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KRUPPS, ESSEN
and incorporating information on
LUFTFAHRTGERAETEWERKE, HAKENFELD, BERLIN
and activities by DUDENHAUSEN at RIETBERG

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BRITISH INTELLIGENCE OBJECTIVES

SUB-COMMITTEE

TJ/PA



KRUPPS, ESSEN

Reported by

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and incorporating information on

LUFTFAHRTGERATEWERKE, HAKENFELDE, BERLIN
and activities by DUDENHAUSEN at RIETSBERG

BIOS Target Numbers
C25/506, C25/558, C27/406

BRITISH INTELLIGENCE OBJECTIVES SUB-COMMITTEE
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Personnel of Team

F. F. Marshall. Royal Aircraft Establishment
W. E. Fairfoul. Royal Aircraft Establishment

B.I.O.S. Team 1424

1. Object of Visit
See Page 4, Para. 1.

2. Summary

2.1. The team left London by air on 9th November, 1945, reported to G.(T) and C.W. Groups 2 and 1, on the 10th to Mr. Purves D.D. Aircraft Branch Control Commission and Group 4, G. (T) and C.W. on the 12th November. Mr. Purves stated that a number of German scientists and technicians were working at Luftfahrtgeratewerke Hakenfelde Berlin on Auto Pilots and the only authority for this work to be carried out appeared to be a document signed by Director G. Klein of L.G.W. It had been reported also that a store of electrical instruments, small motors and auto pilot parts had recently been located at L.G.W.

2.2. A signal was despatched to U.K. through Group 4 on 12th November seeking information on official authority for the work in hand at L.G.W. and instructions on possible necessity for team to visit Berlin to clarify the position. (Signal did not reach its destination until 29th November, after the team had returned to U.K.)

2.3. Mr. S. W. A. Bunker AC.A.ARM and W/C. Gooding D.M.I. were contacted at B.A.F.O. Admin. Buckeburg for further information on the store at L.G.W. and the latter promised to obtain sample instruments from the store and have these available at Buckeburg on 19th November.

2.4. The team were unable to leave for Krupps, Essen, before 14th November, owing to the shortage of transport at Lohne. A full report on this visit is given on Page 4.

2.5. Reporting on return to G.(T) and C.W. on 17th November, it was found that no reply had been received to the signal sent to U.K.

2.6. On 19th November the team reported to Mr. Purves, who by this time had moved to B.A.F.O. Admin. Buckeburg, and gave a summary of the action taken at Essen and action proposed with regard to G.E.W. Berlin. Mr. Logan and S/Ldr. Munro A.C.A. Equip. Mil. Gov. B.A.F.O. supplied sample of electrical moving coil meter condensers and resistances from L.G.W. Berlin store, but were also concerned with the activities of a German named Dufenhausen who was working on the production of servo-motors for Siemens K.23.A. Auto Pilot at Rietberg, (Map Ref. L52 547, 57) and a visit to Rietberg was arranged in collaboration with Mr. T. Sellwood, Air Disarmament Wing, B.A.F.O., Gutersloh, for that afternoon. A report on this visit is given on Page 7.

2.7. A sample small motor was received from W/O. Gooding, D.M.I.A., on 20th November, and Sec/Off. Leggatt-Wood stated that two sets of K.23 Siemens Auto-Pilot were being brought to Euckeburg from L.G.W., Berlin.

2.8. The team left Bad Oeynhausen by train on the afternoon of 20th November, and returned to U.K. via Calais on 21st November.

Report on Visit to Krupps, Essen, by F. F. MARSHALL and W. F. FAIRFOUL of Instrument and Photographic Department, Royal Aircraft Establishment, Farnborough, on 15th and 16th November, 1945.

1. Object of Visit

To obtain Drawing Office equipment, particularly draughting machines, practically unobtainable in U.K., and any other apparatus and aids conducive to efficiency of the Drawing Offices at the Royal Aircraft Establishment.

To obtain any information on organization, training, etc., which might be applied to advantage.

2. Information

Information had been received at R.A.E. that the equipment and organization of Krupps Drawing Offices was far in advance of that of the R.A.E., and that over a thousand draughtsmen were employed - first class drawing aids being provided.

Information in Report 275 seen at G.T. and C.W. Group II:-

Krupps. Chief Draughtsman Dr. Krenger.

Large quantity of draughting machines may interest Control Commission. Target 1/709, 3 Kilometres south of Ratingen. Map Ref. K.52.F.39.

Team reported to Mr. Riddell, 130 Detachment Military Government at Krupps on 15th November.

3. Personnel Interviewed

Harlin	- Personnel Department.
Tubbesing	Administration.
Von Der Becke	
Rosenbaum	- Buildings and Plant.
Dr. Hansen	

All proved extremely helpful and co-operative.

4. Apprentice Training

Harlin of Personnel Department described the Apprentice Training. Recruitment, which was done through the Local Labour Bureau, was from the elementary schools at 14 to 16 years of age. Examinations were held to qualify for entry and were similar to the final examinations held at the elementary schools, but included a psychological test for intelligence and aptitude. One year's practical training was given in workshop practice, followed by a period in the Drawing Office. Those showing aptitude for Drawing Office work usually remained there, the others being returned to the workshops to complete their training, eventually specializing as turners, millers, fitters, etc. The period of apprenticeship was 3 - 3½ years, and the rate of pay 24 - 60 marks per month. Apprentices attended school 6-8 per week during the firm's time, and were also expected to attend evening classes in their own time. There were no examinations during the period of Apprenticeship, assessment being entirely on results. Apprentices could, however, sit for the examination to qualify for a Certificate of Merit given by the Chamber of Commerce, which was a generally recognised qualification. Samples of Apprentices work were seen in the workshops, and appeared to be up to a reasonable standard. Before the end of the period of training, Apprentices got on to production work - whether in the workshops or in the drawing offices - and thus eventually emerged into the general organisation in a capacity in keeping with their attainments.

