

J.C.C. 4th MEETING

COPY NO.

12th AUGUST, 1944.

~~SECRET~~ SECRET

MINUTES OF THE 4th MEETING OF THE JOINT
"CROSSBOW" COMMITTEE.

Present:

Air Commodore C.B.R. Pelly
Colonel R.D. Hughes
Colonel A.R. Maxwell
Air Commodore J.A. Easton
Lieutenant Colonel Stewart McClintic
Wing Commander W.F. Lamb

D. of Ops.(S.O.) Chairman
H.Q. U.S.St.A.F.E.
H.Q. U.S.St.A.F.E.
D. of I.(R)
A.I.3.(U.S.A.)
A.D. of Ops.(S.O.) Secretary

Also in attendance:

Wing Commander D.H. Scott
Squadron Leader C.T. Winterton
Squadron Leader Cowley
Captain W.W. Rostow

D.D.I.(3)
A.I.3. C.1
A.I.3. C.1
A.I.2.(a)

ACTIONMEMBERSHIP OF COMMITTEE

Air Commodore Pelly assumed the chairmanship of the meeting in place of Air Commodore Grierson and informed the Committee that D.C.A.S. had decided that he (Air Commodore Pelly) as D. of Ops. (S.O.) and Air Commodore Easton, representing A.C.A.S.(I), should be the Air Staff representatives on the Committee. While the U.S.St.A.F.E. representation would remain unaltered, he suggested that it was unnecessary for a representative of the C.C.P.C. to attend since the latter Committee was concerned only in the tactical aspect of operations.

2. THE COMMITTEE took note of the revised membership.

PROCEDURE

3. Air Commodore Pelly said that in order to save time and to simplify procedure, he had consolidated the recommendations of the Working Committee in the form of a draft memorandum attaching a schedule of targets in order of priority, recommended for attack. In the memorandum were outlined the principal considerations which had led to the selection of targets. He proposed that the meeting should agree the memorandum and schedule, and submit these as their considered recommendations to the Deputy Supreme Commander, copies being sent to Commands, thus providing those concerned with the background picture as well as the Target list.

4. THE COMMITTEE agreed the proposed procedure.

SUSPENSION OF TARGETS

5. Air Commodore Pelly said that Commands had queried delays in the suspension of targets by the Air Ministry. He felt that since Commands were normally the first to receive damage assessments, they should use their own judgment in temporarily suspending attacks, and that the Air Ministry, in the light of detailed examination by experts and the latest Intelligence, should confirm or otherwise these temporary suspensions. Colonel Hughes suggested a closer liaison should be maintained between the Air Ministry and Commands and that

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in doubtful cases, targets should be placed low in the order of priority for attack.

- D.of OPS,
(S.O.) 6. THE COMMITTEE invited D.of Ops.(S.O.) to examine and, if necessary, re-organise the machinery within the Air Ministry for the suspension of targets.

CIRCULATION OF PAPERS

7. Air Commodore Easton considered it undesirable to give a wide circulation to the J.C.C. Papers and Minutes of the Committee and of the Working Committee. He proposed that the Intelligence branches concerned should issue summaries of the various aspects of the "CROSSBOW" problem from time to time in accordance with normal procedure, and if necessary, a weekly meeting of Command Intelligence officers should be convened, as in the case of the Jockey Committee, to inform them verbally of the latest developments.

8. THE COMMITTEE : -

- (i) Agreed that the circulation of J.C.C. Papers and Minutes should be restricted to the following : -

SECRETARY

- (a) Members of the Joint "CROSSBOW" Committee and the Joint "CROSSBOW" Committee and the Joint "CROSSBOW" Working Committee.

(b) Intelligence branches in the Air Ministry.

D.of I.(R)

- (ii) Invited D. of I.(R) to arrange for periodical Intelligence summaries to be issued in accordance with normal procedure to Commands.
- (iii) Invited D. of I.(R) to arrange a weekly meeting at which Command Intelligence officers would be informed verbally of recent developments and fresh Intelligence concerning "CROSSBOW".

ELECTRIC POWER AND SUPPLY DEPOTS

9. Air Commodore Pelly raised the following points:-

- (i) Electric Power System

It had been decided at previous meetings that the destruction of electric power supplies was not likely to affect directly the operation of flying bomb launching sites. There was some doubt as to whether modified sites were equipped with power generators and these sites might be dependent upon outside power supply.

- (ii) Supply Depots.

