

**ITEM NO. 1, 7, 9**  
**FILE NO. XVIII - 3**

# **RADAR AND ELECTRONICS TARGETS COLOGNE AND VICINITY**

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**COMBINED INTELLIGENCE OBJECTIVES  
SUB-COMMITTEE**

REPORT ON RADAR AND ELECTRONICS TARGETS

IN COLOGNE AND VICINITY

9-17 March, 1945

Report Compiled By  
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London Mission

CIOS Black List Items  
No. 1 - Radar  
No. 7 - Signals Communications  
No. 9 - Optical Devices

COMBINED INTELLIGENCE OBJECTIVES SUB-COMMITTEE  
G-2 Division, SHAEF (Rear) APO - 413

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SECTION I

CIOS MISSION TO COLOGNE AND VICINITY  
MARCH 9TH TO 17TH, 1945

In accordance with SHAEF directives, the officers and civilians listed on the next page assembled at 12th Army Group T Force Headquarters in Cologne, Germany, on March 9, 1945, to investigate Radar Black List targets and targets of opportunity in the electronics field in the Cologne area.

A list of the targets visited is presented in Section II of this report. In Section III the details on all target visits are given in the form submitted by the leaders of the investigating sub-teams as tabulated in Section II.

Having completed most of the investigation, the majority of the team members left for their permanent stations on March 13th, 1945. A sub-team consisting of Major J. Arthur, Captain C.A. Epp and 2nd/Lt. H. Dauber remained until March 17th, 1945 to revisit targets which had proven of particular interest.

H. GUYFORD STEVLER

OSRD

27th March, 1945

INVESTIGATING PERSONNEL

Team Leader Dr. H. Guyford Stever, OSRD

Deputy Team Leader Major Johnson Ferguson,  
Ministry of Supply

Team Members S/Ldr. A.E. Glazer, MAP

Major E.J. Younson, RA  
Ministry of Supply

Major P.N. Brightwell, MEW

Capt. C.A. Epp, War Office

Major J.D.W. Janes, War Office

Lt-Col. G.E. Jackson, War Office

Lt. C.L. Cormany, USSTAF

Lt. Henry V. Lee, US Navy

Lt. Elvin E. Ecklund, US Navy

Major John Arthur, US Signal Corps

2/Lt. Harry Dauber, US Signal Corps

Dr. Everett W. Thatcher, OSRD

F/Lt. Menist, RAF, PWI

F/Lt. Fishwick, MAP

Lt. Anderegg, US Navy

II - LIST OF TARGETS

<u>CIOS Target</u>	<u>Organization</u>	<u>Address</u>	<u>Investigating Team Members</u>	<u>Date of Visit</u> 1945
1/18x 1/66i	Telefunken A.E.G.	Hochhaus, 27 & 97 Hansa Ring, Koln	Maj. Johnson-Ferguson F/Lt. Fishwick Dr. Thatcher	11 March
1/61i	Siemens u Halske	Friesenplatz 12, Koln	Maj. E.J.Younson S/Ldr. A.E.Glazer Capt. C.A.Epp Maj. P.N.Brightwell Maj. J.Arthur Lt. C.L.Cormany	10, 11 "
1/128a	Leybold und Von Ardenne Oszillo- graphen, GmbH	Koln-Bayenthal, Bonnerstrasse 500.	Lt.Col. G.E.Jackson Maj. P.N.Brightwell F/Lt. Menist Lt. Anderegg Maj. J.D.W.Janes	10 "
1/128b	E. Leybold's Nachfolger	Koln-Bayenthal, Bonnerstrasse 504.	Maj. P.N.Brightwell Lt.Col. G.E.Jackson Maj. J.D.W.Janes Lt. Anderegg	10 "
1/369	Deutsche Norton	Wesseling, nr. Koln	Maj. Johnson-Ferguson F/Lt. Fishwick Dr. Thatcher	11 "
1/287	V.A.W. Erbtwerk (Aluminium warenwerke)	Grevenbroich, nr. Koln	Maj. J.H.Arthur 1/Lt. Cormany 2/Lt. Dauber Lt. H.B. Lee Lt. E.E. Ecklund Lt. G.I. Webb	10 "

<u>CIOS Target</u>	<u>Organization</u>	<u>Address</u>	<u>Investigating Team Members</u>	<u>Date of Visit</u> 1945
1/347	Schollerwerk GmbH	Hellenthal	L/Cdr. F. Job L/Cdr. J. Bradley Lt. G.I. Webb Lt. J.F. McMahon Lt. H.B. Lee Lt. E.E. Ecklund	5 March
1/358	Franz Baumgartner	85 Siebengebirge Alle Klettenburg, Koln	Maj. J.H. Arthur 1/Lt. Cormany 2/Lt. Dauber	10 "
1/384b	Mix und Genest	Richard Wagnerstrasse 12, Koln	Maj. E.J. Younson S/Ldr. A.E. Glazer Capt. C.A. Epp	10, 11 "
Opportunity	Tony Adels	1 Werder Strasse, Koln	Lt. Col. Jackson F/Lt. Menist	12 "
"	University of Cologne, Institute of Theoretical Physics	Claudius Strasse, Koln	Lt. Col. Jackson Maj. Janes F/Lt. Menist F/Lt. Fishwick Dr. Thatcher	11 "
"	Cologne Engineering School	48 Ubier Ring, Koln	Lt. Col. Jackson F/Lt. Menist	12 "
"	University of Bonn (Physikalische Institut)	Nuss Allee Kaufmann Strasse, Bonn	Lt. Col. Jackson Maj. Janes Dr. Thatcher F/Lt. Menist F/Lt. Fishwick	11 "

