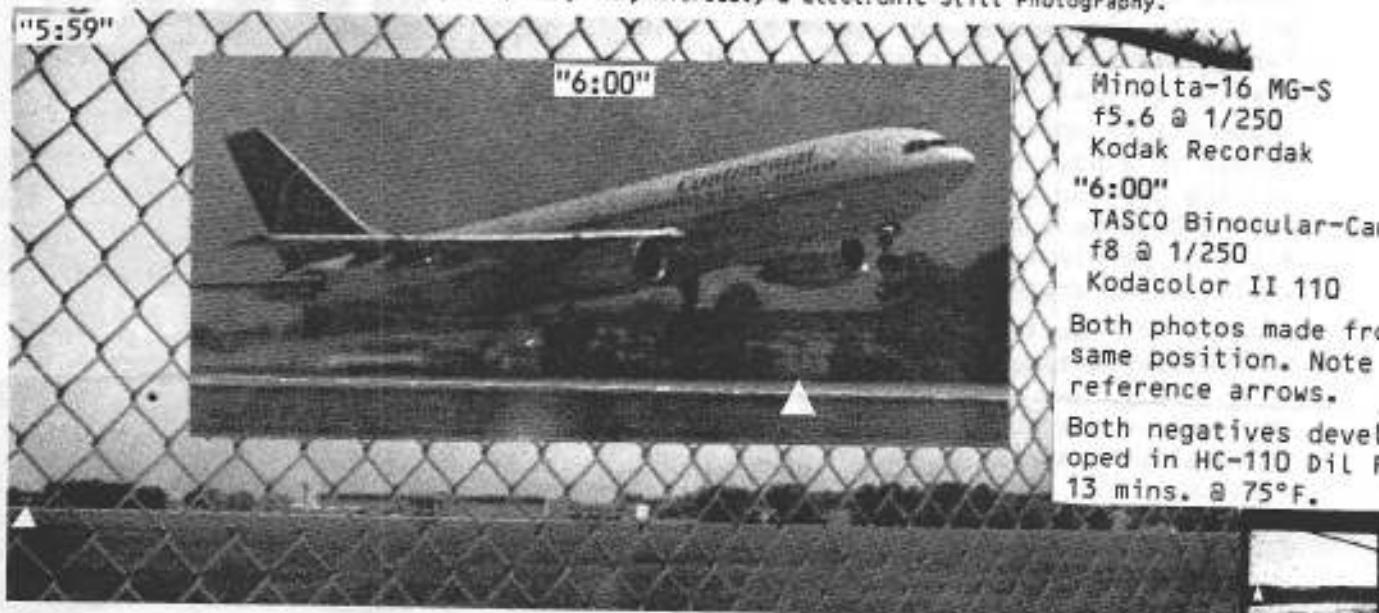


THE SUBMINIATURE TIMES

The Subminiature Times is published monthly by Doylejet, P.O. Box 60311, Houston, TX. 77205 (713) 443-3409
Supporting 110, 16mm, 9.5mm, 8mm, 4mm, 1mm, Microdot, & Electronic Still Photography.



Minolta-16 MG-S
f5.6 @ 1/250
Kodak Recordak

"6:00"
TASCO Binocular-Cam
f8 @ 1/250
Kodacolor II 110

Both photos made from
same position. Note
reference arrows.

Both negatives devel-
oped in HC-110 Dil F.
13 mins. @ 75°F.

110 B&W

"Respooling takes time and talent. Cross-developing is more convenient." Reader response to newsletter #39.

It seems that the fastest way to get a set of black and white prints from your 110 camera is to load color print film, process it in a black and white developer, and print on Kodak Panalure paper.

The so called 'gray market' Canadian 110-24 Kodacolor II advertised in "Shutterbug" is so cheap now, (50¢ a cassette) that you can overlook the expense of adding Panalure to your darkroom (approx. \$17 for 25 sheets 8 x 10"). You can't get complacent once you've learned to make your black and white prints, however. Kodak discontinued Panalure II RC paper and is replacing it with Panalure Select RC. According to the data sheet it has "Better black-and-white tone reproduction, increased sharpness, availability in 3 contrast grades, and better storage stability."

