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# Acknowledgments

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What is resiliency?

Columbia County is prone to a variety of hazards, each of which has the potential to disrupt the community, cause damage and create casualties. Natural hazards include earthquakes, droughts, floods, wildfires and winter storms. These situations can cause deaths or significant injuries to the public, can disrupt operations, cause physical or environmental damage, or threaten the financial standing of businesses, institutions or other organizations.

The Columbia County Department of Emergency Management works to create resiliency in the county. Resilience is the ability to prepare and plan for, absorb, recover from and more successfully adapt to adverse events. Resilient communities are aware of the risks they face and understand their vulnerabilities.

In terms of emergency preparedness, disaster resilience allows individuals, communities, organizations and jurisdictions to recover from hazards, shocks or stresses while positively adapting and transforming their structures and means for living in the face of long-term changes and uncertainty. Being resilient means communities are better able to withstand a variety of adverse effects, quickly restore vital services and to rebuild.

Columbia County’s Emergency Department of Emergency Management works to improve resiliency in the following areas:

- recovery from disaster situations
- prioritizing fuel allocation after a major earthquake
- review of the county’s Emergency Operations Plan
- prioritization of emergency management duties
- updating shelter agreements with Red Cross
- developing Hazard Mitigation Plans
- creating and exercising Continuity of Operations Plans for county, agencies, jurisdictions and private sector partners (Columbia County Emergency Management)
Disasters are inevitable. It is not a question of if, but when, a regional disaster will impact Oregon. Airports will play a significant role in the emergency response and long term economic recovery after the Cascadia Earthquake or other regional disaster. Scappoose is one of the airports identified in the Oregon Resilience Plan as a key aviation resource. The Scappoose Industrial Airpark Resiliency Plan will evaluate and plan for both operational and physical aspects of the emergency response and recovery. This report is supported with a website that provides supplemental information: SPB Resiliency https://spbresiliency.org

Table 1.1 Airport Profile

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Port of Columbia County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>Craig Allison</td>
</tr>
<tr>
<td>FAA Identifier</td>
<td>SPB</td>
</tr>
<tr>
<td>Service Level</td>
<td>General Aviation</td>
</tr>
<tr>
<td>NPIAS Category</td>
<td>No. 41-0056</td>
</tr>
<tr>
<td>ARC</td>
<td>B-II</td>
</tr>
<tr>
<td>OAP Category</td>
<td>II - Urban General Aviation Airport, Tier 2</td>
</tr>
<tr>
<td>City</td>
<td>Scappoose</td>
</tr>
<tr>
<td>Comprehensive Plan</td>
<td>AE—Airport Employment</td>
</tr>
<tr>
<td>Zoning</td>
<td>PUA—Public Use Airport</td>
</tr>
<tr>
<td>Coordinates</td>
<td>Lat - 45-46-15.7000N</td>
</tr>
<tr>
<td></td>
<td>Long - 122-51-42.6000W</td>
</tr>
<tr>
<td>Area</td>
<td>196 acres</td>
</tr>
<tr>
<td>Elevation</td>
<td>58.1 feet [17.7m]</td>
</tr>
<tr>
<td>Runway 15/33</td>
<td>5100 x 100 feet [1554 x 30m]</td>
</tr>
<tr>
<td>Aircraft Operations</td>
<td>60,000 annual</td>
</tr>
<tr>
<td></td>
<td>164/day average</td>
</tr>
<tr>
<td>Based Aircraft</td>
<td>122</td>
</tr>
<tr>
<td>Critical Aircraft</td>
<td>Beechcraft King Air</td>
</tr>
<tr>
<td>Average Temperatures</td>
<td>Annual high 63°F</td>
</tr>
<tr>
<td></td>
<td>Annual low 42°F</td>
</tr>
<tr>
<td>Annual Rainfall</td>
<td>42.8 inches [108.8cm]</td>
</tr>
</tbody>
</table>

Figure 1.1 Location Map
Scappoose Industrial Airpark (SPB)

The Scappoose Industrial Airpark is located in the City of Scappoose about 18 miles northwest of Portland and 12 miles northwest of Vancouver, Washington. The Airpark is a public use facility that is owned and operated by the Port of Columbia County. It is Columbia County’s biggest airport and the second busiest non-towered general aviation airport in Oregon with 60,000 operations per year providing “reliever” capabilities to Hillsboro and Portland International Airports. The airport uses the FAA, three-letter designation SPB. SPB covers 196 acres at an elevation of 58 feet above mean sea level. It has a single 15/33 asphalt runway that measures 5,100 ft by 100 ft. The FAA designates this airport as General Aviation, meaning that use is for civil aviation operations other than scheduled air services and non-scheduled air transport operations for hire. General aviation generally ranges from gliders to corporate jets. Additionally, General Aviation is most-often used for flying clubs, agricultural aviation, manufacturing/maintenance, and flight training. SPB is part of the National Plan of Integrated Airport Systems (NPIAS), and designated as a “Local Airport.” These airports have moderate levels of activity with some multi-engine propeller aircraft. They average about 33 based propeller driven aircraft and no jets. SPB has 122 based aircraft.

For airport design, the Scappoose Industrial Airpark Master Plan uses Airport Reference Code (ARC) B-II. These airports are designed for aircraft with approach speeds from 91 to 121 knots, and wingspans from 49 to 79 feet. The “critical aircraft” that represents these criteria for SPB is the twin-turboprop Beechcraft King Air.

Introduction
Introduction

Figure 1.3 Existing Conditions

Click on PDF image for full-size graphic
Introduction

The fixed base operator (FBO) is Transwestern Aviation, Inc. Several private-sector aviation companies are headquartered at the Airpark including Columbia Aviation Center, NW Antique Airplane Club, Oregon Aero, Overall Aircraft Services, Pipstrel US, Precision Composites Technologies, and Sport Copter. The airpark has a variety of parcel sizes available for lease. [Scappoose Industrial Airpark]

City of Scappoose

The airport is located within the city limits and urban growth boundary of the City of Scappoose. The Comprehensive Plan designation is “Airport Employment” (AE) which encourages airport related and compatible employment near the Scappoose Industrial Airpark. The AE plan designation is implemented by the Public Use Airport (PUA) zone and three overlay zones that implement specific provisions of the Scappoose Comprehensive Plan and 2011 Economic Opportunities Analysis (EOA). Airport-related and airport-compatible employment uses are permitted outright by zoning within the AE designation—thus encouraging targeted employment types to locate near the airport where they can be served by planned taxiways where feasible. The AE designation specifically encourages educational facilities, such as the Portland Community College, that offer airport-related coursework and training. The AE designation also encourages mixed use employment opportunities in a business park setting in specified locations. [City of Scappoose Comprehensive Plan]

Port of Columbia County

The Port of Columbia County is a special district in Columbia County, Oregon, that encompasses 51 miles along the Columbia River. The district’s boundaries span from the Clatsop County line in the northwest of Columbia County, to the Multnomah County line in the southeast, and includes the cities of Scappoose, St. Helens, Columbia City, Prescott, Rainier and Clatskanie.

The Port was created in 1940 under Oregon Revised Statute (ORS) Chapter 777 to promote economic development opportunities in the district, primarily through the lease, sale and development of industrial properties. Originally called the Port of St. Helens, the Port was renamed in 2018 to be more representative of the entire district. The Port owns and manages the Scappoose Industrial Airpark. [Port of Columbia County]
There are five key regulatory and policy documents that guide resiliency planning for Scappoose Industrial Airpark:

- Oregon Aviation Plan
- The Oregon Resilience Plan
- Resiliency 2020
- Columbia County Emergency Operations Plan
- FAA Airport Emergency Plan

Collectively these documents provide a framework for a comprehensive strategy for developing a resilient Airpark and key aviation resource for regional emergency response and recovery.

**Oregon Aviation Plan**

The Oregon Aviation Plan v6.0 (OAP) was adopted by the Oregon Department of Aviation (AERO) in 2018. The aviation goals of the Plan are:

1. To follow FAA Advisory Circular 150/5070-7—The Airport System Planning Process as applicable to the
97 airports comprising the Oregon Aviation System.

2. To evaluate current system performance and identify airport facilities and service deficiencies and gaps.

3. To determine the ability of each airport to meet its objectives to support its role in the system plan.

4. To identify special considerations related to airports which support economic development and health and safety.

5. To provide guidance to support informed investment decisions on an airport by airport basis and by categories of airports.

6. To establish a blueprint for Oregon’s future airport system.

The Oregon Aviation Plan categorizes Scappoose Industrial Airpark as “Urban General Aviation.” These airports support all general aviation aircraft and accommodate corporate aviation activity, including piston and turbine engine aircraft, business jets, helicopters, gliders, and other general aviation activity. The most demanding user requirements are business-related. These airports service a large/multi-state geographic region, or experience high levels of general aviation activity. [Oregon Aviation Plan, Airport Function Roles] The Airport is within the Connect Oregon Region 2, the northwestern coastal and Willamette Valley area. The minimum runway length objective for Category II airports is 5,000 feet. [SPB Runway 15-33 is 5100 feet.] (Oregon Aviation Plan, 2019)

## Tier Type and Base Concept

The OAP categorizes airports with a tier type and base concept that identifies their role in a disaster. Scappoose Industrial Airpark is a Tier 2 airport which may also be referred to as a Type 2 Federal Staging Area (FSA). This type of airport functions as forward aerial port of embarkation / departure (APOE/D) for the response and

### Table 2.1 Airside Facilities

<table>
<thead>
<tr>
<th>FAA ID</th>
<th>SPB</th>
</tr>
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<tbody>
<tr>
<td>Associated City</td>
<td>Scappoose</td>
</tr>
<tr>
<td>Airport Name</td>
<td>Scappoose Industrial Park</td>
</tr>
<tr>
<td>Orientation</td>
<td>15/33</td>
</tr>
<tr>
<td>Length</td>
<td>5100 feet</td>
</tr>
<tr>
<td>Width</td>
<td>100 feet</td>
</tr>
<tr>
<td>Surface Type</td>
<td>Bituminous</td>
</tr>
<tr>
<td>Pavement Strength</td>
<td>30,000 pounds</td>
</tr>
<tr>
<td>Runway Lighting</td>
<td>Medium Intensity Runway Light (MIRL)</td>
</tr>
<tr>
<td>Markings</td>
<td>Non-precision Instrument (NPI)</td>
</tr>
<tr>
<td>Configuration</td>
<td>Dual Full Parallel</td>
</tr>
<tr>
<td>Taxiway Lighting (Taxiway B)</td>
<td>Medium Intensity Taxiway Lighting (MITL)</td>
</tr>
<tr>
<td>Current PCI</td>
<td>72.5</td>
</tr>
<tr>
<td>Current Year</td>
<td>2012</td>
</tr>
<tr>
<td>5-Year PCI</td>
<td>65.5</td>
</tr>
<tr>
<td>Approach Aids</td>
<td>PAPI, REIL, Localizer, DME, VOR (Nearby), GPS</td>
</tr>
</tbody>
</table>

are simultaneously used as Tier 2 resupply points. SPB should be capable of the full spectrum of response operations:

- Airfield Max Runway Strength 25,000 to 125,000 pounds [SPB: 30,000 lbs.]
- Identified now
- Preplan usage
- Pre-coordinate design
- Serves as logistics base and responder base camp (RBC)
- Provides distribution to local communities
Resiliency Planning

- Joint reception, staging, onward movement, and integration (JRSOI) / Relief in Place (RIP) location

In the event of an emergency, AERO’s responsibilities include:

- Provide staff members and equipment to assist in emergency airport repairs
- Facilitate the acquisition of aviation assets in an emergency to support state requirements (Oregon Emergency Operations Plan, 2017)

The Oregon Resilience Plan

Reducing Risk and Improving Recovery for the Next Cascadia Earthquake and Tsunami

The Oregon Resilience Plan was adopted by the State of Oregon in 2013 to guide a 50-year program to prepare the State for the following seismic resilience goal:

Oregon citizens will not only be protected from life-threatening physical harm, but because of risk reduction measures and pre-disaster planning, communities will recover more quickly and with less continuing vulnerability following a Cascadia subduction zone earthquake and tsunami.” (The Oregon Resilience Plan, 2013)

Scappoose Industrial Airpark (SPB) is a Category II, Tier 2 airport as described above. Tier 2 airports will be needed to restore major commercial operations. During the post-disaster emergency response and initial recovery phase, displaced residents, injured people, and the elderly may need to be evacuated by means of airports; and airports will also provide staging area for needed supplies such as water, food, medical supplies, and materials for temporary housing. (The Oregon Resilience Plan, 2013) The Oregon transportation resiliency status categorized SPB with the following recovery level times:

- Minimal: 1-3 days—A minimum level of service is restored, primarily for the use of emergency responders, repair crews, and vehicles transporting food and other critical supplies.
- Functional: 1-3 months—Although service is not yet restored to full capacity, it is sufficient to get the economy moving again—e.g. some airport traffic can be accommodated.
- Operational: 1-3 years—Restoration is up to 90% of capacity: A full level of service has been restored.
- 60% Operational: 3-6 months given 2013 conditions
- 90% Operational: 3+ years given 2013 conditions

The Transportation Interdependency Assessment identified a Phase 1 critical backbone system and Phase 2 Highway Lifeline Routes. Segments connecting U.S. 101 to I-5 are identified as Tier 1, Phase-2 Highway Lifeline Routes. These segments should be considered moderate priorities

Table 2.2 Landside Facilities and Services

| ✓ | Beacon       |
| ✓ | Automated Surface Observing System (ASOS) |
| ✓ | Lighted Wind Cone |
| ✓ | Hangar Facilities |
| ✓ | Apron       |
| ✓ | 100 LL Fuel  |
| ✓ | Jet A Fuel  |
| ✓ | Full Service Fixed Base Operator (FBO) |
| ✓ | Ground Transportation |
| ✓ | Restrooms   |
| ✓ | Pilot Lounge |
| ✓ | Telephone   |
| ✓ | Snow Removal |
as part of the multimodal transportation system. Scappoose or Hillsboro are airports within this classification (to be hardened within 20 years). Hillsboro Airport has a high potential for liquefaction hazards, and this report recommends Scappoose be selected as the moderate priority supporting lifeline highways. Due to its safe location, Redmond Municipal Airport serves as the key distribution point (FEMA Primary) for all airports in a CSZ post-disaster event.

Resiliency 2020

Improving Our Readiness for the Cascadia Earthquake and Tsunami

When the next Cascadia subduction zone earthquake strikes the Pacific Northwest, Oregon will face the greatest challenge of our lifetimes. Oregon’s buildings, transportation network, utilities, and population are underprepared for such an event, and we must accelerate our preparations.

To protect Oregon’s communities and economy, Governor Brown will build upon the success of the 2013 Oregon Resilience Plan with Resiliency 2025: Improving Our Readiness for the Cascadia Earthquake and Tsunami. (State of Oregon, 2018)

This policy agenda focuses on six key strategies:

1. Continue state investments in seismic upgrades of schools and emergency services building throughout Oregon.

2. Development a plan for the Critical Energy Infrastructure Hub to prevent and mitigate catastrophic failure and ensure fuel supplies and alternate energy sources are available to responders and the public.


4. Work with local governments, community groups and the American Red Cross to ensure that 250,000 vulnerable homes have 2-week ready supplies in the next three years.

5. Strengthen local emergency management organizations and develop more robust logistical staging bases, local supply chains, and more earthquake and mass displacement insurance options.

6. Update the Oregon Resilience Plan in 2021 to reflect current best practices, community input, and academic research, including a specific plan for the Oregon Coast.

The SPB Resiliency Plan supports Strategy 5 by preparing the airport to serve as a logistical staging base (LSB). “After a devastating Cascadia earthquake, airports will become central to Oregon’s recovery efforts, and the quick importing of essential survival supplies will all rely on Oregon’s airports. Oregon’s airports must be resilient in order to serve as logistical staging bases in the aftermath of the earthquake”. (Resiliency 2020, 2018)

The SPB Resiliency Plan will also support participation in the proposed 2021 grant program to provide seismic upgrades to publicly-owned airports, using the 2017 Airport Resiliency Workshop data and adopting the Federal Emergency Management Agency (FEMA) tier system ratings to prioritize coastal and valley owned state airports to either build or enhance their infrastructure so that they can serve as life safety logistical bases following a Cascadia Subduction earthquake and tsunami. (Resiliency 2020, 2018)
Columbia County Emergency Operations Plan

The Columbia County Emergency Operations Plan (EOP) was updated in 2018 by Columbia County Emergency Management. The EOP is the guiding document for local government post-disaster response and recovery, and although this is a public document, it’s availability is restricted to official personnel due to its sensitive material. The format for the EOP is based on the following elements:

- **Basic Plan.** The Basic Plan provides an overview of the County’s emergency organization and policies. It cites the legal authority for emergency operations, summarizes the situations addressed by the Emergency Operations Plan, explains the general concept of operations, and assigns general responsibilities for response and recovery.

