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“American target perspective maps of  
the second world war”

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The Charles Close Society was founded in 1980 to bring together all those with an interest in the maps and history of the Ordnance Survey of Great Britain and its counterparts in the island of Ireland. The Society takes its name from Colonel Sir Charles Arden-Close, OS Director General from 1911 to 1922, and initiator of many of the maps now sought after by collectors.

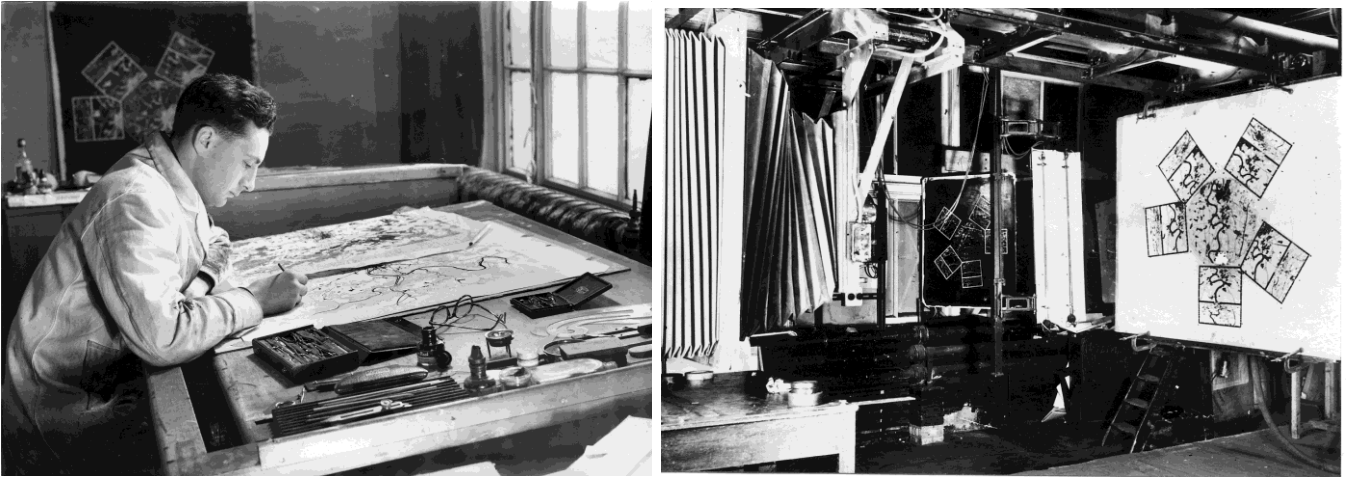
The Society publishes a wide range of books and booklets on historic OS map series and its journal, *Sheetlines*, is recognised internationally for its specialist articles on Ordnance Survey-related topics.

## ***American target perspective maps of the second world war***

***Mike Nolan***

The small-format final approach target maps used by Bomber Command for both day and, later, night bombing operations receive only a passing mention in *Maps and Survey*.<sup>1</sup> Many survive in collections and work is ongoing to produce a descriptive bibliography of those found.

In the meantime the following notes attempt to describe a later development, the large-format target perspective maps used by the 8th American Air Force during daylight raids. Research into these American target maps was prompted by a set of photographs of Ordnance Survey facilities and equipment taken during world war two kindly donated to the Defence Surveyors' Association by one of its members, Hugh Luxmoore-Peake. These photographs included two showing a cartographer working on an unusual map, and a similar map on a process-camera copy board.

