

Big Water Operations

Using Low Flow Hydrants for
Tanker Fill Operations
Soldotna, Alaska



Facts & Figures...

- We don't know much this operation. The photos are from the archives of Larry Davis as are the comments.
- We do know that the photos show how to use a portable dump tank to help improve the flow rate of a tanker fill site. We have used this concept a few times during our drills when low flow fire hydrants have been used.
- We don't know the time frame other than the pictures are photographs scanned into digital format.
- This presentation reinforces one of the basic principles of tanker fill site operations – set up to fill tankers at a rate of 1,000 gpm or more. When a hydrant can't support that flow – consider using the dump tank method to improve flow.

Objective:

Fill Tankers at 1000 gpm from a hydrant that flows 700 gpm

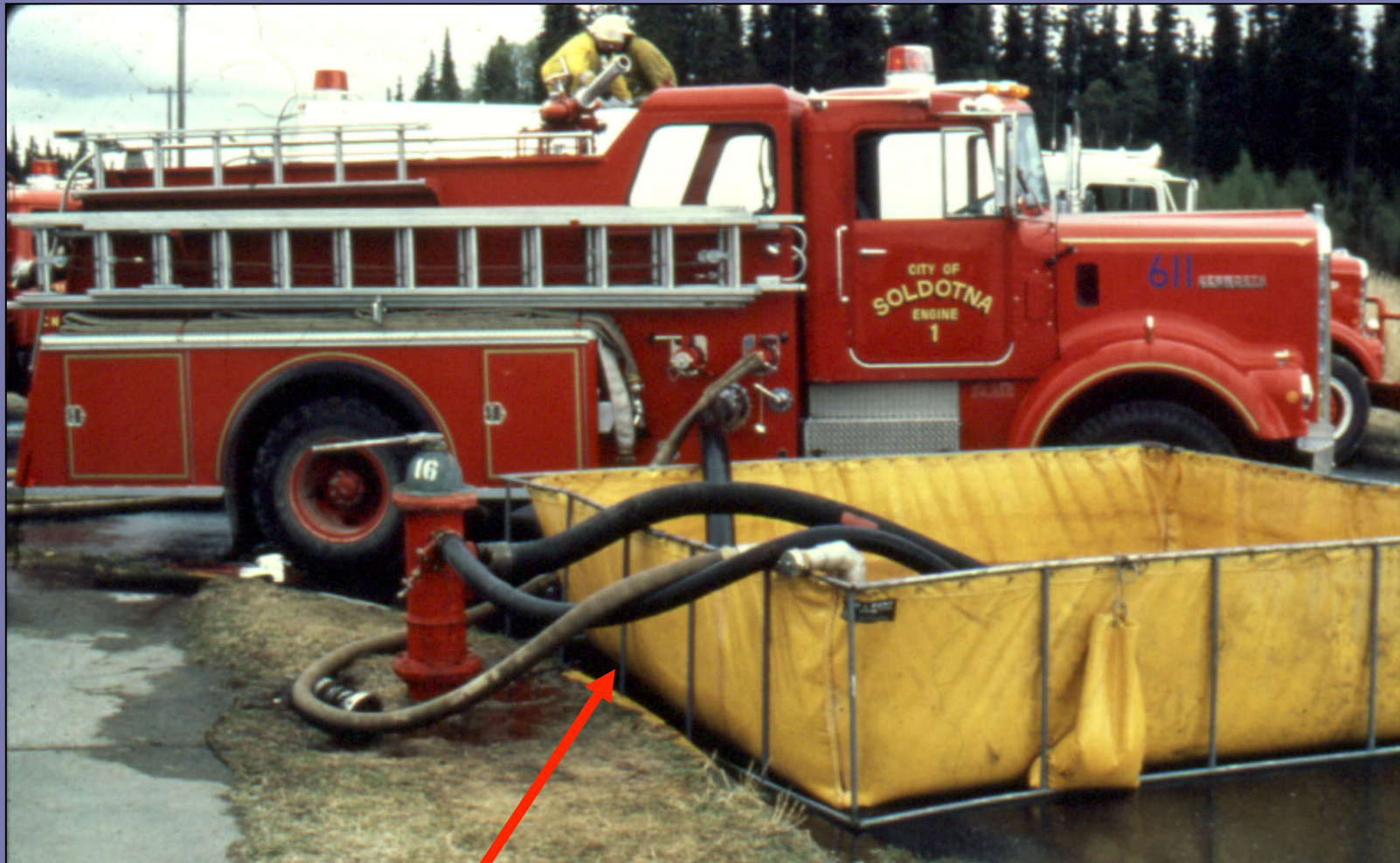
How can you do that??

1,750-gpm Pumper & a 700 gpm Hydrant



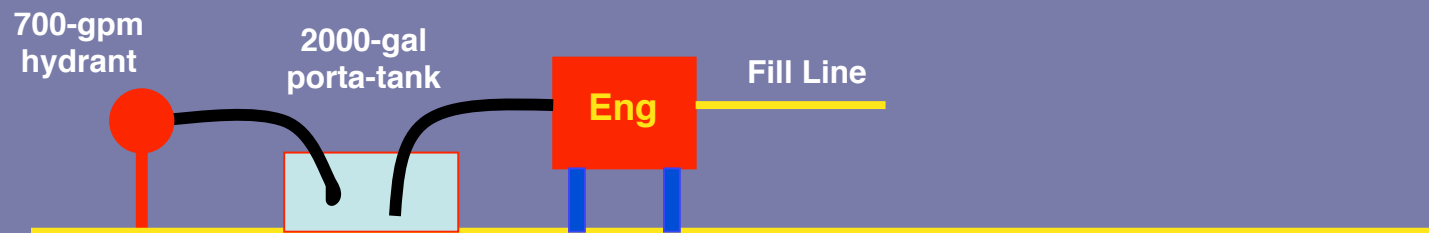
Hard suction hose is used to fill porta-tank

1750-gpm Pumper



2nd suction hose added

Here's How:



1. 2000-gal porta-tank is filled from hydrant
2. Pumper takes 1000 gpm out of porta-tank in 1st minute
3. Hydrant puts 700 gpm back into porta-tank in 1st minute
4. At end of 1st minute, net loss from porta-tank is 300 gpm
5. With a net loss of 300 gpm, it will take 6.6 min before porta-tank is empty
6. This means we can deliver 1000 gpm for 6.6 min (6600 gal) before porta-tank is empty
7. When fill line is shut off, hydrant continues to fill porta-tank





Over-the-top fill using fill pipe = 1000 gpm



Hand signal = Give Me Water



5000-gal Tanker









2400-gal Tanker — 5" fill line





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Fill Site Staging



2 Tankers ready — 1 filled at a time



2nd Porta-Tank - as time permits Provides 4000-gal storage







Review

- The photos show how a little FD ingenuity can overcome a flow problem.
- This practice is especially helpful for departments that serve small towns that have less than adequate water systems.



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