PART 1

SECTION 8 — ATTACK SEQUENCES

CHAPTER 1 — FIRESTREAK

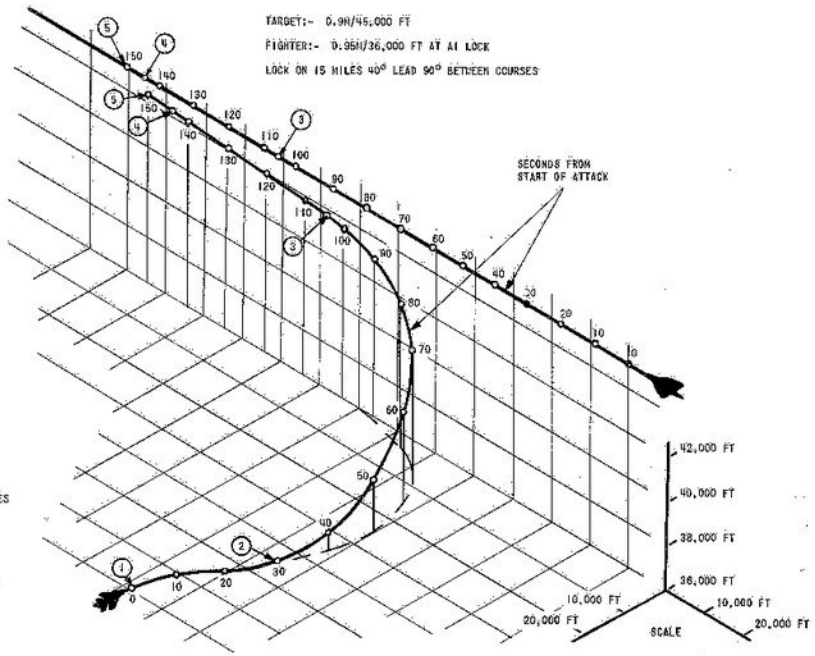
Contents

General

1. Figs 1 and 2 illustrate typical Firestreak attacks. These attacks are from an angle between courses of 90° against a subsonic and supersonic target. The diagrams are largely self explanatory but the following points are worth noting.

a. *Subsonic Target* (*Fig* 1). The fighter speed is relatively low and the attack is quite prolonged due to the fact that the aircraft loses speed during the climbing turn. An attack from a similar starting position but at 1·3M would have reduced the attack time and target penetration.

b. *Supersonic Target* (*Fig* 2). This attack is close to the limits of the Firestreak weapon system capability and needs precise flying to achieve success. At lock-on, the 'time-to-go' is close to the switch point. If the course change does occur the pull up causes speed to drop and this is aggravated by the turn. Aircraft performance is obviously critical but it should be remembered that atmospheric changes have similar effects on the target. The firing condition in this attack is at a fighter speed of 1·75M. It should be noted that the maximum release speed for Firestreak is 1·7M and speed must therefore be reduced when in the bracket.