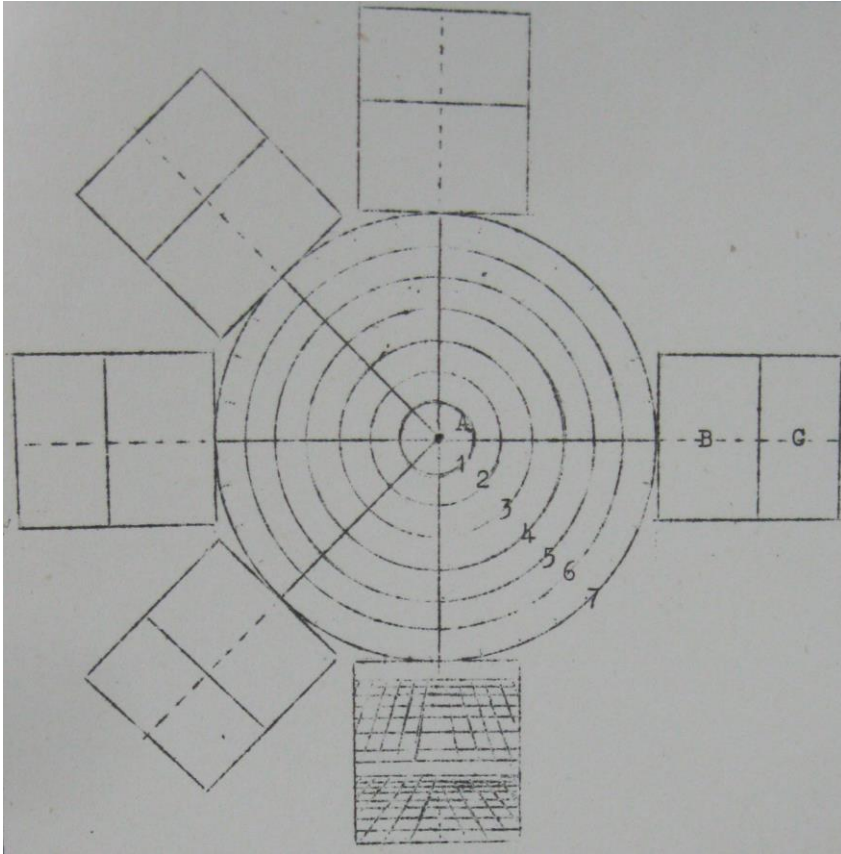


These images appeared to show a roughly circular central map surrounding by rectangular “spokes” each consisting of two oblique views of the central map as seen looking towards the centre along the bearing of the spoke. Only some years later was the mystery of these images resolved when consulting a file in The National Archives. In this file was recorded a meeting, an edited and slightly amended transcript of which follows:

“At a meeting at AD Maps, Eastcote on Monday 23 November 1942 attended by Lt Colonel Willis, Major Hart, Capt Hunter, Capt GK Geerling 8th AAF Bomber Command and Squadron Leader Verity A.I.3c(1), Capt Geerling explained that 8th American Air Force had been considering the preparation of additional target map material to assist navigators to identify targets when approaching on various bearings. Having visited all the 8th AAF Groups he had prepared sketches which had been fully discussed with navigators and bombardiers. At meetings at 8th AAF Bomber Command, Pinetrees, and 8th

<sup>1</sup> HMSO, 1952.

AAF HQ Bushy Park, it had been decided to embody the proposed additional oblique map illustrations in target material. He was tasked to take charge of this work and proceed with the preparation of the target material.



- A – Central Target Map, scale 1 inch = 1 mile; 7 mile radius; simplified daylight*  
*B – Perspective sketch for bombardier of target as seen from 7 miles away*  
*C – Perspective sketch for navigator of target as seen from 15 miles away*

A sketch (*see left*) was tabled showing proposed sheets measuring 36 by 36 inches, at the centre of which was an ordinary 1:63,360 scale target map of 7-mile radius from the centre of the target. Around this map were to be not less than five perspective sketches on different approach bearings showing oblique views of the target as seen from 7 and 15 miles. The number of sketches and the bearings chosen would be dependent on the terrain etc. To prepare these perspective sketches the latest available target material, revised from aerial cover, was required and the provision of this material was a main purpose of his visit. A team of draughtsmen was available at Kew and a printing press was being obtained. The 8th AAF would be pleased to

supply the results to the RAF if required. [The US Army's 660th Engineer Topographic Battalion was based at Bushy Park, Kew].

