

Chiefs of Staff as to when the attacks were likely to begin were also modified from time to time, as our bombing offensive against the "ski sites" got under way.

21. In devising measures to deal with pilotless aircraft, my staff and I worked in close touch with General Sir Frederick A. Pile, Bart., G.C.B., D.S.O., M.C., General Officer Commanding, Anti-Aircraft Command, and his staff, who helped in the preparation of all detailed plans which involved guns and searchlights as well as fighters.

22. It was clear at the outset that to prepare a detailed plan of defence would take several weeks. I therefore decided to submit a preliminary outline plan. I took as my point of departure the fundamental proposition that a pilotless aircraft was still an aircraft, and therefore vulnerable to the same basic methods of attack. Of course, as there was no crew, such an aircraft could not be made to crash by killing the pilot; on the other hand, it would be incapable of retreat or evasion, except, perhaps, to a very limited extent.* Nevertheless, if the missile should prove in practice as fast as was believed at first, the performance of the fighters on which we normally relied would be inadequate.

23. However, on balance, and considering the uncertainty of our knowledge, it would clearly have been unjustifiable to exclude any of the normal methods of defence which we were accustomed to use against piloted aircraft. Accordingly, I recommended in my outline plan, which I submitted to the Air Commander-in-Chief on the 16th December, that aircraft, guns, searchlights, and balloons all be deployed against pilotless aircraft in such a manner as to avoid causing mutual interference. I pointed out, however, that the missiles might well prove too fast for our fighters, and in any case would make difficult targets for A.A. gunners. I recommended, therefore, that the bombing offensive against the installations in France be continued with the utmost vigour. I also asked to be kept informed of the progress made by two committees which had been set up at the Air Ministry to investigate the possibility of radio and electro-magnetic counter-measures.†

24. During the second half of December General Pile and I completed our detailed plan on these lines. On the 2nd January I submitted the plan to the Air Commander-in-Chief, who approved it and submitted it in turn to higher authority. Meanwhile, the Allied bomber offensive against the "ski sites" was achieving good results and the likelihood of imminent attack seemed to be receding. On 22nd January the Chiefs of Staff came to the conclusion that the date by which we must be ready for attacks by pilotless aircraft to begin could safely be put back until the 1st

* At that time we believed that the missile could be made to turn in the air. In point of fact this effect was limited to the first few moments of flight, during which it had to be directed on to its calculated course by an adjustment of the automatic control mechanism made beforehand.

† Later it was established that the missiles were not controlled by radio. To divert them by means of an electro-magnetic field was theoretically possible, but would have needed so much copper and electric power that it was quite impracticable. Thus neither investigation produced any positive result.

March; later they postponed it still further, until the middle of the month. Since intensive preparations for the European operations were due to begin on the 1st April, we were thus faced with the possibility that the first use of pilotless aircraft by the Germans might coincide with these preparations; or even with the assault itself.

25. Hence, by the time the Chiefs of Staff came to examine the detailed plan it had been overtaken by events. Circumstances now called for a modified plan which would provide simultaneously for defence against pilotless aircraft and the needs of the offensive. Early in February the Chiefs of Staff asked that such a plan should be prepared. In the meantime, General Pile and I received authority to proceed with the administrative arrangements which would have to be made before any deployment on the lines laid down in the existing plan could be ordered.

26. During the next few weeks, therefore, we overhauled our plan and devised a modified version of it which aimed at meeting the threat from pilotless aircraft mainly with resources not directly required for the European operations. We called this modified version the "Concurrent Air Defence Plan for 'Overlord' and 'Diver'", or, more briefly, the "'Overlord'/'Diver' Plan"*. I submitted it to the Air Commander-in-Chief towards the end of February. After receiving his approval, it was approved in turn by the Supreme Commander and the Chiefs of Staff. On 4th March I gave instructions for copies of the plan to be sent to the Commands and Groups which would be directly concerned if it were ever put into effect.

27. With minor amendments, this was the plan on which we acted three months later, when the attacks began. Some account of it, and of its relationship to the earlier detailed plan out of which it grew, must therefore be given at this stage. Such an account may provide, perhaps, an insight into the conditions in which a major defensive operation of this kind has to be contrived. For in such cases a Commander must not only take into account a number of factors, political as well as military and logistic, which are governed by the capabilities of his own side; he must also reckon, first and last and all the time, with what the enemy may have up his sleeve.

28. Both the "Overlord/Diver" Plan and the earlier plan were based on the fundamental principles postulated for the first outline plan of the 16th December. But some of the assumptions which had been made when the original outline and detailed plans were made were modified by altered circumstances or fresh intelligence by the time the second plan was made. For example, as I have already pointed out, estimates of the performance of the weapon which we had to counter differed from time to time. Again, as the bombing offensive against the "ski sites" began to achieve its purpose, the Air Ministry revised their estimates of the probable scale of attack. But the broad concepts which determined the general nature of our defensive measures remained substantially unchanged.

* "Overlord" was the code-name for the European operations and "Diver" that for pilotless aircraft.