EVENT 1 FIGHTER COMMENCES TRACKING. HOLD DOWN IN ELEVATION. PURE PURSUIT IN AZIMUTH

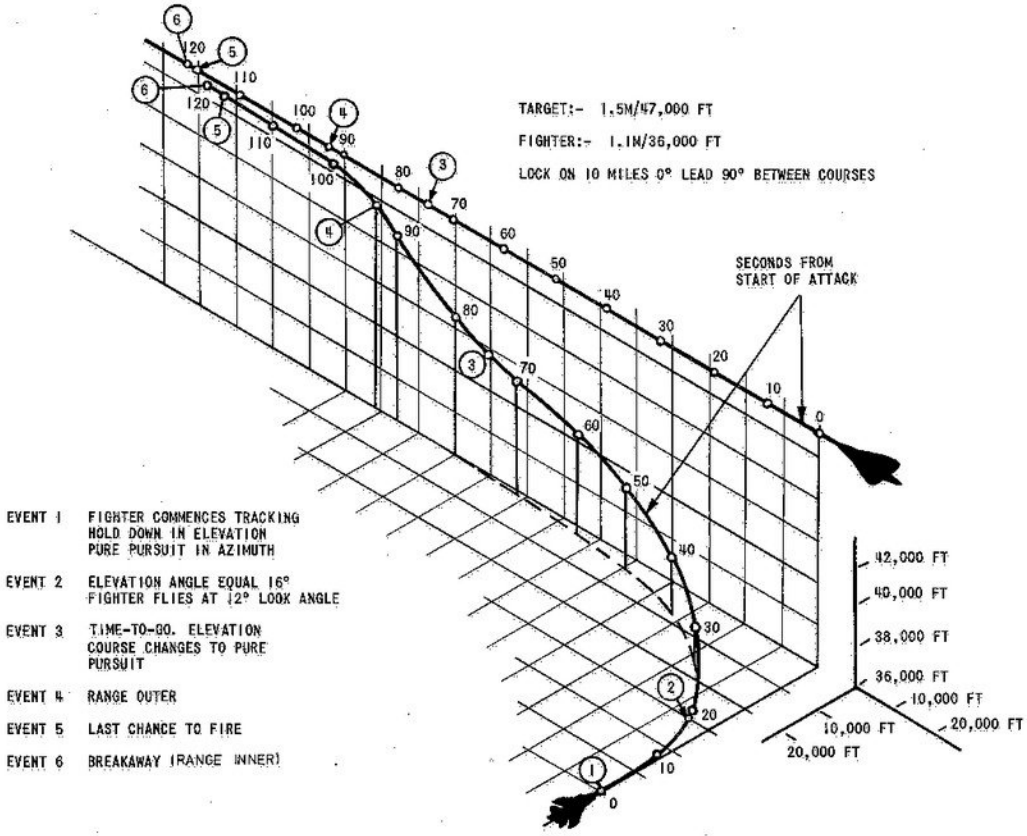
EVENT 2 TIME-TO-GO ELEVATION COURSE CHANGES TO PURE PURSUIT.