Lt Colonel Willis stated that he would assist in any way that he could. Map revision data was held either at AD Maps, Hillside, or at Ordnance Survey, Southampton. As a first step he suggested that Capt Geerling should visit Capt Quaife at Hillside with Sqn Ldr Verity to discuss the project and to see what was available there.

For coastal targets Capt Geerling raised the question of depiction of sea levels on maps at different states of the tide. Major Hart explained that Admiralty data had been used in the preparation of the 1:250,000 scale series, (GSGS 3982 etc.), and that all the data at Eastcote was available. It was suggested that a temporary attachment of some American draughtsmen to Eastcote might be beneficial.

On the matter of distribution of the material, it was suggested that a complete machinery was already in place at Eastcote for distribution of all target material to both the RAF and 8th AAF and that these new maps should be included in that system. On the matter of printing, Colonel Willis was anxious that 8th AAF should be made aware of the production facilities already available under GSGS and AD Maps. He agreed that, in view of the delay in installing equipment at Kew, he should be able to assist with the printing, once the task was scoped.

Capt Geerling stated that a report on the raids so far carried out by 8th AAF over enemy territory was being prepared for President Roosevelt. A sample copy of one of the proposed maps, the Lorient sheet, was to be included in the report and fair drawings of the three or four separate colour components for this map would be available by the 28 November. Colonel Willis agreed to print the map to enable the report to be sent to the USA on 2 December.

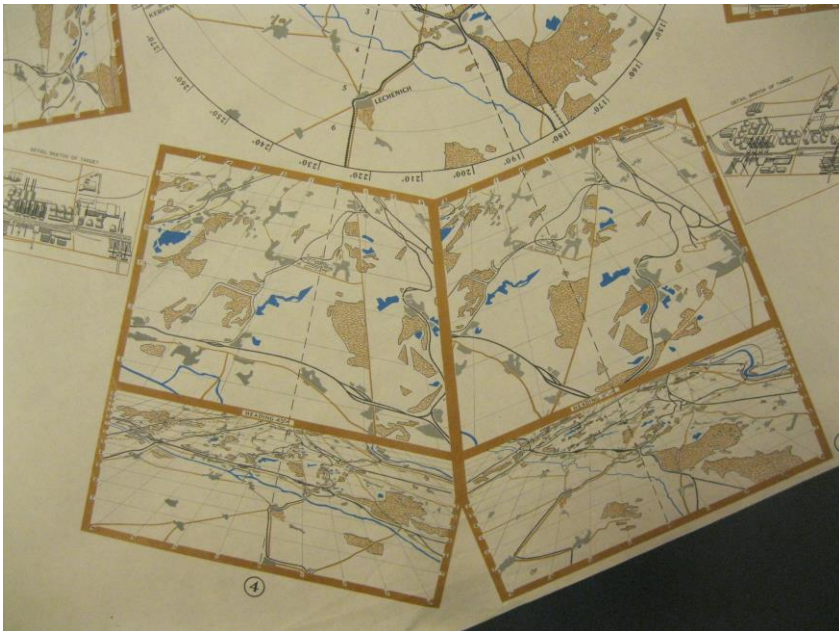
To ensure the new material related to existing material, it was agreed that the new target maps should include the existing Air Ministry target numbers.”

The example used as an illustration for this note is *Knapsack* an industrial complex south-west of Cologne. The sheet measures 81 cms by 81 cms (32 inches square). The central plan view is 32.5 cms, or 14 miles, in diameter around the circumference of which bearings are shown for every ten degrees. Seven one-mile radius circles are shown. Each spoke is 21 by 22 cms in size and for each, the bombardier's perspective view shows detail 3 miles before and after the target as seen from 7 miles before the target while the navigator's view shows detail 8 miles before and 4 miles beyond the target as seen from 15 miles before the target.

