

# SIMULATED TARGET FOR RADAR LAID STINGERS

The purpose of this device is to provide aircraft with radar laid tail guns a device for training and/or evaluation of crew in fire control system performance. One method of achieving this would be the use of a small, low drag target of low radar <sup>towed</sup> ~~group~~ <sup>cross</sup> section, capable of being maneuvered through a limited range in both azimuth and elevation. This target may be towed behind the tail of a bomber and will contain the following:

A radiator, mounted in the nose for radiation of energy corresponding to the wave length of that of the fire control radar; the necessary elements for maneuvering of a target. This target can be towed some several hundred feet behind the bomber using the tow cable which is of coaxial construction for transmission of the radar frequency energy to the radiator and transmission of the control signals. The radar <sup>cross</sup> ~~group~~ section of the target will be kept below that necessary to be "seen" by the fire control radar. Its radar position will be determined by pulses radiated from the antenna <sup>in</sup> ~~and~~ a definite time relation to the transmitted pulses of the ships radar. Since this time <sup>relation</sup> ~~variation~~ can be controlled, the radar range of this target may also be controlled, <sup>T</sup> to aid in realistic simulation, <sup>g</sup> Amplitudes of the target pulse will also be controlled. Since the target is capable of maneuvering in azimuth and elevation it now becomes, radar-wise, an object capable of maneuvering in three dimension in space. Both range and maneuver may be controlled from a programmer in the bomber which will simulate any one of a number of maneuvers that would be made by attacking aircraft. There are a number of refinements that can be added to this to increase the realism of attacks. In addition, it might be feasible to acquire accuracy of gun laying information, not only through GSAP cameras, but also through actual firing of the bombers guns. Since the target is with a much shorter range the gun will at least theoretically be firing high. There are a number of FEI devices which could then be employed <sup>and</sup> ~~in~~ the suitable range corrections <sup>added.</sup> ~~aided~~ thus determining the accuracy of firing.