EVENT 3 RANGE OUTER

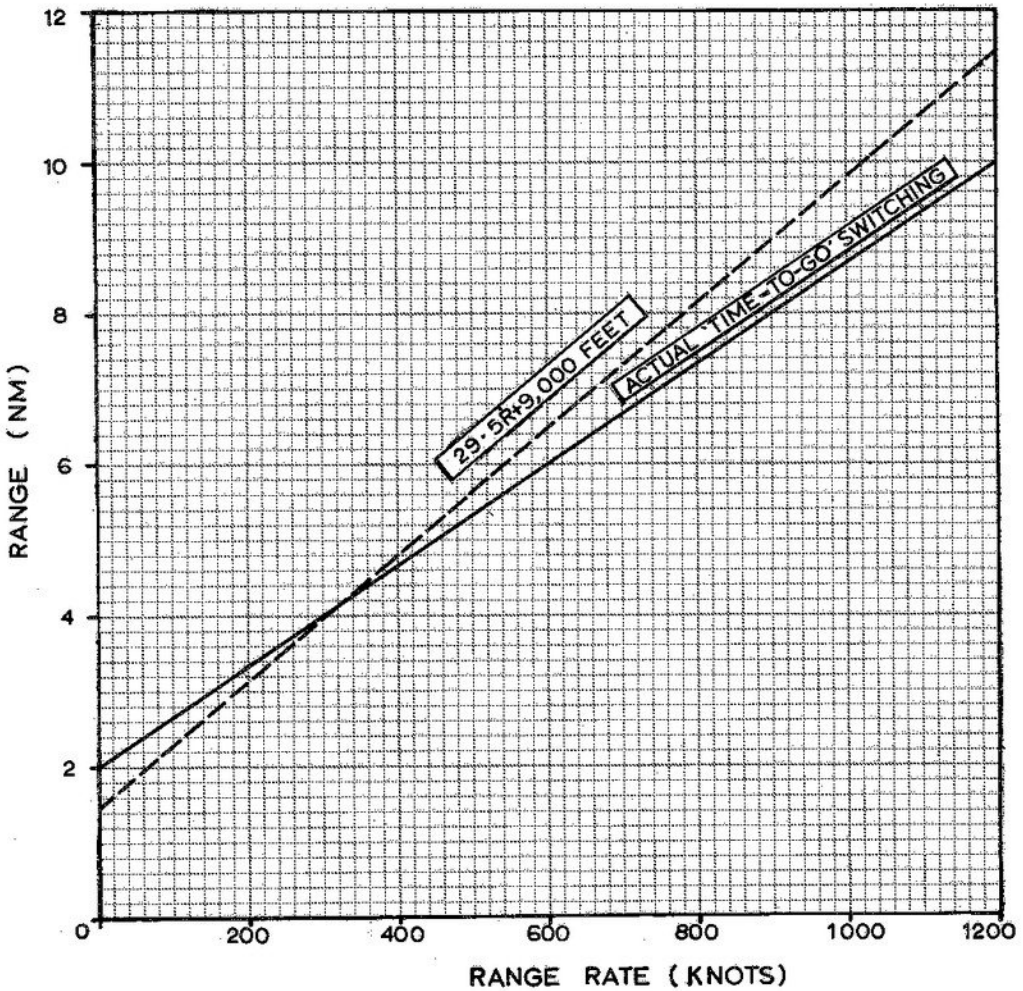
EVENT 4 LAST CHANCE TO FIRE

EVENT 5 BREAKAWAY (RANGE INNER)

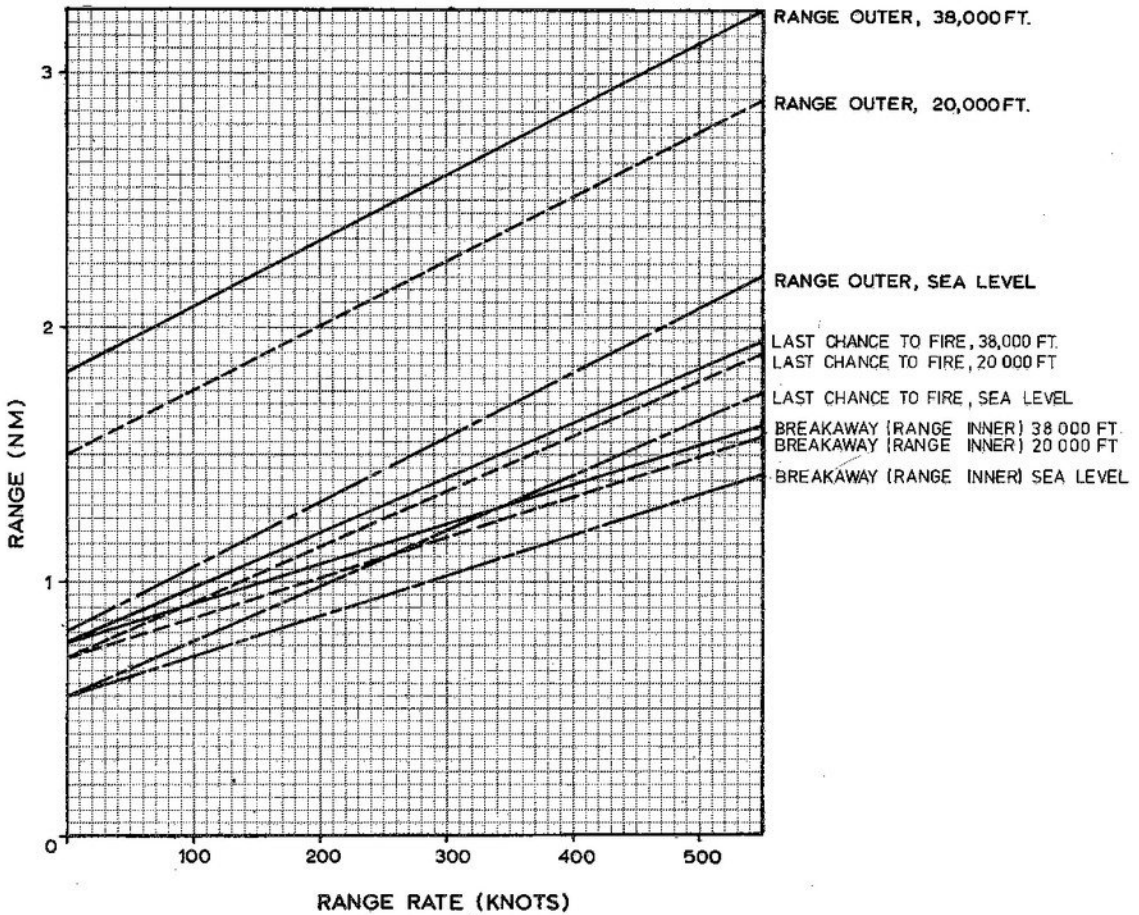
1—8—1 Fig 1 Firestreak Attack — Subsonic Target



