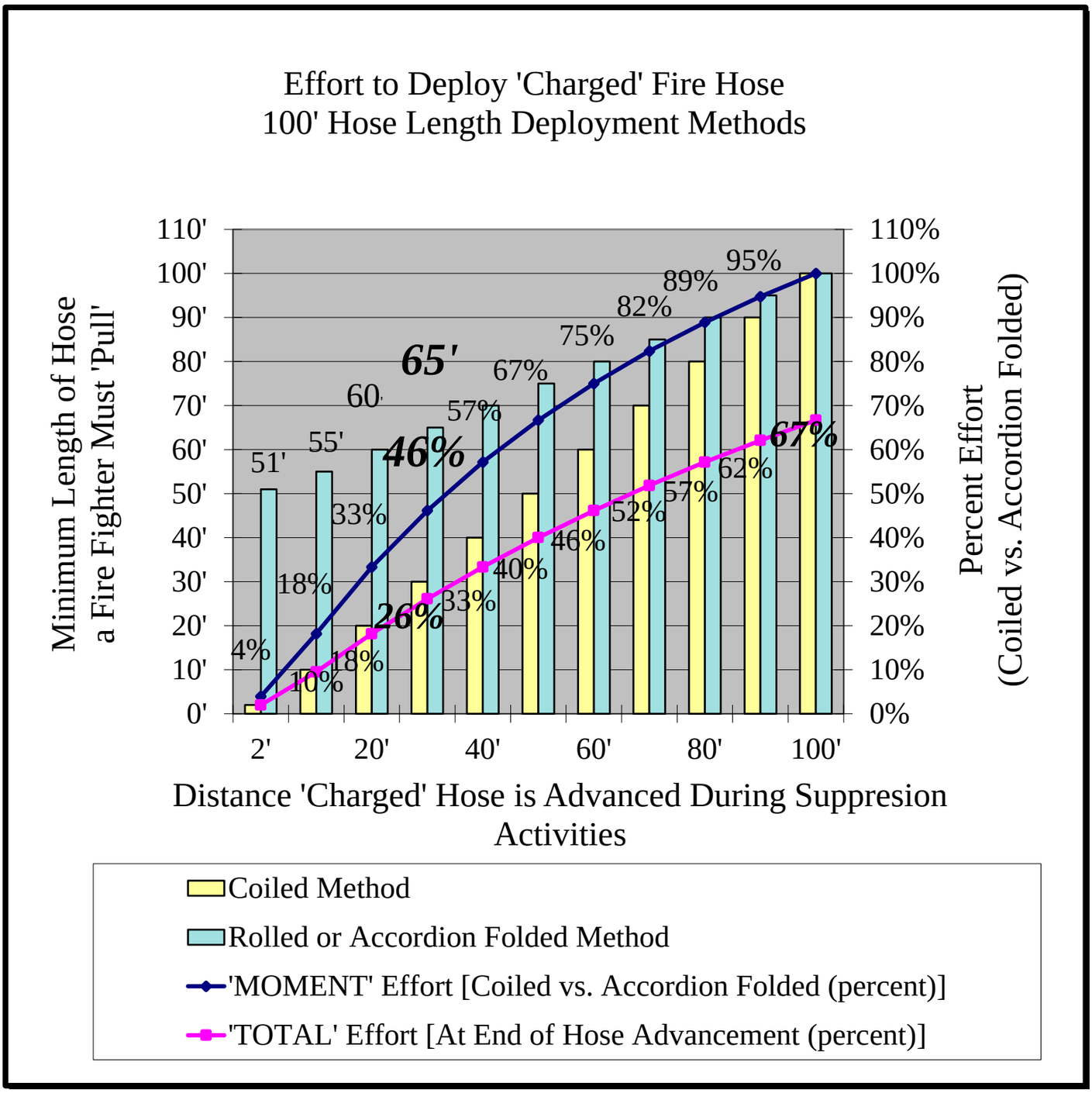
Effort to Deploy Fire Hose

'Bundle' (Coiled) vs. Folded/'Double-Donut' Rolled
'Moment' and 'Total' Energy Expended/Required



.

The purpose of this graph is to mathematically prove the advantages of utilizing the Laws of Physics that apply to a basic garden hose found 'coiled' at its water supply (faucet) also applies to ALL fire hose. In that 'Moment' energy and 'Total' energy are fully illustrated and compare the deployment of two (2) basic methods.