- **Emergency Support Function Annexes.** Each annex focuses on one of the critical emergency functions the County will perform. The type and scope of an incident will dictate which annexes will be needed. Since annexes are used in conjunction with the Basic Plan, they do not repeat information that is already addressed. **Incident Annexes.** Each annex provides additional hazard-specific information that can be used by the emergency management organization in responding to a specific incident type.

- **Support Annexes.** Each annex provides additional planning elements to support the Basic Plan.

The SPB Resiliency Plan complements the County EOP and includes two Emergency Support Functions specific to the Airpark. In every case, the EOP takes precedence over the SPB Resiliency Plan.

FAA Airport Emergency Plan

The Federal Aviation Administration (FAA) Airport Emergency Plan (AEP) Advisory Circular No: AC 150/5200-31C provides guidance to the airport operator in the development and implementation of an Airport Emergency Plan (AEP). The AEP addresses essential emergency related and deliberate actions planned to ensure the safety of and emergency services for the airport populace and the community in which the airport is located. The AEP uses a functional approach similar to the County EOP with the following elements:

- **Basic Plan.** The Basic Plan provides an overview of the airport’s emergency response organization and its policies.

- **Functional Annexes.** Functional annexes are plans organized around the performance of broad tasks, e.g. Command and Control, communications, health and medical, etc. Since functional annexes are operations oriented, their target audiences are those who perform the tasks.

- **Hazard-Specific Sections.** Hazard-specific Sections provide additional detailed information applicable to the performance of a particular function in support of a particular hazard. They are prepared when the Hazards Analysis and regulatory considerations warrant. These documents, along with their associated SOPs and Checklists, are usually “stand alone”—for example, if there is a bomb threat, the Bomb Threat section can be pulled from the AEP and used to support the incident—there should be no need to reference the Basic Plan or Functional Annexes during the emergency.

- **SOPs and Checklists.** Standard Operating Procedures (SOPs) and Checklists provide detailed instructions that an individual or organization needs to fulfill responsibilities and
perform tasks assigned in the AEP. Most SOPs and Checklists are hazard-specific and attached to each Section. For example, the airport law enforcement agency may have a general SOP for Traffic and Access Control or for Terminal Evacuation with supporting individual checklists for the Shift Supervisor, Ramp Patrol, etc. Additionally, these documents should provide enough detail to cover the basic response and recovery functions necessary to get the job done, but still are general enough to be flexible since no two emergencies are the same.

The SPB Resiliency Plan incorporates elements of the AEP such as an Airport Grid Map and Emergency Support Functions specific to the Airpark.

Related regulatory and policy documents include:

- **State of Oregon Emergency Management Plan.** The Oregon Comprehensive Emergency Management Plan (CEMP) is designed to coordinate the activities of all public and private organizations that provide emergency services within the State of Oregon and provide for and staff a State Emergency Coordination Center (ECC) to aid the Governor who is responsible for the emergency services system within the State.

- **Columbia County Continuity of Operations Plans.** Planning for continuity of operations (COOP) is a key component of Columbia County’s emergency management program. The COOP plans detail the processes for accomplishing administrative and operational functions during emergencies that may disrupt normal business activities. Parts of these plans identify essential functions of local government, private sector businesses, and community services and delineate procedures developed to support their continuation.

- **Columbia County Multi-Jurisdiction Hazard Mitigation Plan.** FEMA’s Interim Final Rule 44 Code of Federal Regulations (CFR) Part 201, published in February 2002, requires states and communities to develop natural hazard mitigation plans to apply for FEMA Pre-Disaster Mitigation, and Hazard Mitigation Grant Programs. The Columbia County Multi-Jurisdiction Hazard Mitigation Plan was updated and approved in 2014, and provides information designed to help prioritize post disaster mitigation projects and funding. (Columbia County EOP, 2018)

Elements of these documents are included in the SPB Resiliency Plan along with links to online resources.

---

**Until highway and rail transportation can be fully restored, air transportation, along with ships off the coast, will be the lifelines for Oregon’s citizens**

The Oregon Resilience Plan
Resiliency Assessment

Infrastructure

Site Assessment Information
Structures on the airport include a wide range of uses and are identified in Figure 1.2 Existing Conditions. [A full-size plan is available in the project website Resources.] A variety of hanger types and sizes are primarily located west of the runway with a few on the northeaster side. Primary airport tenants, uses and locations are identified in Table 3.1 Airport Tenants.

Utility Service Information
The site is served by local utility providers for electrical, water, sanitary sewer, and communications. Emergency responses and recommendations regarding utilities are identified in the Operational and Physical Plans. [Table 3.2 Utilities]

Aviation Equipment/Needs
The 2016 Scappoose Industrial Airpark Master Plan describes all aviation equipment in the Inventory section, and all recommendations in the Project List and Implementation Schedule. Additional recommendations are included in this report’s Operational and Physical Plans.

Hazards Assessment
The Columbia County Emergency Operations Plan scored hazards by history, vulnerability, maximum threat and probability. They are ranked by level of risk (in parentheses):
1. Flood (290)
2. Severe Weather (255)
3. Public Violence / Terrorism (240)
4. Earthquake (217)
5. Transportation Accident (190)
6. Hazardous Materials (180)

Table 3.1 Airport Tenants

<table>
<thead>
<tr>
<th>Tenant</th>
<th>Use</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columbia Aviation Center</td>
<td>Office / Commercial</td>
<td>K-7</td>
</tr>
<tr>
<td>Devinaire</td>
<td>Office / Commercial</td>
<td>L-13</td>
</tr>
<tr>
<td>NW Antique Airplane Club</td>
<td>Office</td>
<td>N-6</td>
</tr>
<tr>
<td>Overall Aircraft Services</td>
<td>Commercial</td>
<td>O-8</td>
</tr>
<tr>
<td>Pipistrel US</td>
<td>Office / Commercial</td>
<td>N-7</td>
</tr>
<tr>
<td>Precision Composites</td>
<td>Commercial /</td>
<td>N-8</td>
</tr>
<tr>
<td>Technologies</td>
<td>Manufacturing</td>
<td></td>
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<tr>
<td>Sport Copter Inc.</td>
<td>Commercial /</td>
<td>K-11</td>
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<tr>
<td></td>
<td>Manufacturing</td>
<td></td>
</tr>
<tr>
<td>Transwestern Aviation</td>
<td>Fixed Base Operator</td>
<td>O-4</td>
</tr>
</tbody>
</table>

The location coordinates refer to Figure 5.3 Grid Map
7. Multiple Casualty Incident (110)  
8. Volcanic Eruption (109)  
9. Wildland/Urban Fire (105)  
10. Drought (105) (EOP, 2018)  
The FAA AEP also identifies hazard responses specific to airports:  
- Aircraft Incidents and Accidents  
- Terrorism Incidents  
- Structural Fires, Fuel Farm and Fuel Storage Areas  
- Natural Disasters: Hurricane, Earthquake, Tomato, Volcano, Flood  
- Hazardous Materials Incidents  
- Sabotage, Hijack, and other Unlawful Interference with Operations  
- Failure of Power for Movement Area Lighting  
- Water Rescue Situations  
- Crowd Control  
This report consolidates the hazards and recommended responses from the Columbia County EOP and FAA AEP.  
1. Aircraft Incidents  
2. Crowd Control  
3. Fire: Urban/Wildland, Structural, Fuel Farm, and Fuel Storage Areas  
4. Hazardous Materials  
5. Natural Disasters: Earthquake, Drought, Flood, Severe Weather, Tomato, Volcano  
6. Power Failure  

### Oregon Statewide Geohazards

The Oregon Department of Geology and Mineral Industries (DOGAMI) has prepared a comprehensive inventory of geohazards and prepared online mapping with hazard/assets layers. These maps are online at the Oregon HazVu: Statewide Geohazards Viewer. The Airport geohazard maps are shown by Figures 3.1 to 3.4. The following is a summary of these geohazards.

#### Radon Potential

Radon potential is the ability of rocks and soils to produce radon. Radon is a colorless and odorless gas, a radioactive byproduct of radium. This gas becomes a human health concern when radon makes its way from the building ground into structures. If radon builds up to high concentrations in indoor air, radon and its decay products can get trapped in the lungs through inhalation exposure. Long-term exposure to high radon levels may lead to lung cancer in some people. (DOGAMI). There is no indicated Radon hazard for the Airport.

#### Flood Hazard

The 100-year floodplain is a flood zone developed by statistical analyses of stream discharge data to define the 1%-annual-chance flood event (e.g. the “100-year flood”). The resulting flood water surface is mapped on best available topographic data, ranging from lidar (most accurate) to USGS topographic maps (least accurate). (DOGAMI). There are flood hazards to the west, but none indicated on the Airport. [Figure 3.2 Flood Hazard Map]

### Table 3.2 Utilities

<table>
<thead>
<tr>
<th>Utility</th>
<th>Provider</th>
</tr>
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<tbody>
<tr>
<td>Water</td>
<td>City of Scappoose</td>
</tr>
<tr>
<td>Sanitary</td>
<td>City of Scappoose and Septic Systems</td>
</tr>
<tr>
<td>Power</td>
<td>Columbia River People’s Utility District (CRPUD)</td>
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<tr>
<td>Natural Gas</td>
<td>N/A</td>
</tr>
<tr>
<td>Telecom</td>
<td>Comcast</td>
</tr>
</tbody>
</table>

The FAA AEP also identifies hazard responses specific to airports:
Cascadia Earthquake Hazard

The Cascadia Subduction Zone (CSZ) is the tectonic plate boundary between the North American Plate and the Juan de Fuca Plate. These plates are converging at a rate of about 1.5 inches per year, but the movement is not smooth and continuous. Rather, the plates lock in place, and unreleased energy builds over time. At intervals, this accumulated energy is violently released in the form of a megathrust earthquake rupture, where the North American Plate suddenly slips westward over the Juan de Fuca Plate. (DOGAMI) The Airport is subject to “Strong” shaking with a portion of the northeast and southeast subject to “Very Strong” shaking.

Earthquake Liquefaction (soft soil) Hazard

The intense shaking of an earthquake can cause soil liquefaction -- where loosely packed, water-logged sediments are transformed into a substance that acts like a liquid. Buildings and infrastructure sitting on these soft soils are likely to be severely damaged in an earthquake. (DOGAMI) No liquefaction hazards are indicated.

Volcano Hazard

Volcanic eruptions are most likely to occur in the Pacific Rim states, which include Oregon. The primary danger area around a volcano covers an approximately 20-mile radius, although there is some danger to people within 100 miles or more. Airborne ash from a volcano can affect people hundreds of miles away from the eruption. The most common volcano-related hazards are ash (tephra), lahars (volcanic mud flows), lava and debris flows, avalanches, and pyroclastic flows. (DOGAMI) The Airport is not within 20 miles of an active volcano.

Landslide Hazard

Climate, geology, and topography combine to make portions of Oregon landslide-prone. Precipitation, earthquakes, and human activity are the main triggers of landslides. (DOGAMI) There are no on-site landslides indicated for the Airport.

Assets

The closest public building assets are the Scappoose RFPD Fire Station less than 1 mile southwest of the airport on the Columbia River Highway and the Scappoose Police Department about 1 mile southwest of the airport on East Columbia Avenue. This close proximity allows for extremely fast response times.

Pandemic

COVID-19 impacts airports in multiple ways, and requires an evolving series of responses. The FAA has prepared a variety of materials including the Information for
Resiliency Assessment

Figure 3.1 Street Map

Airport Sponsors Considering COVID-19 Restrictions or Accommodations. This document outlines current procedures for the following:

- Closing airports
- Rent Abatement / minimum annual guarantee
- Deferral of rental payments or other fees
- Sheltering-in-place impacts on airport personnel
- Recreational aeronautical restrictions
- Many others

Airports should be cognizant of, and assume the responsibility for, the implications of their proposed actions in response to COVID-19. Considerations include, among others:
(1) coordination with the FAA,
(2) coordination with other Federal, State, or local agencies as needed, including airport law enforcement or local law enforcement entities serving the airport;
(3) Understanding of applicable Federal obligations,
(4) Impacts on aeronautical use and airport infrastructure;
(5) Impact on the safe and efficient functioning of air traffic and the National Airspace System;
(6) Communications and notice requirements;
(7) Evolving safety and security requirements;
(8) The need to document actions;

Figure 3.2 Flood Hazard Map
Global Climate Change

Global climate change impacts vary and may affect Scappoose Industrial Airpark resiliency through more frequent and several weather events and related hazards. The National Academy of Science published ACRP Report 147: Climate Change Adaptation Planning: Risk Assessment for Airports to help airport practitioners understand the specific

Figure 3.3 Cascadia Earthquake Hazard Map

(9) plans for following upon or amending actions as the situation evolves; and
(10) the impact to emergency services that rely on air transportation. (FAA).

The FAA has compiled a large repository of pandemic materials at Information for Airports about COVID-19.
impacts climate change may have on their airport, to develop adaptation actions, and to incorporate those actions into the airport’s planning processes. (ACRP) This report includes an electronic assessment tool called Airport Climate Risk Operational Screening (ACROS) that was developed to help airports ask the question, “Within the entire airport, what’s most at risk to projected climate changes?” Prior to the next Master Plan Update and/or revisions to the Resiliency Plan, the ACROS tool should be reviewed to reassess airport risks, mitigation and adaptation measures.
Regional Resiliency Assessment Program

The Regional Resiliency Assessment Program (RRAP) is a cooperative assessment of specific critical infrastructure within a designated geographic area and a regional analysis of the surrounding infrastructure to address a range of infrastructure resilience issues that could have regionally and nationally significant consequences. These voluntary, nonregulatory RRAP projects are led by the Department of Homeland Security and are selected each year by the Department with input and guidance from federal, state, and local partners. (cisa.gov)
Hazards Analysis

It is recommended that a broad-based team approach be used for hazard analysis. In addition to airport employees and tenants, representatives from local emergency management, emergency services, hospitals, business and industry, as well as elected officials, the media and anyone who may have a stake in emergency planning, mitigation, response or recovery activities should be involved in hazard analysis. The Hazards Vulnerability worksheet provides an overall assessment and is based on the following:

**Probability Rating**

Probability is the number of chances per year that an incident of a specific or greater size will occur. This can be based on historical factors, experience, and to some degree, scientific reasoning. In this category, estimate frequency and apply the following scoring system:

- 0 points—Not possible in our community
- 1 point—It is possible, but probably won’t happen
- 2 points—It will probably happen, but not very often
- 3 points—It is possible and is likely to happen

**Response Management Difficulty Rating**

This step is mainly concerned with the magnitude and duration of the hazard occurrence, the airport / community’s capabilities to direct and control response activities, and the effects of time on those activities. For example, a long term incident such as extensive flooding or an earthquake would tax resources more than a multi-vehicle accident. Also, since some incidents (such as flooding or an earthquake) cover wide geographic areas, local community emergency response assistance to the airport may be very limited; the airport may be more on its own in terms of response and recovery. The scoring system for this step is as follows:

- 0 points—absolutely no problem, routine
- 1 point—can be managed with local resources (Level 1 Emergency)
- 2 points—would require assistance from local communities (Level 2 Emergency)
- 3 points—would require considerable support from state and federal agencies (Level 3 Emergency)

**Vulnerability Factor**

The vulnerability factor is determined by adding the points across the row of categories (Probability Rating plus Response Management Difficulty equals Vulnerability Factor) for each hazard. (AC 150/5200-31C, 2010)

[Table 3.3 Hazards Vulnerability]
<table>
<thead>
<tr>
<th>Hazard</th>
<th>Probability</th>
<th>Response Difficulty</th>
<th>Vulnerability Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft accident—off airport</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Aircraft accident—on airport</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Bomb threat/found</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Building collapse</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Civil disturbance</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Communications system failure</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Computer system failure</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Drought</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Earthquake\textsuperscript{HV}</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Epidemic, disease</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Fire—major structure</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Fire—brush</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Flood\textsuperscript{HV}</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Fuel shortage</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Hazardous materials incident</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Hostage situation (non-terrorist)</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Hurricane (bomb cyclone)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Lost person(s)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Mass casualty incident</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Nuclear incident</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Pollution—air, water, soil</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Power failure</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Radiological incident</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Terrorism incident</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Tornado</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Tsunami (tidal wave)</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Vehicular accident—major</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Volcano eruption\textsuperscript{HV}</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Water supply failure</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Winds—damaging</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Winter storm—severe</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

\textsuperscript{HV}—Oregon HazVu Mapping
The Operational Plan provides a clear picture of how the Port of Columbia County will ensure an efficient and coordinated emergency response. The Plan is based on functions and principles of the National Incident Management System (NIMS) and identifies how the Port of Columbia County operating the Scappoose Industrial Airpark fits in the overall County, State and Federal emergency management systems during response and recovery operations.

