

Mr. ROBACK. Is there a data problem with the air-to-air rocket?

Mr. SHILLITO. On the old 3/A rocket?

Mr. ROBACK. Well, on any air-to-air configuration. Is there any problem there?

Commander KATCHER. Well, sir, the weapon is universal in that the current production rocket is now used primarily for air-to-ground since many new improved air-to-air weapons have supplanted it, and the production requirement by the Army program manager for this weapon is entirely of the new type rocket, and thus all of the rockets are of the new length.

Mr. ROBACK. When was the rocket first used air-to-ground?

Commander KATCHER. I assume, sir, that it has been used air-to-ground from its inception. But that was not its primary development purpose. It primarily was developed as an air-to-air weapon.

Mr. ROBACK. I am trying to understand the significance of the second paragraph, the shift in design. It sounds like you had this as an air-to-air weapon, and you decided you ought to make it air-to-ground, and it was another ball game; and that isn't right, is it?

Commander KATCHER. Perhaps the emphasis shifted from air-to-air with the advent of the Southeast Asia conflict, and the Army's needs as they used this weapon, and the terrain in Southeast Asia created a need for new fuses and more powerful warheads. This led to a longer size of both the fuse and the warhead, which is the prime change in the weapon.

Mr. ROBACK. Outside of the increase in dimensions, what were the technical problems created by the shift in emphasis?

Commander KATCHER. The impact of the rocket on an aircraft surface was not as complicated as the need to have a fuse that would impact on rice paddies equally as well as on hard surfaces.

Mr. ROBACK. That is a warhead problem, not a rocket problem. That is not the launcher problem.

Commander KATCHER. It is in that the new fuse and warhead family, caused a change in the size of the launcher.

Mr. ROBACK. What was the change in the requirements of the warhead? What technical problems did that create for the launcher outside of merely increasing the size?

Commander KATCHER. It created no technical problems other than the size. For the Navy's needs, we had to have longer launchers because of the radiation hazard requirements on board carriers. And thus, while the Air Force continued to use the old length launcher, we were required to shift to a longer length launcher. We had to completely enclose the long rocket in order to provide radiation hazard protection. And this led us to—

Mr. HOLIFIELD. What do you mean, radiation hazard?

Commander KATCHER. The concentration from all of our equipment, radar, radios, and so forth, creates an electrical set-off problem, and that is offset by enclosing the rocket completely within the launcher and making an electrical surrounded barrier. And you cannot do this with the short launchers because the warhead of the rocket extends from the launcher itself and cannot be an electrically sealed unit.

Mr. ROBACK. You had to have a longer nose—you had to have a casing with the fairing?