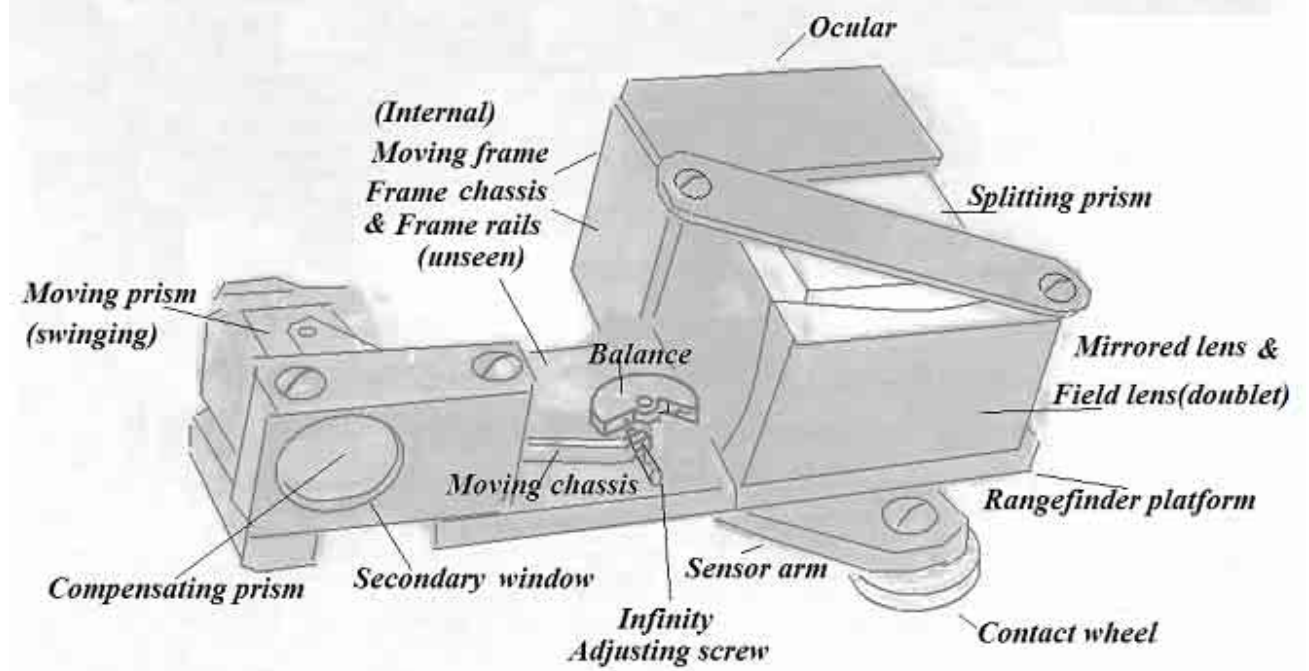


# Some technical details on Zorki 35 M rangefinder

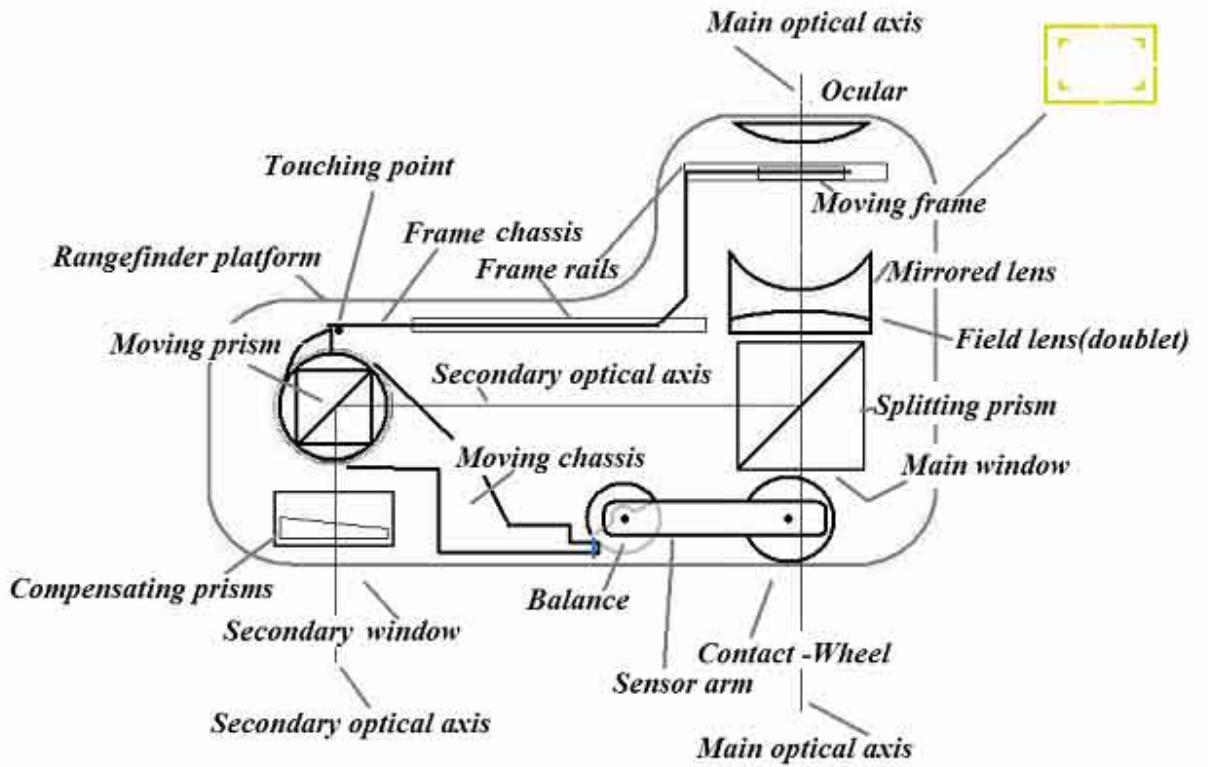
## Part II

### *"Drug" Virtual image Rangefinder*

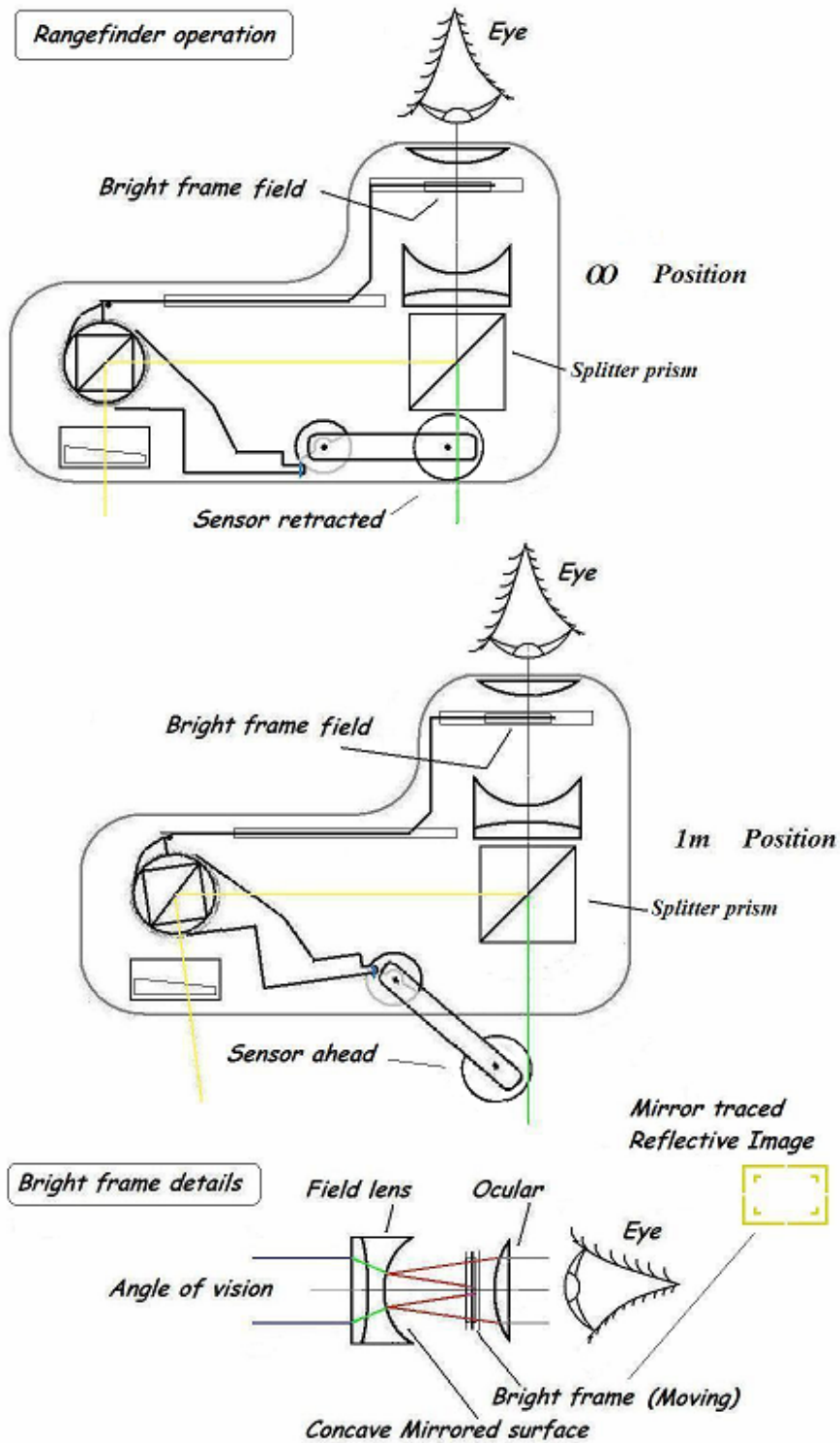


### Drug rangefinder parts description

### Drug - Rangefinder parts description



### Rangefinder schematics



**Rangefinder triangular operation and virtual image formation**  
**Sensor movements**  
**Bright frame viewing system**



**Drug round sensor!**

**Description of rangefinder operation.  
Complement of the previous figure.**

In the front view you can see the viewfinder, with bright reflected framelines for 50mm and 85mm lenses. The physical rangefinder base is about 43mm, which, together with the 1:1 viewfinder magnification, gives it a respectable effective baselength. This is one the best viewfinders found on FSU rangefinders; other very good ones are the Sokol rangefinder that rivals Leica M3 being even brighter than Leica, and the magnificent Leningrad's rangefinder from Zeiss origin and also

used on Werra cameras. It allows using both eyes open at the same time. Note that this is the sole Russian rangefinder (and camera) to use ALL Leitz Screw mount lenses.

This rangefinder operates with the double coincidence image type.

In the first figure above, we see its physical shape with all components mounted for operation. In the following figure we show the parts description.

In the third one its operation system principle.

The rangefinder operation principle is based on the parallax formed by the two different observation points of the same object. The distance from the centers of these points is called Rangefinder basis , and could be shorter or larger according to its construction.