What this means to the long suffering 110 camera owner is that all of your printing times are going to change when you switch over to the new paper.. "An 80-percent increase in exposure with contrast grade H". Or use contrast grade M for negatives of higher contrast with no exposure adjustment."

For serious work you'll want to buy all three contrast grades. For hobbyists, the outlook is rosy. Our guess is that even as you read this, tons of Panalure II RC are making their way to the surplus market, and if you just want some B & W paper to play with, this is it. The price will continue to go down.

We have some II RC stock stored unrefrigerated, and from time to time we'll make a print to keep you posted on its condition. Odds are, any II RC you buy will be in better shape, as summertime temperatures here in Texas get pretty fierce.

Life would be simpler if they'd just supply us with a good 110 B & W film at a decent price, but cross-developing would still be less expensive.

The Kodacolor II film used to make the inset print above was dated 4/83. The Panalure II RC paper was purchased 10/91. The total cost for the single frame and 4 x 5" print was 19¢.

THIS LITTLE 110 CAMERA.

The Tasco may be the most misunderstood binocular-camera. References to it in the photographic literature compare it poorly to the Moeller Cambinox which has interchangeable lenses up to 135mm.

If you use a variety of subminiature cameras eventually you come to the conclusion that the well made cameras with poor reputations have a design feature which is just different enough to escape casual notice if you have to work without an instruction sheet. The wonderful little Yashica-16 is a perfect example, (see newsletter #34).

Recently we spotted a Tasco sitting forlornly in a pawn shop window. After receiving \$35 for it, the proprietor confessed that he was "Glad to get rid of it. A lot of people looked, but nobody wants a 110 camera anymore. No film."

Rather than do the obvious - load up and go picture hunting, we decided to proceed more slowly. The first step was to get an instruction sheet. A stamped self-addressed envelope was sent to Tasco, 7600 North West 26th St., Miami, FLA. 33122-1494. Then we sat down to quietly examine the camera.

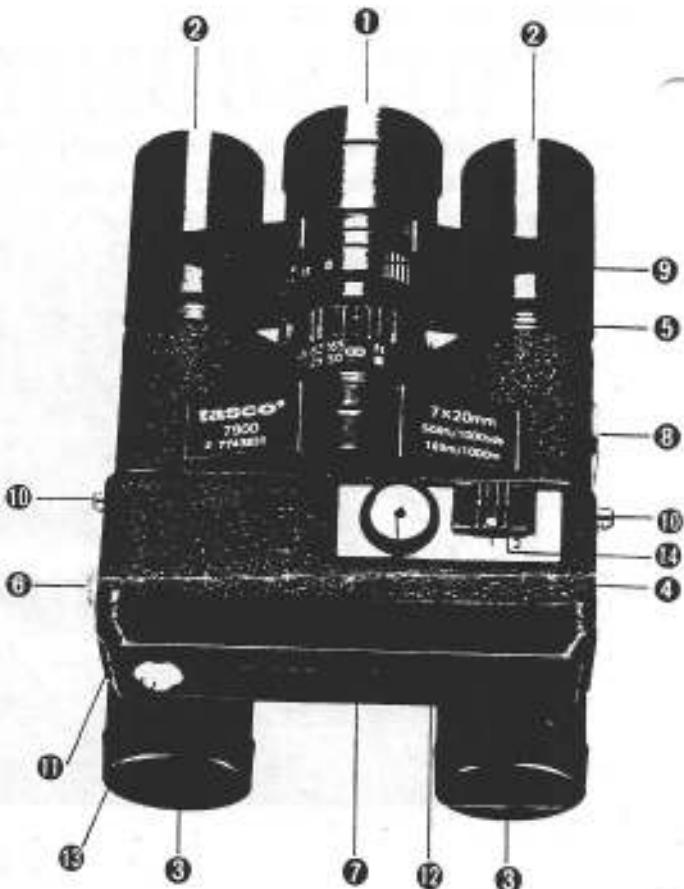
The first problem you encounter when you put the camera to your eyes is that you see the right side of an image frame in the right lens. You must push the camera uncomfortably close to your eyes to see the remainder of the frame. Eyeglass wearers will be at a disadvantage.



