**ROYAL CANADIAN AIR FORCE**

# OPERATING INSTRUCTIONS

# AIRCRAFT CHOCKS - GENERAL

## INTRODUCTION

1 This Engineering Order is published to assist in obtaining the maximum service and safety values to be derived from the proper use of aircraft chocks. They have an important role in curbing loss of life, injury to personnel, and public property damage.

## USE OF CHOCKS

2 The size of chock to be used on an aircraft can be an important factor in the effectiveness to be derived. If a large chock is used on a small wheel, the wheel must come up on top of the base of the chock in order for the front part of the wheel to come in contact with the bow of the chock. To remove the chock, the aircraft must be pushed back off the chock, thus wasting time and manpower. If a large aircraft is being held by a small chock, the weight and power of the aircraft could possibly collapse the chock with serious consequences. Refer to EO 5-1-1, Part 4, Chapter 8. Adequate chocks to the correct configuration of each aircraft have been scaled in the appropriate equipment schedules.

3 Personnel who are engaged in line crew duties should always take utmost care when removing chocks from running aircraft. Upon receiving the pilot's signal to "Pull chocks", EO 05-1-2AF, personnel should approach the chock rope from the wing tip, yet staying well behind the propeller track or jet engine intakes. After all chocks are removed, the pilot should be given the "all clear to taxi" signal and the chocks carried to storage racks.

4 Icy tarmac conditions create a serious hazard to personnel engaged in run-up tests of aircraft. It is strongly recommended that the calk-type chock be employed in conjunction with expanded metal sheeting. This sheeting can be demanded as 30B/1918 and is Pedlars 1 1/2 x 10-30. Unit of issue is sheets four feet by eight feet; this size can be cut to form four sheets, two feet by four feet, see Figure 1.

5 Chocks should be applied immediately to the wheels of an aircraft and the brakes left off as soon as the aircraft has stopped in the desired position and the engines shut down. This is of primary importance, particularly with most types of jet aircraft that have over-heated brakes from excessive brake applications on fast landing runs. If parking brakes are applied and the aircraft left in this condition, the brakes will seize. Refer to EOs 05-50C-1, 05-1-1, Part 4, Chapter 8.

6 Personnel should avoid mishandling chocks such as dragging them along the ground or hard surfaces. Besides causing cracks in the structure and marring the painted surfaces, there is an added risk of causing sparks near refuelling operations.

7 Chocks are a necessary item in mooring aircraft for overnight, short and long term storage and should be applied fore and aft of each wheel and secured to each other with ropes.

## STORAGE

8 A suitable rack should be provided on which the crew can keep chocks that are not in use. This provides accessibility and eliminates any chance of chocks being mislaid on the tarmac to create a hazard to aircraft (being towed or taxied) and equipment engaged in snow removal and refuelling duties.

## MAINTENANCE

9 To ensure a high standard of serviceability, maintenance and servicing crews should check constantly for faults that would reduce the safety factor of the chock. Inspection should be done on a daily basis and also before use to detect any damage incurred since the daily inspection.

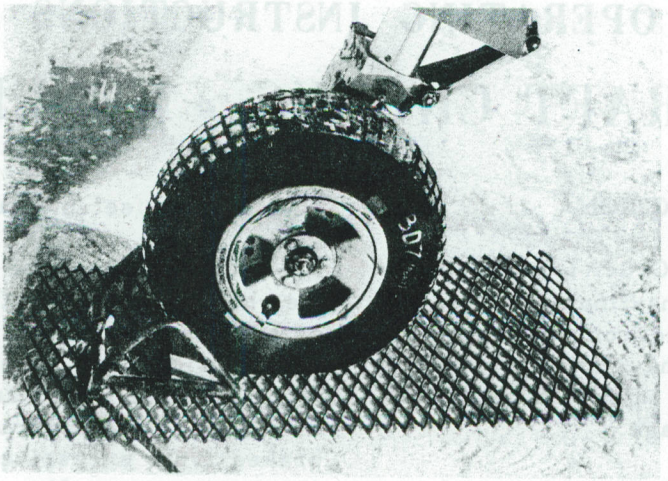

Figure 1

10 Since the calks used on some type of chocks have a relatively short life due to constant wear, the utmost vigilance is required to ensure by replacement of worn calks that a positive grip is always maintained. These calks are identified as "Phoenix Neverslip" horseshoe screw (tapered), 1/2" outside diameter by fourteen threads per inch, Reference 4G/251.

11 In their everyday use, chocks are often subjected to various forms of strain and personnel should ensure that the structure has not been bent, cracked or shown any signs of corrosion. The chock rope should be good quality hemp (at least 1/2" diameter), secured to the chock "eye" by an eye splice. The length of the chock rope should be sufficient to give personnel ample clearance from jet engine intakes or propellers. The recommended safe minimum length is not less than six feet. A back splice at the other end of the rope provides a reliable hand grip for personnel pulling the chocks away from the wheels.

## PRESERVATION

12 The condition of the paint on chocks is of primary importance. Good quality paint provides a resistance to corrosion and enables personnel to easily notice any chocks that have been mislaid in the snow or around the tarmac.

13 In painting a chock, an oxide of iron primer, Specification 1-GP-65, is first applied to the metal, and then finished with a coat of enamel, Specification 1/GP-12, of yellow colour (#5-2).

14 The following information (CAP 670) may be used as a guide in the use of chocks on aircraft:

| Type of Chock | Aircraft |
|---|---|
| 4G/318 | Mustang, Piasecki H-21, Otter, Expeditor, Chipmunk. |
| 4G/1588 | Canuck, Sabre, T-33, Harvard. |
| 4G/218 | Canso, Lancaster. |
| 4G/159 | North Star, Dakota, Mitchell. |
| 4G/1609 | C-119. |

15 It must be borne in mind that although this Engineering Order is meant to be a guide to all "user" units, geographical location, climatic variations, and aerodrome facilities will present conditions that can only be compensated by common sense and ingenuity of the personnel concerned.

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

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