415. There were over 6,600 operational aircraft in A.E.A.F. at D-Day. These aircraft were composed of ten basic types with a large number of varying marks, each with its own problems in servicing. That the maintenance personnel managed to keep the operational serviceability to the high levels stated below is a remarkable achievement. When it is remembered that throughout June and July most of the squadrons operated from new-made landing strips only a few miles from the front line, and that the dust on these Normandy airfields was, in the opinion of many experienced campaigners, worse than that in the North African desert campaigns, then the efforts of the maintenance personnel become even more outstanding.

416. *Average Strength and Serviceability of Aircraft in A.E.A.F.*

	Fighters		Percentage	Bombers		Percentage
	Average Strength	Average Serviceability		Average Strength	Average Serviceability	
Ninth Air Force :—						
June	1,239	1,010	81·7	717	626	87·4
July	1,341	1,063	79·4	721	631	87·5
August	1,344	1,058	78·7	737	658	89·3
September	1,393	1,120	80·3	753	663	88·0
Second T.A.F. :—						
June	1,156	954	82·5	272	231	85·0
July	1,058	946	89·5	265	232	87·5
August	1,077	930	86·4	277	240	86·7
September	1,250	1,093	87·5	253	214	84·6
A.D.G.B. :—						
June	1,207	957	79·3	—	—	—
July	1,281	1,007	78·5	—	—	—
August	1,335	1,060	79·4	—	—	—
September	1,131	926	82·0	—	—	—

417. The maintenance of operational strength was also the result of a carefully prepared plan for replacement of aircraft. In this connection, it is interesting to note that the forecasting of wastage and casualties by the planning staff was sound, and since the losses were somewhat below those planned, there were never any serious difficulties of supply. The replacement pool and recovery organisation both worked extremely well.

418. The statistics of the average daily consumption and wastage of P.O.L. and ammunition also reveal something of the achievement of the supply organisation. During July, A.E.A.F. expended daily 750 tons of bombs and more than 200,000 rounds of ammunition. The fuel consumption of A.E.A.F. in July reached approximately 30,000,000 gallons of petrol, almost 1,000,000 gallons per day. A large part of this fuel and ammunition had to be transported into the beach-head and up to forward airfields. In this connection the work of Air Force beach squadrons deserves special mention. These parties went in with the follow-up troops on D-Day and due in no small measure to their efforts, the first airfields were stocked ready for operations in the beach-head on D+3.

419. The following story reveals some of the difficulties encountered and overcome in supplying an air force of the magnitude of A.E.A.F. Supreme Headquarters Allied Expeditionary Force Operational Memoranda called for special markings on aircraft in order that they might be clearly distinguished on D-Day. To achieve success the markings had to be applied on D – 1 so that all aircraft should have broad black and white bands painted on them on D-Day, but not before. The total requirements of distemper for this purpose to mark approximately 10,000 aircraft and gliders was 100,000 gallons or 1,500 tons. There was no such amount immediately available in the United Kingdom. Supply action on a high priority was necessary. Supply to civilians was stopped, overtime was worked in pits and factories, Whitsun week-end holidays were forgotten and by Y-Day all was ready; the distemper and 20,000 brushes to apply it were on hand.

Airfield Construction.

420. In combined operations it is obviously advantageous that fighters, fighter bombers and reconnaissance aircraft of the Tactical Air Forces should be able to work from bases in the operational theatre as early as possible, and therefore airfield accommodation is of paramount importance.

421. The extent to which airfield requirements could be met in this operation depended, in the main, on the ability of the field engineers to locate and develop suitable sites. These sites had been previously chosen by experts after a detailed study of the coverage provided by photographic reconnaissance aircraft and available maps. It also depended upon having a sufficiently high priority within the available shipping space for the movement of equipment and material. Naturally these claims must be balanced with others of operational urgency.

422. In the initial stages, the terrain in the British sector was generally more favourable