<u>CIOS Target</u>	<u>Organization</u>	<u>Address</u>	<u>Investigating Team Members</u>	<u>Date of Visit</u> 1945
Opportunity	Fabrik Elektrischer Zunder GmbH	Koln, Nesselroderstr. 20	Maj. Brightwell S/Ildr. Glazer Lt. Anderegg	12 March
"	Corona GmbH Fabrik Elektrischer Artikel	Eindenthalgurtal 28, Koln	Maj. Brightwell S/Ildr. Glazer Lt. Anderegg	12 "
"	Firma F.Himmermann	Hellenthal	Lt. H.B.Lee Lt. E.E.Ecklund	5 "
"	Firma Collardin	37-39 Maasweg und 215 Widdersdorfer Str. Koln	Lt. H.B.Lee Lt. E.E.Ecklund	5 "
"	Hellige & Co.	Tennenbacher Str. Frechen		
"	Carl & Co. GmbH	Pfalzer Str. 40, Koln		
"	Amtz u Eichnoff GmbH	Prabsteigasse 15, Koln	Maj. Janes Dr. Thatcher Capt. Epp F/Lt. Fishwick	12 "
"	Deutsche Telephone Werke u Kabelindustrie A.G. Tech. Bur.	Geobenstr. 3, Koln		
"	Hochspannungs Betriebs mbH	Honinger Weg. 127, Koln		
"	Bergmann Elektrizitatswerke A.G.	Brabanter Str. 53, Koln	S/Ildr. Glazer Maj. Younson Maj. Brightwell	12 "



<u>CIOS Target</u>	<u>Organization</u>	<u>Address</u>	<u>Investigating Team Members</u>	<u>Date of Visit</u> 1945
Opportunity	Steinert Elektromagnet Bau GmbH	Widdersdorfer Str. 329-331, Koln, Bickendorf	S/ldr. Glazer Laj. Younson Laj. Brightwell	12 March
"	University of Bonn (Physikalische Institut)	Bonn	Maj. Arthur Maj. Johnson-Ferguson Capt. Epp 2/Lt. Dauber	12, 13 "
"	Stattnische Ingenieur Schule und Technische Bucherei und Patentschriften-Auslegestelle	Koln	Laj. Arthur Capt. Epp 2/Lt. Dauber	14 "
"	Aluminium-Folien-Walzwerk Leber K.G.	Koln	Maj. Arthur 2/Lt. Dauber Capt. Epp	15 "
"	Gesellschaft fur Elektrische AA GmbH	Domkloster 1, Koln	Laj. Janes Dr. Thatcher Capt. Epp F/Lt. Fishwick	12 "
"	Cologne Airport	Koln	Lt. H.B.Lee Lt. E.E.Ecklund	10 "

### III - DETAILED REPORTS ON TARGETS

#### 1. (1/18x, 1/66i) Telefunken, A.E.G.

Target found to be large block of flats, badly bombed.

No sign of offices of firm, but one room had been used recently for production of identity documents for Poles, and another full of maps and propaganda documents.

Building had been used until recently as barracks for Poles (mixed sexes). Now as barracks for USA troops.

Of two other addresses in the Hansa Ring given for this firm and AEG, one was non-existent (bomb) and the other burned out.

No sign of electrical gear at any address visited, and no clue to other addresses.

Intelligence T Force was informed about maps, etc.

#### 2. (1/61i) Siemens und Halske

Two visits were made to this target. The target is the Cologne office of the following three firms:-

Siemens und Halske  
Aktiengesellschaft  
Technische Buro, Koln.

Siemens Schuckertwerke  
Aktiengesellschaft  
Zweigniederlassung, Koln.

Rotos Telephon  
Gesellschaft M & A  
Bezirk, Koln.

The building is a large four-storey modern building near the centre of Koln. It has been severely damaged by Allied raids but some work must have been carried on until shortly before the occupation.

No manufacture was carried out here, the address being merely a sales and service office. From here installations of automatic telephones and apparatus were arranged and also domestic and commercial electrical apparatus, (i.e. clocks, heaters, electric washers, small motors and illumination). Considerable stocks of components are available on the premises.

The office building contains large numbers of documents and files. Several of these have been removed by the MEW representative for further examination in the UK. Documents outlining the Siemens organization in other countries have been turned over to T Force.

The office also deals with telephone installations and engineering and power engineering and installation. There is no sign of any radio or radar activities and no radio apparatus was found, with the possible exception of a signal generator, which has been sent to Farnborough.

3. (1/128a) Leybold und Von Ardenne Oszillographen GmbH

According to Wirz, manager of E. Leybold's Nachfolger, this firm had occupied only a few rooms in the main building of E. Leybold's Nachfolger. They had manufactured C.R. tubes at one time but were taken over by Siemens und Halske in 1936/7 and Wirz stated he had no knowledge of their activities since that date.

