



## CHAPTER 13

# THE AUTOMATIC RIP CORD RELEASE

*The ARR is a safety device designed to activate the main parachute of the RAPS should the parachutist fail to do so. The ARR functions at a predetermined altitude AGL by sensing changes in barometric pressure. The jumpmaster calculates the proper millibar setting and inspects the ARR for the proper setting. The current ARR is the FF-2 Hite Finder (see Appendix A and TM 10-1670-264-13&P). The supporting rigging section issues the ARR properly attached to the RAPS.*

### WARNING

The ARR is a mechanical safety device. It is considered only as a secondary means of main parachute activation. Its use is mandatory for all MFF operations, except for intentional water jumps.

## Activation Setting and Operation

The ARR is set to activate at 500 feet or more below the briefed main parachute manual activation altitude. However, it is not under any circumstances set to activate below 2,500 feet AGL. The ARR senses the altitude 1,000 feet above the MSL activation altitude. The ARR fires 6 seconds after the timer's activation, withdrawing the rip cord pin from the main parachute closing loop. The process cannot be stopped once the timer is activated.

## Millibar Setting Calculation

The jumpmaster obtains the forecasted aircraft "altimeter setting" for the DZ. If flying a mission with limited weather information, the aircrew can provide the altimeter setting en route to the drop area. The altimeter (pressure) setting will be given

in inches of mercury (Hg). The jumpmaster obtains the setting to the nearest one-hundredth of an inch.

Using the Irvin FF-2 Calculator (Figure 13-1), the jumpmaster determines the ARR millibar setting by first placing the black line over the altimeter setting on the outer scale (example 30.00). Next, the jumpmaster adds the given ARR activation altitude (example 2,500 feet AGL), to the given DZ elevation expressed in feet (example 4,700 feet) to determine the MSL activation altitude (example 7,200 feet). He then places the red line over the MSL activation altitude (example 7,200 feet) on the inner scale of the calculator and reads the millibar under the red line on the center scale (example 778 millibars).

## Arming and Disarming

On the jumpmaster's command, the parachutist removes the arming pin to arm the ARR. The safe arming altitude for the ARR is 2,500 feet above the MSL activation altitude. If the aircraft must descend below the safe arming altitude, the parachutist reinserts the arming pin to disarm the ARR. He must disarm the ARR not lower than 2,500 feet above the MSL activation altitude to prevent an inadvertent firing.

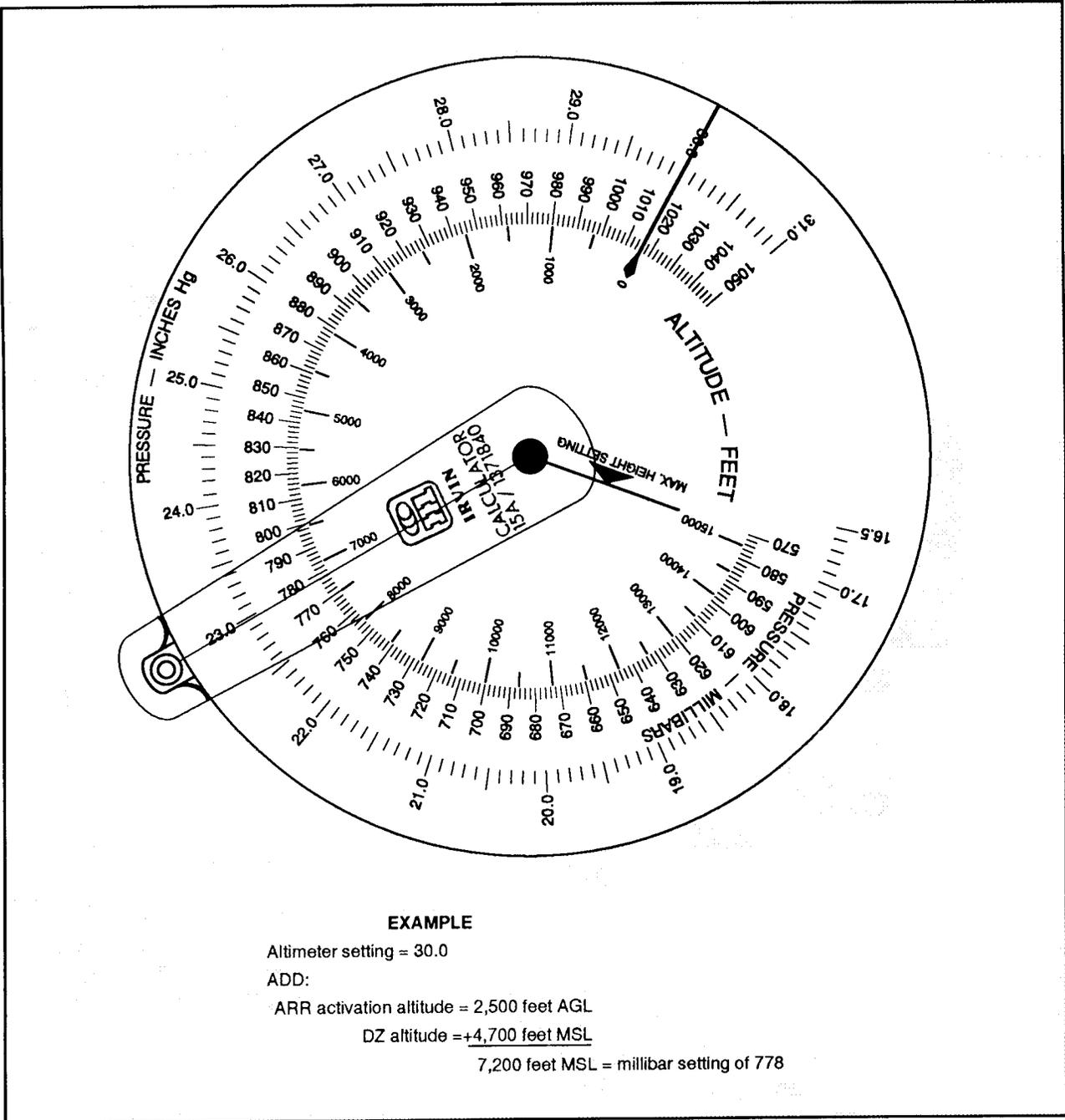


Figure 13-1. Calculating the ARR millibar setting using the Irvin FF-2 Calculator.