ORDER

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
GREAT LAKES REGION

GL 6530.8

8/15/73

SUBJ: FA-5530 VHF/UHF DOPPLER DIRECTION FINDER MECHANICAL ALIGNMENT CHECK OF CHANNEL SELECTOR

1. PURPOSE. This order outlines procedure for performing a mechanical alignment check on the FA-5530 VHF/UHF Doppler Direction Finder channel selector. It applies to Airway Facilities installation personnel installing the equipment and is to be performed before turning the equipment on for the first time. It also applies to maintenance personnel whenever there is a possibility misalignment has occurred subsequent to original installation.

2. DISTRIBUTION. This order is being distributed to the branch level and above in the Airway Facilities Division, AGL-400, and to all Airway Facilities Sectors and subordinate field offices in the Great Lakes Region.

3. BACKGROUND. Channel selector drums MP45 and MP52, and Geneva wheels MP25 and MP82 may become misaligned with the driving pins on gears MP31 and MP102. Misalignment may possibly be caused by vibration or shock in shipment or in-transit from one location to another. If misalignment occurs, there is danger of stripping Nylatron gear MP68 when power is first applied to the equipment.

4. PROCEDURE. Refer to Figure 29 in Volume 1 of the FA-5530 Instruction Book and proceed as follows:

   a. Remove cover of the tuning mechanism, Unit 3A2, and check to see if both cam followers are seated properly in the recess on the channel selector drum.

   b. If cam followers are seated properly, proceed to step c. If not seated properly, rotate the channel selector drums by hand until the cam followers are positioned in the recess. Only one cam follower on each channel selector drum will be engaged.

   c. After cam followers are properly seated, rotate gear MP32 by hand in the OPPOSITE direction from that shown on Figure 29. Rotate gear MP32 slowly. The drive pins on gears MP31 and MP102 should engage the slot on Geneva wheels MP82 and MP25. Continue rotation until one cycle is completed.

Distribution: RAF-3, FAF-0 (Normal)

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d. If the drive pins on gears MP31 and MP102 do not engage the slot and hit on the edge of the Geneva, stop rotation of gear MP32 and rotate the channel selector drums until the pins engage the slots. Continue rotation of gear MP32 until cycle is completed.

5. RESULTS. Upon completion of the above procedure, the channel selector mechanism is properly aligned. Power can then be applied to the equipment without danger of stripping Nylatron gear MP68. The channel selector drums will remain aligned unless physically moved by an external cause.

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