4. (1/128b) E. Leybold's Nachfolger

General description of premises

These consisted of a large main four-storey building with cellars, and an adjacent smaller building.

The top floor of the main building had been totally destroyed by direct hits and the remainder of the building heavily damaged by blast. There was a large number of correspondence files and other documents, nearly all in readable condition, but the only plant seen consisted of four small damaged lathes, an H.T. test-bay, a charging room with all connections cut and a few small generators of various types.

In the smaller building, which had also been severely damaged by blast, there was a large store of catalogues and other advertising literature, together with associated correspondence. This building also housed a small oil-store and, upstairs, a further store in which were found miscellaneous components of little interest.

### Survey of visit

Apart from a brief general inspection of the whole premises, the opening of a safe in an upstairs room and a more prolonged examination of correspondence files in a room on the 1st floor, the chief attention of the team was devoted to rooms in the cellar of the main building.

Shortly after the arrival of the team at the target the guard brought in the general manager of the factory, Wilhelm Wirz, who gave his home address as Cologne-Lungersdorf, Linnicherstrasse 63. Wirz was subjected to continuous interrogation throughout the remainder of the visit. He was proved on many occasions to be attempting to conceal information and only yielded to careful and persistent questioning.

Room 12 in the cellar contained fourteen full filing cabinets, and although the necessarily brief examination of these documents revealed nothing of outstanding interest they would appear to merit more detailed study.

Room 11 appeared to have been used as a store for miscellaneous equipment; a cupboard was found to contain instrument components, but these were articles of little interest, such as dials and nameplates, samples of raw materials, metal foil, insulated wire, etc.

One room in the cellar had been used by Wirz as an office and contained assorted files of general interest.

An adjacent room housed a safe which the manager was made to open. It was found to contain numerous documents, some relating to staff matters and others connected with the "Hauptausschuss Elektrotechnik", in addition to

RM.25,000 which was handed over to T Force Headquarters.

In another adjacent room a card index was examined which listed the names of scientists and other clients of E. Leybold's Nachfolger, but Wirz stated that this had not been kept up to date during the war.

Some Italians who were resident in the cellars were interrogated but were not able to furnish any additional information of value.

#### Documents

Forty sets of documents including correspondence files and folders of miscellaneous papers were taken away from this target and handed over to T Force Headquarters at Cologne-Bickendorf for transmission to UK through the approved channels. The Team Leader agreed that these should be addressed to MEW, Lansdowne House, London, W.

#### Equipment and apparatus

None was found of sufficient interest to justify removal for examination.

#### Further general information

All the following information was secured by interrogation of Wilhelm Wirz and should, therefore, be considered with appropriate reserve. Wirz professed ignorance of the activities or location of other firms in the German radio and electrical industry but this was proved false by even cursory examination of the correspondence and it is considered that further interrogation at an early date might yield much additional information.

E. Leybold's Nachfolger were heavily bombed in April 1944, and production had been at a standstill for several months. The bulk of the correspondence and a large part of the production facilities had, however, been evacuated as a security measure to their factory

at St. Andreasberg in the Harz two years ago.

The firm's products in peacetime consisted of scientific apparatus for laboratories and for instructional purposes in schools. During the war high vacuum pumps had accounted for 75% of production and special laboratory apparatus for the remainder. Wirz revealed that gyroscopes for torpedoes had been manufactured but could not, or would not, give technical or other details.

Throughout the war the Cologne works had been only manufacturing components which were sent to the other factories at St. Andreasberg and Bergneustadt for final assembly.

The St. Andreasberg branch had now become the firm's main office and chief factory, employing about 400 workers, of whom 75 were non-German, including about 15 Ukrainian girls. Only rotary type vacuum pumps were produced at this plant and activities included manufacture of component parts and final assembly. Wirz knew the following members of the staff at St. Andreasberg:

Dr. Dunkel: Manager  
Dr. Jaeckel: Technician. Chief of Vacuum  
Pumps Sales Department.  
Hilbert: Official in Sales Department.

The factory at Bergneustadt employed about 200 workers on the assembly of stationary type vacuum pumps and manufacture of the component parts. Wirz knew the following individuals on the staff of this works:

Hummel: Manager  
Hanine: Official in Sales Department.

The firm had had an office at Berlin N.W.7, Friedrichstr. 110-112 which had, however, been demolished by bombing, and another in Frankfurt/Main until the autumn of last year when it was also destroyed.

Several French and Belgian firms had worked for E. Leybold's Nachfolger, including the French firm Compagnie Generale de Radiologie. Details are available in the

documents which were removed for examination in this country.

Wirz stated that the shortage of copper had been severe but it was the shortage of iron and steel which had been most acutely felt.

Whilst the demand for laboratory apparatus had been fairly steady throughout the war, great urgency had been attached to the manufacture of high vacuum pumps in the last twelve months.

Note: In the course of the preliminary investigation of the Cologne Engineering School at 48 Ubier Ring on 12th March, a recent letter was found addressed to the School from E. Leybold Nachfolger, requesting the nomination of a suitable student for work on "high frequency and infra-red".

5. (1/369) Deutsche Norton

Target found under T Force guard and personnel under constraint.

