Colonel Stevens and their backers in 1928.

We had been doing business in a big way with Kowa of Japan, with a whole line of really good 35mm cameras, to which we gave the name "Century." Graflex was to design the camera, Kowa was to build it, and Metrowatt of Germany was to supply the exposure meter. I wasn't directly connected to the project except to find the gas cartridges, etc. Graflex was to design and make the "Jet" motor drive. Somewhere along the way, changes deemed necessary for the motor drive, necessitated changing some of the internal dimensions, and somehow that revision did not get passed on to Kowa, and as a result, the parts did not work too well when assembled in Rochester. The upshot was that our very good relationship with Kowa deteriorated, and the whole thing was a mess. Complicating all of this was the fact that after the little Seltzer charger had been pierced, the pressure in the motor could not be maintained because some special "O" rings were needed, and all that we could find at the time were made of a material which deteriorated. They were not impervious to the CO2 gas, and they leaked. So much for the motor! The camera also lacked lens interchangeability, which was becoming a necessity. I think that only two manufacturing jobs were run on this camera.

Graflex Historic Quarterly

The Quarterly is dedicated to enriching the study of the Graflex company, its history, and products. It is published by and for hobbyists, and is not a for-profit publication. Other photographic groups may reprint material provided credit is given GHQ and the author. We would appreciate a copy of the reprint.



STROBFLASH GUIDE NUMBER CHART

The Strobflash Guide Number Chart provides a handy method of determining guide numbers to be used with various Strobflash units. To use, determine ASA Exposure Index for the film you are using.

Lay a ruler across this point and the point on the chart indicated for the flash unit you are using. Read the guide number off the appropriate point where the ruler crosses the center line. For example, if the film speed is 32 and your unit is a Strobflash I which provides a light output of 1200 ECPS, the ruler should cross the center line a little below 56. Your guide number would be 48.

Other ECPS numbers are provided so that guide numbers for other electronic units may be computed.

These numbers should be used as a guide only, since many variables, including processing conditions, surroundings and the photographer's individual preference for type of negative or transparency, will bear greatly upon the guide number preferred by each individual photographer.

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