A special type of gantry had been noted at depots known to be used for the storage of flying bombs. It was suggested that a search should be made for the same type of gantry at other suspected depots.

10. THE COMMITTEE : -

D.of I.(R)

- (i) Invited D. of I.(R) to review, in the light of the latest Intelligence, the possibility of affecting the operation of modified launching sites by the destruction of electric power supplies.

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D. of I.(R) (ii) Invited D. of I.(R) to arrange for photographs of all suspected flying bomb depots to be examined for special gantries.

S.O.E.

11. Air Commodore Easton suggested that requests for S.O.E. to undertake tasks should be forwarded direct by D. of Ops.(S.O.). He would undertake to supply the necessary Intelligence material to S.O.E.

D. of OPS.
(S.O.)

12. THE COMMITTEE agreed to this procedure.

MEMORANDUM AND TARGET SCHEDULE

13. THE COMMITTEE, after a full discussion, agreed the Memorandum to the Deputy Supreme Commander and recommended order of priority for the attack of those targets shown in Target Schedule No. 34, both of which are attached to these minutes.

BOMBING PLAN

14. Colonel Maxwell referred to the previous decision that an outline bombing plan should be prepared as a basis for action in the event of rocket attacks commencing, and handed round copies of a draft outline plan.

SECRETARY

15. THE COMMITTEE, after discussion, invited the Working Committee to consider the outline plan prepared by U.S.St.A.F.E. in conjunction with that now being prepared by the Air Ministry and to submit their proposed plan as a matter of urgency.

13th August, 1944.

TOP SECRET

TOP SECRET

COPY NO. _____

To: Deputy Supreme Allied Commander, S.H.A.E.F.
(For the attention of Air Vice-Marshal Robb - 3 copies)

From: Air Ministry, Whitehall.

Date: 13th August, 1944.

Ref: CMS.307/D. of Ops.(S.O.)

ATTACK OF "CROSSBOW" TARGETS
RECOMMENDATIONS OF JOINT "CROSSBOW" COMMITTEE

With reference to my CMS.307/D. of Ops.(S.O.) dated 5th August, 1944, forwarding Schedule No. 33 of "CROSSBOW" targets authorised for attack, addressed to the Air Commander-in-Chief, A.E.A.F., a copy of which was forwarded to you, the Joint "CROSSBOW" Committee have concluded a further examination of the available intelligence and wish to submit for your consideration the attached Schedule No. 34 of targets recommended for attack.

2. The following is a summary of the considerations on which the new schedule has been based :-

(i) Rocket Production

A number of reports, certain important details of which are confirmed by photographic reconnaissance, have connected the production and assembly of the rocket with a factory at Weimar/Buchenwald.

(ii) Explosives

Completely reliable intelligence has connected the factory at Klausthal with production (precise nature unknown) for the rocket and possibly the flying bomb.

(iii) Rocket Fuel

The enemy is known to be making special preparations for the production and storage of liquid oxygen at seven factories in Northern France and Belgium, conveniently situated to serve the rocket launching area. Six of these have been pin-pointed and are included in the schedule. It should be noted that the plant at Le Madeleine-les-Lille is situated near a built-up area. Although there are other sources of supply, the destruction of these plants should force the enemy to revise his plans for the production and delivery of fuel for the rocket and thereby delay the start of his attacks.

(iv) "BENITO" Stations

Perhaps the most vulnerable link in the German rocket organisation is the fact that the projectile is radio-controlled and therefore susceptible to radio counter-measures. It is essential, however, to be able to detect and identify radio signals connected with rocket operations in the shortest possible time. There are 5 "BENITO" stations in the rocket launching area which operate on the same frequency band as the radio control sets found in the rocket. The "CROSSBOW" Radio Counter-Measures Committee consider that it is most important to eliminate these five "BENITO" stations as soon as possible, thereby clearing the air of confusing signals.

/ (v) ...

(v) Underground Rocket Storage Depots

There are fifteen underground depots, some still in the process of construction. These have previously been termed Forward Supply Depots. The latest intelligence suggests that they are intended to store rockets rather than flying bombs, and further evidence may become available shortly as a result of photographic cover and detailed study of the captured plans of the somewhat similar site at Hautmesnil. Since it may become desirable to attack these targets at short notice in the near future, these fifteen depots have been listed in the Schedule and it is recommended they be studied by Commands, pending the investigations now taking place, and the issue of fuller target material.

(vi) Surface Rocket Storage Dumps

In view of the damage caused to the dump in the Forêt de Nieppe, this target has been temporarily suspended, pending the receipt of a detailed damage assessment of the whole area.

