# Flagstaff Fire Department

Special Operations Program

# Overall capabilities

- All FFD members are trained in Hazmat first responder operations.
- 18 Dual certified (Hazmat/TRT) technicians.
- Both of these courses consist of 5 weeks 200 hours of training.
- Ongoing annual CE

# Overall Capabilities


- Stations #5 and #2 are Special Operations stations.
- Hazmat, Structural collapse, Rope rescue, Water rescue, Confined space rescue, Trench rescue, Short haul.
- All of this in addition to our daily emergency duties. (EMS/Fire)


# FFD Special Operations History

- Hazmat and Rope programs have been around for years.
- Sept. 11th 2001 changed the landscape of our Special Operations program.
- Both of our Special Operations vehicles were grant funded and arrived in this time frame (Heavy rescue/Hazmat)
- Equipment and training was grant funded.
- After much of the grant  funding dried up we separated the trucks to Hazmat and TRT.

# Operations

- While many of the departments in the state  have eliminated all or parts of their Special Operations programs, FFD is committed to remain a regional resource for Northern Arizona.


# Hazardous Materials response

- FFD responds to Hazmat calls on a daily basis.
- Hazards consist of solids, liquids, and gasses.
- Fixed sites throughout the city containing hazardous materials.
- Propane, natural gas, Gore, NAU, water/waste treatment, Winona gas farm, Purina, etc...