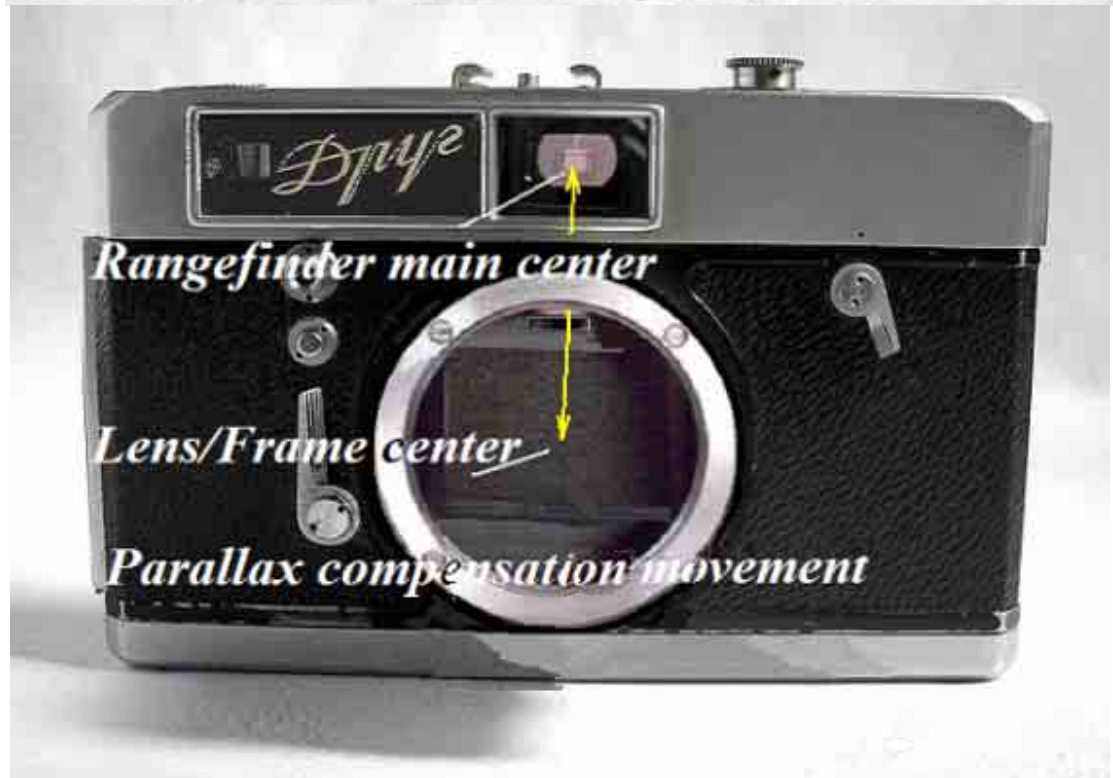
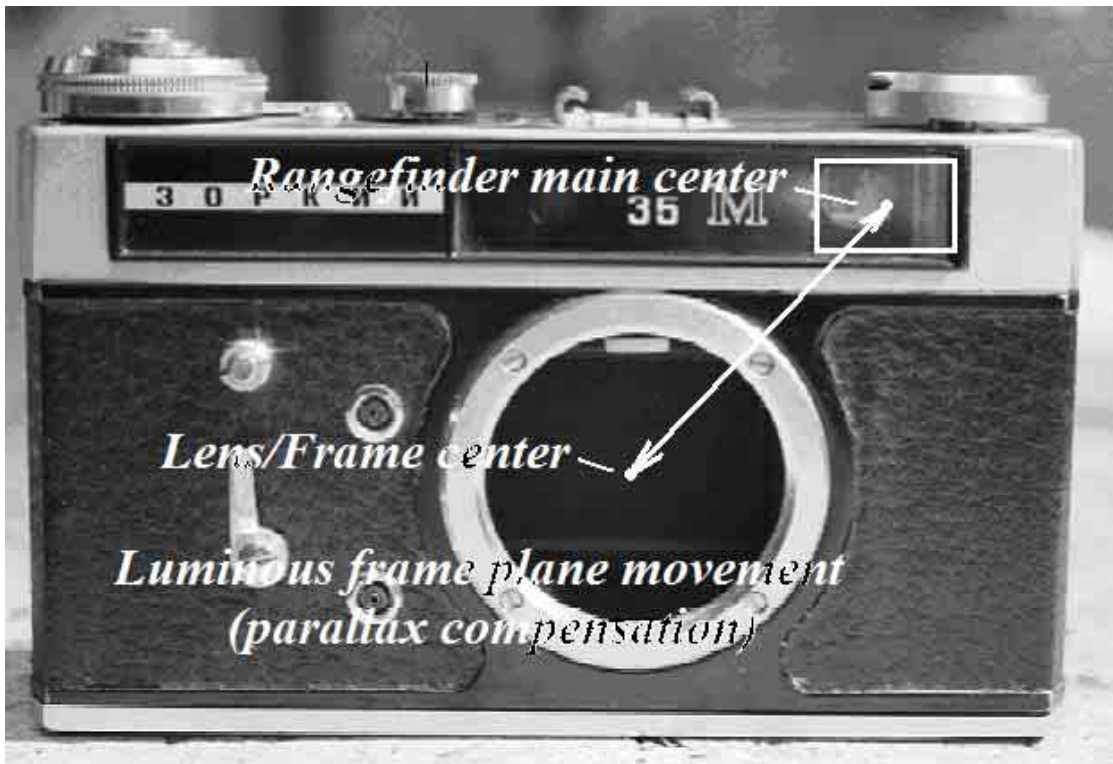
The greater the parallax , or Rangefinder basis, greater precision will have.

