

CHAPTER 1

AIRCRAFT MAINTENANCE

1. The modern aircraft in service with the Royal Air Force are complex and highly developed machines that need thorough inspection and regular servicing to keep them at a high level of operational efficiency. Not only the aircraft itself, but also its weapons and all the mechanical and electrical devices that are an integral part of the aircraft must be checked and serviced at regular intervals by specialist tradesmen.
2. There are very many operations necessary to keep the aircraft airworthy from the times it is received into the service until it finally finishes up on the scrap heap. Some servicing operations may require only the brief attention of one person with a screwdriver. Others will involve a party of trained personnel with much heavy ground equipment and a considerable amount of complicated testing apparatus.
3. The pilot who is going to fly the aircraft must obviously have some check that all necessary inspections and servicing, together with the refuelling and rearming required for his particular sortie have been undertaken. He first examines the aircraft servicing form (Form 700) in which all work carried out on an individual aircraft is recorded. All servicing, refuelling or rearming are always signed off by the tradesmen and SNCO responsible. No pilot ever takes an aircraft off the ground until he has thoroughly checked this book to ensure that his aircraft is ready. The pilot signs in the Form 700 as an acknowledgement that he is satisfied that the aircraft is serviceable. He then makes a visual pre-flight check of his aircraft. Although the details of the check vary considerably with the type of aircraft, in essence they are all the same. The pilot walks round his aircraft and makes a thorough external check. When in the cockpit he checks the instruments, controls and main services of the aircraft.

CHAPTER 2

GROUND HANDLING

1. A marshaller is employed to assist the pilot to taxi safely in congested areas, and to indicate to the pilot where he is required to place his aircraft. It often happens that a pilot visits an airfield which is strange to him and he needs some help to find his parking space. To make marshallers easily recognisable to the pilot, they usually wear yellow jerkins and carry two bats shaped like table-tennis bats and painted yellow. The bats are used for day signalling; at night lighted wands are used. The wands are cylindrical and lit from the inside by a torch battery.
2. It must be remembered that a marshaller, like an Air Traffic Controller, is only there to assist the pilot and the responsibility for anything that happens to the aircraft still rests with the captain of that aircraft.
3. If the aircraft is large, or the area is congested, the marshaller often has two assistants who place themselves where they can watch the wing tips. These assistants signal to the marshaller whether or not the aircraft will clear any obstruction towards which it is moving. If there is plenty of clearance the assistant gives a “thumbs up” signal to the marshaller. If there is no clearance at all, the assistant gives the “stop” signal to the marshaller. When there is only a small clearance, a metre or less, the assistant hold his arms above his head and indicates the amount of clearance between his hands.
4. At some airports, the aircraft marshallers are equipped with radio which they use to talk to the pilots, it will always be necessary for hand signals to be used at smaller airfields and as a stand-by in the event of radio failures.
5. Apart from his routine guiding aircraft, a marshaller can be very helpful to the pilot in many other ways. Marshallers sometimes notice something wrong with an aircraft as it taxis out for take-off. Perhaps a wheel brake may be binding and causing a wheel to overheat, or a fuel leak may show itself from one of the wing tanks. These and many other similar faults may pass unnoticed by the crew inside the aircraft, but an alert marshaller will always stop an aircraft at once and draw the crew’s attention to the fault.
6. It will be realised a marshaller’s job is a most important one. His help is invaluable to the pilot who quite often would be unable to move his aircraft but for his skilled assistance. A well-trained marshaller not only speeds the movement of aircraft, but also prevents many thousands of pounds’ worth of damage being caused by even the slightest collision between moving aircraft and objects on the ground.