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50X1-HUM

COUNTRY Yugoslavia/USSR

REPORT

SUBJECT Soviet Electro-Optical Aerial Intercept Device in Yugoslavia

DATE DISTR.

*approx. Jan 1963*

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REFERENCES

RD

DATE OF INFO.

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PLACE & DATE ACQ.

THIS IS UNEVALUATED INFORMATION. SOURCE GRADINGS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

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1. The Yugoslavs have received, or are testing, a device manufactured in the Soviet Union for the electro-optical intercept of aircraft, missiles, rockets, etc. One of the devices was tested during September 1962 on a hill near Belgrade, in the Avala district.

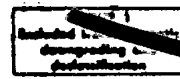
2. The device consists of a type of telescope, short and wide (diameter 20-30 cm; length 70-90 cm) and an electronic device connected to the telescope by small cables. A cathode ray tube (monitor) is an integral part of the instrument.

3. [redacted] the optical system of the telescope projects the image on a "mosaic of photodiodes", each of which is the size of a "head of a pin" [redacted] 50X1-HUM

If no aerial body appears in the visual field of the telescope, the mosaic of photodiodes is uniformly illuminated or, if dark obscure spots do appear, they do not have clear-cut contours. If, on the other hand, the visual field shows bars denoting the image of an aerial body, the mosaic of the "n" photodiodes remain uniformly illuminated through "n-1" diodes, while on the "1" diode appears a small spot. Under these latter conditions, the apparatus gives an alarm which lasts only if the point of luminous discontinuance of the mosaic moves. The movement of the point can be followed on the cathode ray monitor with which the apparatus is equipped. The solid angle viewed by the telescope is noteworthy; there is a significantly wide area of sky covered in sighting.

4. The apparatus can be used to obtain a "storm warning" independently of its use in radio locating; it can also be used to track the flight of aircraft, whose trajectories appear on the monitor tube. The device does not, however, supply firing data or quantitative information on the course of intercepted aircraft.

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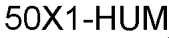



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1. Comment:  never heard of  50X1-HUM  
the existence of a device of this type. With current techniques, it is  50X1-HUM  
not difficult to achieve a mosaic of photodiodes, individually very small.  
Also, the annexed electronic circuit does not present exceptional  50X1-HUM  
difficulties, and can be to a large extent transistorized. 



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