

logistical nightmare as far as mutual aid units operating with each other, especially if they have different hose diameters and hose coupling threads.

TANKER VEHICLE SHUTTLE

Tanker shuttle and / or drop-tank systems are used by many rural fire departments with much success. For many of these departments this is the only water supply system that they have. Tanker vehicles can range in size from 1000 – 3000 gallons (3784--11353L) and can provide on occasion all the water that may be needed. To further understand the logistics of this type of water supply system, take the time to sit down with your mutual aid responders who use this type of system to find out what size tankers they have, what capacity pump, drop tank reservoir size and hose diameter and type hose thread coupling they use. Knowing this information will assist you in better planning for an emergency.

RELAY OPERATIONS

Relay operations using multiple pumper fire vehicles is a practical but time and personnel consuming operation. You must consider important factors such as the water source capacity and reliability, the pump capacities of the various vehicles used in the relay operation, hose diameters and lengths carried, and the distance from the water source.

One point to remember when laying out hose on the taxiway/runway areas is to lay out the hose along the sides—not right up the middle. Lay out hose along the sides, then across the runway/taxiway area adjacent to the area of the incident. This way you can keep these areas clear for emergency vehicle, support vehicles or aircraft movements.

STATIC SUPPLY POINTS

If the aircraft crash or incident is located at a site that is impossible to get a water supply to, then a static water (and foam) resupply area could be set up into place as close to the area as possible. It must be in an area that is clear for free-flow of vehicle (ARFF vehicles, tanker vehicles etc.) to get in and out of rapidly.

OTHER WATER SOURCES

The Fire Service has always been resourceful when adapting to conditions. At some airports they utilize underground cisterns for drafting operations. Others use overhead gravity-feed storage tanks that are located near the airport fire station for rapid ARFF vehicle refilling.

Another source of water that could be considered is tapping into aircraft hangar and airport building standpipe hose systems. In addition, most pump houses have a manifold by which the pump can be tested. By knowing which valves and switches need to be activated, you can access water. If your airport is situated adjacent to bodies of water such as lakes, rivers or deep streams, consideration should be given to installing dry hydrant connections adjacent to them that could ensure that structural fire pumper vehicles can ac-

cess them for drafting operations. A word of caution about using non-potable water in ARFF vehicles. The possibility exists of sediment obstructing critical areas of the foam making devices. A thorough flushing of the entire system must be done after any non-potable (especially salt water) must be done. A refractometer test should also be conducted afterwards. This will go a long way to ensure that the foam making system is working properly.

Proper inspection, testing and maintenance of all of the various aforementioned water supply systems must be regularly conducted, and not be left to chance. It must be emphasized that a dedicated *Water Supply Resource Officer* must be designated in your incident command and planning, and that a secondary backup water supply must be formulated and assured in case of any problems.

In conclusion, water supply is one of the most critical factors in assuring a successful result for aircraft incident management. Your pre-fire planning must keep this consideration at the forefront of your thought process when theorizing “*what can go possibly wrong.*” Be prepared and preplan your water supply requirements beforehand. There is always room for improvement and fine tuning.