The Operational Plan plans consist of four major components:

- Basic Plan
- Functional Annexes
- Hazard—Specific Sections
- Standard Operating Procedures (SOPs) and Checklists

**Basic Plan**

This Basic Plan provides an overview of the airport’s approach to emergency operations. It generally defines related policies, describes the response organization, and assigns tasks. The primary purpose of the Basic Plan is to meet the informational needs of the airport’s executive body and other agency heads. (FAA Advisory Circular 150/5200-31C)

**Authority**

The Port of Columbia County in carrying out its responsibility for providing airport facilities is the guiding authority for airport emergency operations. For purposes of this document, the Airport Director or Manager refers to the person designated by the Port of Columbia County with responsibility for planning, directing, and managing all administrative and operational functions of the Scappoose Industrial Airpark.

**Purpose**

The purpose of the Operations Plan is to establish the procedures, responsibilities, and duties of participating agencies to ensure efficient rescue, emergency medical care, proper firefighting operations, and news media coverage during emergencies that may occur at the Scappoose Industrial Airpark (SPB).

**Situation and Assumptions**

This AEP addresses the following hazards:

- Aircraft Hijacking, Sabotage, Bomb Procedures
- Aircraft Incidents and Accidents
- Fires
- Hazardous Materials
- Natural Disasters
- Power Failure

The procedures contained in this Resiliency Plan are to be followed for the safe, efficient and uniform handling of an emergency at the Scappoose Industrial Airpark (SPB). These procedures shall govern the activities of airport personnel, airport tenants, aircraft owner/operators and all others subject to airport lease and use agreements or permits.
Concept of Operations

This section provides an overall sequence and scope of the planned emergency response.

Emergency response procedures will normally be activated in the following manner: Any person becoming aware of an emergency may notify the Columbia 9-1-1 Communications District (CCOM). The emergency information will be dispatched to fire and law enforcement units. The response of all personnel involved in an airport emergency must be directed toward the following actions in the priority listed:

1. Rescue and life saving
2. Safety of personnel, equipment and property
3. Fire fighting
4. Protection of the incident site/wreckage and preservation of the site for later investigation
5. Keeping unaffected areas of the airport operating
6. Returning the airport to normal operating status as soon as possible
7. Aircraft, cargo and equipment recovery and removal

Organizational Responsibilities

This section establishes the organization that will be relied upon to respond to an emergency situation. This section provides a ‘snapshot’ view of who does what, and more detailed information is provided in the Organization and Assignment of Responsibilities section which take precedence in the event of conflicts in the Resiliency Plan. All tasked individuals/organizations, including, but not limited to those listed below, have a responsibility to provide for continuity of operations by taking action to:

- Ensure that lines of succession for key management positions are established to ensure continuous leadership and authority for emergency actions and decisions in emergency conditions
- Maintain current SOPs to perform assigned tasks
- Protect emergency response staff by providing appropriate protective clothing and respiratory devices and adequate training
- Protect records, facilities, and organizational equipment deemed essential for sustaining operational capabilities and conducting emergency operations

Scappoose Industrial Airpark

The Staff of the Scappoose Industrial Airpark is initially responsible for handling all on-airport emergencies. During an emergency covered in this plan, the Unified Command System will be used, utilizing Columbia County command procedures to establish an Incident Command. When fire, rescue, or criminal activities are complete, the Airport Director will work to return the airport to normal operating status.

Airport Director

The Airport Director is on call 24 hours a day and represents Airport Management for policy decisions. The Airport Director will respond as needed and may assume the role of Airport Section IC. The Airport Director is the senior airport official and is responsible for policy decisions and communicating with City officials.

SASO Tenants

Specialized Aviation Service Operation (SASO) Tenants will be available to assist with any emergency when requested to do so by Incident Command or Airport Operations. These duties include, but are not limited to, towing of disabled aircraft,
escorts, sanitation, clean-up of debris, removal of wreckage.

**Incident Public Information Officer (IPIO)**

The Incident Public Information Officer is responsible for all news media and public affairs actions during an emergency. Responsibilities include, but are limited to managing, controlling, and escorting the news media during any emergency on airport property to insure they do not impede emergency actions or violate airport safety & security; act as spokesperson for the incident to all news media to ensure only accurate data is given and conflicting data avoided; and coordinates with the airline, SASO or other organizations involved in the emergency to insure their public affairs policies are not violated.

**Columbia 9-1-1 Communications District**

The Columbia 9-1-1 Communications District (CCOM) is responsible for dispatching the proper emergency response vehicle(s) to the scene and advising other agencies upon notification of the emergency as part of automatic aid support.

**Scappoose City**

The Scappoose Police Department and the Scappoose Fire District are responsible for providing police and fire services to the Scappoose Industrial Airpark as needed for life, safety, and public protection and providing an on-scene Incident Commander for each emergency covered under this plan. In addition to fire and police protection, other Scappoose City services may be available through the Incident Commander.

Scappoose City Police are responsible for:
- Assessing security needs and assigning functions
- Controlling the public from blocking access roads or accessing emergency incident sites

**Federal Agencies**

The Federal Aviation Administration (FAA) has the initial responsibility for the investigation of air crashes and will direct the investigation until a representative from the National Transportation Safety Board (NTSB) assumes responsibility.

The NTSB conducts and controls all accident investigations involving civil aircraft, commercial and military aircraft, within the United States, its territories and possessions. The NTSB has overall charge of investigating accidents involving aircraft with maximum gross takeoff weights of 12,500 pounds or more and less than 12,500 pounds when a fatality takes place.

A summary of local government responsibilities is provided in Table 4.1 Airport Emergency Responsibilities.
## Operational Plan

### Table 4.1 Airport Emergency Responsibilities

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
</table>
| **Airport Manager**         | - Serve as Emergency Coordinator.  
- Assume Incident Command responsibility for all response and recovery operations, as appropriate.  
- Establish, promulgate, coordinate, maintain, and implement the Airport Emergency Plan (AEP).  
- Contact 911 and provide appropriate alerts and notifications.  
- Coordinate the closing of the airport when necessary and initiate the dissemination of relevant safety-related information to aviation users (NOTAMs). |
| **Air Carrier/Aircraft Operator** | - Provide full details of aircraft-related information, as appropriate, to include number of persons, fuel, and dangerous goods on board.  
- Coordinate transportation, accommodations, and other arrangements for uninjured passengers.  
- Coordinate use of air carrier/aircraft personnel and other supplies and equipment for all types of emergencies occurring at the airport. |
| **Scappoose City Administrator** | - Provide access to city resources. |
| **Scappoose Rural Fire Protection District Fire Chief** | - Manage and direct firefighting and rescue operations.  
- Direct search and rescue or hazardous materials response.  
- Coordinate mutual aid resources through Incident Command System.  
- Assist with search and rescue or evacuations.  
- Assume Incident Command as appropriate. |
| **Scappoose Police Department Chief** | - Manage and direct police operations.  
- Assist with traffic control and scene security.  
- Assist with search and rescue or evacuations.  
- Respond as needed for activities involving crowds or assemblies of people.  
- Respond to bomb threats or acts of terrorism.  
- Assume Incident Command as appropriate. |
| **Columbia Co. Emergency Management Director** | - Assist airport with obtaining all resources offered by the state or federal governments.  
- Assist the county in obtaining any state or federal government resources that may be needed as a result of an emergency situation. |
| **Legacy Good Samaritan Hospital** | - Provide emergency medical services to the airport during emergency conditions to include triage, stabilization, first aid, medical care, and transportation of the injured.  
- Coordinate planning, response, and recovery efforts with hospitals, fire and police departments, airport operator, etc.  
- Coordinate the hospital disaster plan with the airport and community Emergency Operations Plan (EOP). |
| **Tenants and FBOs** | - Coordinate the use of their available equipment and supplies.  
- Coordinate the use of their workers. The tenants usually have information about the airport, aircraft, and other technical knowledge. |
| **County Sheriff** | - Provide primary law enforcement for off-airport events.  
- Coordinate scene security.  
- Assist with investigations.  
- Assist with search and rescue efforts. |
| **Public Works Department** | - Coordinate use of resources for debris removal or building maintenance.  
- Coordinate restoration of utilities.  
- Provide equipment for emergency response and recovery. |
Operational Plan

Upon arrival, the NTSB has the following responsibilities:

- Investigate the accident and report the facts, conditions and circumstances related to the incident
- Make recommendations to the Administrator that will help prevent similar accidents in the future

The Federal Bureau of Investigation (FBI) has jurisdiction in cases involving air piracy, airline sabotage, attempted sabotage and bomb threats. The FBI assumes Incident Command in response to certain hijack and other criminal situations.

The Department of Homeland Security (DHS) and Transportation Security Administration (TSA) will be involved with operations and investigations in certain incidents outlined in this plan.

Other Agencies

Responsibilities of airport tenants include coordinating the use of their available equipment and supplies, and coordinating the use of their personnel that may have knowledge of the airport, aircraft, and other technical knowledge.

When notified of a serious emergency, Northwest Oregon Chapter Red Cross personnel will respond to the incident site, coordinate and provide support services to victims, their families, and to emergency responders.

Clergy members provide comfort to casualties and relatives.

Hazardous Materials Response Teams provide response and recovery support for hazardous materials emergencies as defined by statute.

The Medical Coroner takes custody of the dead; identifies, determines the cause of death and arranges for disposition of the bodies. The coroner also has the primary responsibility of notifying the next of kin.

Mental Health Agencies provide coordinated program for supervisors, relatives, eyewitnesses, and emergency response personnel for dealing with the possible long-term effects of the emergency.

The National Weather Service provides related technical support information in support of emergency response and recovery operations, and assists with alert and warning processes, particularly with weather related emergencies.

The Oregon Department of Environmental Quality (DEQ) provides response and recovery support for environmental and other hazardous material emergencies as defined by statute.

Administration and Logistics

Scappoose City will provide available administrative and logistical support as requested by the Incident Commander. The aircraft owner/operator or designated representative and its handling agent(s) and/or airport tenant(s) will be expected to provide resources, facilities and services necessary to support the operation.

Unless otherwise delineated in succeeding annexes, access to the incident area will be restricted to personnel representing the following organizations:

- Aircraft Owner/Operator (when properly escorted)
- Columbia County Emergency Management (CCEM)
- Federal Aviation Administration (FAA)
- Hazardous Materials Team
- National Transportation Safety Board (NTSB)
- Northwest Oregon Chapter of the American Red Cross
- Port of Columbia County
- Scappoose Police Department
- Scappoose Public Works Department
Operational Plan

- Scappoose Fire District (SRFPD)
- Tenants if requested by the Incident Commander

Plan Development and Maintenance

General

Airport Management shall establish, coordinate, maintain and implement the Resiliency Plan, to include assignment of responsibilities. Resiliency Plan policies, procedures and related information shall be reviewed regularly. In addition, training that covers changes in policies, procedures, and resource availability shall be provided to ensure that all personnel stay familiar with current information.

- Mutual aid agreements shall be reviewed annually or as specified in the agreement.

- Personnel assignments to include descriptions of duties and responsibilities shall be reviewed annually.

- Radio frequencies used in support of emergency management shall be verified and/or tested.

- Telephone numbers for emergency management shall be reviewed for accuracy by calling the individuals and organizations listed. Changes will be noted and distributed to affected parties.

Training, Drills and Exercises

Operations personnel should undergo periodic training for emergency management and competency in the emergency support functions and hazards identified in this report. Training should be conducted in coordination with local, State and federal agencies as appropriate. Training should also include airport tenants when possible to expand the emergency management capacity of the airport.

To ensure a coordinated response to emergencies, Airport Administration shall provide participating agencies with information affecting the coordination of emergency response activities, and offer training in airport emergency procedures. This training includes:

- A full-scale exercise of the Columbia County Emergency Operations Plan (EOP) is conducted at least once every 36 months. The full-scale exercise involves, to the extent practicable, all mutual aid participants and a reasonable amount of emergency equipment. The purpose of this exercise is to test the effectiveness of the EOP through a combined response of the airport and mutual aid agencies to an air carrier aircraft accident at the airport, and to familiarize emergency personnel with their responsibilities in the plan.

- Formal presentation and discussions of the emergency plan, facilities, equipment, and emergency operations procedures.
Operational Plan

- Response drills involving Airport Staff and aircraft rescue and fire fighting (ARFF).
- Tours of the airport to highlight features described in the formal presentations and to familiarize the personnel with the layout of the airport.

The following Functional Sections are based on the FAA Emergency Airport Plan guidelines and the Columbia County Emergency Operations Plan (EOP). In every case, the EOP takes precedence over the SPB Resiliency Plan.

1. Command and Control
2. Communications
3. Alert Notifications and Warning
4. Emergency Public Information
5. Protective Actions
6. Law Enforcement
7. Firefighting and Rescue
8. Health and Medical
9. Resource Management
10. Airport Operations and Maintenance
11. Airport Emergency Support
12. Airport Industry Support
# Functions

## 1. Command and Control

Command and Control is the most critical element of the emergency management function. Effective central control is essential to manage an incident, provide for communications, lateral functional support and the central control of resources. The Incident Command System (ICS) is a management system designed to enable effective and efficient domestic incident management by integrating a combination of facilities, equipment, personnel, procedures and communications operating within a common organization structure. ICS establishes common terminology, standards, and procedures that enable diverse organizations to work together effectively.

### Tasked Agencies

<table>
<thead>
<tr>
<th>Incident Command</th>
<th>Scappoose Fire District (SRFPD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Scappoose Police Department (SPD)</td>
</tr>
<tr>
<td>Primary Agencies</td>
<td>Scappoose Industrial Airpark (SPB) / Port of Columbia County</td>
</tr>
<tr>
<td></td>
<td>Columbia County Emergency Management</td>
</tr>
<tr>
<td>Secondary Agencies</td>
<td>Oregon Office of Emergency Management (OEM)</td>
</tr>
<tr>
<td></td>
<td>Oregon Department of Aviation (AERO)</td>
</tr>
</tbody>
</table>

### Scope

- **Airport Director** provides overall direction of response operations until an emergency scene is established, and the IC assumes responsibility. Aircraft Director initiates activation when appropriate. Airport Director closes the airport when appropriate and coordinates with FAA Air Traffic Control.

- **Scappoose Rural Fire Protection District (SRFPD)** responds to the incident scene with appropriate personnel and firefighting equipment. SRFPD assumes IC and establishes an Incident Command Post (ICP), if appropriate, and assigns appropriate personnel to IC staff functions. SRFPD informs EOC of scene status. SRFPD manages fire/rescue resources, directs fire operations, conducts necessary rescue operations, and determines the need to evacuate the area or initially shelter in place. SRFPD alerts emergency response personnel of the presence of hazards at the scene.

- **Scappoose Police Department (SPD)**, upon notification responds to scene with appropriate personnel and law enforcement equipment in accordance with standard operation procedures (SOPs). SPD identifies an initial IC and establishes an ICP, if appropriate; assigns appropriate personnel to IC staff functions, and performs IC duties at the scene of the incident as appropriate.

### Concept of Operations

- Upon notification by Columbia 9-1-1 Communications District, Scappoose Fire District assumes Incident Command (IC) and establishes the Command Post for all aircraft accidents, distressed aircraft calls, structural and wild fires, hazardous materials and natural disasters. The IC will determine the need to activate the Emergency Operations Center (EOC). The Scappoose Police Department will assume IC for bomb threats and security issues.

- The Airport Director will contact and coordinate with the FAA and other appropriate State and Federal agencies as needed.