The first basic configuration is the traditional and most popular 'minuteman' or 'triple-fold' flat load or 'double-donut' roll (100') that requires literally every

fold to fit within a specific compartment or cabinet on fire apparatus. This creates a pre-engineered water restrictive kink that MUST FIRST always be painstakingly unfolded before the first drop of water is adequately pressurized to produce the necessary Nozzle Pressure (NP) for firefighter SAFETY. The second (and least popular?) is the 'Coiled' method (i.e. Cleveland, Gnass, etc.) that can be fully charged literally in mere seconds… within feet of the pressurized source… and especially in confined spaces where ZERO manipulation of the hose is required to secure FULL Nozzle Pressure (NP) at every stage of deployment…within feet of a fire apparatus… up to the full length of the hose. [**http://HoseRoller.net**]

Please carefully identify each component of this graph. The ***BLUE BAR*** graph illustrates the typical 50' 'tail' of hose that is dragged behind a firefighter when advancing/pulling a 150' 'pre-connect' or 'Live-Line' of folded hose. It also represents the minimum of 50' behind a 100' 'Double-Donut' roll of hose that is (stupidly?) unrolled, in reverse, back down the steep rugged terrain of the very hill just traversed.

The ***YELLOW BAR*** illustrates the 'tail' of hose that is dragged behind a firefighter when advancing/pulling 100' of hose from a 'high-rise' or wildland ('Cleveland'/Gnass) 'Bundle'. Or the last 100' of hose of any (properly) prepared coil configuration pre-connect a firefighter must pull to advance from the location in which a hose bundle is simply dropped on the ground and CHARGED! No matter where the 'Bundle' is placed during the deployment process, only the hose necessary from that drop point will ever be pulled.

Please view the demonstration at the one (1) minute mark in the online video at http://HoseRoller.net. Only AFTER walking around a parked car and then walking through one bay door, wrapping the post in a complete knot to exit a second/adjacent garage/bay door, thus fully wrapping the solid post between each, the hose is then FULLY charged. But with NO KINKS! This hose is then deployed to its full length in less than 40 seconds upon never pulling any more charged hose than what is ever needed from the moment the hose was pressurized up to its full length. And only ONE (1) firefighter doing the work of four… with a quarter (¼) of the effort… and in record time!

Any other hose-load configuration (Flat-Load, Triple-Fold, modified Minute-Man) with any tail whatsoever would immediately cease all forward progression at the first right-angle turn at the first rear tire of the car. But instead, I demonstrate an EFFORTLESS deployment that simulates advancing up to the point of entry into a burning building. A near-effortless advancement of fully charged line with full nozzle protection at every step of the way to a fire victim, while simultaneously creating an excellent indicator for emergency egress (follow the hose back to SAFETY) by the shortest distance out of the danger zone.

In other words, a hose 'bundle' that can be advanced DRY and with NO effort to a point at which water is EVER needed for the protection from and suppression of any fire AT ANY INCIDENT! As long as the hose is coiled to its 'Minimum Critical Inside Diameter' to prevent ALL kinks, it can then be fully pressurized in mere seconds from the moment its discharge valve is opened wide.

The ***BLUE LINE*** graph illustrates the amount of ***MOMENT EFFORT*** given as a percentage in effort/energy to simply advance/pull any hose at any one point in the deployment process given at a specific distance when comparing the 'Bundle' method vs. that of a folded/rolled method. The ***BOLD*** example upon advancing **30' of 'COILED' hose [*YELLOW BARs in a triangular illustration*] is *46%* of the effort to pull the same charged hose, but because it is folded or always rolled to have at least a 50' tail, it is compared to the 65' length of folded/rolled hose** [***BLUE BAR***] that is being dragged at that 30' foot distance from the point at which the hose was first charged.

The ***MAGENTA LINE*** graph illustrates, as a percentage also, the comparison of ***'TOTAL'* EFFORT OF THESE COMPARED HOSE ADVANCE** evolutions of the Coiled 'Bundle' Method vs. that of the folded/rolled method from the point of commencement. The coiled method at 2' feet is 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…

…but what is key is the TOTAL EFFORT from start to finish. The TOTAL EFFORT of the entire evolution, when you measure the SURFACE AREA under all* YELLOW BARS, *compared the SURFACE AREA under all the

corresponding BLUE BARS, it is then, therefore, evidenced the TOTAL EFFORT from zero (0') to 30' only 26%!

The video at **http://HoseRoller.net** [and **http://HoseCabinet.com**] demonstrates that one firefighter can do the same work as four (4)… in one quarter (¼) the time… and a quarter of the effort… and with absolutely NO water restrictive kinks EVER! The graph above is the mathematical evidence that this evolution of deploying hose from a coil configuration is exactly as all claims are demonstrated far more efficiently than most could ever imagine!

The choice is yours! Fold that long flat stuff on that horse wagon… that motorize cart… that $750,000.00 PIERCE! Are you such a traditionalist that you cannot be open-minded to what technology mathematically proves!?! Truly, is there any other method that produces such an incredible calculated and documented result… EVER!?!