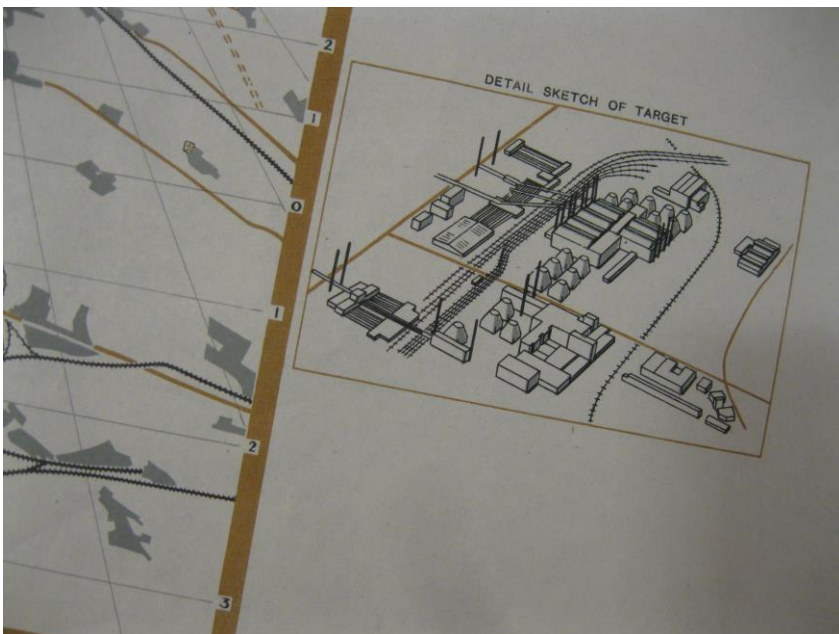
On all views, grey is used for the grid and built-up areas, black is used for railways and text, blue for drainage and brown for woods. Occasionally, as in the case of this *Knapsack* example, the perspective views are supplemented by a large-scale line sketch of the target.



*Target perspective map of  
Knapsack target SW of Cologne*



*An example of overlapping spokes*



*Additional line sketch of the target complex.*



*Circular central section showing colours specification clearly and bearings and one-mile radius distance circles*

*Knapsack* was, in fact, the Goldenberg Power Station, Electrode Works, A.G. für Stickstoffedunger, Briguetting Plant. This complex had been studied, interpreted and drawn at the C.I.U. (Central Interpretation Unit), RAF Medmenham and a 1:5,000 scale plan, No. D/130, had been produced which showed 109 numbered and identified features of the complex. The plan, GSGS Misc. No. 172, was printed by 18 Map Reproduction Section R.E. in 1944.

In the British Library's Maps MOD TP (Target Perspective) collection there are 160 sheets comprising 131 targets in Germany, 20 in France, 3 in Belgium, 2 in Austria, 2 in Norway, 1 in Czechoslovakia and 1, a training sheet of Kings Lynn, in UK. The sheet of Lorient, in France, mentioned earlier, is not included in the British Library collection. Each sheet shows the Target Number and the production date, the earliest being January 1943 and the latest being April 1944. As is usual, the imprints are often later than the stated production dates, the latest imprint being April 1944.

Finally, what was the target the draughtsman was working on in the two photographs? From the extent of the large river meanders shown it is believed the target might have been Paris, or perhaps Rouen.

*RAF target maps will form part of the agenda of Defence Surveyors' Association Map Forum at Bodley on 14 April.*

*Note also that DSA is holding its annual Maps & Surveys seminar on 2 July at Hermitage, Newbury.*

*Topics include:*

- *The tanks at Flers 1916*
- *Corps Reconnaissance in world war one*
- *Operation Crossbow and the National collection of aerial photography*
- *Surveying the Falklands Islands and Dependencies*
- *Vietnam war – vagaries of mapping, gunnery, navigation and searchlights*
- *Advanced Geospatial Information and Intelligence Services research project*

*For more information on both events contact Mile Nolan on 01635 253167 or [maptnolan@gmail.com](mailto:maptnolan@gmail.com)*