Effort to Deploy Fire Hose – 'Bundle' vs. Folded/Rolled 'Moment' and 'Total' Energy Necessary



Please carefully identify each component. The **BLUE BAR** graph illustrates the typical 'tail' of hose that is dragged behind a fire fighter when advancing/pulling a 200' 'Lateral' or 'Live-Line' folded pre-connect or 100' 'Double-Donut' roll of hose. The YELLOW **BAR** illustrates the 'tail' of hose that is dragged behind a fire fighter when advancing/pulling 100' 'high-rise'/wildland 'Bundle' or the last 100' of a Lateral or Live-Line pre-connect a fire fighter must pull from the location in which a hose bundle is dropped on the ground and CHARGED ... no matter where the 'Bundle' is placed at the scene of a fire as I demonstrated doing so AFTER walking around a parked car and then walking between two (2) garage doors and around a solid post to illustrate an EFFORTLESS deployment up to a burning building and near effortless charged advance into the building with full protection every step of the way to a fire victim, while simultaneously creating an excellent indicator for emergency egress by the shortest distance out of the danger zone. In other words, a hose 'bundle' can be advanced DRY with NO effort to a point at which water is finally necessary for the protection from and suppression of the fire... and provided the hose is coiled to its Minimum Critical Inside Diameter, can be fully pressurized in less than 10 seconds from the moment the pump panel valve is opened when set at 150 PSI.

The *BLUE LINE* graph illustrates the amount of *MOMENT EFFORT* given as a percentage in effort/energy to simply advance/pull a given hose only one (1) inch at a

specific distance when comparing the 'Bundle' method vs. that of a folded/rolled method. In *BOLD* is an example that pulling **30' of COILED hose** [*YELLOW BAR*] is **46% of the effort to pull a 65' length of folded/rolled hose** [*BLUE BAR*] at the 30' foot distance from the point at which the hose was first charged and then advanced 30' feet.

The *MAGENTA LINE* graph illustrates, as a percentage also, the comparison of **TOTAL EFFORT OF A HOSE ADVANCE** evolution of a Coiled 'Bundle' Method vs. that of the folded/rolled method from commencement. At 2' feet it was 4% of the moment effort, at 10' feet it was 18% of the moment effort, at 20' feet it was 33% of the moment effort, and at 30' feet it is 46% of the moment effort... so from start to finish, the *TOTAL EFFORT of the entire evolution is only 26% by comparison!* The surface area of both the YELLOW BARS and that of the BLUE BARS are compared to arrive at this figure. Hence, on a typical 30' charged line advance, one (1) fire fighter can perform the work of four (4) fire fighters in a about a quarter of the time... every time! Is there truly another method that produces such an incredible calculated and documented result!?!

Do you not trust the judgment of the Fire Safety professors, faculty, and Staff at Texas A & M University, or are things just 'fine' the way they are!?! May your input be heard and direction be fully executed with the support of all concerned.