(vii) Flying Bomb and Rocket Experimental Station

Further study of photographs of Peenemünde shows that in the case of the elliptical earthwork, the electrolytic and electrostatic hydrogen plants, further attacks will be necessary. Furthermore, it is known that rocket firing trials are still continuing. These three targets have therefore been reinstated in the Schedule.

(viii) Hydrogen Peroxide Plants

Hydrogen peroxide is used for launching the flying bomb and as an auxiliary fuel for the rocket. Recent intelligence has definitely associated the Henkel Works at Dusseldorf with the manufacture of hydrogen peroxide for special military purposes and there are also indications of local shortages of this fuel. It is recommended that the following targets should be attacked :-

- (a) OBER RADERACH (subject to damage caused by 15th U.S. Air Force in recent attacks).
- (b) RHEINFELDEN.
- (c) DUSSELDORF (HENKEL).

(ix) Flying Bomb Supply Depots

Three supply depots, which according to intelligence information are most probably in use at the present time, have been included in the Schedule.

(x) Flying Bomb Petrol Dumps

Petrol for the flying bomb is of low grade and is probably drawn from the normal G.A.F. fuel depots in France. It is understood that these are already being attacked for reasons other than "CROSSBOW". It should be noted that such attacks may also disorganize the system of supply to flying bomb launching sites.

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(xi) Airfields

The enemy is known to be using certain airfields in the Low Countries and France for the operation of Heinkel III's specially fitted to launch the flying bomb. The number of flying bombs launched by this method is not large and there are at least eight suitable airfields in the Low Countries, and also one in France which intelligence indicates has been used for this purpose. These nine airfields have been shown in the attached Schedule and it is recommended they be attacked if airborne launching activity revives after the present lull.

(xii) Railway Transport of Flying Bombs

Intelligence has revealed that the enemy is supplying an increasing proportion of flying bombs to launching areas from Germany through Belgium to the Hazebrouck and the Abbeville/Amiens areas. It is believed that two trains a day pass through Mouscron, and arrive in the Hazebrouck area between 1800 and 2300 hours, and the Abbeville/Amiens areas between 2100 and 2300 hours. (Times are Double British Summer Time). Unloading stations which are confirmed by intelligence have been listed in the Schedule. It is recommended that attacks be made against this traffic either in transit or while unloading.

(xiii) Launching Sites

The Joint "CROSSBOW" Committee hold divided opinions as to the desirability of including the launching sites in the Schedule for regular attack, and propose to submit a separate memorandum on this subject. Meanwhile a list of sites is shown in the Schedule in order of priority, those known to be the most active at the top.

(xiv) Rocket and Flying Bomb Production Plants

A list of industrial objective which intelligence associates with rocket and flying bomb production, but about the importance of which there is no precise evidence, have been listed in the Schedule as secondary targets worth while taking into account when surplus effort is available in planning attacks against targets of primary importance in the areas in question.

3. As fresh intelligence is received and analysed, you will be kept informed of any recommendations for changes and adjustments in the target schedule.

4. It is recommended that the temporary suspension of targets be left to the discretion of the Commands to which they are allotted. The Air Ministry will endeavour to confirm or cancel such suspensions as soon as possible in accordance with the latest damage assessments or other evidence available.

L.B.R. Pelly, A/Cdre

Director of Operations (Special Operations)

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D. of I (O)
R. A. F. Delegation, Washington.

~~TOP~~ SECRET"CROSSBOW" TARGETS RECOMMENDED FOR ATTACKSCHEDULE NO. 34FIRST PRIORITYTarget No.Industrial Production

- | | |
|----------------------|---|
| 1. WEIMAR/BUCHENWALD | GN.5060 (Target material will be issued to stations on 16th August) |
| 2. OBER RADERACH | GN.3764C |
| 3. RHEINFELDEN | GN.2358E |
| 4. DUSSELDORF | GK.4452 |
| 5. REENEMUNDE | GU.4387 A.1
GU.4387 B.1
GU.4387 B.2
GU.4387 D. |
| 6. KLAUSTHAL | GS.129 |

SECOND PRIORITYLiquid Oxygen Plants -

- | | |
|---------------------------|---|
| 1. TILLEUR | ZB.873C |
| 2. WILLEBROECK | ZB.112 |
| 3. MENIN LIETARD | ZB.916E (Target material will be issued on 16th August) |
| 4. TERRE-LES-BAUDOUR | ZB.878 |
| 5. HOUDENG | ZB.916E |
| 6. LE MADELEINE-LES-LILLE | Z.838A. |