No electricity or heat owing to bomb damage. Total bomb damage to works was slight. This firm is a branch of Norton, Worcester, Mass., using similar equipment and technique.

Output 250-300 tons per month of grinding wheels for engineering and optical work. Peak output of 500 tons per month.

No sign whatever of electrical or optical work on the premises. A guard was left on the filing system, which was complete and intact. Arrangements have been made for this to be examined as soon as possible.

The manager, Otto Schutte, and Jasper, the deputy manager, both spoke English.

Target of no value to electronics interests.

Other information: Firm produced 15% of entire output of grinding wheels used in Germany. Wheels for ball

bearing production of high priority. Manager, interviewed, professed no knowledge of wheels or abrasives for crystal grinding. Some were, however, ordered for a steatite factory near Chemnitz but never sent. Firm obtained turning tools from Barger, Zohlingen.

6. (1/287) V.A.W. Erbtwerk (Aluminium Warenwerke)

Target consisted of very large aluminum plant between Munchen Gladbach and Koln at Grevenbroich. Evidence of bombing was very slight. The plant was in excellent condition. The personnel were completely absent and the plant was occupied by an Ordnance Repair Company.

As this plant was reported to have made radar parts, the offices and laboratory were the principal objects of attention. These latter were the living quarters of the Ordnance unit and showed some signs of systematic evacuation of a few instruments, considerable evidence of indiscriminate looting, and no information as to the firm's activity in the radar or electronic fields. An excellent and fairly intact technical library was discovered and documents were secured from this to give information for future targeting.

A brief survey of the entire plant showed extensive facilities for electrolytic extraction of aluminum and comparatively modest facilities for aluminum working.

A foil mill was noted together with cutting machines which may have been used for making "window". Bales of paper-backed strip foil were noted carelessly placed in the open. The first inference was that this was "window" but the dimensions were so erratic and unrelated to the purpose that this point is not certain.

There is no direct evidence that this plant made radar parts. Company files were not removed as it was considered desirable to preserve the target for metallurgical or electrochemical investigators.



Various types of window were found. One was a black-paper-backed strip about 79.5 x 2.0 cm. The foil side of this was painted black probably to reduce detection by searchlights. These strips were laid flat in bundles about  $1\frac{1}{2}$ " thick. A second type was black-paper-backed aluminum foil measuring 30 x 1.6 cm. The foil side of this was not painted black. These strips were packed in round bundles about  $1\frac{1}{2}$ " dia. A third type was small strips about 4.5 cm. long by about 0.15 cm. wide. The width varied somewhat. These strips were also black-paper-backed and they were packaged loosely in paper bags about  $1\frac{1}{2}$ " x 5" x 8". No attempt was made to bundle the strips or keep them flat. The fourth type was a paper-backed strip about 4.8 x 0.6 cm. These were packed helter-skelter fashion in boxes 20" x 12" x 8".

A quantity of brown-paper-backed foil was found folded in accordion pleats. The width of the foil was 5 cm. and the length between folds was 31.5 cm. It was folded foil to foil and paper to paper. It is believed this may be dropped as streamers. Each streamer contains 12 folds.

In manufacturing the smaller sizes of window (4.5 x 4.8 cm.), sheetfoil was cut into long strips whose width was equal to the desired length of the final product. Stacks of these strips were placed side by side and hand fed into a single bladed shear.

Scrap material around the cutters was examined to discover whether any shorter length window was made. No evidence of lengths shorter than 4.5 cm. was found.

A few samples of an oddly constructed wire were also found in the plant. These consisted of a length of about No. 18 gage wire on to which was spirally wound about a No. 24 wire. The lead of the spiral was about  $12\frac{1}{2}$  turns per inch. Three lengths were found: 15 cm., 20 cm., and 24.5 cm. Although these samples were found in the department making window, it is not known whether they were designed to be used as window. However, samples are being forwarded along with samples of all types of window found.

7. (1/347) Schollerwerk GmbH

Investigation of this plant revealed that it was used for the manufacture of electronic valve components and other miscellaneous products.

The work conducted by the Schollerwerk is of little value from the technical intelligence viewpoint, due to the evacuation of personnel and machinery.

This firm had been producing electronic tube elements, aluminum rivets, hypodermic needles, electric vacuum annealing ovens, small light-metal tubing, getter material, nails, and light centrifugal castings for bushings and bearings. The machinery for producing the above had been removed at least two months previous to the investigation. All civilians had been evacuated prior to Allied occupation, therefore none of the firm's personnel was available for interrogation.

Correspondence indicated that Schollerwerk was supplying valve components to all main German valve factories, including Telefunken, Philips, Valvo, TeKaDe, and Siemens und Halske, and were under highest priority to all branches of the German Army, Navy and Air Force.

8. (1/358) Franz Baumgartner

Target was bombed in late 1943 or early 1944. The premises and the entire locale were uninhabited. The facilities were very small, consisting of a three-storey building in the rear of No. 85, which is in a residential area.

The factory appears to have made relays and switchboard hardware for industrial control and allied purposes. All machinery has been removed from the plant and the only stock remaining was of no consequence.

The current files of the plant up to the time of its destruction were salvaged and will be reviewed for intelligence.

9. (1/384b) Mix und Genest.

The building had suffered bomb damage to the upper floors. The first floor and basement were superficially damaged only.