- The EOC will provide support to the on-scene IC(s), act as the command center, and be available for operational support 24-hours a day.
Functions

2. Communications

Communications addresses the processes used to reliably and efficiently transfer, delineate, and disseminate information from one point to another during emergency situations. The communication section provides information on establishing, using, maintaining, augmenting, and providing redundancy for all types of communications devices needed during emergency response operations. [EOP ESF-2 Communications]

Tasked Agencies

Coordinator  Columbia 9-1-1 Communications District (CCOM)  Scappoose Industrial Airpark / Port of Columbia County  Columbia County Emergency Management  Columbia County Amateur Radio Emergency Services (ARES)

Primary Agencies  Scappoose Fire District (SRFPD)  Scappoose Police Department (SPD)

Secondary Agencies  Community Emergency Response Teams  Oregon Department of Aviation (AERO)

Scope

- Establish and maintain an effective communications system, including safety network and amateur band systems, for use in a disaster.
- Maintain a reliable alert and warning system.
- Coordinate the provision of temporary communications capability to County agencies and facilities
- Coordinate County support to Scappoose and agency communications systems.
- Coordinate with amateur radio end user organizations for operational communications (CERT, Medical Reserve Corp MRC, etc.)

Concept of Operations

- Daily 911 calls from the public are received by the Public Safety Answering Point (PSAP) which then dispatches public safety agencies in response. CCOM is the PSAP for calls for service in Columbia County and dispatches for all public safety agencies based in the County. CCOM handles all emergency communications and communications infrastructure for daily public safety operations.
- When an incident reaches a level of complexity that exceeds daily operations, and the EOC is activated, additional communications systems come online to support CCOM operations.
- When the EOC is activated CCOM will coordinate with the EOC, and field Incident Management Team (IMT) to identify public safety net frequencies to be used by the incident and those served for PSAP operations.
- Columbia County ARES is an organized pool of trained communication specialists to assist Columbia County Emergency Management in providing alternate emergency and disaster communications. This capability will augment CCOM resources for EOC operations and is detailed in the ARES operations plan.
- In coordination with Emergency Management, CCOM will activate the Columbia Alert Network (CAN) Everbridge system to provide mass notification of an incident that requires public action.
3. Alert Notification and Warning

This function addresses the processes used to notify and warn emergency response agencies, airport employees and tenants, and the general public of potential or actual emergency situations.

Tasked Agencies

Coordinator: Scappoose Industrial Airpark / Port of Columbia County

Primary Agencies: Scappoose Fire District (SRFPD)

Secondary Agencies: Columbia 9-1-1 Communications District (CCOM) FAA Notices to Airmen (NOTAMs)

Scope

- **Airport Director** (1) Initiates all disaster/emergency notifications and alerts including the dispatch of Airport Operations personnel and Columbia County Dispatch (911). (2) Disseminates alerts and warnings to the Public Information Office. (3) Assists tenants and the general public to shelter. (4) Suspends or curtails normal business activities. (5) Notifies and recalls essential off-duty employees and sends non-critical employees home.

- **Firefighting/Operations** (1) In the event of an Alert, SRFPD will immediately respond to the emergency site, assess the situation and manage accordingly. (2) Closes Airport with FAA if required. (3) Upon receipt of an Alert signal or warning message, initiates or assists internal notification procedures to notify all employees, tenants, and the general public. (4) Ensures notification to employees, tenants, and the general public if warning system fails to work. (5) Maintains equipment used in the Alert notification and warning systems.

- **Public Information Officer** (1) Disseminates Alerts and warnings to the local media and public. (2) Conducts press conferences as necessary.

Concept of Operations

- If an emergency or security issue is observed, Airport staff/tenants are instructed to call 911, notify airport employees or activate the airport crash alarm system in the case of an aircraft incident or accident.

- Airport staff will establish contact with special needs groups or persons who may ignore the alert to ensure they are aware of the situation and what they should do. This will be accomplished by a sweep of the building or area before airport staff vacates the area.

- Weather alerts involving severe weather are received from the National Weather Service by Airport Staff.

- The county emergency management director, local law enforcement, or 911 is responsible for notification of response agencies and the public in the event of a county emergency.
Functions

4. Emergency Public Information

This function addresses the activities associated with providing timely, accurate, and useful information and instructions to the public throughout the emergency period. For most emergencies, the Emergency Public Information (EPI) organization will initially focus on the dissemination of information to the public at risk on the airport property. However, the EPI organization must also deal with the wider public’s interest and design to help or seek information about friends, family, employees, or co-workers. [EOP ESF-14 Public Information]

Tasked Agencies

Coordinator
Scappoose Industrial Airpark / Port of Columbia County

Primary Agencies
Scappoose Fire District (SRFPD)
Scappoose Police Department (SPD)

Secondary Agencies
Columbia County Emergency Management

Scope

- Coordinate and represent the Scappoose Industrial Airpark / Port of Columbia County public information tasks during a community-wide response to an emergency or disaster situation.

Concept of Operations

- The Airport Director or designee will activate the EPIS when necessary and serve as, or select a PIO who will be the only spokesperson for the airport.
- The PIO will report to the Fire Chief and work directly with the EOC.
- The PIO will set up meetings with EOC representatives and emergency responders to ascertain information about the event.
- The PIO shall collect information from all sources, i.e., federal, state, and local officials and from local agencies represented at the EOC on an on-going basis and verify its authenticity before release to the news media. The Port of Columbia County PIO or their designee is the sole source of authenticated information and has access to all necessary information and is the principal point of contact for the news media.
- The PIO, in close coordination with the Fire Chief, will arrange interviews, press conferences, or onsite tours of the disaster area as necessary. Maximum use will be made of scheduled news briefings with accompanying written news releases on a scheduled basis.
- Depending on the nature of the emergency Local, State, and Federal agencies (NTSB, FAA, TSA, etc.) may be involved. EPI will be gathered, verified and disseminated among the appropriate agencies before release to the media.
- Emergency Public Information System (EPIS) reports generated to the Airport Director should include press coverage summaries and/or clips, public reaction and concerns (based on telephone inquiries or post-disaster critiques), and a final chronology of events.
- A post-emergency evaluation and critique will take place to discuss performance and improvement to the EPI process.
5. Protective Actions

This function addresses those actions to be taken to protect the health and safety of the transient and employee population at the airport. Protective actions for the public are emergency measures intended to eliminate and/or reduce exposure to the consequences of an emergency or disaster through either leaving the area (evacuation) or going indoors (sheltering-in-place).

Tasked Agencies

Coordinator
Scappoose Industrial Airpark / Port of Columbia County

Primary Agencies
Scappoose Fire District (SRFPD)
Scappoose Police Department (SPD)

Secondary Agencies
Columbia County Emergency Management

Scope

- The decision to evacuate or shelter is normally made by the Airport Director, however due to the severity of the situation, it may be made by the airport staff, or in some cases, airport tenants.
- Issue protective action instructions as appropriate.
- Call 911 and report incident to request emergency response as necessary.
- Deal with those people who do not want to comply with evacuation instructions.
- Identify methods of transportation, evacuation routes and coordinate the evacuation with Columbia County Emergency Management.
- Direct implementation of protective actions (sheltering/evacuation) for employees and visitors as appropriate.
- Coordinate activation of remote Emergency Operations Center (EOC) with Columbia County Emergency Management Director.
- Monitor operational status of airport and close or open airport as needed.
- Assume responsibility and implement recovery process.

Concept of Operations

- **Sheltering** To make an in-place sheltering protection decision, there should be reasonable assurance that the evacuation of the people from the airport facility will endanger their health and safety more so than allowing them to remain in place. An evacuation is a resource intensive decision. The availability of transportation, medical, and other resources, including designated destination shelters, may factor heavily in the protection action decision-making process.

- **Evacuation** Personnel and airport vehicles would be used to evacuate—this includes the special needs population. The main entrance road would be the primary evacuation route off airport property. Other road and gates would be available if necessary. The law enforcement officer (LEO) and local law enforcement would be summoned to control access to evacuated areas and to protect the property therein
6. Law Enforcement

This section provides information and identifies methods used to mobilize and manage law enforcement services in response to a disaster/emergency situation. The Scappoose Police Department (SPD) and other local law enforcement agencies within the county will respond with personnel and equipment to the disaster/incident site as well as provide search and rescue operations that occur in or near airport property.

[EOP ESF-16 Law Enforcement]

Tasked Agencies

Coordinator: Scappoose Police Department
Primary Agencies: Columbia County Sheriff’s Office
Secondary Agencies: Department of Oregon State Police

Scope

- Coordinate support for Law Enforcement activities during an accident.
- Provide for the protection of life and property, traffic control, crowd control, communications, emergency first aid, site security, and security for vital airport facilities and critical infrastructure.
- Provide access control/site security to support local efforts to control access to incident sites, critical facilities and/or critical infrastructure.
- Secure and escort key emergency resources and assets.
- Coordinate evacuation operations.
- Preserve evidence and investigate crime scenes.
- Coordinate warning and evacuation/shelter-in-place operations.
- Provide security for evacuated areas, critical facilities, and resources.
- Provide situation reports to the EOC.
- Enforce mandatory health measures.
- Establish traffic control points as needed.
- Deny entry to evacuated or dangerous areas by unauthorized persons.

Concept of Operations

- Law Enforcement agencies are first responder organizations; it is expected that in certain incidents they will be required to deploy resources to prioritize protection of life and scene stabilization. However, as soon as practical, the Columbia County Sheriff’s will provide a representative for this function lead.
- Incidents that require the evacuation of residents from an area, or of people from a facility, will require close coordination with the EOC and other functions. Large scale evacuations could require mass care services, and/or reunification services, and the establishment of family assistance centers.
- Requests for additional Law Enforcement resources will be made in accordance with the existing mutual aid plans and agreements. When mutual aid agreements have been expended, law enforcement may request resources through the function lead at the EOC.
Functions

7. Firefighting and Rescue

This function provides a mechanism for coordinating firefighting services to meet the demands of a disaster situation. [EOP ESF-4 Fire Fighting]

Tasked Agencies

Coordinator Scappoose Fire District (SRFPD)

Primary Agencies Columbia County Fire Defense Board
               Columbia County Emergency Management
               Columbia County Public Health Authority

Secondary Agencies Oregon State Fire Marshal

Scope

- Coordinate support for firefighting activities including rural, urban, wildland, fuel storage, and aircraft firefighting operations.
- Provide lead EOC during a disaster.
- Provide situation assessment information to Situation Awareness Unit to maintain an accurate Common Operating Picture.
- Liaise with Incident Management Teams at remote incident command posts throughout an incident.

Concept of Operations

- Emergency firefighting operations will be initiated by SRFPD to the full extent of its resource capabilities. Additional resources can be requested by using mutual aid agreements.
- Scappoose Fire District’s primary functions during a fire include notification, communications, logistical, and law enforcement support to the Incident Management Team. SRFPD is also empowered to declare a state of emergency, which can bring in more state and federal assistance.
- The fire service in the County is an integrated force trained to respond to a myriad of emergencies. The fire service in the County coordinates its efforts through various municipal and rural fire district firefighting services, many of which have mutual aid agreements between them; the County Fire Defense Boards; the Office of State Fire Marshal; and forestry departments and associations.
- To protect life and property against the danger of fire, the Governor may order the firefighting forces and equipment of any firefighting organization in the State to assist anywhere in the State, under the State Conflagration Act.
- Requests for additional firefighting resources will be made in accordance with the existing mutual aid plans and agreements. If supplemental firefighting resources are needed, local officials will request resources from the Columbia County Fire Defense Board Chief. The County Fire Chief may request assistance from the Office of State Fire Marshal under the Oregon Fire Service Mobilization Plan. Ancillary resources for rescue or other operations may be forwarded to the State ECC.
8. Health and Medical

This function ensures that the following services are provided to disaster victims and emergency response workers to supplement disrupted or overburdened local medical personnel and facilities. This function also refers to services, equipment and personnel needed to protect the health of the public from communicable disease, contamination, and epidemics, including health and symptomatic monitoring, food and water inspections, immunization and mass prophylaxis delivery, laboratory testing, and animal health/disease management (as it pertains to potential or actual impacts on public health). Other essential tasks included within this function involve providing professional personnel, services, and facilities to relieve victims and their families, first responders, and/or special needs populations of trauma and mental health conditions caused or aggravated by an emergency/disaster or its aftermath. [EOP ESF-8 Health and Medical]

Tasked Agencies

Coordinator
Columbia County Public Health Authority
State and Local Medical Examiners

Primary Agencies
Columbia County Emergency Management
Columbia Community Mental Health

Adjunct Agencies
Local medical facilities
American Red Cross
Veterinary Services
Columbia County Medical Reserve Corps

Scope
- Support local assessment and identification of public health and medical needs in impacted jurisdictions and implement plans to address those needs.
- Coordinate and support stabilization of the public health and medical system in impacted jurisdictions.
- Provide First Aid and Triage capability for mass care sheltering and support sheltering of persons with medical needs.
- Monitor and coordinate resources to support care and movement of persons with medical needs in impacted areas.
- Support monitoring, investigating, and controlling potential or known threats and impacts to human health through surveillance, delivery of medical countermeasures and non-medical interventions.
- Develop, disseminate, and coordinate accurate and timely public health and medical information.
- Monitor need for and coordinate resources to support fatality management services, and disaster behavioral health services.
- Support responder safety and health needs.
- Provide public health and medical technical assistance and support.

Concept of Operations
- Certain emergency incidents fall within the scope of the Columbia County Public Health to coordinate. In these situations, CCPH will lead the initial response.
- The EOC will activate in support of the Public Health Authority during a public health emergency.
9. Resource Management

This function describes how Columbia County will provide financial tracking and records management of overall costs of the County’s response. [EOP ESF-7 Resource Support]

Tasked Agencies

Coordinator: Columbia County Emergency Management

Primary Agencies: Columbia County Finance Department

Secondary Agencies: Scappoose Industrial Airpark / Port of Columbia County

Scope

- Monitor and track available and committed resources involved in the incident.
- Monitor and document the financial costs of providing resources to include costs of providing EOC support, purchasing or contracting goods and services, transportation, and above normal staffing.

Concept of Operations

- The Columbia County Finance Department will provide staff for this function. These staff will coordinate all their activities with the Resource Coordination Section Chief and support all the activities of that section. For this reason, County Emergency Management will be recognized as the lead agency of this function and the Resource Coordination Section Chief will serve as the function lead.
- Voluntary controls of scarce resources are to be used whenever possible. However, in extreme circumstances, where the Board of County Commissioners (BOCC) has declared a State of Emergency, the Columbia County Finance Director together with the Columbia County Emergency Management Director shall have responsibility for resolving conflicts regarding the application of limited resources, in consultation with the BOCC. However, in most emergency response situations, priorities would be established by the EOC Staff, based on the guidance of the EOP and the policy direction of the BOCC in their role as the policy group.
- In cases where a decision must be made to apply resources to one situation while another problem goes unattended, the preservation of human life shall take priority over the protection of property.
- In addition to public safety response capabilities, essential resources in a major emergency will include food, water, and petroleum products. The preservation/restoration of electrical power, critical routes and bridges and critical facilities will also be priorities.
- Requests for essential resources, that cannot be filled locally, will be forwarded with an endorsement by County Emergency Management to Oregon Emergency Management (OEM).
- During emergencies, each Department Head will manage their resources to include the resources available through existing mutual aid agreements. If additional equipment, personnel, and material are required for a major emergency/disaster, those requests will be relayed to the EOC where outside support will be pursued. Emergency purchase requests are to be coordinated through the EOC.
- Emergency purchasing procedures will be established and records maintained for expenditures on goods, services, and personnel.
10 Airport Operations and Maintenance

The Airport is subject to many hazards that would directly involve Operations and Maintenance personnel of the airport.

Tasked Agencies

Coordinator Scappoose Industrial Airpark
Primary Agencies Port of Columbia County
Secondary Agencies Columbia County Public Works Oregon Department of Aviation (AERO)

Scope

- Report to the EOC as appropriate.
- Establish airport policy regarding off-airport response by airport operations and maintenance personnel and equipment.
- Ensure compliance with all appropriate aviation standards and regulations.
- Coordinate emergency response efforts with air traffic control personnel.
- Ensure any and all required NOTAMs have been issued.
- Provide overall airport familiarization and training programs for all on and off-airport maintenance personnel.
- Ensure necessary airport inspections upon completion of emergency response.
- Prepare detailed SOPs and checklists that include contact information and mechanisms for notifying personnel, procedures for performing tasks, provide contact information for agency notification and listings of radio communications call signs and frequencies used by responding organizations.
- Assist in procuring the means to evacuate people from the accident scene.
- Provide information regarding the status of the airport to the PIO and the news media as appropriate.

