each other and register false hits. V1 is the flag discussed above which enables or disables target movement while firing. (This happens with the subroutine call at 039E.) V0 and VF are used to indicate hits, allowing either of the last bips of the phaser to score. As only the end result of V0 or VF counts, the target must be hit at the exact apex of the phaser for a hit to be scored. Because the target can move over the phaser trail after it is displayed, it occasionally may appear that a target was hit when it in fact was not. (I tell my friends, when they come over to play Space Wars, that the target was out of range, so its "force field" absorbed the phaser fire. They say, "Really? How'd you program that?")

One other feature of the firing routine is the cancellation of the starship inertia in order to steady the target. Remember - this is only the value of your 2, 4, 6, or 8 Key press, added to the XY coordinate values. This is accomplished by a second entry point into the Target Move subroutine that skips the instructions adding the phaser sight-movement values. If this were not done, the target would continue to travel in the direction you selected while the phaser was firing. I discovered that the only way to hit a target with the inertia enabled was to lead it by half a screen! (You can try this for yourself by changing the call at 039E to 23B6.) I describe this as the "phaser lock in" feature for the game instructions. The target will stay in the same area when you press the fire button, but will continue to move randomly within that area. This gives the target the ability to take "evasive action". But not too much!

The Display New Target subroutine at 03B6 adds the phaser sight adjusters to the target XY coordinates, then randomly chooses new XY directions so that the target appears to move independently. The target must be off when entering the