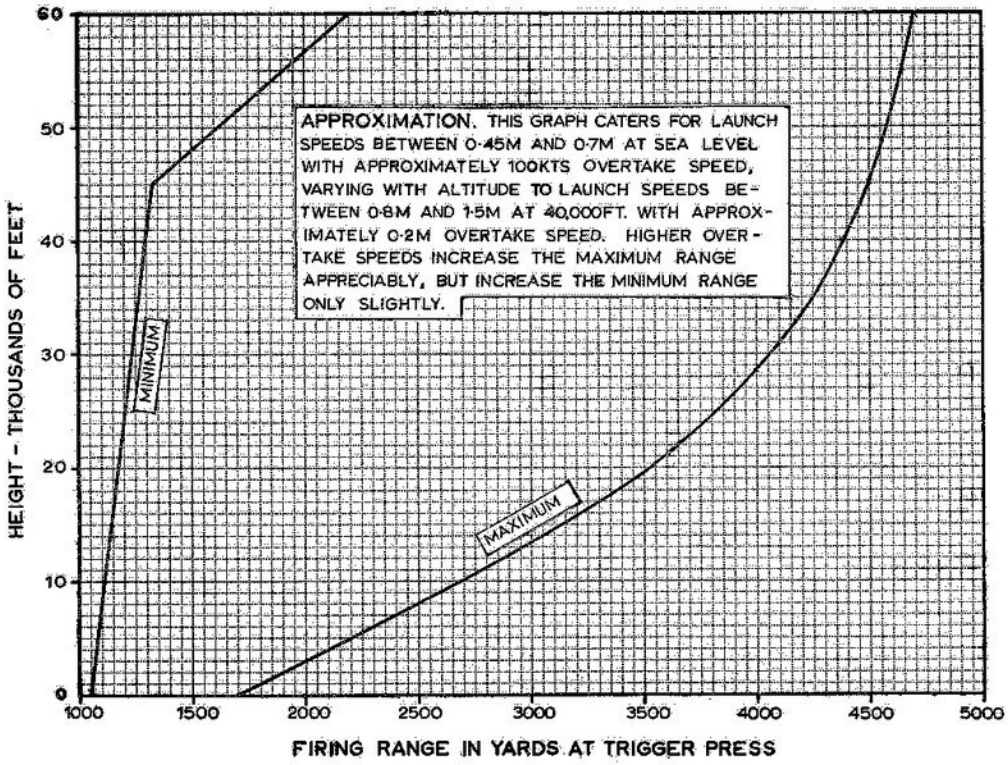
1—8—1 Fig 2 Firestreak Attack — Supersonic Target



1—8—1 Fig 3 Operation of the 'Time-to-Go' Signal



◀ 1 – 8 – 1 Fig 4 **Operation of the Firestreak/A123D Events** ▶



1—8—1 Fig 5 Firestreak Manual Firing Range Bracket