materially improve until my Headquarters set up again at Versailles, by which time an almost static situation had again developed.

489. Signals facilities just adequate to service a static headquarters and provide links with its more stationary units cannot be adequate when that headquarters and its units begin to move. Because these moves must be carried out by splitting into two parties, the facilities required will be almost double those needed before. In other words, equipment and operators will be needed at two places instead of at one only.

490. This factor, which raises difficult problems of supply, training and administration for the signals service, has none the less to be reckoned with, and the problem it represents solved, if proper direction of operations is to be maintained in conditions of highly mobile warfare.

491. Some mitigation of the task of signals personnel in tackling these problems would result if the moves of main headquarters particularly were delayed longer than has been the practice in these operations, and certainly not made until the communications are suitable for operational needs. While it is important to keep operational headquarters close to the forward units, this factor must be more carefully related to the practicability of providing adequate signals facilities at the new location of the headquarters. Continuity of service is of overriding importance in air and combined operations.

## PART V.—Some Brief Reflections on the Campaign

492. The extensive air operations which are the subject of this Despatch cannot be summed up in a few paragraphs, nor, without entering fields of controversy, is it possible to discuss all the air lessons which have emerged during the campaign. What can be done, however, is to state, and where useful, to discuss briefly, certain of the more prominent issues which can be discerned in the pattern of air operations seen as a whole. Experience gained in subsequent operations in this and in other theatres may confirm these impressions, or, on the other hand, make their revision necessary.

## Preparatory Air Operations

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493. Events thoroughly justified our strategic bombing policy and your insistence upon an adequate preparatory period of air operations for Operation "Neptune." As it turned out, weather conditions allowed only a partial use of our air forces in the weeks following the assault, and had these preliminary operations not been started before D-Day the task of the air forces of interfering effectively with the enemy's movement within and to the battle area could not have been achieved in time to have directly influenced the land operations in the initial phases. As it was, and in accordance with the plan, the air had, by the day of the assault, completely disorganised the enemy's dense and complex network of rail lines of communications within France and Belgium. This having virtually been accomplished by D-Day, it was soon possible to seal off the battle area through air action, and in this way the area was prepared for the employment of ground forces, with the enemy at a critical disadvantage.

494. During the initial planning and preliminary operations some doubt-based on experience in other theatres—was expressed as to the efficacy of air action on bridges. R€sults of the initial attacks in France soon proved that given suritable technique, types of aircraft, and weapons, bridges can successfully be destroyed or rendered impassable, although the cost may be a heavy one in aircraft and personnel due to flak, and also in bombs expended. Weather may, however, frequently preclude attacks as and when planned. To have relied entirely upon the destruction of bridges as the main method of achieving the disorganisation of the enemy's communications system at the appropriate moment in Operation "Overlord," would again have proved unsound in the given conditions. The attacks on bridges formed but an integral part, albeit an important one, of the whole plan of action against the movement organisation of the enemy.

## Diversionary Operations

495. Our efforts to mislead the enemy proved most effective, but their implementation, though they provided excellent operational training for crews, placed a great strain upon our air resources. In general, for every target attacked in the assault area, two had to be taken on Although "Crossbow" outside that zone. operations were taken into account in the framing of the programme, the diversion of effort from "Pointblank," communication targets, and other objectives of strategic importance, was very considerable. On the other hand, despite the fact that this great effort was directed against targets having little direct material effect on the achievement of the military object of securing the initial bridgehead, it is reasonable to deduce that these operations must at least have been a factor influencing the German High Command to dispose their reserves in the Pas de Calais area as a central position against possible landings in that area and/or any part of the long coastline from Denmark to Brest. This was obviously most advantageous to ourselves especially as our air offensive against his communications rendered movement of these reserves a lengthy and hazardous operation, particularly over considerable distances.

496. A high cost may have to be paid for diversionary activities of this kind, if they are to be realistic, and this fact must always be borne in mind when estimating the strength of the air forces required for combined operations.

## Inter-Service Fire Plan

497. The drawing up of the fire plan for the assault phase was rightly regarded as an interresponsibility. inter-Allied and Service Throughout such planning care must be taken to ensure flexibility, and it must be accepted by the Air Forces that it may not be possible finally to fix the air tasks until a very short time before D-Day-owing to such factors as changes in information, changes in weather conditions (including likely height of cloud bases), the development of enemy beach defences and gun positions and changes in conditions of light for air and naval bombard. ment and for fire by assault craft of various types. Moreover, an alternative Fire Plan is essential. There is a tendency on the part of the other Services to expect too much of the