No production took place at this address, which was merely a sales office (first floor) and component warehouse (basement). The stocks consisted of repair and maintenance parts for automatic telephone systems.

Two employees of the company, Steinbuschel and Nanzig, were interrogated and stated that most of the stocks of components had been removed some months previously to Litfeld bei Siegen (on the other side of the Rhine). It was also stated that the parts handled here were manufactured in Berlin. These two employees were later removed by CIC for interrogation.

The files of the company were examined but no useful results were achieved.

The existence of stocks at the target has been notified to EBIS representatives with T Force 12th Army Group.

10. Tony Adels

Description of target

Manufacturers of electric switches and safety devices, photo-electric devices, temperature controllers, transformers, electro-magnets, measuring instruments, etc.

Results of visit

Target was found to have been completely destroyed. From the location of the ruins the premises appeared to be very small.

11. University of Cologne,  
Institute of Theoretical Physics

Description of target

Modern four-storey building, extensively damaged on river side, blast damaged throughout. Large basement comprising labyrinth of cellars.

The Institute of Theoretical Physics which was in a separate building at 33 Severinswall had been completely destroyed.

Results of visit

Only the north wing of the building had been retained by the University and was equipped with physical and chemical demonstration facilities.

The library contained books in geography, literature, etc.

The rest of the building had been taken over as the Headquarters of the Gau of Julich, Aachen and Cologne, and by the Treasury Department.

Stocks of party literature and rally material were found on the ground floor and in the basement was a store of uniforms, boots, etc.

No documents were removed.

12. Cologne Engineering School

Description of target

Modern engineering school building; damaged by blast only except at the rear where there is structural damage. The main building comprises the technical school (engineering) and contains:

Hydraulics department  
Strength of Materials department  
Machine shop

Woodworking shop  
Electrical shop

The machinery and appliances are all fairly old, but could be rendered serviceable after reconditioning.

The library contains books on all engineering subjects and in addition patent specifications up to the end of 1944.

Director of School

Professor Grunewald.

Results of visit

In an office on the ground floor were found unopened parcels of recent patent specifications, some dated November 1944; these appeared to be awaiting sorting, preparatory to being placed on view in the library. The specifications embraced all engineering subjects and included recent British and American patents.

A radio demonstration room was examined in Room 108 on the first floor and was found to contain very old equipment and components.

The cellar was full of stored chemical apparatus.

According to a note dated November 1st, 1944, all valuable instruments were to be evacuated to Chemnitz.

Amongst a collection of recent correspondence, which was removed, was found a letter from E. Leybold's Nachfolger, requesting the School to nominate a suitable student for work on "high frequency and infra- red".

There was a locked safe in the corner of the office in the left wing.

It was recommended that a T Force guard be

placed on the building and that a further investigation be made.

#### Caretaker

Josef Eipert, of address 80 Severin Strasse, was interrogated and was present during the tour of the building and cellars.

#### Documents

The following documents were removed and handed in to the documents section of T Force Cologne, in accordance with the normal procedure.

<u>Parcel Nos.</u>	<u>Contents</u>
1	Dossier of correspondence, re suitability of students for certain posts.
2	Miscellaneous correspondence.
3	Exchange of letters with Government Scientific Office.
4	Three books on Radio Technique.
5,6, & 7	Patent Specifications (all subjects).

#### 13. University of Bonn, Physikalische Institut

#### Description of target

Three-storey modern building, with large lecture theatre and demonstration rooms; top floor destroyed.

#### Director of Institute

Dr. Fuchtbauer  
Assistant: Dr. Meyer (age 28 years).

#### Persons interviewed

Josef Stahl, caretaker  
Herb Finkel (maintenance man) and his wife.

Results of visit

According to Josef Stahl, Dr. Fuchtbauer left with other personnel about December 1944, for GEBOLDEIHAUSEN near GOTTINGEN and the normal activities of the institute ceased from that time.

Dr. Meyer left about 25 February 1945 also for GOTTINGEN.

One room on the first floor had been sealed on the orders of T Force Commander and was not inspected.

The library contained German and foreign physical and chemical journals and general science text books, about half of the original contents appeared to have been evacuated.

In one room adjacent to the director's office was a collection of personal and university correspondence.

A small number of documents was removed to T Force Headquarters Bonn, with the request that they be forwarded as soon as possible to Cologne.

Major King of the Information Section T Force agreed to arrange early delivery but would not agree to their immediate removal from Bonn.

The documents included correspondence between Fuchtbauer and Goering's Office and I.G. Farbenindustrie; a pamphlet on the meeting of the Lilienthal Organization in 1937, and several copies of the journal of Deutsch-Luft Wissenschaft.

On the ground floor near an exit were found a row of machine tools and two packing cases apparently ready for removal and addressed to Dr. Meyer at Geboldeihausen.

The cases were opened. One contained a miscellaneous collection of machine parts and samples of mica; the other which was painted grey and measured about

3' x 2½" x 2½' was padded inside and contained parts of what appeared to be a spectrograph.

In view of the limited time at the disposal of this party which had to return to Cologne that night, and in view of the incompleteness of the investigation (one room had been sealed) it was recommended that a further visit be paid the following day (see item 25, page 29).