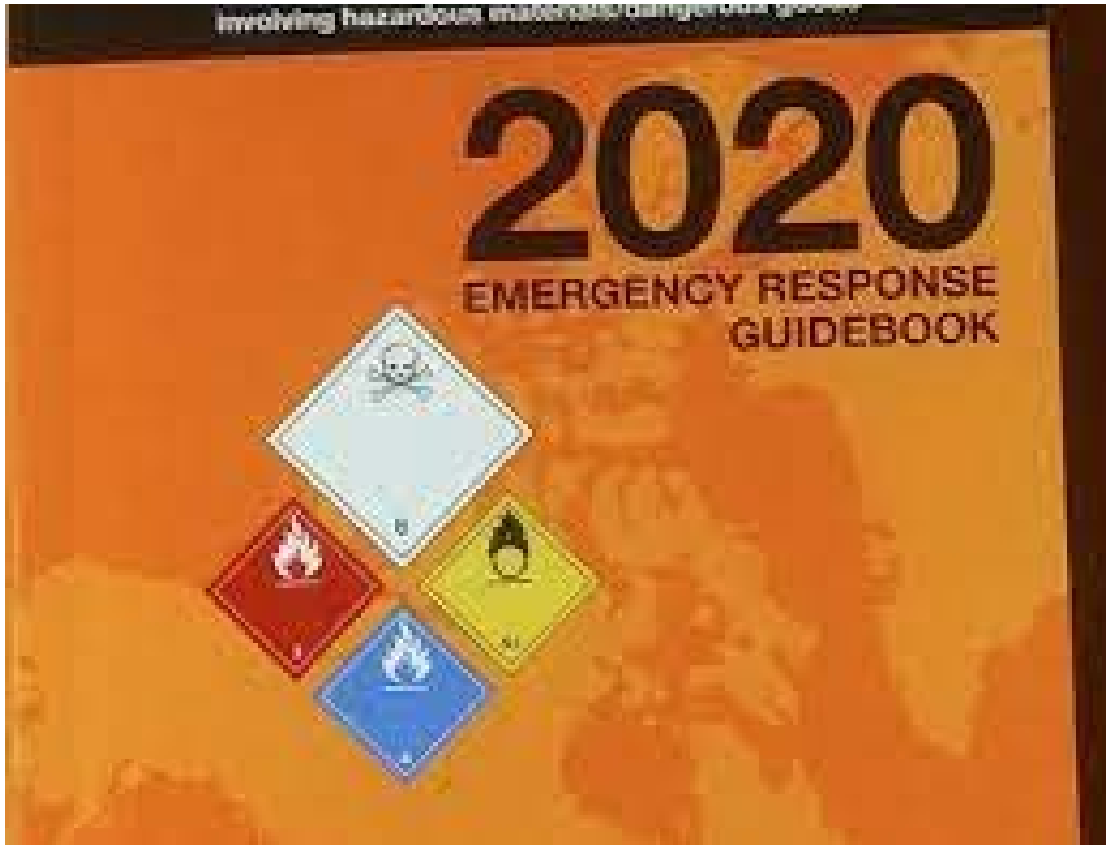
# Interstate and rail emergencies

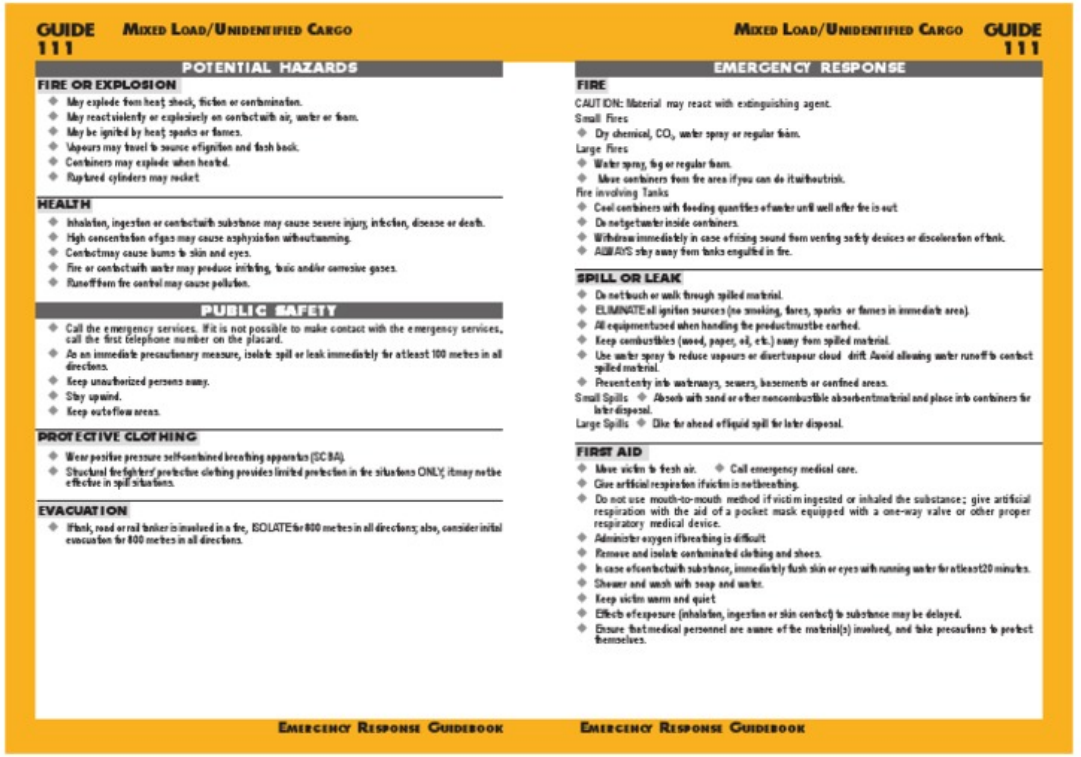

# Scene stabilization

- Incident Command

- Life safety
- Incident stabilization
- Property/Environmental conservation
- Scene stabilization

# ERG



GUIDE 111 — MIXED LOAD/UNIDENTIFIED CARGO

**POTENTIAL HAZARDS**

**FIRE OR EXPLOSION**

- May explode from heat, shock, friction or contamination.
- May react violently or explosively on contact with air, water or foam.
- May be ignited by heat, sparks or flames.
- Vapours may travel to source of ignition and flash back.
- Containers may explode when heated.
- Ruptured cylinders may rocket.

**HEALTH**

- Inhalation, ingestion or contact with substance may cause severe injury, infection, disease or death.
- High concentration of gas may cause asphyxiation without warning.
- Contact may cause burns to skin and eyes.
- Fire or contact with water may produce irritating, toxic and/or corrosive gases.
- Runoff from fire control may cause pollution.

**PUBLIC SAFETY**

- Call the emergency services. If it is not possible to make contact with the emergency services, call the first telephone number on the placard.
- As an immediate precautionary measure, isolate spill or leak immediately for at least 100 metres in all directions.
- Keep unauthorized persons away.
- Stay upwind.
- Keep out of low areas.

**PROTECTIVE CLOTHING**

- Wear positive pressure self-contained breathing apparatus (SCBA).
- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations.

**EVACUATION**

- If tank, road or rail tanker is involved in a fire, ISOLATE for 800 metres in all directions; also, consider initial evacuation for 800 metres in all directions.

EMERGENCY RESPONSE GUIDEBOOK

MIXED LOAD/UNIDENTIFIED CARGO — GUIDE 111

**EMERGENCY RESPONSE**

**FIRE**

CAUTION: Material may react with extinguishing agent.

Small Fires

- Dry chemical, $CO_2$, water spray or regular foam.

Large Fires

- Water spray, fog or regular foam.
- Move containers from fire area if you can do it without risk.

Fire involving Tanks

- Cool containers with flooding quantities of water until well after fire is out.
- Do not get water inside containers.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- ALWAYS stay away from tanks engulfed in fire.

**SPILL OR LEAK**

- Do not touch or walk through spilled material.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- All equipment used when handling the product must be earthed.
- Keep combustibles (wood, paper, oil, etc.) away from spilled material.
- Use water spray to reduce vapours or direct vapour cloud drift. Avoid allowing water runoff to contact spilled material.
- Prevent entry into waterways, sewers, basements or confined areas.

Small Spills — Absorb with sand or other non-combustible absorbent material and place into containers for later disposal.

Large Spills — Dike far ahead of liquid spill for later disposal.