However, each eyepiece has a focusing ring which adjusts to the eyesight of the user.

There is another little ring to focus the coupled camera lens, and an aperture ring with click stops at f5.6, 8, 11, 16, 22, and 32. Other than that, it's just a 110 camera.

There is a hinged door for the cassette, a film advance knob, and a shutter release.



PRINCIPAL PARTS

1	Taking Lens
2	Objetive Lens
3	Eyepiece Lens
4	Shutter Release Button
5	Focusing Ring
6	Wind Knob
7	Film Counter Window
8	Tripod Socket
9	Diaphragm Ring
10	Neck Strap Fitting
11	Film Compartment
12	Back Cover
13	Back Cover Release Button
14	Shutter Speed Selector

On the right side are the infamous 'idiot symbols' as a guide to determine proper aperture settings, and a tripod screw. The shutter button has a cable release thread. Nice touch.

Within two weeks a 45 page instruction booklet arrived from Tasco printed in 5 languages: English, German, Spanish, French, and Japanese.

The only discernable difference between the camera in the booklet and the one in my hand was that their model 7900 has two shutter speeds: 1/125 and 1/250. My model 7800 had only one unspecified setting.

Referring back to the (now useful) symbols on the side, I assumed that I'd be working with 1/125 and anxiously loaded a cassette of Kodacolor II.

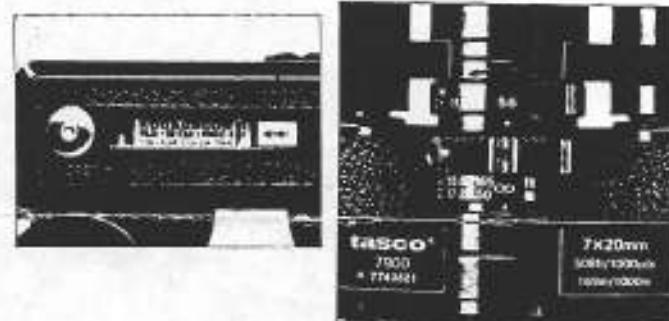
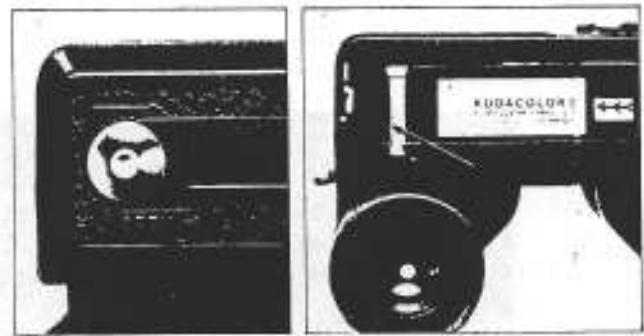
There are lots of 'rules of thumb' in photography. They've been handed down by other photographers who have used up a lot of good film attempting to do what you may be about to try. One of these is: the slowest handheld shutter speed should be the reciprocal of the focal length. That is, 1/25 sec. for a 25mm lens, 1/50 for a 50mm lens, and so on.

Because you don't use binoculars indoors, 1/125 would be marginal with a 112mm lens. In any kind of wind, holding the camera steady could be a problem. After seeing my prints, my guess is that the 7800 has a shutter speed of 1/250. None of the photos show any blurring although they were all taken under slightly breezy conditions, and all of my subjects were moving.

Mechanically, it's a failsafe camera if you follow the instructions and focus on infinity before adjusting the eyepieces, otherwise what you see isn't what you'll get.