The eye sees through the reversed telescope represented by the ocular and the field lens, soon the ray splits in two visions by means of a internal gold mirrored cubic prism.

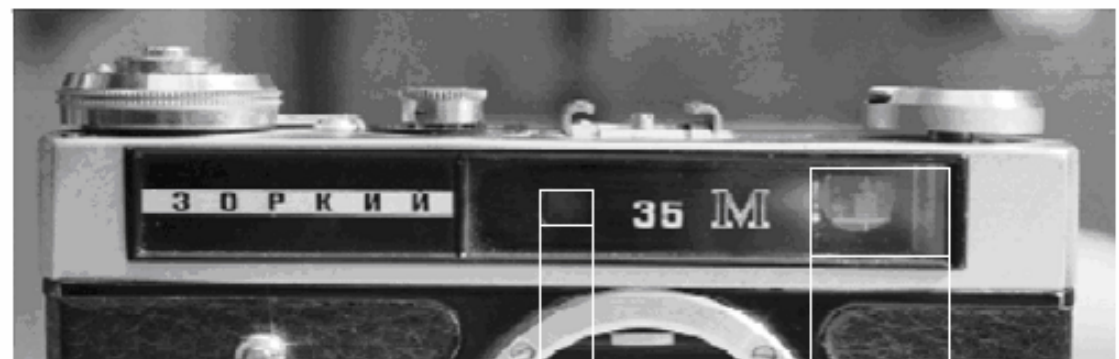
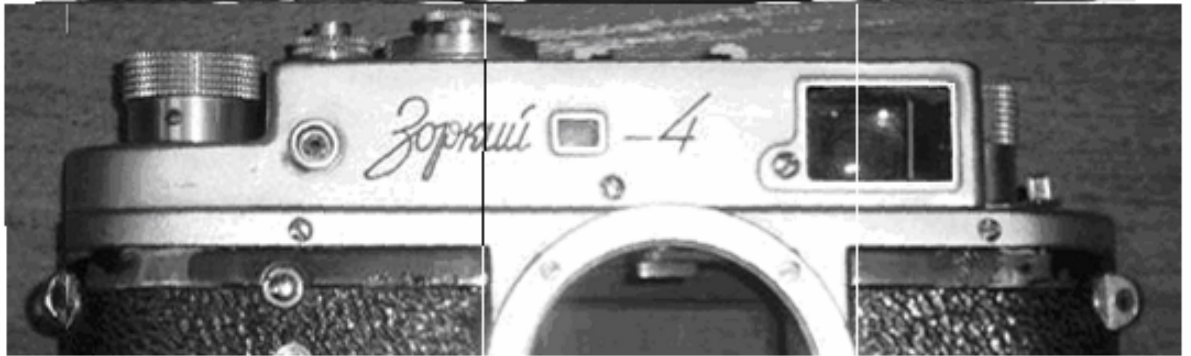
Two images are formed. The Real Image is the one seen through direct vision. The Virtual image is the one seen through the internal mirror of the cube. There are currently used golden mirrors due its unique properties in split the ray in two different colours: Yellow for the reflected ray and green for the passing ray. This immediately identifies the image origins and gives better quality on each of the images. Normally the green ray suffers no other alteration , but the yellow ray is again rereflected by a new prism made for correcting its path forwards. This is the moving prism that is coupled to the rangefinder sensor that denotes the back and forth movement of the camera lens.