In cases of this kind, a decision of policy is required on what should be done with a library; a thorough investigation would probably take about a week; the alternative is the removal of the entire contents.

The latter course would appear desirable in view of the possible destruction of the building by enemy action.

#### 14. Fabrik Elektrischer Zunder GmbH

This was a medium sized plant and had been damaged by bomb blast.

A German subject who produced a letter from the firm authorizing him to look after the plant stated that the firm had been engaged in general welding work during the war, chiefly in connection with vehicles.

Manufacture of fuses had been included among the firm's activities at one time but not since 1918.

No time was available for close examination of this plant but it is considered unlikely that it is of any radar interest.

#### 15. Corona GmbH Fabrik Elektrischer Artikel

No evidence could be found that a firm of this name had ever occupied the premises at this address, which appeared to have been a block of residential flats and was very severely damaged by blast.



16. Firma F. Himmermann

This firm was engaged in the working of small rolled-steel materials.

The work conducted by this factory was also of little value from the technical intelligence viewpoint. Some machinery was left but all personnel were evacuated.

The Firma F. Himmermann manufactured flat-rolled corset stays and cold-rolled steel. The cold-rolled steel was primarily of 3.5 x 0.5 mm. stock. Correspondence obtained indicated that an employee by the name of Alfred Winker carried out some metallurgical experiments. Winker had corresponded with Philips, Eindhoven, regarding a process for nickel plating steel rods for use as valve cathodes. Philips was investigating the possibilities of this experimentation.

17. Firma Collardin

An interview with Dr. Wilhelm Stuhlinger and Mr. Leonce Huber, both Swiss citizens, revealed that this plant made only rust-proof chemicals under license from the American Chemical Paint Company. Dr. Stuhlinger is a chemical engineer and plant manager, and Mr. Huber is a mechanical engineer and production manager. These two were the only engineers employed by the firm. Laboratory work dealt only with tests on raw materials, and samples of the finished product, and experiments on substitutes for chemicals that were hard to procure.

The firm has another plant in Schonbach, under the management of Mr. Collardin. The laboratory at this plant deals solely with the same type of work as at the Koln plant, and was moved there from Koln following bomb damage.

The only dealings with the Government was a test on a paint to be used in a submarine battery room to keep it dry. Only one test was made and nothing further was heard. Fairly complete office files are available at 37 Maasweg.

18. Hellige & Co.

This target could not be found. Neither firm nor street were known by the Frechen Military Government.

19. Carl & Co. GmbH

This firm occupied one floor which was damaged by blast.

The firm manufactures electric bells and push-buttons.

A commercial directory for the whole of Germany dated 1941 was found.

Nothing of interest.

20. Amtz und Eichhoff GmbH

This firm occupied one floor. It was seriously damaged.

The firm were wholesalers for electric light fittings.

Two labourers working on a nearby building volunteered the information that the firm consisted of a man and wife and three clerks. The building was first bombed six months before and after further damage the three clerks left in January, 1945. The owner left a week ago.

Nothing of interest.

21. Deutsche Telephone Werke und Kabelindustrie

This firm occupied the first floor and cellar at 1 Goebenstr. having moved from No. 3. The building was severely damaged.

The bureau acted as a sales agency for the firm whose main offices were as follows:

- (a) Apparatewerk - also Head Office  
Berlin SO 36  
Zeughofstrasse 6-10
- (b) Kabelwerk  
Berlin-Niederschönweide  
Berlinerstrasse 138
- (c) Abterlung Rundfunk  
Berlin-Neukölln  
Friedelstrasse 40.

The firm manufactures mainly telephone apparatus and cables with a certain amount of radio equipment.

A small stock of normal telephone parts was found in the cellar.

The files appeared intact. They covered the normal correspondence concerned with sales and installations.

In particular several files were concerned solely with Dynamit-Aachen-Gesellschaft vomels Alfred Nobel & Co. of Troisberg. Several other files were concerned with installations at Fords.

22. Hochspannungs Betriebs mbH

The factory covered approximately 2 acres. It was severely damaged.

Manufactured all larger types of power transformers, motors and generators.

Interrogated

Fischer - Managing Director  
Thater - Works Manager  
Ziems - Buyer.

The firm originally employed 300 men but at outbreak of war this dropped to 200.

The firm has been severely damaged seven times since 1942. It has been without power for six months.

It now has 32 employees and proposes producing transformers to provide power supply for Cologne.

23. Bergmann Elektrizitatswerke A.G.

The above target was visited between 1000-1100 hours on March 12, 1945.

The target had been completely demolished by bombing and it was impossible to carry out any inspection.

An interrogation was carried out on several people who had lived in the building or adjacent premises and all the information obtained was from this source.

It had consisted of 3 medium-sized offices and a large store manned by 2 men and 1 girl. One of the men had left for Berlin about 2 months ago and the other had subsequently just disappeared. The girl was left behind to keep the books right up until the time of bombing, i.e. 1030 hours on 2nd March. The firm's main office was in Berlin and it had other offices throughout Germany.

This particular branch was acting as a store for wiring conduits, cable and other industrial lighting equipment. All this material had also been evacuated about 2 months ago to an unknown destination about 100 miles east of Cologne.

The only documents which could be obtained were one file which may reveal further information on the activities of this branch.