5. Drawing Office Organization

Von Der Becke conducted team through four drawing offices - Power, Electrical, Building and Plant, the staff being located in the main administrative building which, as it was not intended for this purpose, did not have the amenities usually associated with drawing offices. Most of the staff were equipped, however, with drafting machines, of which there appeared to be over a hundred. The drawing work was done in pencil on very good quality tracing paper, and the result was so good that tracing in ink was not usually required. Tracers are not employed, but if a tracing in ink on linen is required the work is done either by the draughtsman who carried out the original drawing work or by apprentices. The head of the drawing office is usually a sound practical engineer with many years design and drawing office experience. High academic attainments are not a normal requirement for this position. The head of the drawing office acts as attorney for the head of the department. The drawing office is staffed by designers, senior and junior draughtsmen, and apprentices. Draughtswomen had been employed during the war period and these proved very satisfactory. They were given two years training and were recruited from occupations such as milliners, shop assistants, etc. Samples of their work showed a very high standard indeed. The rate of pay for these women was about 140 to 180 marks a month.

6. Departmental Organization

Rosenbaum of Buildings and Plant Department explained that departments were normally self-contained units within the framework of the Krupps organization. Each department contained it's own workshops, drawing offices, technical, administrative and sales staff.

The head of the department was entirely responsible for the departmental activities, and answerable to the Directors.

7. Equipment for Evacuation

On November 16th the team reported to Mr. H. C. Cronk, No.4 Reparatons Team at Krupps. Dr. Hansen of Krupps was interrogated, and it was ascertained that

- 4 Kuhlmann Drafting Machines,
- 16 Complete sets of drawing instruments,
- 38 Incomplete sets of drawing instruments,
- 39 Slide Rules

were available immediately. 99 Drafting Machines, Kuhlmann or Nestler, were being used on essential work, but could be released in about two or three weeks. Mr. Cronk stated that he would see that the maximum allocation be made, leaving only those really required for essential reconstruction work.

8. Equipment at Ratingen

Target 1/709 was stated to be cleared of drafting machines and equipment.

9. Action Taken

Evacuation Request Form, fully describing the equipment, and giving consignment instructions, was handed to O/C. "T" Force Detachment at Essen, Heiseingen, on November 17th together with note signed by Mr. Cronk, No.4. Reparatons Team, which confirmed availability of the equipment as detailed in para. 7, page 6.

It was pointed out that early evacuation of the equipment from Krupps was advisable, but removal to U.K. could not be regarded as urgent. It was stated that the equipment is required for use on research and development work at the Royal Aircraft Establishment, Farnborough, this being the address given for the consignment.

AUTO PILOTS

Report on Visit to Dudenhausen, Rietberg, Map Ref. L.52. R.B.4757,
on November 19th, 1945, by:-

S/Ldr. Munro - A. C. Equip. B.A.F.O. Admin. Buckeburg.
Mr. T. Sellwood - Mil. Gov. No.2 Group Air Dis. Wing; Guterdoh.
Miss Coulthard - Mil. Gov. Interpreter.
Mr. F. F. Marshall - R.A.E.) B.I.O.S. Team 1424.
Mr. W. E. Fairfoul - R.A.E.)

In connection with Siemens Auto Pilot K.23.A.

1. Information

Dudenhausen, it appears, is required to make a number of servo motors for Auto Pilot Siemens K.23.A - some for Lancasters and some for fighters. He states that he cannot complete the work required of him unless he is able to get certain parts which could probably be found in Berlin.

German civilians are not allowed to go to Berlin.

2. Object of Visit

To endeavour to ascertain the extent of Dudenhausen's activities. To obtain sufficient information about the parts required that, should a visit to Berlin be necessary, these could be found, identified and delivered. To make an appreciation of the situation and decide on a plan of action.

3. General

Dudenhausen, who was located in a private house in the main street in village of Rietberg, gave a description of the Auto Pilot. He exhibited a set of components which included a servo unit operated by a 30 watt motor. This unit he had made up. He explained that three such sets of components, together with one set of certain other units, were required to form a complete Auto Pilot, that tuning and testing were difficult without special apparatus, and that final tuning and ground testing after installation in the aircraft should be carried out by a specialist. He suggested that one set would not be adequate in case of mishap, and at least two sets should be made up. He produced a list of parts which he required and which included information on possible source of supply. Drawings would be required for the manufacture of other parts, and arrangements would have to be made for the manufacture to be put in train.

4. Conclusions

In view of the activities reported at L.G.W., Berlin, the possible link with Dudenhausen's activities, and incomplete knowledge of the whole situation, it was decided as follows:-

- 4.1. B.I.C.S. Team 1424 should return to U.K. and report to the department concerned.
- 4.2. Arrangements would be made for someone fully conversant with the situation, together with Dr. Klein, to visit Germany as soon as possible and clarify the situation by the issue of information and/or instructions to those concerned, make arrangements for manufacture and obtaining of parts required, and deal with any questions arising.
- 4.3. Dudenhausen would meanwhile proceed with the preparation of sketches of the parts to be made, and obtain the services of a draughtsman for the preparation of any drawings.

It was suggested, as the work would probably become protracted, that a technician might be sent from U.K. to act as liaison between all concerned, and remain until his services were no longer needed.

5. Action Taken

Head of Instrument and Photographic Department, Royal Aircraft Establishment received verbal information on the situation on the morning of November 22nd.

A copy of the list of parts mentioned in para.3, page 7, was supplied.

Mr. Sudworth and Dr. Klein left U.K. on the 3rd December for Germany with the necessary information and instructions.