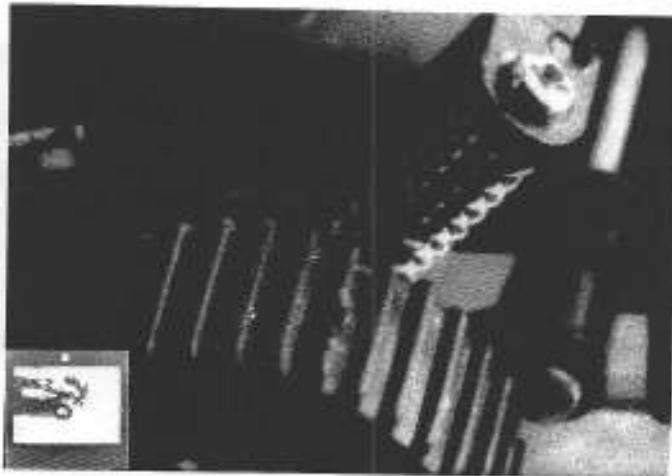
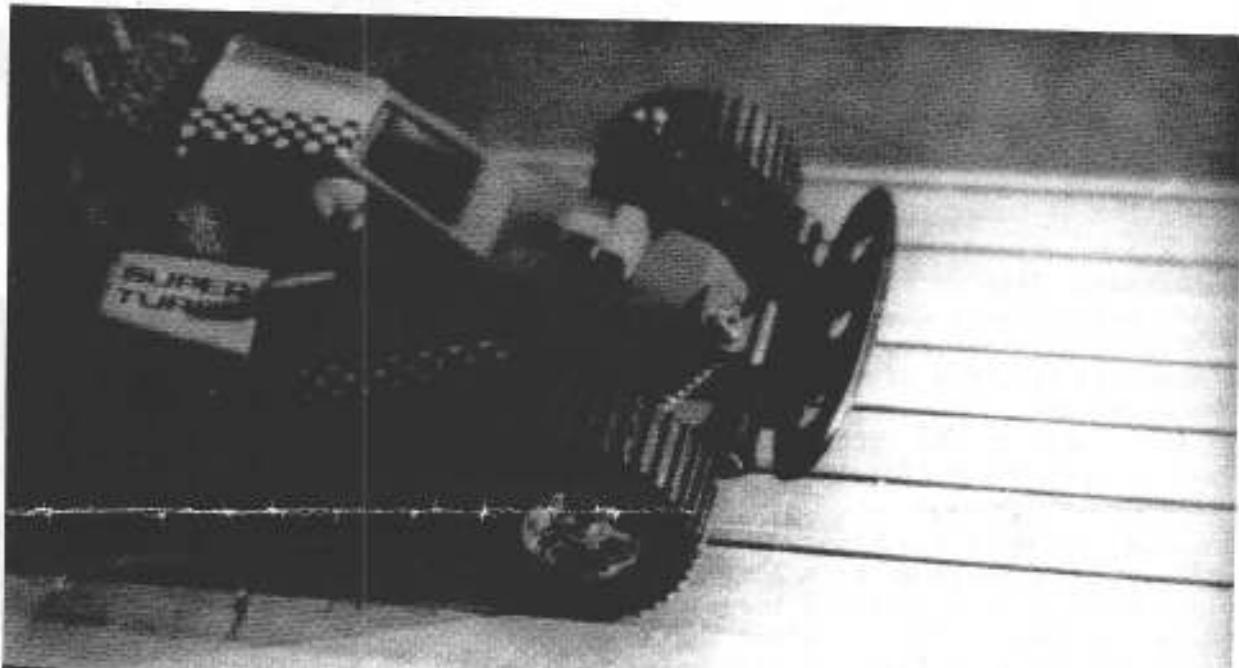
There's one other practical suggestion that should be included here. A binocular camera isn't run-of-the-mill snapshooting equipment. It attracts attention.

All in all, the Tasco is a powerful tool and a lot of fun.



SPECIFICATIONS

Type of Film	110-size Cartridge Film, Film Size: 13 x 17mm
Lens (Camera)	112mm/F5.6, 4 Groups 4 Elements Filter Size: 33mm Screw-in
Lens (Binocular)	7 x 20mm Objetive Lens: 1 Group 2 Elements Eyepiece Lens: 3 Groups 4 Elements Angle of View: 9°40' (Wide Angle)
Finder (Eyepiece)	Aerial-Image Finder with Flame
Focusing	Center Focusing, 10m (30ft.) - ∞
Visibility Adjustment	-4 to +2
Diaphragm	Click-Stop Type, F/5.6, 8, 11, 16, 22, 32
Shutter	Metal Focal Plane Shutter 1/125 sec. (Speed 1) & 1/250 sec. (Speed 2)
Film Advance	Wind Knob
Dimensions	129 (L) x 100 (W) x 67 (H) mm
Weight	550grs.