24. Steinert Elektromagnet Bau GmbH

The above target was visited between 0900-1000 hours on March 12, 1945. The premises had been completely bombed out and three people were found living in the porter's lodge.

It formerly occupied 2 large workshops, and a large block of fairly modern offices. The two shops

had been completely bombed out and the offices had suffered superficial damage only. There was nothing to be found in the way of documents in the offices of any importance except for three files which were of no technical value but were removed as they were of interest from an intelligence viewpoint.

Interrogation of the above-mentioned personnel named Spritzer (a father and two sons) was the only other source of information.

The factory had been bombed approximately 8 weeks ago, but considerable evacuation of both plant and personnel had been started well before this, the last of this having taken place approximately one week ago. Two addresses were obtained to which it was believed the factory had been evacuated:

- (a) Firma H. & M. Plessmann  
Holzgrosshandlung und Sagewerk  
Vernawahlshausen  
Uslar/Weser.
- (b) Firma Saline Karlshafen  
Karlshafen/Weser.

There is a head office of this firm in Berlin and the name of the General Manager of the whole concern is Leo Schmidt. The former General Manager of the Cologne works is Kulk. The plant here formerly employed approximately 100 workers.

The Spritzers were not sure what had been manufactured there as they had been under detention for 3 months prior to the seizing of the target, but believed that the products consisted of electromagnetic devices of all sorts which were shipped to various destinations in Germany.

Further examination of the removed files may perhaps reveal more information on the activities of this firm.

25. University of Bonn,  
Physikalische Institut

Summary

(a) Part of the technical library was discovered intact. Certain books relating to physics and electronics were evacuated.

(b) Two infra-red receivers were discovered and evacuated to T Force Headquarters (Cologne) for shipment to RAE, Farnborough. It was determined that under the direction of Professor Feuchtbauer secret government research projects were carried on in the university. These projects were concerned mostly with spectro-analysis in the field of infra-red.

Description of field trip

The Institute of Physics was officially evacuated last November to Giebolderhausen, near Gottingen. The only persons able to provide information were the caretaker and mechanic who had remained. An inspection of the building resulted in the following observations: All the latest books and periodicals had been evacuated. Most of the expensive laboratory equipment had been evacuated. The instruments left were kept in one big room and are mostly of a type used for teaching purposes. The rooms of the Professor and his assistants were inspected. In Professor Feuchtbauer's room several files were found, as well as catalogues, reprints from German publications, instruments, etc. The top floor of the building was burned during an air raid a few months ago. Before leaving the target the party discovered two grey crates containing in each an infra-red receiver, P5/1 UR42. Furthermore, two metal tripods and a searchlight with its tripod were found. This equipment was among items packed for shipment which were marked "Dr. Habitz". Other boxes in the shipment contained a considerable amount of laboratory equipment commonly used for optical experiment, which may be used for experiments with infra-red.

Inquiry from the caretaker and a quick check through the correspondence of the Professor made it possible to piece together the story behind the infra-red research project: In 1942 Professor Feuchtbauer suggested to Grand

Admiral Doenitz that a project be started in the University for the purpose of location of targets by means of photo-cells. He also suggested that physicists be released from the armed forces to work on this project. His request was apparently granted because the files show that purchases of equipment vital to the war effort had been made from several firms, on high priorities. Professor Feuchtbauer delegated this work to his three assistants, Dr. Habitz, Dr. Helper and Dr. Olmesdahl. These men are about 30 years of age. It was found that from the offices of these assistants wires were laid to certain concrete positions which contained lamps and mirrors for a complicated optical system. Furthermore, a mirror and a telescope for alignment were placed into a chateau approximately 400 yards from the University. A few pieces of packing paper were found with labels indicating that packages had been sent to the University from radar research organizations of the Luftwaffe in Germany.

It was found that a Fraulein Dr. Richter (address: corner of Mozart and Bach Str., Bonn) had formerly been working for Professor Feuchtbauer and the team interviewed her. She admitted having been an assistant of Professor Feuchtbauer, but left the University last fall to work for her mother who is sick. She denied having had any direct connection with any of the war projects but did concede that she had carried on certain projects for Professor Feuchtbauer, such as sensitivity curves of cathode materials for infra-red receivers. Dr. Richter was not willing to disclose any further information which would have thrown light on the present investigation. It is believed, however, that her knowledge as physicist and the fact that she has worked in a German University may be very helpful and that more information may be obtained from her if she is properly interrogated. After this investigation the infra-red equipment was evacuated to Colongt (T Force Headquarters). Further steps are being taken to interview Dr. Richter in the presence of Dr. Brode, OSRD infra-red expert.

26. Stattische Ingenieur Schule und Technische Bucherei  
und Patentschriften-Auslegestelle

The target was entirely clear of operating personnel except the janitor, Joseph Tepert, Severin Strasse 80, who possessed little information as to the working of the establishment. The top floors of the building were destroyed and a wing was completely destroyed. The establishment appears to have been a government-operated engineering school, well furnished for teaching electrical and mechanical engineering, but offered no evidence of extensive research or government research projects. The impression is that the institution was conservative and confined itself to teaching and giving public service to the profession in the form of a technical library and a patent library.