Concept of Operations

- The Airport Director will respond and make the commitment of resources.
- The Airport Director will evaluate the situation and its impact on overall airport functions.
- The Airport Director will ensure appropriate personnel and agencies are notified of an emergency. In the absence of the Airport Director, the Administrative Assistant will assume that role.
- The Airport Director will make determinations regarding notification of Seattle Air Traffic Control Center, Watch Supervisor and the issuance of Notices to Airmen (NOTAMs) to close the airport as needed to safely accommodate the movement of emergency response vehicles.
11. SPB Airport Emergency Support

The purpose of the Airport Emergency Support Function (ESF) is to provide coordination of transportation resources and the identification of emergency routes for the movement of people and materials. Transportation resources may be obtained from public agencies, the private sector, and volunteer resources. These resources shall be coordinated by the identified tasked agencies in the Columbia County Emergency Operations Center. This ESF follows the Columbia County ESF format for Transportation [1], and—in the event of a conflict—the Columbia County Emergency Operations Plan takes precedence over this Emergency Support Function. [EOP ESF-1 Transportation]

**Tasked Agencies**

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</table>

**Scope**

- Identify obstructions and damage to airport infrastructure, as well as general impact assessments
- Process and coordinate requests for transportation support from local partners
- Monitor, control, and coordinate air traffic
- Coordinate reporting on damage to and status of airport infrastructure for air mobility
- Provide air transportation of displaced persons, personnel, equipment, and materials and supplies
- Provide aeronautical maps
- Prioritize and initiate emergency work tasking to clear debris and obstructions from, and make emergency repairs to, the airport infrastructure

**Concept of Operations**

- The Port of Columbia County will provide staff to act as lead and will coordinate air transportation route identification, air traffic and transportation operations and damage assessment.
- Air transportation resources may be obtained from public agencies, the private sector, and volunteer organizations. State and federal resources may be available on a short-term basis to augment local capability. These resources shall be requested through the EOC.
- The ESF Lead will coordinate and maintain liaison with transportation resources, coordinate with the Federal Aviation Administration (FAA) to determine emergency routes, and assist with other appropriate air transportation functions. The ESF Lead may form an ad hoc committee of persons with air transportation experience or resources to assist in meeting air transportation needs. [Columbia County Emergency Operations Plan]
12. SPB Industry Emergency Support

The Industry Emergency Support Function (ESF) describes how the County will provide immediate and short-term assistance to local private sector entities; stabilize the local economy; and effectively utilize local private sector assets in response operations following a large-scale incident. [EOP ESF-18 Business and Industry]

Tasked Agencies

ESF Coordinator  Port of Columbia County
Primary Agencies  Columbia County Economic Team  Homeland Security and Emergency Management Commission (HSEMC)  Scappoose Chamber of Commerce
Secondary Agencies  FEMA Long Term Community Recovery (LTCR)  Oregon Department of Aviation (AERO)

Scope

- Foster solid partnerships amongst the Scappoose Industrial Airpark and public (local, regional, State, federal) sector emergency management organizations throughout all phases of the emergency management cycle.
- Identify and address any private sector resource/capability shortfalls with the potential to destabilize the local economy.
- Identify, coordinate, mobilize, track, and demobilize private sector owned and operated resources utilized during incident response operations.
- Assist in conducting initial economic damage assessment for impacted areas.
- Share situation status updates related to business and industry to inform the Situational Awareness Section.

Concept of Operations

- Columbia County Economic Development Department will provide subject matter expertise to staff and lead this Emergency Support Function.
- Because of the nature of this ESF, it is anticipated that much of the work will be accomplished remotely from the activated EOC except where the ESF intersects operational issues.

[Columbia County Emergency Operations Plan]
Hazard Introduction

This section provides guidance to assist in the identification of those hazards and disasters specific to the airport. In the event of an accident or significant incident the airport will be closed as appropriate by Airport Director or their designee. The airport will not be re-opened until airport management has ensured that:

1. Aircraft operating areas are safe and secure;
2. Aircraft movement areas that are to be re-opened have been properly inspected; and
3. Adequate aircraft rescue and firefighting protection is available for aircraft operations.

The opening or closure of the airport is the responsibility of the Airport Director, who will ensure airfield operations are safe and secure.

The following hazards are defined by purpose, situations and assumptions, operations, organization and assignment of responsibilities, administration and logistics, plan development and maintenance, and authority and references.

1. Aircraft Hijacking/Sabotage/Bomb Procedures
2. Aircraft Incidents and Accidents
3. Fires
4. Hazardous Materials
5. Natural Disasters
6. Power Failure
Hazards

1. Aircraft Hijacking, Sabotage, Bomb Procedures

Purpose
The information contained in this section is intended to supplement the basic plan. It defines the responsibilities and describes actions to be taken in the event a sabotage, hijacking or other unlawful interference with operations occurs at SPB.

Situation and Assumptions
Law enforcement agencies and organizations other than the airport operator are tasked by laws, regulations, and other documents to respond to hijack, sabotage, bomb and other unlawful incidents. Airport personnel are not trained and equipped to handle any sabotage, hijacking or unlawful interference. The Airport Director or designee should be prepared to ascertain the severity of the incident and coordinate the planning, evacuation and response until law enforcement agencies arrive. Airport personnel will establish a safety perimeter around the incident location and evacuate any passengers, employees, or tenants from the area until law enforcement arrives. SPB is equipped with a perimeter fence surrounding the Airport Operations Area (AOA) and is patrolled routinely by airport personnel.

Bomb Threats
Bomb threats by their nature indicate the very real risk potential for the loss of life as well as significant property damage. Therefore, all bomb threats received at SPB, regardless of who receives them, shall be taken seriously. Airport staff has not received training on explosive detection, removal, or bomb identification. Therefore, if a suspicious package or suspected bomb is located, Airport staff’s primary responsibility will be to evacuate the area and contact law enforcement. In the event of an incident requiring explosive ordinance disposal, SPB will contact 911 for assistance. Bomb disposal will be coordinated through the law enforcement IC. Airport personnel, upon notification of a suspicious item, will respond to an area on the Airport Operations Area (AOA) or within a safe distance from the item and stage in a standby mode. The Airport Director or designee will establish an Incident Command Post (ICP) or open the Emergency Operations Center and provide assistance to law enforcement.

All terrorism threats will be taken seriously until the validity of the threat can be determined.

SPB and the local law enforcement are not equipped to handle explosive ordinance disposal and will contact outside sources for mutual aid assistance. This mutual aid may not be readily available and will have to travel some distance to respond.

The airport will be closed, and all employees and the general public will be evacuated until law enforcement clears the scene and concludes no threat exists.

Airport personnel are not trained in bomb detection, removal or identification. The EOC may not be available for use therefore, an ICP within a safe distance from the item will have to be established or activation of the Columbia County EOC may occur.

When a bomb threat is received the person receiving the threat shall gather as much information as possible.

The Airport Director or designee shall ensure evacuation of the premises or building following a bomb threat.

Unmanned Aircraft Safety Risks
Accidental or intentional intrusions in airport operational airspace is an
Hazards

Emerging hazard. The Airport will adopt FAA-authorized methods for detection and mitigation of UAS safety risks (counter UAS). The FAA is currently conducting these studies with the Airport Unmanned Aircraft Systems Detection and Mitigation Research Program and Unmanned Aircraft Systems County UAS/Airport Detection research.

Operations

In the event of an attempt to hijack or sabotage an aircraft, the following procedures will be utilized to the maximum extent possible. Because each incident differs in character, these steps will provide an action framework within which steps can be adapted to particular circumstances.

Notification Responsibilities

1. Scappoose Industrial Airpark

- Columbia 9-1-1 Communications District (CCOM)
- Air Traffic Control Facilities, Seattle Center Watch Supervisor and Oakland FSS to issue appropriate NOTAM closing the field for onsite incidents or inbound hijacked aircraft.
- Federal Bureau of Investigation (FBI)
- Transportation Security Administration (TSA)
- Fixed-based operator (FBO) Transwestern Aviation

Communications Networks

- Aircraft/Ground Frequencies Local Common Traffic Advisory (CTAF) frequency for Aircraft inbound/ outbound and taxing on the ground at SPB is VHF 122.8 MHz.
- Landline Communications Upon notification of a hijacking incident, the Airport Director will activate the Emergency Operations Center (EOC) to coordinate the actions of all participating parties at the airport. One dedicated telephone line at the Emergency Command Center will be connected to the Incident Commander and the national duty officer network. (FAA, TSA, or FBI as determined)

Authority

Designation of Authority

Pursuant to Public Law 93-366 [S.39 - An Act to amend the Federal Aviation Act of 1958 to implement the Convention for the Suppression of Unlawful Seizure of Aircraft; to provide a more effective program to prevent aircraft piracy; and for other purposes, notwithstanding any other provision of law], the Administrator of the FAA shall have exclusive responsibility for the direction of any law enforcement activity affecting the safety of persons aboard aircraft in flight involved in a hijacking incident. Other federal departments and agencies shall, upon request by the administrator, provide such assistance as may be necessary.

Definition of “In Flight”

For the purpose of hijacking, an aircraft is considered in flight from the moment all external doors are closed following embarkation, until the moment such doors are opened for disembarkation.

Authority When an Aircraft is Not In Flight

When an aircraft is not in flight, a designated official of the FBI shall make the decision to take law enforcement action with respect to a hijacking, giving full consideration to the expressed wishes of the pilot-in-command, responsible officials of the commercial carrier operating the aircraft, and the designated official of the FAA prior to initiating action.
Hazards

Parking Location

Hijacked aircraft parking location will be determined after consideration is given to the current situation.

Plan of Action

Primary decision responsibility originates with key personnel at the airport Emergency Command Center (ECC) in conjunction with guidance received over the national conference network. Command of the entire operation shall be located at the airport ECC.

Assembly Areas

The Airport Director will set up the ICS of the ECC at the Transwestern Aviation FBO building. Representatives of all participating agencies should report to the ECC prior to situation engagement.

News Media

News media representatives will assemble in the FBO. In coordination with the FBI and the ECC, the Columbia County Emergency Management Public Information Officer or the Airport Director will control all media releases.

Crowds

The Scappoose Police Department will manage the public in accordance with their internal crowd-control procedures.

Equipment

Contingent upon availability, the following equipment should be assembled in a designated area near the ECC. Further equipment requirements may arise in the course of events:

- Vehicles for the evacuation of passengers from the aircraft.
- A ground power unit.
- Portable flood lights for night operations.
- Forward-deployed Scappoose Rural Fire Protection District equipment.

Organization and Assignment of Responsibilities

All responding agencies to a sabotage, hijacking, or unlawful interference with operations incident shall follow the operational guidelines in accordance with the Columbia County Emergency Operations Plan (EOP).

Administration and Logistics

The Airport Director or designee shall be responsible for the preparation and retention of all related reports and records. The need for general support in the event of a bomb threat or terrorism incident may be great. Specialized resources and/or procedures may be required not identified in this or other documents. All support for such an incident shall be coordinated through the Emergency Operations Center.

Plan Development and Maintenance

The Airport Director is responsible for coordinating the development and revision of the Sabotage, Hijacking, or Unlawful Interference with Operations section. The Airport Director shall maintain all necessary documents.
2. Aircraft Incidents and Accidents

Purpose

For the purpose of emergency response, each aircraft accident/incident shall be considered a potential hazardous materials incident until determined otherwise.

Situation and Assumptions

Scappoose Rural Fire Protection District is on-call out 24 hours a day, 365 days a year for emergency service and operations.

Operations

Definitions

Aircraft accident: Any occurrence associated with the operation of an aircraft that takes place between the time a person boards the aircraft with the intention of flight and the time such person has disembarked, in which a person suffers death or serious injury as a result of the occurrence or in which the aircraft receives substantial damage.

Aircraft Incident: Any occurrence associated with the operation of an aircraft that is not considered an “aircraft accident.”

Classifications

Accidents/incidents are classified to describe the actions taken:

- **Alert I** (Local Standby Alert)
  
  Upon receiving notification that an aircraft is known or suspected to have an operational defect that should not normally cause serious difficulty in achieving a safe landing, the Airport Director will notify Scappoose Rural Fire Protection District (SRFPD). SRFPD will proceed to the appropriate staging area and standby in case a more urgent situation arise.

- **Alert II** (Full Emergency Alert)
  
  Upon notification that an aircraft is experiencing difficulty and requiring assistance. The 911 Dispatch will notify SRFPD which will respond and staff the ARFF Unit mobilizing to the appropriate staging area at midfield. The Airport Director will close the airport to any other air traffic as needed. The Scappoose Police Department will respond to secure airport and or adjacent property. Mutual law enforcement aid may also respond to assist security. Columbia County Sheriff Search and Rescue and EMS will be placed on alert. Scappoose Rural Fire Protection District will assist in all ARFF activities.

- **Alert III** (Aircraft Accident Alert)
  
  An Airport Emergency Alert III is considered to be the worst possible scenario involving aircraft on or near airport property. An aircraft has crashed, a parked aircraft is endangered by fire or explosion, an aircraft is involved in a collision, or there is a very high probability that an aircraft will crash or suffer extreme damage. An Alert III will result in 911 Dispatch full notifications to all appropriate agencies.

  Upon notification that a crash or incident has occurred or is imminent:

  **Airport Director**

  The Airport Director, CCOM or the Incident Commander will broadcast on VHF air-to-ground frequency 122.8 an announcement that: “SCAPPOOSE INDUSTRIAL AIRPARK IS CLOSED TO ALL AIRCRAFT UNTIL FURTHER NOTICE”. The Airport Director will issue a NOTAM with Oakland Flight Service closing the field until further notice. Airport Management will monitor VHF air-to-ground frequency 122.8 to advise any incoming traffic of field closure. Upon resumption of normal operations the NOTAM will be cancelled.

  **Scappoose Rural Fire Protection District (SRFPD)**

  —will proceed with all emergency response vehicles available to the site of...
Hazards

the crash/emergency and establish radio contact with CCOM. Radio monitoring of VHF air-to-ground frequency 122.8 will continue by all capable vehicles.
—will take complete charge of the rescue operations and initiate appropriate actions to fight fires, save lives and protect property.
—will keep Port of Columbia County and CCOM apprised of the status of firefighting and rescue operations.
—will ensure hazardous materials are handled according to procedures outlined in the Hazardous Materials Response Guidebook and the Part 139.321 of the ACM.
—will attempt to safeguard the flight data recorders until personnel from the NTSB arrive to take command of the items.
—will notify all concerned parties of Military flights weapons status.
—will have full control of the situation.
—will work closely with the Port of Columbia County and the Scappoose Police Department as needed to ensure efficient and safe rescue operations.

Scappoose Police Department (SPD)
—will take appropriate actions to assist the movement of emergency vehicles to the crash/emergency site. SPD will support and assist the Airport Authority and the Scappoose Rural Fire Protection District by whatever means necessary.
—will assume Incident Commander responsibilities upon completion of fire, search and rescue response.
—will secure the crash site from spectators and other persons not involved in the rescue operation.
—will coordinate traffic and crowd control and request assistance as per mutual assistance agreements.
—will provide temporary morgue services and associated security.

Port of Columbia County
—will provide all available airport resources for use during an emergency rescue operation.

—will contact CCOM and arrange for the opening of the EOC for the delivery of additional resources if needed.
—will notify Columbia County Community Development Department (Public Works) which will provide airfield pavement condition reports as needed.
—will, in conjunction with OES staff, notify supporting agencies such as American Red Cross.
—will procure equipment and supplies from tenants on an as needed basis.
—will prepare a brief for the NTSB/FAA investigators upon their arrival and turn site responsibility over to them upon their request.
—will issue statements to the media through a designated PIO.
—will complete all accident/incident report forms.

Airport Tenants
—may be called upon to provide manpower and equipment to aid in the rescue operations or to simple provide assistance to areas away from the crash site.
—in the event that the disaster involves an aircraft owned or operated by a tenant, that tenant will be called upon to provide whatever resources required that are at their disposal.

Columbia County Office of Emergency Services
—Upon notification and request shall activate the EOC to act as a coordinating body for the procurement of resources that cannot be obtained by the IC via mutual aid agreements.

Removal of Disabled Aircraft
Recovery and removal procedures of an aircraft incident/accident will commence after the IC has determined that all persons have been rescued, any casualties have been removed from the aircraft and/or the site has been deemed safe and secure. The IC will seek permission to proceed with removal from the NTSB, the FM or in the
case of military aircraft the Department of Defense.

