DROP TEST UPDATE
2/13/90

- LIVE FIRE in SHOOTING JACK:
  (M/700 30-06 CAL., 180 gr. AMMO, RECOIL RESTRICTED AND WT. ON BARREL TO ELIMINATE MUZZLE JUMP)

SHOT	PEAK ACCELERATION	CONDITION
1	401 G'S	TRIGGER JERKED
2	401 G'S	SMOOTH TRIGGER PULL

- LIVE FIRE in SHOOTING JACK:
  (SAME CONDITIONS AS ABOVE EXCEPT FULL RECOIL PERMITTED IN JACK)

SHOT	PEAK ACCELERATION	CONDITION
1	412 G'S	TRIGGER JERKED

- DRY FIRED ON EMPTY CHAMBER:

  Acceleration was monitored as the rifle was dry fired on an empty chamber. This was done with the trigger jerked and pulled smoothly. No significant acceleration was recorded. Only some low amplitude vibrations were observed. See attached traces.

- MUZZLE DROP ON 1 in. THICK BRASS PLATE:

  Muzzle drops were repeated onto a 1" thick brass plate at 6 in. increaments. The brass plate was approximately 14 in. square and was placed onto a concrete floor for this testing. Five drops were done at each height and peak acceleration was measured on all five drops. One complete waveform from each height was recorded. The safe was off for this entire test. Fire control specifications were set to equal Davison's gun.

HEIGHT (in.)	PEAK ACCELERATION (G's)
6	2058
	1841
	2275
	1950
	1950
	avg. 2015
12	3033
	3141
	2383
	3033
	2600
	avg. 2838
18	3466
	3683
	3033
	3900
	3250
	avg. 3466
24	4117
	3900
	3575
	4117
	3900
	avg. 3921
30	4333
	3900
	4225
	4225
	4333
	avg. 4203
36	4983
	4658
	4767
	4550
	4550
	avg. 4702

No firings occured on any of these drops.

- HI-SPEED MOVIE TESTING OF MUZZLE, BUTT, AND TOP DROPS:

  The above rifle was dropped on the muzzle, butt, and on the top of the receiver onto the large rock imbedded in sand. Acceleration levels were monitored and hi-speed movies were taken. The movies will be sent out for processing on 2/13/90. They should be ready for viewing thursday.