DEAR SIRS,

TRACK WORKS FINE. CAR BROKE.

Toy manufacturers are usually concerned that their products last long enough for you to enjoy and tell your friends. These photos of a torn tread and broken suspension, were worth a refund coupon and a request to return the car.

Microfilm was used because it was much cheaper than Polaroid. The 12 inch, 17-exposure strip of Recordak cost 4¢.

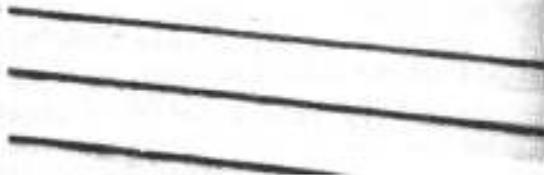
Camera: Minolta-16 P w/#2 Proxar.

Film: Recordak prefogged. E.I. 25.

Developer: Rodinal dil. 1:200.

Recordak: 16mm x 200' roll \$8.00.

Stewart Trail, 618 S. 62nd St., Phila., PA. 19143. (215) 474-7663.



MIX AND MATCH.

Many of the accessories in the subminiature darkroom are made by the user, or adapted from another source.

Glass carriers reduce the wear and tear on your negatives when you print volume, or work in a rush and have to 'print wet'. They also make it easy



10Z Glass Film Carrier
for 16mm medical Film

This 16mm glass film carrier was designed for the Tamron Fotovix (see newsletter #39), but it will fit most enlargers.

Prices may have changed by the time you read this. Contact: Tamron Industries Inc., 99 Seaview Blvd., Port Washington, NY. 11050. (516) 484-8880. FAX: (516) 484-8906.



TECH TIPS.

The objective of this test shot was to practice right angle shooting with the camera held at waist level. The tile on the floor was used for alignment, and made it easier than a 'guesstimate.'

Notice that even with a 10 x 14mm format, the film rode off center losing some of the image in the perforations. Not a lot, but enough to make you aware that for more technical subjects you can't compose too tightly when you use perforated movie film unless you also use a camera with sprockets: Mec-16, Mikroma, Minicord, Stylophot.

Film: Kodak RAR 2479

EXPOSURE

Best results will be obtained with KODAK RAR Film 2479 if the exposure is determined for the actual conditions under which the film is to be used. The following table should be used as a guide.

Photo-sensitivity*	Exposure Index†	CRT Exposure Index‡		
		P11	P16	P24
500	320	180	320	64

*Based on development in KODAK Developer D-19 for 1 minute at 95°F (33°C).

†Based on development in KODAK Developer D-76 for 1½ minutes at 95°F (33°C).

‡Based on development in KODAK Developer D-19 for 1 minute at 95°F (33°C). Value is expressed as the reciprocal of the exposure in ergs/cm^2 required for a net density of 0.10.

Characteristics:

- High-speed negative film
- Panchromatic emulsion with extended red sensitivity
- ESTAR-AH Base (0.004 inch thick), a tough, dimensionally stable polyester support with an optical density of 0.10 for light-piping protection
- Antihalation layer under the emulsion for improved halation protection
- Backing designed for high-speed processing

Applications:

- CRT photography (all phosphors)
- High-speed photography
- Spark-chamber, explosion, flame-study photography
- Schlieren photography
- Radar recording (P7, P12 phosphors)
- UV fluorescence photography
- Modulated neon glow-tube photography
- Cinetheodolite photography

Kodak Developer (or equivalent)	Developing Times (In Minutes)				
	68°F (20°C)	73°F (24°C)	85°F (29.5°C)	90°F (32°C)	105°F (40.5°C)
D-19 D-76	8 7	5 5	2½ 3	1 1½	4½ 1

*The maximum processing temperature for KODAK RAR Film 2479 is 105°F (40.5°C); however, above 105°F (40.5°C), fog increases rapidly at the expense of speed and contrast.