THIRD PRIORITYSupply Depots

- | | |
|------------------|---------|
| 1. MERY-SUR-OISE | Z.3240 |
| 2. ISLE ADAM II | Z.3256 |
| 3. ISLE ADAM IIA | Z.3256A |

FOURTH PRIORITY"BENITO" Stations (Suitable for attack by fighter bombers)

- | | |
|---|-------------|
| 1. BOULOGNE/BOURSIN | 5001 E/K/12 |
| 2. CASSEL/LA CROIX ROUGE | 5002 E/K/10 |
| 3. ST. VALERY EN CAUX/CONTEVILLE EN PALLEUL | 4900/K/6 |
| 4. ST. VALERY EN CAUX/ST. MARTIN AUX BUNLUX | 4900/K/22 |
| 5. AUMALE/NEUVILLE GOUVION | 4901 E/K/12 |

/Fifth Priority

FIFTH PRIORITYFlying Bomb Unloading Stations GSGS Sheet No. Grid ReferenceHAZEBROUCK Area

1. RENESCOURT	4040/51	217505
2. BLENDENOUES	4040/50	169504
3. BERGUETTE	4040/62	273371
4. ST. AIRE SUR LYS	4040/51	237402

ABBEVILLE/AMIENS Area

5. LIERCOURT	4250/10D/5	826773
6. LONGPRE LES CORPS SAINTS	4250/10D/5	897726
7. AIRAINES	4250/10D/5	851681
8. FLIXECOURT	4250/10D/5	954728
9. CANAPLES	4250/10D/3	054678
10. DOULLENS	4040/84	151875
11. BOUCHE MAISON	4040/84	159933

SIXTH PRIORITYLaunching SitesTarget No.

∅ 1. LA GRANDE VALLEE	Z. 3269
∅ 2. ST. SYLVESTRE	Z. 3275
∅ 3. BOIS DU GRAND MARCIE I	Z. 3270
∅ 4. MONT GOURNOY	Z. 3288
∅ 5. LES CHABILLERS	Z. 3283
∅ 6. LES LANDES VIEILLES ET NEUVES	Z. 3285
∅ 7. LA HOUSSOYE	Z. 3279
∅ 8. COQUEREAUX	Z. 3273
∅ 9. FRESSIN	Z. 3189
∅ 10. FRESNOY	Z. 3219
∅ 11. OEUVE EN Ternois	Z. 3325
∅ 12. WADICOURT	Z. 3209
∅ 13. ACQUET	Z. 3289
∅ 14. MONTLOUISFERME	Z. 3213
∅ 15. PROUVILLE	Z. 3212

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SIXTH PRIORITY (Continued)

<u>Launching Sites</u>	<u>Target No.</u>
Ø 16. BELLOY SUR SOMME	Z. 3227
Ø 17. FERME DU GRAND BOIS	Z. 3300
Ø 18. CREPIEUL	Z. 3197
Ø 19. FLEURY	Z. 3167
Ø 20. FIEFS	Z. 3166
Ø 21. FERME DU FORESTEL	Z. 3228
Ø 22. VILLERS L'HOPITAL	Z. 3254
Ø 23. HAUT MAISMIL	Z. 3252
Ø 24. FROMENTAL	Z. 3319
Ø 25. BERTREVILLE ST. OULN	Z. 3262
Ø 26. QUINCAMPOIX	Z. 3272
Ø 27. MONT CAUVAIRE	Z. 3298
Ø 28. ST. GEORGES SUR FOURLINE	Z. 3274
Ø 29. FORET DU CROC	Z. 3278
Ø 30. FORET DES MAPES	Z. 3260
Ø 31. LE HOQUET	Z. 3332
Ø 32. VAL DES JONCS	Z. 3277
Ø 33. FORET DE ST. SAENS	Z. 3281
Ø 34. LA RUE GIFFARDE	Z. 3336
Ø 35. CHAPELLE NOTR. DAME	Z. 3299
Ø 36. COUBRONNE	Z. 3206
Ø 37. EUREFAY	Z. 3317
Ø 38. AVESNES CHAUSSOY	Z. 3286
Ø 39. L'HEY	Z. 3216
Ø 40. WENLERS CAFFEL	Z. 3318
Ø 41. LE NISPEE	Z. 3103
Ø 42. BOIS DE QUEVE COMTESSE	Z. 3266
Ø 43. BOIS ST. PIERRE	Z. 3290
Ø 44. ST. JEAN DU CORDONLAY	Z. 3284
45. LA NEUVILLE	Z. 3326

