SECTION 13. CORROSION PROOFING OF LAND PLANES CONVERTED TO SEA PLANES

6-206. GENERAL. A special problem is encountered in the conversion of land planes to seaplanes. In general, land planes do not receive corrosion proofing to the same extent as do seaplanes. Corrosion-proofing standards for land planes converted to seaplanes are divided into two classes, necessary minimum precautions and recommended precautions. Regardless of such precautions, it is imperative that the exterior surfaces of seaplanes be washed with clear fresh water immediately following extended water operation, or at least once a day when operated in salty or brackish water. Wash interior surfaces of seaplanes exposed to spray, taking care to prevent damage to electrical circuits or other items subject to injury.

6-207. NECESSARY MINIMUM PRECAUTIONS. The following procedures are considered the minimum to safeguard the airworthiness of converted aircraft and are not in themselves intended to maintain airworthiness for an indefinite period.

a. Unless already protected, treat exposed fittings or fittings that can be reached through inspection openings with two coats of zinc chromate primer, paralketone, nonwater-soluble heavy grease, or comparable materials. This applies to items such as wing-root fittings, wing-strut fittings, control-surface hinges, horns, mating edges of fittings, and attached bolts.

b. Coat non-stainless control cables with grease or paralketone or other comparable protective coating, if not replaced with corrosion-resistant cables.

c. Inspect all accessible sections of aircraft structure. Clean structural parts showing corrosion and refinish if corrosion attack is superficial. If a part is severely corroded, replace with an adequately corrosion-proofed part.

6-208. RECOMMENDED PRECAUTIONS. Recommended precautions are those which are suggested as a means of maintaining such aircraft in condition for safe operation over extended periods.

a. Provide additional inspection openings to assist in detecting corrosion. Experience has shown openings to allow inspection of the lower and rearward portion of the fuselage to be particularly desirable.

b. Incorporate additional provisions for free drainage and ventilation of all interiors to prevent collection of moisture (scoop-type marine drain grommets).

c. Protect the interior of structural steel tubing. This may be done by air and watertight sealing or by flushing with hot linseed oil and plugging the openings. Inspect tubing for missing sealing screws, presence of entrapped water, local corrosion around sealing screws, welded clusters, and bolted fittings, which may be indicative of entrapped moisture.

d. Slit the fabric of fabric-covered aircraft longitudinally on the bottom of the fuselage and tail structure for access to these sections. Coat the lower structural members with zinc chromate primer (two coats); follow by a coat of dope-proof paint or wrap with cellophane tape and rejoin the fabric. This precaution is advisable within a few months after start of operation as a seaplane.

e. Spray the interior of metal-covered wings and fuselages with an adherent corrosion inhibitor.

f. Place bags of potassium or sodium dichromate in the bottom of floats and boat hulls to inhibit corrosion.

g. Prevent the entry of water by sealing, as completely as possible, all openings in wings, fuselage, control-surface members, openings for control cables, tail-wheel wells, etc.

6-209.—6-219. [RESERVED.]