The library was open to the weather. The patent section was not surveyed except to note that it is up-to-date. No patent specifications were removed lest the integrity of the library be destroyed. Some textbooks and current periodicals were removed.

A teletype message evaluating the patent library was dispatched to G-2 SHAEF, and the S-2 Documents Section, T Force, Cologne were similarly advised.

27. Aluminum-Folien-Walzwerk Leber K.G.

Target consists of a small manufacturing plant which employed approximately 80 to 100 persons. The owner fled but is believed to be now somewhere in Allied occupied territory. The plant manufactured tin and aluminum foil of all sorts of sizes and thicknesses. Up to August 1944 this plant manufactured "window". From then on, zinc paper was manufactured up to the time of closing of the plant, October 1944, due to lack of electric power. This information was obtained from Heinrich Schmidt, Cologne/Merheim, Neusser Strasse 767, who was a mechanic at the plant and who was instructed by the owner to visit the plant daily. He gave information about the secretary



of the owner, Miss Anni Schmitz, who was familiar with the files and could give further information on the business activities if interrogated. Her address is Feldkassel, near Fuehlingen. Samples of "window" were not obtainable.

28. Gesellschaft fur Elektrische A.A. GmbH

This address is completely destroyed.

29. Cologne Airport

This target was evacuated, but a British airborne radar indicator type 162 was found in a scrap heap. The condition of this unit was relatively good, thus indicating that the Germans probably have the circuit details.

#### IV - DOCUMENTS AND MATERIAL EVACUATED

##### DOCUMENTS

From Cologne Engineering School via T Force, Cologne, to G-2 SHAEF Documents Section:-

1. Dossier of correspondence re suitability of students for certain posts.
2. Miscellaneous correspondence.
3. Exchange of letters with Government Scientific Office.
4. Three books on Radio Technique.
- 5)
- 6) Patent Specifications (all subjects).
- 7)

From University of Bonn (Physikalische Institut) via T Force, Bonn, to G-2 SHAEF Documents Section:-

Correspondence between Dr. Feuchtbauer and Goering's office and I.G. Farbenindustrie; a pamphlet on the meeting of the Lilienthal Organization in 1937; several copies of the journal of Deutsch-Luft Wissenschaft.

From E. Leybold's Nachfolger via T Force, Cologne, to G-2 SHAEF Documents Section, to be shipped to MLI, Lansdowne House, London:-

Forty sets of documents including correspondence files and folders of miscellaneous papers.

From Siemens und Halske via T Force, Cologne, to G-2 SHAEF Documents Section to be shipped to MLI, Lansdowne House, London:-

Large number of files and documents outlining the Siemens Organization in other countries.

DOCUMENTS (Continued)

From Bergmann Elektrizitatswerke A.G. via T Force, Cologne, to G-2 SHAEF Documents Section:-

A file giving activities of this company.

From Steinert Elektromagnet Bau GmbH via T Force, Cologne, to G-2 SHAEF Documents Section:-

Three files giving activities of this company.

From Franz Baumgartner via T Force, Cologne, to G-2 SHAEF Documents Section:-

Current files of the plant.

From Aluminium Warenwerke via T Force, Cologne, to G-2 SHAEF Documents Section:-

Files and documents giving business relations of this plant.

From Aluminium Warenwerke, University of Bonn, and Cologne Engineering School, carried by hand of Major John Arthur via T Force to 12th Army Group to G-2 SHAEF to Technical Liaison Branch, OCSig C Com Z ETOUSA:-

Many technical textbooks and journals. A list of these documents is now being prepared.

MATERIAL EVACUATED

Signal generator from Siemens und Halske sent to RAE Farnborough via T Force, Cologne to G-2 SHAEF.

Infra-red receiver, two, numbered P5/1 UR42 from University of Bonn, Physikalische Institut, via T Force, Cologne, to G-2 SHAEF. After preliminary examination in Paris by OSRD, USN, and Signal Corps representatives, this will be shipped to RAE Farnborough. Any questions concerning preliminary examination should be referred to Major John Arthur, Technical Liaison Branch, OC Sig O, Com Z, ETOUSA, telephone Elysee 1702 in Paris.

Samples of all window types from Aluminium Warenwerke, Grevenbroich via T Force, Cologne, to G-2 SHAEF and then to RAE Farnborough.

V - POINTS OF INTEREST FOR FOLLOW-UP

1. Further interrogation by expert interrogators of Mr. Wilhelm Wirz, Manager of E. Leybold's Nachfolger, Cologne Branch, might yield some interesting data concerning other industrial organizations in Germany. In particular, his statement that "great urgency had been attached to the manufacture of high vacuum pumps in the last twelve months" should be elaborated.

2. The extensive files and records at V.A.W. Erbtwerk at Grevenbroich should be perused to obtain more details of their window production and especially to obtain confirmation of the operational use to which it will be put.

3. The names of the staff of the Bonn University Physikalische Institut, evacuated to Geboldeihausen, near Gottingen, in particular Dr. Feuchtbauer, the Director, should be noted in Black Lists at their new address.

4. Fraulein Dr. Richter (address: corner of Mozart and Bach Strasse, Bonn) should be interrogated by experienced infra-red experts concerning the work she did as assistant to Dr. Feuchtbauer, Director of Physikalische Institut, Bonn University.