

## ***Response and Safety Considerations for F-35 Aircraft Incidents***

### **Background:**

Modern aircraft, including the F-35, utilize composite materials that can release potentially harmful substances during a fire. This guidance provides essential information for all personnel responding to an F-35 aircraft mishap.

### **1. Scene Safety and Awareness:**

**Stay Upwind:** Airborne particles and fibers from burning composite materials can cause respiratory issues and skin/eye irritation. Maintain an upwind position whenever possible and move away from any smoke plume.

**Response Vehicles:** Keep windows closed and turn off HVAC systems when approaching and within the designated hot zone of the mishap site.

**Maintain Distance:** Unless directly involved in rescue operations, maintain a safe distance from the mishap site. A minimum of 330 feet is recommended but can be adjusted by the On-Scene Commander (OSC). Do not approach the aircraft from the front but at an angle from the sides. Do not touch any latches, knobs, etc. unless trained to do so or directed to do so by the F-35 Operations Center or OSC.

**Restrict Access:** Limit the number of personnel in the immediate vicinity. Curiosity can be dangerous; unauthorized individuals should be kept away to minimize exposure.

**Keep Crash Area Wet:** Utilize fire truck turrets, hoses, or any other means to discharge water, keeping crash area wet. Similar to dust control on construction sites, keeping the crash area moist will limit airborne composite exposure. Use fog pattern when possible to minimize spread of contaminants.

**Handling:** Keep handling of debris and wreckage to the minimum necessary due to the risk of cuts and needlestick injury from damaged composite materials.

### **2. Personal Protective Equipment (PPE):**

**First Responders:** Fire and rescue personnel should wear full structural/crash firefighting PPE and Self-Contained Breathing Apparatus (SCBA), during firefighting and rescue operations.

**Other Emergency Personnel:** As a minimum, Law enforcement and other emergency responders should wear N-95/P-100 masks, stay out of the hot zone and upwind of the plume.

**After Emergency Scene Stabilization:** Once the crash scene is stabilized, the wreckage should be cordoned off and security should prevent access to the wreckage except to essential personnel. Personnel working within the designated hot zone should wear the appropriate Personnel Protection Equipment. reference T.O. 00-105E-9, Chapter 3.

### 3. Post-Incident Procedures:

Decontamination: Firefighters should decontaminate their firefighting PPE and SCBA gear after use. A thorough rinse and scrub with soap and water is often sufficient at the incident location after which gear is placed into plastic bags, sealed, and returned to fire station for cleaning (consult local State/County/City protocols for "decon" procedures).

Exposed disposable PPE (such as Tyvek suits, N-95 masks, etc.): All disposable exposed PPE (not firefighting PPE – see above) should be properly disposed of utilizing an overpack (55-gallon drum) and plastic bags. All exposed PPE should be kept in the designated decontamination area in the “warm zones” to limit cross contamination (See example Appendix 1).

Hygiene: Personnel exposed to smoke or debris should shower and change clothes as soon as possible to prevent skin irritation.

Cross Contamination: Avoid wearing exposed bunker gear in response vehicles and living areas (fire station).

Medical Monitoring: Be aware of potential health effects from exposure to smoke and composite materials, including:

Respiratory irritation and difficulty breathing

Eye irritation

Skin irritation, rashes, or infections

Report any suspected symptoms to medical personnel, mentioning potential exposure to aircraft materials.

Food Safety: Eating, drinking, or smoking should be conducted in the cold zone only. Wash hands, forearms, and face thoroughly before consuming anything.

### 4. Evidence Preservation:

Do Not Disturb: Life safety and fire suppression are paramount. Only touch, move, or alter aircraft components as *absolutely necessary* to complete these critical fireground tasks. However, always be mindful of preserving the integrity of the mishap investigation scene; document any unavoidable alterations.