The pilot, owner or operator of the aircraft involved in the accident/incident shall have full responsibility for the removal of said aircraft. In the event that the aircraft is not moved upon request, or the owner/operator cannot be reached, the Airport Director may have the aircraft moved to clear the runway environment as soon as possible. The cost of removal in such case will be the responsibility of the owner/operator.

**Airport Responsibility**

Before moving the aircraft, notification must be made to the FAA and the NTSB. The following information to these agencies should include:

- Date and time of the accident
- Description of any explosives, radioactive materials or other hazardous or dangerous materials aboard the aircraft
- Last point of departure and destination of the aircraft
- Location and telephone number where the owner/operator can be located
- Name of owner/operator
- Name of the Pilot-in-Command
- Nature of the accident including weather and the extent of damage to the aircraft
- Number of persons aboard and number of injured or killed
- Position of the aircraft on the airfield
- Type, nationality, and registration marks of the aircraft

The IC shall direct all operations and will direct all personnel to perform tasks and assignments as necessary to facilitate the rescue efforts and aircraft removal operations to a safe sight.

The Airport Director or their designee shall photograph as much of the scene as possible.

The Airport Director will list equipment and accessories if owner/operator is not present for the entire removal process.

The IC and all airport personnel will follow FAA, NTSB or any other controlling agency instructions.

After removal the Airport Director will contact Columbia County Community Development Department (Public Works) to perform an inspection to ensure that the airfield pavement surfaces are safe for the resumption of aircraft operations.

Upon clearance from qualified County Engineers, issue appropriate NOTAMS to notify all affected of the re-opening of the airport.

The Airport Director will complete all necessary accident reporting forms.

The Columbia County Sheriff’s Office is responsible for site security during the accident/incident. They will continue site and/or wreckage security until such time as control of the scene is relinquished or officially cancelled by the NTSB, FAA or the Department of Defense (DOD).

The aircraft owner/operator is responsible for providing security to protect and preserve any aircraft wreckage, cargo or mail as well as all records from the aircraft including flight recorders, tapes, voice recorders, logbooks, airmen logbooks and any other records pertaining to the aircraft.

The aircraft owner/operator will coordinate with the Airport Director to develop a timely comprehensive plan for the removal of the aircraft.

The owner/operator shall be responsible for providing any and all equipment and personnel necessary for the recovery or removal of an aircraft involved in an accident/incident.
Organization and Assignment of Responsibilities

The Airport Director will activate resource management operations with the assistance of the Columbia County Office of Emergency Services.

The Airport Director will confer with the EOC on the allocation of resources.

The Airport Administrative Assistant will assist the EOC in the procurement of all outside resources and resources needed to replenish those used during an emergency/disaster.

The Airport Director will consult with the local FBO and the Tenants when a resource from their inventory is needed.

The Airport Administrative Assistant will maintain records for resources acquired from airport tenants and the FBO.

The Airport lead Maintenance Worker will ensure that airport equipment is operable and available.

The Airport lead Maintenance Worker will ensure timely delivery and operation of Airport Resources.

The EOC will serve as a liaison between all agencies to ensure that all necessary resources are readily identified, located and delivered.

The EOC will serve as a liaison between IC and all mutual aid resources.

The EOC will provide assistance in the acquisition of additional needs and resources.

The FBO, and Airport Tenants shall provide any assistance possible in terms of additional manpower, supplies and equipment if requested by the Airport.

Resource requests will be tracked and logged by the Airport Administrative Assistant and depending on severity in conjunction with the Columbia County Office of Emergency Management.

All involved agencies and organizations are required to maintain individual accounting records in sufficient detail to document subsequent requests for reimbursement.

Administration and Logistics

Resource Management functions will be performed at the SPB Office.

Upon notification of an emergency all airport staff will report to the SPB Office for instruction.

The Airport Director and Airport Administrative Assistant will coordinate the delivery and locating of materials, supplies and equipment.

The Airport Director and or the Airport Administrative Assistant will coordinate the establishment of the EOC within the SPB Office.

All available Airport communication devices and computers will be utilized.

Plan Development and Maintenance

An annual review of the Resiliency Plan will be the responsibility of the airport director.

Authority and References

49 CFR Part 139.315 Aircraft Rescue and Fire Fighting
3. Fires

Purpose

The information contained in this section is intended to supplement the EOP. It defines responsibilities and describes actions to be taken in the event a structural, grass, or fuel farm/storage area fire occurs at SPB. Further, this document forms the basis for elements to be included in functional Standard Operating Guidelines and Checklists.

Operations

An observer calls 911 and reports the location of the fire and indicates if the fire is life threatening.

CCOM
— contacts the appropriate fire protection agency and the Airport Director.

Airport Personnel
— will evacuate affected or endangered buildings or grounds.
— will report potential casualties CCOM.

Airport Director
— determines if the airport needs to be closed and if so, issue a NOTAM with Oakland FSS.
— cancels the NOTAM and re-opens the airport when conditions permit.

Scappoose Rural Fire Protection District
— will respond as required by the situation.
— assumes incident command and establish a command post.
— coordinates with other responding agencies.

Scappoose Police Department
— will respond as requested by the Incident Commander.
Hazards

4. Hazardous Materials

Purpose

The information contained in this section is intended to supplement the EOP. It defines responsibilities and describes actions to be taken in the event a hazardous materials incident occurs at SPB.

Situation and Assumptions

Hazardous materials are defined as any substance or material that, when involved in an accident and/or released in sufficient quantities, poses a risk to people’s health, safety or property. These substances include explosives, radioactive materials, flammable liquids or solids, combustible liquids or solids, poisons, oxidizers, toxins and corrosive materials. It is recognized that emergency situations could develop in which airport tenants, employees, or the traveling public could be exposed to an accidental or intentional release of hazardous materials. A hazardous material spill or release can pose a risk to life, health, or property. An incident can result in the evacuation of a few people, part of a building, or a whole neighborhood. Significant information is available concerning hazardous materials through the Department of Transportation’s (DOT) Pipeline and Hazardous Materials Safety Administration’s website at www.phmsa.dot.gov. Other sources include the Emergency Response Guide (ERG) which is a primary guide to aid first responders in quick identification and protection. The ERG is updated every three to four (3-4) years to accommodate new products and technology. Hazardous Material Emergency Preparedness Training that addresses response, planning and prevention is available from the US Fire Administration. Additionally, OSHA provides online hazardous materials training.

Scappoose Rural Fire Protection District (SRFPD) has the primary responsibility for responding to a hazardous materials incident. SRFPD personnel will ascertain the severity of a hazardous materials incident and coordinate the planning, response, and recovery efforts will Columbia County Emergency Management.

Assumptions

SRFPD personnel will be the initial responding agency.

Many types of hazardous materials can be shipped by air. These include explosives, compressed or liquefied gasses, flammable liquids or solids, oxidizers, poisonous substances, infectious substances, radioactive material or corrosives.

SPB contains no cargo facilities equipped to deal with the shipping of hazardous materials. No known hazardous cargo travels through the airport on a scheduled or non-scheduled basis, without prior authorization.

For the purposes of this document, the term hazardous material includes those substances defined as dangerous goods as presented in ICAO documents.

Airport operations personnel may have limited training in handling hazardous material situations.

For the purpose of emergency response, each aircraft incident should be considered a potential hazardous materials incident. Response activities should be in accordance with established hazardous materials standards.

SRFPD personnel shall coordinate response activities as necessary with Columbia County Emergency Management.

The Airport Director or designee shall be responsible for determining evacuation or in place sheltering.
Hazards

Operations

Upon determination that a hazardous material release has occurred, 911 will be notified. Notification of radioactive materials is typically made to the state Department of Public Health so detection and monitoring can take place. For incidents involving nuclear weapons, notification should be made to the nearest military base and to the Joint Nuclear Accident Coordinating Center (JNACC). Information concerning JNACC may be obtained online. Local and state health departments should be notified for infectious (etiological) agents. Officials in these departments have the responsibility for notifying the Emergency Response Coordinator for the CDC. Initial hazardous material evacuation movements should be coordinated. The decision by the IC should be based on conditions for the specific incident. Evacuation may not always be advisable. In-place sheltering may be the preferred option. For some chemical hazards, using wet towels and shutting off air circulation systems may suffice. Sometimes airborne releases may move more quickly than the evacuation.

SRFPD shall respond to fuel spills or other hazardous materials incidents in accordance with established policies and level of training. The Airport Director shall serve as IC and make a determination for the need to activate local hazardous materials response teams and other responding agencies.

Plan Development and Maintenance

The Airport Director is responsible for coordinating the development and revision of the Hazardous Material section. The Airport Director shall maintain the necessary documents.

Administration and Logistics

The Airport Director or designee shall be responsible for the preparation and retention of all related reports and records. Airport administration staff will provide logistical support as necessary.
5. Natural Disasters

Purpose

The information contained in this section is intended to supplement the EOP. It defines responsibilities and describes actions to be taken in the event a Natural Disaster occurs at SPB. Further, this document forms the basis for elements to be included in functional Standard Operating Guidelines and Checklists.

Situation and Assumptions

There are a variety of natural disaster threats to SPB operations. This plan is written with the intent of having at least one (1) hour between activation and imminent threat. However, severe weather may occur at any time and without warning. All activities outlined in this section are intended to be carried out only if time permits. If at any time severe weather occurs and procedures described herein cannot be safely implemented, all airport employees are responsible for their own safety and the safety of airport patrons to the greatest extent possible. This plan will be the guide for overall natural disaster response, with the specific type of disaster determining what the exact response will be.

The Natural Disaster section of this plan is based on the following assumptions relevant to the airport.

The Airport Director or designee shall be responsible for notifying airport patrons and tenants when conditions are imminent.

Airport staff is responsible for maintaining safety of all facilities during severe weather.

Emergency responders’ response time after a weather event has passed will vary greatly depending on the severity of damage elsewhere within the County.

While critical systems and infrastructure will be available during severe weather food and other amenities in the terminal are limited if passengers are stranded for extended periods.

Recovery efforts will be dependent upon the severity of the weather, the amount of damage, facilities/equipment/systems impacted, and the availability of resources.

The Airport Terminal shall serve as a severe weather shelter.

It is assumed virtually every airport facility would be susceptible to some sort of damage from a natural disaster or severe weather event.

Operations

Airport Operations monitors weather forecasts on a daily basis. Upon notification that severe weather is approaching or is in the vicinity of the airport, the Airport Director or designee will take the appropriate action.

In the event SPB sustains damage and/or injuries as a result of severe weather, the appropriate emergency response will be implemented, and the Incident Command System (ICS) will be activated. The Airport Director or designee shall close the airport as necessary.

Severe Weather Events

Global climate change will result in more frequent and severe weather events, and the Airport must be prepared for a variety of new hazards. Severe weather events include extreme storms, winds, heatwaves, coldwaves, and other severe weather conditions such as prolonged droughts.

“Climate effects vary and their risks pose a diverse set of issues for airports. In some places, increases in precipitation will not only flood runways but overwhelm stormwater systems, implicating water quality compliance. Elsewhere, warmer weather may damage aircraft tires and tarmac. The projected increases in severe
winter storms may create a ‘new normal’ for airports unaccustomed to increased snow removal requirements." (ACRP)

Upon notification of a severe weather event, Airport Operations will take the following actions: Notify all commercial air service companies, the FBO, and as many tenants and transient aircraft as possible. Ensure all airport equipment is secured.

**Earthquake**

In the event of a major earthquake in the local area, the Airport Director and all off-duty Airport personnel will shelter in place. When safe to do so, they then shall proceed to the airport where:

1. Airport Operations (Ops) personnel will inspect the pavement areas of runways and taxiways as soon as possible and issue NOTAMS as necessary.

2. Airport Ops personnel will proceed to the power vault and deactivate all airport circuits until advised by County Engineer or a certified Electrician to restore.

3. Organize a search of damaged buildings for injured or trapped people. Request assistance, if needed from the Scappoose Rural Fire Protection District by calling 911.

4. Post security at damaged buildings when feasible to prevent looting. Request assistance, if needed from the Scappoose Police Department.

5. Contact County Public Works to inspect the pavement of runways and taxiways, parking ramps and structures. Obtain status report and contact FAA to reopen the Airport if possible.

6. If repairs to a runway, taxiway, or parking ramp are necessary, obtain assistance from Columbia County Public Works.

7. Issue NOTAMS as appropriate.
Hazard

6. Power Failure

Purpose

The information contained in this hazard-specific section is intended to supplement the EOP. It defines responsibilities and describes actions to be taken in the event a failure of power for movement area lighting. Further, this document forms the basis for elements to be included in functional Standard Operating Procedures (SOPs) and checklists.

Situation and Assumptions

Power at SPB is provided by Columbia River PUD.

Organization and Assignment of Responsibilities

Airport Director
—issues appropriate NOTAM.
—notifies appropriate maintenance personnel.
—keeps aviation users informed of the situation, as necessary.

Airport Maintenance
—conducts routine/preventive maintenance.
—conducts/documents regular tests.
—operates generator, as necessary.
—after the emergency, determines cause and takes corrective action.

Airport Operations
—ensures that power generator and circuit resistance tests are being conducted.
—ensures required NOTAMs are issued.

Authority and References

The Airport Director is responsible for coordinating the development and revision of power and utility outage procedures. The Airport Director shall also maintain necessary documents.
Development Plan

The planning and development of airside facilities is based on complying with the FAA design standards listed in AC 150/5300-13A, Airport Design. The 2016 Scappoose Industrial Airpark Master Plan Update classifies the airport as Airport Reference Code (ARC) B-II. The B-II ARC accommodates aircraft with approach speeds up to 120 knots and wingspans up to 78 feet. The aircraft that meets these criteria and serves as the “design aircraft” for the airport is the Beech King Air.

Figure 5.1 Critical Aircraft Beech King Air

The B-II ARC also accommodates small business jets such as the Cessna Citation 560. The preferred alternative master plan retains the B-II ARC, but recommends that all new development use C-II standards. Other key master plan recommendations include:

- **Runway Extension.** Extend the runway 900 feet to the south, if justified by operational needs over the FAA 20-year planning horizon.

- **NE Area Land Acquisition and Development.** Develop the northeast corner of the Airport including apron expansion and acquire “Aviation Reserve” parcels.

- **West Side Development.** Proceed with “Aviation Related Commercial Development” including new hangars.
and infrastructure improvements on the west side.

The Master Plan Update provides additional recommendations and details on phasing and implementation. These recommendations should be reviewed for their ability to enhance resiliency and “harden” the Airport for disaster response capacity. Runway extension, apron expansion and infrastructure improvements all expand SPB’s ability to provide emergency logistical support services. The next Master Plan Update should include the additional facilities proposed in the Resiliency Plan.

Disaster Risk Reduction Measures

The physical plan for Scappoose Industrial Airpark should reduce existing disaster risk; prevent the creation of new risk, and assist in responding to regional disasters. In addition to the development plan improvements identified in the 2016 Master Plan Update, the airport should implement the following:

Emergency Supplies

On-site emergency supplies should be sufficient for airport operations personnel (3) for 72 hours and include the following:

- blankets
- cots
- emergency medical kits (2)
- meals
- plastic sheeting
- portable generators (2)
- tarps
- water

The emergency supplies storage unit will be accessible to airport personnel only or emergency responders with approval by the Airport Director.

Disaster Cache

In addition to the emergency supplies specific to post-disaster airport operations, there should be a disaster cache located near the staging base to support immediate response for the airport and surrounding area. The disaster cache may be located in an existing seismic-resilient building, separate structure, storage container, locked trailer, or below ground and must be accessible to the Airport Manager and designated agencies. The complete contents of the disaster cache shall be determined in coordination with Columbia County Emergency Management, Oregon Department of Aviation, Oregon Office of Emergency Management, and FEMA. A detailed disaster cache list based on the FEMA CERT program is provided in Table 5.1 Model Disaster Cache Contents. A comprehensive list of disaster cache materials is found in the FEMA Equipment Cache List.

Emergency Generators

The Airport should acquire an emergency generator capable of providing power for critical infrastructure such as airfield lighting, navaids, emergency equipment, and to enable fuel pumping. In addition, two or more portable generators are necessary to provide mobile power sources to be deployed as required in an emergency.

