Wildland Urban Interface Presentation – Abstract

http://WildlandFireHydraulics.com training course aims to ensure each attending student receives proper training in all aspects of basic hydraulics discovered since 1745 thru the present day. In addition, an inquiry of its direct application to wildland hoselay support operations and its accountability to OSHA 29 CFR 1910.156 and NFPA 1002 upon NFPA 1041 to ensure firefighter safety. Finally, a course specifically created to inspire thought in open discussions to compare everything from hose deployment methodologies to protecting personnel and apparatus in the event of a burn-over [http://HoseRoller.net] within the unforgiving limitations of laws of physics and apparatus functionality. Considerations to significantly reduce personnel stress [http://HoseRoller.info] while increasing crew efficiency for a safer environment for all parties involved and affected.

A breakthrough four (4) hour course that revolves around the accurate evaluation of data from the most reliable sources on the planet [https://HydraulicsApp.com/TechTips] that mathematically prove every assertion that inspired the creation of a dual hose-line hoselay methodology [http://HENway.org] and three (3) data calculators never before available in firefighter history:

1. Implementing a first-ever dual hoselay methodology allows a crew to:
    a. Extend 500' feet (from a maximum of 600' feet) at 83% further
    b. Pump water a total of 639' higher in HEAD
    c. Secure 56% more efficient "Knock-Down' at 75 GPM than 60 GPM
    d. While dragging hose uphill on any 32% grade
    e. Every crew can immediately attack a 'Slop-Over' **_[ESCAPE!!!]_** with a secondary 75 GPM nozzle (1,066% more effective than 23 GPM lateral) at any point within and up to the entire length of the hoselay.
2. Every driver/operator can instantly calculate 'TOTAL' Engine Pressure to produce an effective fire stream at the rated flow of the nozzle in mere seconds upon only two (2) variables [http://HydraulicsPoster.com] :
    a. Actual hoselay length
    b. Estimated elevation in HEAD – USGS contour lines, both digital or hard copy
3. And as an incredible 'safety-backup' [http://HydraulicsSlideRule.com] (stored in the glovebox) in the inevitable loss of use of one's smartphone, all participants will learn how easy it is to utilize the most sophisticated mechanical slide-rule calculator invented in the past forty years.
    a. To achieve the exact, consistent, scientifically proven results for:
        i. For both the Standard and dual hoselay configuration methodologies.
        ii. For both 'Attack' and 'Overhaul' modes.
4. (Left) [http://HandHydraulics.com] Friction Loss (FL) estimation to calculate each GPM affected section of any hoselay to estimate 'TOTAL' Engine Pressure:
    a. Using fingers as GPM ("Q") flow rates and multipliers for both 60 and 75 GPM

b. Estimation process for both the 'Standard' and dual-hose [http://HENway.org) hoselay configurations and methodologies.

5. Lastly, the use and application of the world's first-ever [https://WaterTenderApp.com] to estimate and confirm actual:

a. On-scene delivery flow rates in both GPM and LPM

b. The required capacity of portable storage tanks to support all operations through mitigation.

c. Without the risk of under-ordering resources to compromise operations.

d. Without the risk of over-ordering too many, that will adversely affect those districts in case of a simultaneous incident.

A course designed by a medically retired Fire Captain, twice patented inventor, author, and five-time entry in Marquis' Who's Who in America to ensure all secure the requisite knowledge of hydraulics [Job Performance Requirements (JPRs)] of every Wildland Fire Apparatus Driver/Operator today. The first 'REAL-TIME' simplification of the most complex calculation processes is reduced to well-outlined, written, and exercised simple steps yet with a far better understanding of fluid hydraulics researched internationally since 1745.