258. The following accounts of the difficulties encountered by German divisions moving to the battle zones in July are of interest in this connection:—

(a) Air reconnaissance indicated, and prisoner of war reports confirmed, that the 363rd Infantry Division began to move from Ghent in mid-July. A number of the entraining stations, the junctions along the route and the trains themselves were attacked. The movement became so disorganised that approximately half the trains were cancelled and the troops moved by road. The division did not reach the front until the beginning

of August.

(b) The 331st Infantry Division attempted to move from the Pas de Calais by rail. The route originally chosen was the main line Lille-Arras-Amiens, but as a result of line cutting by fighter bombers, a diversion had to be arranged via Lille-Cambrai-Chaulnes, and later through Eastern France via Valenciennes-Aulnoye-Mezieres. This movement eventually became so involved that the attempt to travel by rail was abandoned altogether. Air reconnaissances revealed that loaded trains which had stood by at entraining stations for 48 hours were finally unloaded without having moved at all.

(c) The 326th Infantry Division was also moved from the Pas de Calais at this time. In this move the Germans were evidently not prepared to risk a full-scale rail movement. Less than half the division travelled by rail, and the remainder moved on bicycles

by a very circuitous route.

(d) It has been estimated that, in favourable circumstances, the move of the 1st S.S. Panzer Division from Louvain to the Caen area would have taken about three days. In fact, although detraining took place in the vicinity of Paris, and the move was completed by road, the rail journey alone took as long as a week for some elements, presumably because their trains were committed to a "Pilgrim's Progress" as a result of incidents on almost every route attempted. Stories of delays of from two to seventeen hours as a result of bomb damage to railway tracks, were a feature of the majority of interrogation reports of prisoners from this Division. One unit was delayed for two days at a badly damaged railway junction east of Paris.

(e) As had been anticipated, the move of the 346th Infantry Division from the area of Le Havre was conducted entirely by road. Bicycles were the means of transport and, although there is no evidence of any serious delay caused directly by bombing or strafing of columns, it should be borne in mind that the slow and laborious crossing of the Seine in ferries and motor boats was forced on the division by the previous destruction from the air of road and rail bridges over the river. Prisoners of war report that they were exhausted on their arrival and went into action without rest, food or even halts en route.

(f) The 271st Infantry Division which began to move from Montpellier on 1st July took approximately 19 days to reach the Rouen area. Some of the trains were attacked at Arenes just outside Montpellier before they started and casualties totalling 1,500 were reported; other trains were delayed for several days by air attack in the

Lyons-St. Etienne area. The troops which did reach the battle area marched into the Caen area under heavy air attack. The original schedules for the 49 trains in this move are interesting in that they allowed 18 hours 25 minutes for the 285 mile journey from Montpellier to Chalon sur Saone. In fact, several trains took 11 days to pass Lyons and 20 trains were blocked in the Lyons area and finally diverted via St. Etienne and Mouling.

259. Effect of Weather on Operations. It is clear, I believe, from the foregoing paragraphs that the Allied air forces succeeded in crippling one of the most dense and complex networks of railways and roads in the world, and in practically denying its use to the enemy. I must emphasise, however, the influence which bad weather had on these operations. Both heavy and medium bombers, because of this bad weather, were prevented time and again from taking part in planned attacks on railways and bridges. We needed weather consistently good enough to permit precision visual bombing in density and co-ordinated attacks of a type most appropriate, as regards aircraft and weapons, to the targets involved throughout the whole of this period. I am convinced that if we had had this weather the enemy would have been prevented from moving by rail at all, and his retreat, disastrous as it was for him, would have been virtually impossible and far more costly in casualties to personnel and equipment than it was.

September.—The second phase of attacks on communications began when the enemy tried to get away, and this became almost entirely a fighter and fighter bomber war. Forced to move by day as well as by night to escape the encircling ground forces, the enemy was constantly harried and destroyed. The roads leading to the Seine, then the Seine crossings, pontoons and barges and finally the roads of Northern France were in turn successfully attacked and became littered with the skeletons of the German Army's transport and equipment.

261. The mounting total of this destruction is evident in the following statistics of pilots' claims of mechanical transport and A.F.V's destroyed. These figures do not include those claimed as probably destroyed or damaged:—

6th-3oth June ... ... 2,400
1st-31st July ... ... 3,364
1st-31st August ... ... 4,091
1st-3oth September ... 6,238

stress too strongly the importance of reconnaissance in planning attacks on communications. Although inclement weather interfered with the programmes for both photographic and visual reconnaissances, I was generally well informed of the moves of enemy supplies and reinforcements and was able to deal with them before they reached the battle zone. The valuable information brought back also enabled the Army Commanders to make accurate forecasts of the enemy strength and intentions. This position became completely reversed when the Allied armies moved forward. There is