

INTELLOFAX 21

CLASSIFICATION **SECRET**
SECURITY INFORMATION
CENTRAL INTELLIGENCE AGENCY

REPORT NO.

25X1

INFORMATION REPORT

CD NO.

COUNTRY East Germany

DATE DISTR. 7 October 1952

SUBJECT Correspondence on Production of "Schlieren" Devices NO. OF PAGES 2
25X1

REFERENCE COPY

NO. OF ENCLS.
(LISTED BELOW)

SUPPLEMENT TO
REPORT NO.

25X1

DO NOT CIRCULATE

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANING OF THE ESPIONAGE ACT 50 U.S.C. 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

- As reported previously, the Zeiss works in Jena has, in the past, made repeated attempts to obtain Russian permission to resume production of the "Schliengergeraet".

The device serves to make visible and to photograph 'Schlieren', that is, changes of refraction (local deviations of light) in transparent mediae. Such 'Schlieren' can be produced in gaseous matter as well as in liquid and solid substances. Occurrence of 'Schlieren' in glass plates is well-known. Change of the refractive index in gaseous matter is mostly caused by pressure caused by rapidly moving bodies in stationary air or by stationary bodies in moving air.

These and similar observations are assigned to physics institutes, research installations, and industrial laboratories. Institutes in the people's

CLASSIFICATION **SECRET**

STATE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NAVY	<input checked="" type="checkbox"/>	NSRB										
ARMY	<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIR	<input type="checkbox"/>	FBI										

SECRET

-2-

25X1

democracies would be able to accumulate valuable experience through the use

formation, the total price of a "Schlieren" device is about DM (East) 135,000.

2. The Zeiss works did not receive a decision on their application until June 1952. During the interval, they received a request from the Rumanian State organization, Technoimport, for delivery of a "Schlieren" device. The Rumanian request was as follows:

"A Schlieren-optical installation after the coincidence procedure to make visible flow processes (Strömungsvorgänge) with high Mach numbers and strong temperature gradients. Light cleavage (Lichtspalt) and Schlieren diaphragm (Schlierenblende) are to be mounted on a turnable top and are to be adjustable to any position between horizontal and vertical. The diameter of the mirror and the radius of curvature are to be determined by Zeiss, considering that the test room (Versuchsraum) with the dimensions 40 by 40 centimeters is for velocities of 1.3 meter Mach. The width of the room in which the instrument is to be placed is 6 meters. Specifications of the light source: a) Spark duration smaller than one micro-second, b) immediate change from permanent light to spark, c) Einknopfbedienung."

3. After receiving the Rumanian request, Zeiss again urged DIA to bring about a settlement of the matter. DIA forwarded the urgent Zeiss request with a favorable comment to the Soviet Trade Mission. On 19 June 1952, the Soviet Trade Mission notified DIA that it had transferred the matter to Rasno-Export, Moscow, for a decision.
4. As of 25 July 1952, no definite answer had been received by Zeiss.

1. [REDACTED]

2. [REDACTED] Comment. One knob tuning.

SECRET