Security Risk Reduction Measures

The Airport Security Assessment for SPB places the airport in the low end of the TSA security risk with the following recommendations for security enhancement:

- Access controls
- All aircraft secured
- Challenge procedures
## Physical Plan

### Table 5.1 Model Disaster Cache Contents

<table>
<thead>
<tr>
<th>Safety Equipment Box (280 lbs)</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absorball</td>
<td>4</td>
</tr>
<tr>
<td>Air horn</td>
<td>1</td>
</tr>
<tr>
<td>Batteries, AA cell</td>
<td>32</td>
</tr>
<tr>
<td>Batteries, AAA cell</td>
<td>32</td>
</tr>
<tr>
<td>Battery recharger, solar</td>
<td>1</td>
</tr>
<tr>
<td>Ear plugs</td>
<td>16</td>
</tr>
<tr>
<td>Eye glasses, Steelexman</td>
<td>6</td>
</tr>
<tr>
<td>Gloves, latex disposable</td>
<td>24</td>
</tr>
<tr>
<td>Gloves, leather work</td>
<td>24</td>
</tr>
<tr>
<td>Goggles</td>
<td>8</td>
</tr>
<tr>
<td>Hard hat</td>
<td>8</td>
</tr>
<tr>
<td>Head lamps</td>
<td>8</td>
</tr>
<tr>
<td>Light, strobe</td>
<td>8</td>
</tr>
<tr>
<td>Megaphone</td>
<td>1</td>
</tr>
<tr>
<td>Rain ponchos</td>
<td>8</td>
</tr>
<tr>
<td>Respiratory protection, cartridges P-100</td>
<td>40</td>
</tr>
<tr>
<td>Respiratory protection, paper dust masks</td>
<td>25</td>
</tr>
<tr>
<td>Respiratory protection, Scott half face</td>
<td>8</td>
</tr>
<tr>
<td>Safety glasses</td>
<td>8</td>
</tr>
<tr>
<td>Safety vests</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rescue Equipment (220 Lbs)</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bucket, 5 gallon, utility</td>
<td>1</td>
</tr>
<tr>
<td>Cold chisel, 12&quot;</td>
<td>2</td>
</tr>
<tr>
<td>Fire extinguishers</td>
<td>1</td>
</tr>
<tr>
<td>Flagging, orange</td>
<td>1</td>
</tr>
<tr>
<td>Hammer, ball peen</td>
<td>1</td>
</tr>
<tr>
<td>Hammer, framing</td>
<td>2</td>
</tr>
<tr>
<td>Lumber chalk, box</td>
<td>1</td>
</tr>
<tr>
<td>Lumber chalk, refill</td>
<td>1</td>
</tr>
<tr>
<td>Lumber crayon, red</td>
<td>4</td>
</tr>
<tr>
<td>Lumber crayon, yellow</td>
<td>4</td>
</tr>
<tr>
<td>Lumber pencil</td>
<td>4</td>
</tr>
<tr>
<td>Nails, 16, 30lb,</td>
<td>1</td>
</tr>
<tr>
<td>Nails, 16, duplex, 30lb</td>
<td>1</td>
</tr>
<tr>
<td>Nails, 8, 30lb.</td>
<td>1</td>
</tr>
<tr>
<td>Paint, spray, orange</td>
<td>2</td>
</tr>
<tr>
<td>Pickets</td>
<td>6</td>
</tr>
<tr>
<td>Pliers, channel lock</td>
<td>1</td>
</tr>
<tr>
<td>Pliers, needle nose</td>
<td>1</td>
</tr>
<tr>
<td>Pliers, slip joint</td>
<td>1</td>
</tr>
<tr>
<td>Pliers, wire side</td>
<td>1</td>
</tr>
<tr>
<td>Pocket key chain set</td>
<td>1</td>
</tr>
<tr>
<td>Rope 1, nylon 1 1/4 dia., 150'</td>
<td>6</td>
</tr>
<tr>
<td>Saw, hack</td>
<td>4</td>
</tr>
<tr>
<td>Saw, hack, blades</td>
<td>25</td>
</tr>
<tr>
<td>Scratch awl</td>
<td>1</td>
</tr>
<tr>
<td>Screwdrivers, offset, slotted-phillips</td>
<td>1</td>
</tr>
<tr>
<td>Screwdrivers, phillips head, 6 piece set</td>
<td>1</td>
</tr>
<tr>
<td>Screwdrivers, slotted head, 7 piece set</td>
<td>1</td>
</tr>
<tr>
<td>Socket set, 18 pieces, 7/16-1 1/4</td>
<td>1</td>
</tr>
<tr>
<td>Stokes</td>
<td>1</td>
</tr>
<tr>
<td>Tape, measure</td>
<td>3</td>
</tr>
<tr>
<td>Tool Box</td>
<td>1</td>
</tr>
<tr>
<td>Torx driver</td>
<td>2</td>
</tr>
<tr>
<td>Tri-speed square</td>
<td>2</td>
</tr>
<tr>
<td>Wheel barrel</td>
<td>1</td>
</tr>
<tr>
<td>Wrench, crescent 12&quot;</td>
<td>1</td>
</tr>
<tr>
<td>Wrench, crescent 8&quot;</td>
<td>1</td>
</tr>
<tr>
<td>Wrench, open end, five piece 1/4&quot;-3/4&quot;</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rescue Equipment (570 lbs)</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1’x12’</td>
<td>6</td>
</tr>
<tr>
<td>1’x15’</td>
<td>6</td>
</tr>
<tr>
<td>1’x20’</td>
<td>6</td>
</tr>
<tr>
<td>1’x5’</td>
<td>6</td>
</tr>
<tr>
<td>2’x4’x18” wedges</td>
<td>24</td>
</tr>
<tr>
<td>2’x4’x18”</td>
<td>24</td>
</tr>
<tr>
<td>4’x4’x18” wedges</td>
<td>24</td>
</tr>
<tr>
<td>4’x4’x18”</td>
<td>24</td>
</tr>
<tr>
<td>Backboard straps</td>
<td>2</td>
</tr>
<tr>
<td>Backboards</td>
<td>2</td>
</tr>
<tr>
<td>Body harness</td>
<td>2</td>
</tr>
<tr>
<td>Carabiner, locking D, 11 mm</td>
<td>12</td>
</tr>
<tr>
<td>Cribbing &amp; Wedge Kit</td>
<td>1</td>
</tr>
<tr>
<td>Edge protection</td>
<td>2</td>
</tr>
<tr>
<td>Litter &amp; complete pre-rig</td>
<td>1</td>
</tr>
<tr>
<td>Patient Litters</td>
<td>2</td>
</tr>
<tr>
<td>Pick off straps</td>
<td>2</td>
</tr>
<tr>
<td>Prusik, camming device</td>
<td>6</td>
</tr>
<tr>
<td>Rope, rescue, 1/2’ dia., 150’</td>
<td>2</td>
</tr>
<tr>
<td>Webbing</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hand Tools</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinch point pry bar 60”</td>
<td>4</td>
</tr>
<tr>
<td>Claw wrecking bar 2’</td>
<td>2</td>
</tr>
<tr>
<td>Claw wrecking bar 3’</td>
<td>2</td>
</tr>
<tr>
<td>Axe, flat head</td>
<td>1</td>
</tr>
<tr>
<td>Axe, pick head</td>
<td>1</td>
</tr>
<tr>
<td>Axe, pulaski</td>
<td>1</td>
</tr>
<tr>
<td>Shovel, long handle sq. pt.</td>
<td>4</td>
</tr>
<tr>
<td>Shovel, long handle rd. pt.</td>
<td>4</td>
</tr>
<tr>
<td>Shovel, scoop &quot;D&quot; handle</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Shelter &amp; Support Box A</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bag, carrying</td>
<td>1</td>
</tr>
<tr>
<td>Blankets, wool</td>
<td>7</td>
</tr>
<tr>
<td>Potable Water Toilet System</td>
<td>1</td>
</tr>
<tr>
<td>Seat</td>
<td>1</td>
</tr>
<tr>
<td>Shelter</td>
<td>1</td>
</tr>
<tr>
<td>Tent, 6 person</td>
<td>1</td>
</tr>
<tr>
<td>Visquine, sheeting, 4 mil., 10’x100’</td>
<td>1</td>
</tr>
</tbody>
</table>

---

**Note:** The table above includes a breakdown of the contents of various equipment boxes and rescue equipment, including safety equipment, rescue equipment, and shelter/support equipment.
### Physical Plan

Table 5.2 Model Disaster Cache Contents cont.

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wag bags</td>
<td>22</td>
</tr>
<tr>
<td>Water blatter, collapsible, 5 quart</td>
<td>1</td>
</tr>
<tr>
<td>Shelter &amp; Support Box B</td>
<td>1</td>
</tr>
<tr>
<td>AM FM radio (solar / hand crank)</td>
<td>1</td>
</tr>
<tr>
<td>Battery, AA cell</td>
<td>96</td>
</tr>
<tr>
<td>Battery, D cell</td>
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<td>Extension cord, 2', multi outlet</td>
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<td>Glow sticks, red</td>
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<td>Shelter &amp; support box</td>
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<td>Tape, duct</td>
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<td>Tarp, 11'4&quot;x15'6&quot;</td>
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<td>Tarp, 15'2&quot;x23'4&quot;</td>
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<td>Water, 20oz. bottles</td>
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<td>Bandages, petroleum</td>
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<tr>
<td>Blanket, space</td>
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<tr>
<td>Blanket, yellow disposable</td>
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<td>Gloves, exam, large, 10 pair</td>
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<td>Gloves, exam, medium, 10 pair</td>
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<tr>
<td>Gloves, exam, x-large 10 pair</td>
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<td>Medical equipment box</td>
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<td>Trauma shears</td>
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<td>Triage tags</td>
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<td><strong>Fanny pack</strong></td>
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<td>APAP (non-aspirin pain relief)</td>
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<tr>
<td>Bleach, 1 gallon</td>
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<tr>
<td>Deodorant</td>
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<td>Disposable razor</td>
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<tr>
<td>Emergency matches</td>
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<td>Emergency whistle</td>
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<td>Germicidal wipes</td>
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<td>Gloves, large</td>
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<tr>
<td>Gloves, medium</td>
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</tr>
<tr>
<td>Gloves, x-large</td>
<td>3</td>
</tr>
<tr>
<td>Hand warmers</td>
<td>2</td>
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<tr>
<td>Hygienic Kit BLS</td>
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<tr>
<td>Hygienic Kit, female</td>
<td>8</td>
</tr>
<tr>
<td>Hygienic pack</td>
<td>1</td>
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<tr>
<td>IPRIN (ibuprofen)</td>
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<tr>
<td>Kerlix roll, small</td>
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<tr>
<td>Shampoo, 2oz</td>
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<tr>
<td>Shave cream, 2.25 oz.</td>
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<td>Sling, triangular</td>
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<td>Soap</td>
<td>1</td>
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<tr>
<td>Sterile 4x4</td>
<td>4</td>
</tr>
<tr>
<td>Sterile 5x9</td>
<td>4</td>
</tr>
<tr>
<td>Tape, 1&quot; transparent</td>
<td>1</td>
</tr>
<tr>
<td>Toothbrush</td>
<td>1</td>
</tr>
<tr>
<td>Toothpaste</td>
<td>1</td>
</tr>
<tr>
<td>Utility knife</td>
<td>1</td>
</tr>
<tr>
<td>Wash up towelettes</td>
<td>2</td>
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<tr>
<td><strong>Red Folder</strong></td>
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<tr>
<td>Clorox, MSDS</td>
<td>1</td>
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<tr>
<td>Fuel, MSDS</td>
<td>1</td>
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<tr>
<td>Generator, Manuals</td>
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<tr>
<td>Glow sticks, MSDS</td>
<td>1</td>
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<tr>
<td>MRE heater, MSDS</td>
<td>1</td>
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<tr>
<td>Oil, chain, MSDS</td>
<td>1</td>
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<tr>
<td>Paint, spray, MSDS</td>
<td>1</td>
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<tr>
<td>WD-40, MSDS</td>
<td>1</td>
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<tr>
<td><strong>Blue Waterproof Bag</strong></td>
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<tr>
<td>Emergency Response Guidebook</td>
<td>1</td>
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<tr>
<td>Fog Guides</td>
<td>1</td>
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<tr>
<td>ICS forms</td>
<td>1</td>
</tr>
<tr>
<td>Incident organizer</td>
<td>1</td>
</tr>
<tr>
<td>Paper, legal pad</td>
<td>1</td>
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<tr>
<td>Paper, steno book</td>
<td>1</td>
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<tr>
<td>Pencils</td>
<td>12</td>
</tr>
<tr>
<td>Pens, black</td>
<td>2</td>
</tr>
</tbody>
</table>

*Source: Modified from MPFD CERT Cache Contents*
Physical Plan

- Community watch program
- Contact list
- Documented security procedures
- Law enforcement officer support
- Lighting system (with emergency generator)
- Personnel ID system
- Security committee
- Signs
- Transient pilot sign-in/out procedures
- Vehicle ID system

Logistical Staging Base

Staging bases or areas are established for temporary location of available emergency response resources, whether tactical or support. Staging bases can be located anywhere near the incident where personnel, supplies and equipment can be temporarily housed, parked or stored while awaiting an operational assignment. Staging bases may also include temporary sleeping, dining, sanitation, and fueling services for various emergency crews.

Service Area

The Scappoose Industrial Airpark is ideally located to provide logistical support to the Portland-Vancouver-Hillsboro Metropolitan Statistical Area (MSA). This MSA is the 23rd largest in the United States and has a population of 2,226,009 (2010 Census). Of them, 1,789,580 live in Oregon (46.7% of the state’s population) while the remaining 436,429 live in Washington (6.7% of state’s population). SPB may provide logistical support to Portland International Airport (PDX) which is 18 miles to the southeast.

Connectivity

SPB is well-connected to regional cities and airports through established driving and flight routes shown in Table 5.2 Distances. Local driving directions, distances and times for the Airpark are shown in Table 5.3 Directions. The staging area connection with the Columbia River Highway is shown in Figure 5.2 Staging Area Route. Victor Airways are “highways in the sky” and represent corridors of protected airspace defined by radio navaids. The closest Victor Airway is V112.

Air Operations Base

Redmond Municipal Airport (RDM) is the designated FEMA base of operations for a federal emergency response. Air National Guard support is provided by the Base at Crater Lake-Klamath Regional Airport (KLM). Scappoose supports the RDM Air

<table>
<thead>
<tr>
<th>Location</th>
<th>Drive</th>
<th>Fly</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Helens [Columbia County Emergency Operations Center], OR</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Pearson Field (VUO), WA</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Portland International Airport (PDX), OR</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Portland, OR</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Vancouver, WA</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Portland-Hillsboro Airport, OR</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>Salem Municipal Airport (SLE), OR</td>
<td>70</td>
<td>59</td>
</tr>
<tr>
<td>Seattle Tacoma International Airport (SEA), WA</td>
<td>162</td>
<td>119</td>
</tr>
<tr>
<td>Redmond Municipal Airport (RDM) [Air Operations Base], OR</td>
<td>164</td>
<td>133</td>
</tr>
<tr>
<td>Vancouver International Airport (YVR), WA</td>
<td>297</td>
<td>235</td>
</tr>
<tr>
<td>San Francisco International Airport (SFO), CA</td>
<td>668</td>
<td>564</td>
</tr>
</tbody>
</table>

Air routes calculated by www.distance.to
Operations Base as a staging area. As shown by Table 5.2 Distances, the RDM Air Operations Base is 125 miles distant. Using an average cruise speed of 100 knots, this is little over an hour flight for a single-engine, light aircraft.

**Scappoose Industrial Airpark Staging Area**

Scappoose Industrial Airpark is a Tier 2 (T2) airport that provides access to a rural area that will be needed to restore major commercial operations. The airport may also be referred to as a Type 2 Federal Staging Area (FSA) which functions as forward Aerial Port of Embarkation/Departure (APOE/D) for the response and is simultaneously used as a Tier 2 resupply point. The Scappoose Industrial Airpark should be capable of the full spectrum of response operations.