†Development times for constant speed.

‡Development time at each temperature is to maintain a constant gamma of 0.7.

Kodak Stop Bath	Rinsing Times (In Seconds)	
	65 to 85°F (18.3 to 29.5°C)	85 to 105°F (29.5 to 40.5°C)
BB-1a or Indicator	15 to 30	10 to 20

THE SUBMINIATURE TIMES QUICKFINDER 4/92

20 cassette box of Kodacolor II 110-24 \$12. (Dated 1983-'84) Price includes shipping.
S & G, 618 S. 62nd ST., Phila PA. 19143. (215) 474-7663.

Bolsey-8 (movie & still)	200	AS	Minox 1st B	139	WD
Bolsey-8	149	BK	2nd B	209	WD
Edixa-16	229	BK	2nd B	169	WD
Epochs-16 w/case	225	W	2nd B	159	WD
Expo Watch Camera	389	F	C	229	WD
Expo Watch Camera	120	D	C	209	F
Gemflex w/case	599	W	C	199	WD
Mamiya-16 Auto	159	AD	C	189	WD
Mec-16 SB	239	F	EC	219	W
Micro-16 w/flash	189	F	EL	129	W
Micro-16	39	WD	III	149	WD
Minolta 16	69	WD	III	130	D
16 EE II	79	WD	IIIS	179	WD
16 MG-S kit	109	BK	IIIS	169	WD
16 MG-S kit	65	AS	IIIS	159	WD
16 MG	69	F	LX Black	649	W
16 P	59	F	LX	529	WD
16 P	59	WD	LX	499	WD
16 PS	59	AS	Ricoh Golden-16	449	WD
16 QT	59	AS	Robot (Luftwaffe set)	Call	W
110Z	225	BE	Rollei-16	269	F
110Z	100	WD	Rollei E110	339	F
110Z	89	WD	Rollei-16S	250	C
Narciss SLR	995	D	Steky III	199	AD
Minox B	249	47	Toyoca-16 w/case	225	W
B	169	F	Yashica Atoron	99	C
B	150	47	Yashica Atoron	79	F

AD Adorama, 42 W. 18th St. NYC, NY. 10011. (212) 741-0466.

AS All Seasons Camera, 5 Harvard Lane, Hastings on Hudson, NY. 10706 (914) 478-0931

BE Bergen County Camera, 270 Westwood Ave., Westwood, NJ. 07675 (201) 644-4113

BK Brooklyn Camera, 549 E. 26th St., Bklyn, NY. 11210 (718) 462-2892.

C Cambridge Camera Exchange, 7th Ave & 13th St., NYC, NY. 10011. (212) 675-8600.

D Don Chatterton, P.O. Box 51174, Seattle, WA. 98115. (206) 5250-1100.

47 47th St. Photo, 67 W. 47th St., NYC, NY. 10036. (212) 260-4410.

F Foto Cell, 49 W. 23rd St. NYC, NY 10010. (212) 924-7474.

W Wall St. Camera, 82 Wall St., NYC, NY 10005. (212) 344-0011.

WD Woodmere Camera, 337 Merrick Rd., Lynbrook, NY. 11563 (516) 599-6013.

FREE CLASSIFIED

FOR SALE Microfiche tools, equipment and
manuals. Too much to list. Matthew Wilkens.
P.O. Box 2252, Juneau, Alaska 99802
(907) 463-3436

FIX YOUR OWN CAMERAS

It's easier than you think! Ed Romney has all
the books, tools and supplies you need at low
prices. For Leica and antique cameras, tool Big
catalog with a free lesson in camera repair
\$2.00 ROMNEY, Box 98, Emelton, PA 16373.

CASSETTES: Yashica-16 \$10 ea. "SUBMINIATURE TIMES" back issues: #1 to #5, and #33 to
current, \$2 ea. Please include 10% S & H Domestic, 20% International. Al Doyle,
P.O. Box 60311, Houston, TX. 77205.