In order to maintain a precise movement of the formed triangulation in a straight horizontal plane, a revolving compensating prism is built into the secondary (yellow) path.





The arrow indicates the centrer movement o the bright frame on Zorki 35M and Drug





**These three paired pictures compare at equal size Rangefinder triangulation system of Zorki 35M and Zorki 4 cameras.**



**This one do the same between Drug and Zorki 4**

**Zorki 35M, Zorki 4 and Drug =Short base  
rangefinder comparisons.**

**Cameras from KMZ**

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## **Curiosities**

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In the 42nd anniversary of the Great October Revolution (1959) there was launched the Zorki 6 and the Drug intended to be a top camera in place of the hard to built Kometa and to replace the old Zorki 4. But it did not happen.

**Code name of the Drug: "Zorki 7" .**

**The same nomenclature was used on the famous Kometa camera.**

## В СОРЕВНУЮЩИХСЯ КОЛЛЕКТИВАХ

# ОНИ СДЕРЖАЛИ СЛОВО

### *Фотоаппараты пойдут в магазины*

Планы года и декабря коллектив фотосборочного цеха выполнил. За месяц нужно было сдать:

Фотоаппаратов «Зоркий-4» — 9000.	Сдано 10000
Фотоаппаратов «Зоркий-6» — 8000.	Сдано 8500
Фотоаппаратов «Зоркий-7» — 2000.	Сдано 2000
Фотоаппаратов «Зенит-С» — 5000.	Сдано 5875
Фотоаппаратов «Зенит-3» — 2000.	Сдано 2000
Фотоаппаратов «Старт» — 1000.	Сдано 1000
Фотоаппаратов «Искра» — 6000.	Сдано 6000
Кинокамер «Кварц» — 1300.	Сдано 1300
Фотоаппаратов «Юнкор» — 10000.	Сдано 12500
Приборов КСР — 40.	Сдано 40
Приборов ФТ2 — 300.	Сдано 490

Свое годовое задание коллективу цеха было выполнить нелегко, часто срывались графики, хромал ритм. Такие явления были следствием недостаточно хорошей организации труда в цехе, а также несвоевременной подачи деталей из механоштамповочного и автоматного цехов, детали при этом часто были плохого качества.

Что же интересного, ценного сделано коллективом цеха в прошлом году? Цех освоил для серийного производства несколько новых приборов: фотоаппараты «Зоркий-7» («Друг»), «Искра» и любительскую кинокамеру «Кварц». Осваивая эти приборы, цех проделал большую работу.

В 1961 году коллектив цеха будет осваивать еще три сложных прибора: 16СП, КСР-3 и фотоаппарат «Нарцисс».

magazine camera list 1959

The new Zorki 35 was intended to replace the gap left by Drug cameras and also to offer a new camera in the Zorki 4 everything now using standartized Zenit parts. Everything in a user friendly way – Three cameras . Drug, Zorki and Zenit three times the n° seven so 35 and M from Marienkov.

Also in the early 1970 years , before the Seagull DF and the Hong Qi 20 it was prototyped a Shanghai camera. Seagull Shaghai Camera Factory China.

Its name: Shanghai 7. Its resemblances with FED 3 First series and Zorki 6 are noteworthy. See folowing figures:



Sources both articles:

<http://www.zenit.istra.ru/archive/index.html>

<http://nightphoto.com/>

<http://www.photohistory.ru/1207248170259168.html>