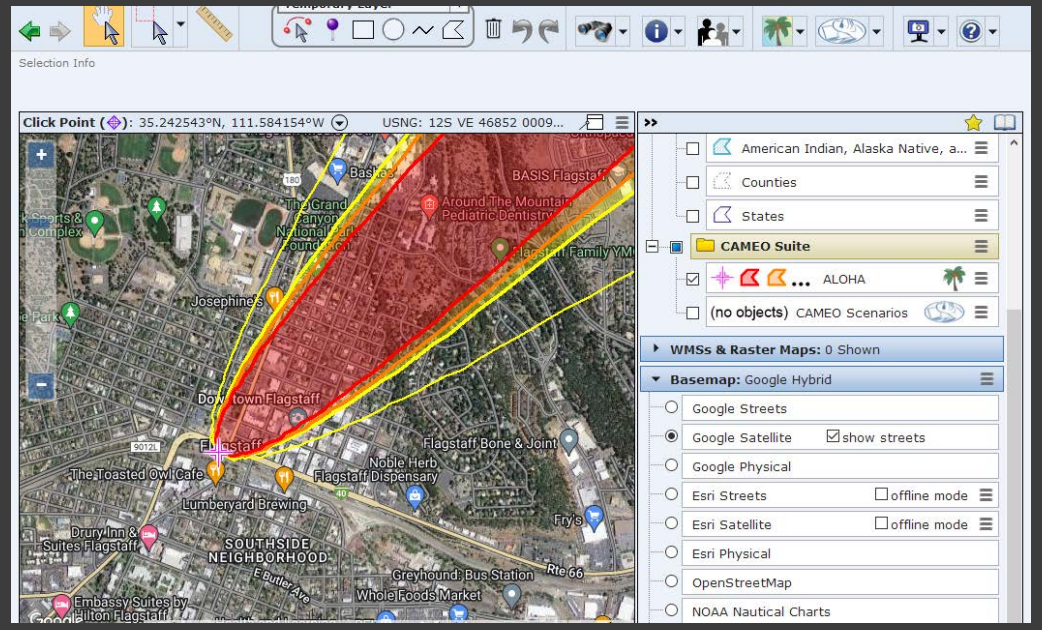
**FIRST AID**

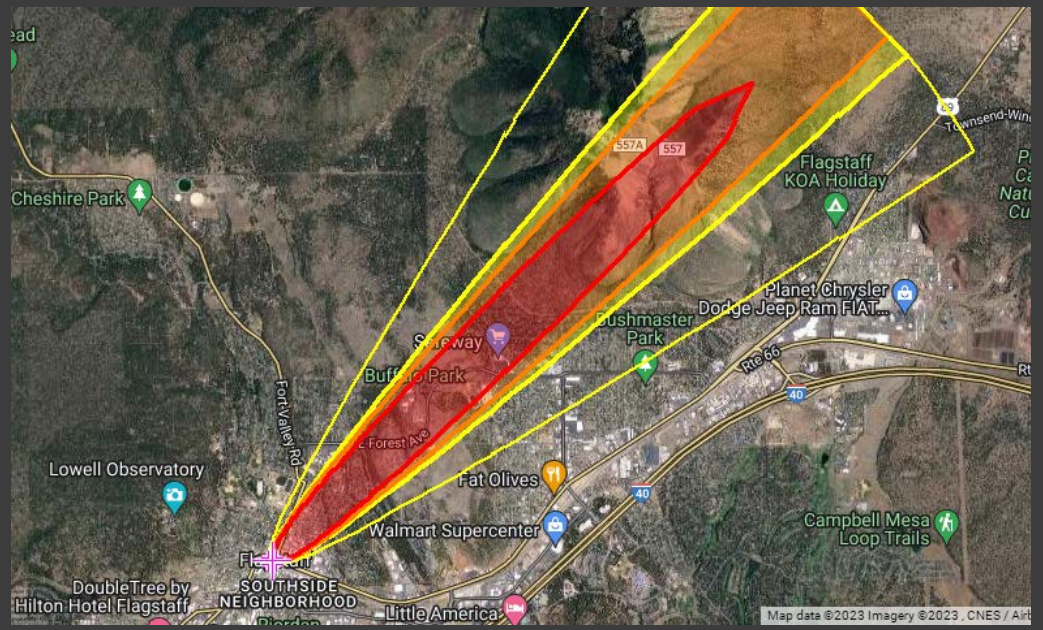
- Move victim to fresh air. — Call emergency medical care.
- Give artificial respiration if victim is not breathing.
- Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
- Administer oxygen if breathing is difficult.
- Remove and isolate contaminated clothing and shoes.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Shower and wash with soap and water.
- Keep victim warm and quiet.
- Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.
- Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

EMERGENCY RESPONSE GUIDEBOOK

# Plume modeling

- Rail car carrying chlorine with a large 2" gash in the side with a 15-20 mph wind out of the SW.
- This Cameo chemical suites model shows us the highest levels of concentration and guides our evacuation plan.
- National Weather Service  in Bellemont has similar capabilities and all of this can be sent to the EOC quickly.



# Additional resources

- BNSF-private contractors
- Responsible party
- ADEQ
- AZ National Guard 91st CST
- State mutual aid
- Red cross

# In review

- Coordinated efforts between FFD and all participating organizations.
- FFD has a strong and healthy hazardous materials program.
- Any large emergency (fire, hazmat, wildfire, EMS) will take the entire GFR to be involved.
- Questions?