### 5. Additional Information:

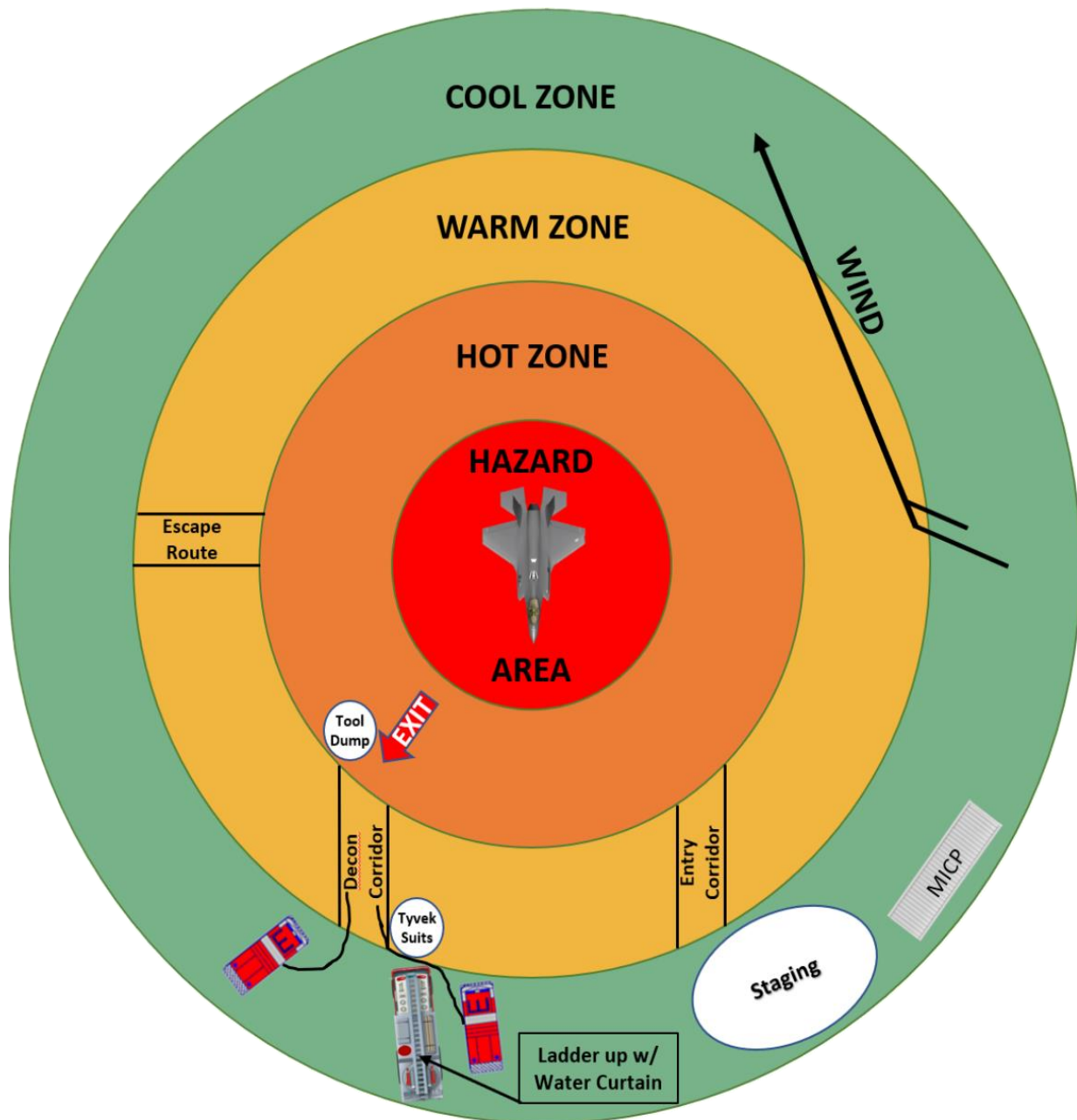
Emergency Response Procedures: Detailed guidance can be found in T.O. 00-105E-9, "Aerospace Emergency Rescue and Mishap Response Information (Emergency Services), Chapter 2 and 3." To request a copy, send an email to [AFCEC.CXF.workflow@us.af.mil](mailto:AFCEC.CXF.workflow@us.af.mil)

Point of Contact: [Dan Santos, [daniel.santos2.ctr@jsf.mil](mailto:daniel.santos2.ctr@jsf.mil)]

### 6. Emergency Contact Numbers:

F-35 Operations Center (Available 24 hour / 7 days): 888-433-5677

Remember: Your safety is paramount. Following these guidelines will help minimize risks associated with an F-35 aircraft mishap.



Appendix 1.



**Front View, Landing Gear Down**



**Side View, Landing Gear Down**



**Side View, Landing Gear Up**



**FRONT View, Landing Gear Up**