To satisfy this urgent requirement the manufacturer, Chromcraft Corp. (now Techfab Div. of Alsco Inc., St. Louis, Mo.) in cooperation with the Army modified their Navy disposable models LAU 32B/A, seven-tube, and LAU 3A/A, 19-tube launchers. The modified launchers were reusable and redesignated XM-157, seven tube, and XM-159, 19 tube.

The LAU 29B/A and LAU 24/A as well as the XM-157/C and XM-159/C

The LAU 32B/A and LAU 3A/A as well as the XM-157/C and XM-159/C launchers are proprietary items of the manufacturer. All modifications and improvements to the launchers have been at the expense of the contractor. There

has been no development program funded by the Army.

The XM-157 and XM-159 rocket launchers have been procured under limited production authority. This means a prerequisite of prior Department of Army approval for each quantity of launchers contemplated for procurement.

A summary of design changes of the Army seven-tube and 19-tube 2.75-inch rocket launchers follows:

SEVEN-TUBE LAUNCHER MODELS REUSABLE, NONREPAIRABLE (ALSCO)

XM-157: Evolved from Navy/Air Force LAU-32B/A, Basic model, aluminum tubes (instead of paper) for use with 6-pound warhead. Removed fairing, removed intervalometer from launcher and placed in cockpit. Launcher was also XM-157/A:

Changes inclusive of those above. Spring loaded electrical contacts.

Reduced wiring diameter 22 to 26 gage. Increase tube wall thickness to 0.06 inch.

Deflectors added to tube to prevent rocket damage to launcher.

(Not procured—deferred to next model).

XM-157/B: Change inclusive of those above. Increase tube length, 48 to 58 inches to accommodate 17-pound warhead.

NINETEEN TUBE LAUNCHER MODELS REUSABLE, NONREPAIRABLE (ALSCO)

XM-159: Evolved from Navy/Air Force LAU-3A/A. Basic model, aluminum tubes (instead of paper) for use with 6-pound warhead. Removed fairing, removed intervalometer from launcher and placed in cockpit. Launcher was also XM-159/A:

Changes inclusive of those above. Increased tube wall thickness, 0.045 inch to 0.055 inch. Mass of electrical contact increased.

Wood tube separators replaced with aluminum.

XM-159/B:

Laminated bulkheads (one-fourth inch to three-eighths inch). Spring loaded electrical contacts.

Reduce wiring diameter 22 to 26 gauge.

Increased tube wall thickness to 0.061 inch.

Deflectors added to tubes to prevent damage to launcher.

(Not procured—deferred to next model).

XM-159/C: Change inclusive of those above. Increased tube length, 48 to 58 inches to accommodate 17-pound warhead.

Mr. Luman. Would any of your people know offhand what the designation of those launchers were? Mr. WATSON. Yes, sir.

Your question was what are the Navy or Chromcraft designations to which we recommend changes? Mr. Luman. Yes.

Mr. Warson. Both the 3/A and the 32A/A.

Mr. Luman. These are ones that the record indicates that the Government, as a matter of fact, bought drawings for from Chromcraft.

Now if the Army made the changes to these launchers that the Government had the drawings for, why are they proprietary to

Mr. Watson. I did not say Army made changes.