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SIXTH PRIORITY (Continued)

<u>Launching Sites</u>	<u>Target No.</u>
46. FLERS	Z.3188
47. NOVELLE EN CHAUSSEE II	Z.3235
48. CONLONVILLERS	Z.3223
49. VINCLY	Z.3292
50. HOUPEVILLE	Z.3267
51. WESADOME	Z.3331
52. CAUCHIE D'ECQUES	Z.3217
53. ANDREBLECK	Z.3214

Ø Photographs show that Nos. 1 - ~~42~~⁴³ have fired

SEVENTH PRIORITYSecondary Industrial Targets

1. FIESELER, KASSEL	GY.4766(a), GY.4809(a), GY.4809(b)
2. OPEL, RUSSELHEIM	GN.3786
3. DAIMLER-BENZ, SINDELFINGEN	GN.3802(a)
4. VOMAG, COERLITZ	GR.3719
5. SIEMENS & HULSTIN/SIEMENSSTADT	GB.3276(a) (b)
6. DEUTSCHE INDUSTRIEWERKE, BERLIN/PONDAU	GY.4682B
7. SIEMENS, VIENNA	GH. 647B
8. APUS, BERLIN/REINICKENDORF	GY.4684(a)
9. WALTER, PRAGUE	GY.4666
10. ALUMINIUM WERKE, SINGEN	GZ.2789A
11. GEORG FISCHER, SINGEN	GZ.2789B
12. LINDE-HOFFMAN, BRESLAU	GN.3824(a)
13. WALTHER, KIEL	5410E/P/8 5410E/P/9
14. K.S. and B. FRANKENTHAL	GR.3716(e)

AIRFIELDS - For attack in the event of air-launched flying bomb activity being resumed.

1. VENLO	ZH.71
2. ROY/AMY	Z.481
3. BIRHOVEN	ZH.66
4. LE CULOT	ZB.48
5. CHIVRES	ZB.50
6. SOESTERBERG	ZH.53
7. GILZE RIJEN	ZH.54
8. BRUSSELS/MILSIROCK	ZB.102
9. DEELEN	ZH.983

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ROCKET STORAGE DEPOTS - For study by Operational Commands

1. MONVILLE	Z. 3333
2. BOIS D'ETREJUST	Z. 3344
3. BEAUMONT	Z. 3334(a) and (b)
4. PONT REMY	Z. 3316
5. RAIBERT	Z. 3329
6. INVAL-BOIRON	Z. 3322
7. ROLLENCOURT	Z. 3330
8. LUMBRES	Z. 3342
9. AGENVILLE	Z. 3315
10. AUCHY-LES-HESDIN	Z. 3314
11. LA POURCHINTE	Z. 3320
12. ANTHIEUX RATIEVILLE	Z. 3335
13. ST. RIQUEIR I	Z. 3323
14. SALOULL	Z. 3321
15. BERGUINEUSE	Z. 3313

TEMPORARILY SUSPENDED FROM ATTACKLarge Sites

WATTEN	Z. 3001
SIRACOURT	Z. 3069
MIMOYECQUES	Z. 3047
WIZERNES	Z. 3090

Supply Depots

FORST DE NIEPPE	Z. 3145G, H, and B.
NUCOURT	Z. 3135
THIVERNY	Z. 3250
ST. LEU D'ESSERENT I	Z. 3248
ST. LEU D'ESSERENT II	Z. 3249
RILLY LA MONTAGNE (a)	Z. 3268
RILLY LA MONTAGNE (b)	Z. 3255
BOIS DE CASSAN	Z. 3257
TROSSY/ST. MAXIMIN	Z. 3247

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TEMPORARILY SUSPENDED FROM ATTACK (Continued)Industrial and Production Centres

PEENEMÜNDE -	GU.4387C.1 and C.2
-	GU.4387 G.2,
ZINNOWITZ	GN.3768
HOLLRIEGELSKREUTH	GS.1
FALLERSLEBEN	GE.2822

<u>Fuel Dumps.</u>	<u>Tactical Target</u> <u>Dossier No.</u>
VAAS	4700/G/6
DUGHY	4802E/H/7
PACY	4704E/H/1

D. of Ops. (S.O.)
12th August, 1944.