- Airfield Max Runway Strength 25,000 to 125,000 pounds [30,000 pounds]
- Identified now
- Preplan usage
- Pre-coordinate design
- Serves as logistics base and responder base camp (RBC)
- Provides distribution to local communities

**Table 5.3 Directions**

<table>
<thead>
<tr>
<th>From Portland OR</th>
<th>Miles</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take US-30 West to West Lane Road in Columbia County</td>
<td>23.3</td>
<td>30'</td>
</tr>
<tr>
<td>Continue on West Lane Road to Scappoose Industrial Airpark</td>
<td>0.9</td>
<td>3'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>From Vancouver WA</th>
<th>Miles</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get on I-5 South</td>
<td>0.5</td>
<td>2'</td>
</tr>
<tr>
<td>Take US-30 West to West Lane Road in Columbia County</td>
<td>27.3</td>
<td>34'</td>
</tr>
<tr>
<td>Continue on West Lane Road to Scappoose Industrial Airpark</td>
<td>0.9</td>
<td>3'</td>
</tr>
</tbody>
</table>
Joint reception, staging, onward movement, and integration (JRSOI) / relief in place (RIP) Location

**Type 2 Logistics Staging Area Requirements**

**Aircraft**

The site must be able to accept at least two military helicopters in a designated area. Typical aircraft include the Boeing CH-47 Chinook and Sikorsky UH-60 Black Hawk shown in Figure 5.3 Disaster Relief Helicopters. Sites are subject to all Federal Aviation Administration (FAA) regulations regarding design, vehicle and personnel traffic, and activity on the site. (150/5390-2C – Heliport Design) A helicopter operations area is
Physical Plan

proposed southwest of the runway. (Grid Map N22)

[Figure 5.5 Grid Map]

Covered Space

The site will have at least 100,000 square feet of covered and secured space in order to store unloaded resources. Where such covered space is not available, additional resources may have to be brought in to include items such as tents and/or temporary buildings. Some resources can be stored outdoors if covered with waterproof tarps, but past operations have shown that this would only be acceptable for a few hours due to inclement weather conditions.

Hard Stand

The site will also have a minimum of 200,000 square feet of hardstand space to accept commercial vehicle parking, outdoor storage and material movement. Where paved or asphalt hardstand is inadequate, hard pack dirt may be acceptable depending upon water runoff. In some locations, a 3” layer of large gravel may have to be spread in order to facilitate water runoff.

Island Areas

Disasters the result in road and bridge closures create “islands” that are isolated from disaster service areas. A critical element in the siting and design of staging areas is the ability for an area mitigate this effect through hardened infrastructure and rapid reopening of close roads and bridges. The SPB Staging Area is within 1 mile of the Columbia River Highway and the ‘last mile’ travel route for the SPB Staging Area is shown in Figure 5.2 Staging Area Route.

The suggested location for the SPB Staging Area is shown on Figure 5.4 Tax Map and Figure 5.5 Grid Map.

Initial Mobility Areas (IMAs)

Initial Mobility Areas will form organically, either through undamaged networks, or reopening using local resources. IMAs are first determined around Staging Areas. (OR RRAP)

Responder Base Camp (RBC)

The open space south of Airport Road may serve as a Responder Base Camp (RBC) area to provide facilities for sleeping, dining and sanitation. On-site access to water, sewer and power utilities is available. The RBC may also be used for National Voluntary Organizations.

The FEMA Responder Support Camp (RSC) program has the ability to construct facilities for 100 responders within 36 hours.

Emergency Helipad / Vertipad

The area northeast of Runway 15 may be developed as an emergency helipad or vertipad. The helipad will be designed in accord with FAA Advisory Circular 150/5390-2C - Heliport Design. In anticipation of advances in Urban Air Mobility (UAM) technology, the site will also be designed for electric vertical take-off and landing (eVTOL) aircraft that may be piloted, optionally piloted, or unmanned. The vertipad will meet these additional criteria:

- A charging station with rapid charging capability (up to 600 kW)
- A touchdown and liftoff area (TLOF) design to accommodate aircraft footprints up to 50’ maximum dimension
- Unmanned aircraft system traffic management (UTM) facilities as required for UAM operations.

The suggested location for the SPB Emergency Helipad/Vertipad is shown on Figure 5.4 Tax Map and Figure 5.5 Grid Map. Alternate sites include the area across from the FBO taxiway and the future helicopter operations area to the southwest. The proposed SPB Staging Area and Vertipad Concept is shown on Figures 5.6 Staging Area and Helipad/Vertipad Concept and 5.7 Helipad/Vertipad
Concept Illustration. An alternative site is shown in Figure 5.8 Staging Area and Helipad/Vertipad Concept Alternative.

The Master Plan Update identifies an area south of the corporate aviation development as the ultimate helicopter operations area. This location should be designed to accommodate military disaster relief helicopters and electric vertical takeoff and landing (eVTOL) aircraft with urban air mobility design requirements.

Emergency Medical Flight Services

Emergency Medical Flight Services, including activities, aircraft, accessory structures, and other facilities necessary to support emergency transportation for medical purposes. (DLCD) Air medical services is a comprehensive term covering the use of air transportation, airplane or helicopter, to move patients to and from healthcare facilities and accident scenes. Personnel provide comprehensive prehospital and emergency and critical care to all types of patients during aeromedical evacuation or rescue operations aboard helicopter and propeller aircraft or jet aircraft. Scappoose Industrial Airpark supports fixed-wing aeromedical evacuation (medevac) on Runway 15-33. Rotary-wing medevac can be provided at multiple, temporary sites and the proposed helipad / vertipad. Air ambulance services are provided by Life Flight and chartered medical transfers.
Physical Plan

Section 6, T3N R1W WM Columbia County

Figure 5.4 Tax Map

SPB Resiliency Plan
Port of Columbia County

Figure 5.4 Tax Map
Physical Plan

Figure 5.5 Grid Map

SPB Resiliency Plan
Port of Columbia County

Helipad/Vertipad
SPB Staging Area
Future Development
Helicopter Operations
Runway Extension
Physical Plan

Figure 5.6 Staging Area and Helipad/Vertipad Concept
The concept illustration shows the vertipad (large circle with “V”), two recharging sites (smaller circles), and the recharging station and equipment building. The unmanned aircraft on the recharging pad is an Elroy Air autonomous aerial delivery aircraft designed to assist disaster response with the following features: expedites humanitarian logistics, self-deploys to remote locations, and lands in unimproved environments. The electric Vertical Takeoff and Land (eVTOL) aircraft in the upper left corner is an eHang ‘autonomous aerial vehicle’ capable of carrying cargo or serving as an air ambulance.

Aircraft illustrations courtesy of Elroy Air and eHang.
Scappoose Industrial Park Resiliency Plan

Figure 5.8 Staging Area and Helipad/Vertipad Concept Alternative
The Scappoose Industrial Airpark Resiliency Plan is administered by the Port of Columbia County (PCC). The Port of Columbia County is a special district in Columbia County, Oregon, that encompasses 51-miles along the Columbia River. The district’s boundaries span from the Clatsop County line in the northwest of Columbia County, to the Multnomah County line in the southeast, and includes the cities of Scappoose, St. Helens, Columbia City, Prescott, Rainier and Clatskanie. The Port was created in 1940 under Oregon Revised Statute (ORS) Chapter 777 to promote economic development opportunities in the district, primarily through the lease, sale and development of industrial properties. Originally called the Port of St. Helens (POSH), the Port was renamed in 2018 to be more representative of the entire district.

Today, the Port of Columbia County owns 10 different property sites and 2,400 acres of land, including industrial properties with excellent highway, rail and river access, and a deep-water dock at Port Westward for maritime access to the Pacific Ocean. (Port of Columbia County, 2020)

**Airport Capital Improvement Plan**

The 2016 Scappoose Industrial Airpark Master Plan Update prepared a 20-year improvement program for the continued development of the Airport. The Airport Capital Improvement Plan (ACIP) identified improvements that are required to satisfy the forecast aviation demand in three development phases:

- **Short term (through 2021)**
- **Intermediate term (2022-2026)**
- **Long term (2027-2036)**

The development projects are listed in Table 6.1 Scappoose Industrial Airpark Capital Improvement Plan.

**Program Schedule**

The ACIP development program was approved by the FAA and adopted by the Oregon Department of Aviation in 2016. Project identified in Phase I have already commenced, and planning for Phase II will start within two years. Implementation of the Resiliency Plan will be contingent on incorporating elements of the ACIP with acquiring additional funding. Ideally, new funding sources for resiliency will become available to increase disaster preparedness for the Airport now. For physical plan improvements that cannot
be immediately funded, many resiliency projects may be incorporated in the current ACIP Phase III development program for 2027-2036.

**Apron Expansion - Phase II**

The apron expansion proposed near the FBO should be designed to accommodate a temporary helipad/vertipad. This effort will require designing for runway/taxiway connectivity, aircraft parking, and ground vehicle circulation that supports emergency logistical services. The design will also need a recharging station for electric vertical takeoff and landing (eVTOL) aircraft.

**2027 Airport Master Plan Update**

The Master Plan Update should include a new section devoted to resiliency planning and corresponding Airport Capital Improvement Plan. Special attention should be given to ensuring the Airport meets all requirements for a Type 2 Logistics Staging Area.

In a post-COVID-19 and advanced air mobility (AAM) environment, aviation forecasting and demand will have changed in ways that cannot fully be anticipated today. The impacts from the Novel Coronavirus will have long-range impacts to air travel and may include restructuring that increases demand for small-scale on-demand, urban and regional air mobility. This will correspond with technological advancements in optionally-piloted and remotely piloted, electric vertical takeoff and landing (eVTOL) aircraft. These changes may also require revisiting SPB’s role in the Oregon Aviation Plan. All of these considerations should be part of the 2017 Master Plan Update. The Resiliency Plan should be updated along with the Master Plan Update or be folded into a more comprehensive document such as an FAA Airport Emergency Plan (AEP).

**Helicopter Parking Area**

This project is located south of the proposed corporate aviation apron. This site should also accommodate an alternate or additional helipad/vertipad. As with the recommended FBO helipad/vertipad site, this area should also accommodate eVTOL requirements and have a recharging station. This site could also serve as an alternate or additional staging area. The final staging area site selection will be driven by development status of the area when needed. For this reason, it is critical to continually plan for potential emergency use.

These three projects are within the ACIP Phase III and are highlighted in red text in **Table 6.1 Scappoose Industrial Airpark Capital Improvement Plan**.

---

**NASA’s vision for Advanced Air Mobility (AAM) is to help emerging aviation markets to safely develop an air transportation system that moves people and cargo between places previously not served or underserved by aviation—local, regional, intraregional, urban—using revolutionary new aircraft that are only just now becoming possible.**
# Capital Plan

## Table 6.1 Scappoose Industrial Airpark Capital Improvement Plan

<table>
<thead>
<tr>
<th>Year / Priority</th>
<th>Project Description</th>
<th>Total Cost</th>
<th>Port of Columbia County</th>
<th>Non-Primary Entitlement</th>
<th>State Apportion/Discretionary</th>
<th>AERO</th>
<th>Private</th>
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<tr>
<td><strong>Phase I (2016-2021)</strong></td>
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<tr>
<td>2020</td>
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<td><strong>Phase II (2022-2026)</strong></td>
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<td>1</td>
<td>Hangar Development - Skyway Dr - Port</td>
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<td>2</td>
<td>Land Acquisition - Westside 30 acres</td>
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<td>Apron Expansion - Phase I</td>
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<td>584,000</td>
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<td>4</td>
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<td>54,000</td>
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<td>7</td>
<td>Westside Development - Construction Phase - Utilities</td>
<td>735,000</td>
<td>73,500</td>
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<td>8</td>
<td>Westside Development - Construction Phase - Taxiway</td>
<td>1,168,000</td>
<td>116,800</td>
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<td>901,200</td>
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<td>9</td>
<td>Westside Development - Construction Phase - Access Road</td>
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<td>75,000</td>
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<tr>
<td>10</td>
<td>Hangar Development Ph I Westside - Port</td>
<td>1,601,000</td>
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<tr>
<td>11</td>
<td>Hangar Development Ph I Westside - Private</td>
<td>1,593,000</td>
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<tr>
<td>12</td>
<td>Pavement Maintenance Program</td>
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<td>37,500</td>
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<td>13</td>
<td>Taxiway MITL Installation</td>
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<td>58,900</td>
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<td>Land Acquisition of Linear Property to the East</td>
<td>246,000</td>
<td>24,600</td>
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<td><strong>Phase II Totals</strong></td>
<td></td>
<td>10,758,000</td>
<td>3,790,500</td>
<td>750,000</td>
<td>4,512,000</td>
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## Capital Plan

### Table 6.1 Scappoose Industrial Airpark Capital Improvement Plan

<table>
<thead>
<tr>
<th>Year / Priority</th>
<th>Project Description</th>
<th>Total Cost</th>
<th>Port of Columbia County</th>
<th>Non-Primary Entitlement</th>
<th>State Apportion/Discretionary</th>
<th>AERO</th>
<th>Private</th>
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<tr>
<td><strong>Phase III (2027-2036)</strong></td>
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<tr>
<td>1</td>
<td>Apron Expansion - Phase II</td>
<td>1,407,000</td>
<td>140,700</td>
<td>300,000</td>
<td>966,300</td>
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<td>2</td>
<td>Airport Master Plan Update</td>
<td>250,000</td>
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<td>3</td>
<td>Hangar Development Phase II West - Port</td>
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<td>4</td>
<td>Hangar Development Phase II Westside - Private</td>
<td>1,146,000</td>
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<td>1,146,000</td>
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<td>5</td>
<td>Pavement Maintenance Program</td>
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<td>84,000</td>
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<td>6</td>
<td>New Apron on Southwest side</td>
<td>1,551,000</td>
<td>155,100</td>
<td>591,000</td>
<td>804,900</td>
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<td>Helicopter Parking Area</td>
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<td></td>
<td><strong>7,417,000</strong></td>
<td><strong>2,027,200</strong></td>
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<td><strong>2,641,800</strong></td>
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<td><strong>22,230,557</strong></td>
<td><strong>6,223,256</strong></td>
<td><strong>3,475,991</strong></td>
<td><strong>9,577,810</strong></td>
<td>364,500</td>
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### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAM</td>
<td>Advanced Air Mobility</td>
</tr>
<tr>
<td>AAR</td>
<td>After Action Review/Report</td>
</tr>
<tr>
<td>AC</td>
<td>Advisory Circular</td>
</tr>
<tr>
<td>ACIP</td>
<td>Airport Capital Improvement Plan</td>
</tr>
<tr>
<td>ACP</td>
<td>Access Control Point</td>
</tr>
<tr>
<td>ACROS</td>
<td>Airport Climate Risk Operational Screening</td>
</tr>
<tr>
<td>AEP</td>
<td>Airport Emergency Plan</td>
</tr>
<tr>
<td>AERO</td>
<td>Department of Aviation (also known as “ODA”)</td>
</tr>
<tr>
<td>ALERT</td>
<td>Automated Local Evaluation in Real Time</td>
</tr>
<tr>
<td>ALS</td>
<td>Advanced Life Support</td>
</tr>
<tr>
<td>AOA</td>
<td>Airport Operations Area</td>
</tr>
<tr>
<td>AOC</td>
<td>Agency Operations Center</td>
</tr>
<tr>
<td>APOED</td>
<td>Aerial Port of Embarkation / Departure (APOE/D)</td>
</tr>
<tr>
<td>ARC</td>
<td>Airport Reference Code / American Red Cross</td>
</tr>
<tr>
<td>ARES</td>
<td>Amateur Radio Emergency Services</td>
</tr>
<tr>
<td>ARFF</td>
<td>Aircraft Rescue and Firefighting</td>
</tr>
<tr>
<td>ASOS</td>
<td>Automated Surface Observing System</td>
</tr>
<tr>
<td>ASP</td>
<td>Airport Security Program</td>
</tr>
<tr>
<td>BOCC</td>
<td>Board of County Commissioners</td>
</tr>
<tr>
<td>C911CD</td>
<td>Columbia 9-1-1 Communications District (also CCOM)</td>
</tr>
<tr>
<td>CAP</td>
<td>Civil Air Patrol</td>
</tr>
<tr>
<td>CBRNE</td>
<td>Chemical, Biological, Radiological, Nuclear, Explosive</td>
</tr>
<tr>
<td>CCDEM</td>
<td>Columbia County Department of Emergency Management</td>
</tr>
<tr>
<td>CCOM</td>
<td>Columbia 9-1-1 Communications District</td>
</tr>
<tr>
<td>CEMP</td>
<td>Oregon Comprehensive Emergency Management Plan</td>
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<tr>
<td>CERT</td>
<td>Community Emergency Response Team (FEMA)</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CHEMTREC</td>
<td>Chemical Transportation Emergency Center</td>
</tr>
<tr>
<td>CI/KR</td>
<td>Critical Infrastructure / Key Resource</td>
</tr>
<tr>
<td>CISA</td>
<td>Cybersecurity and Infrastructure Security Agency</td>
</tr>
<tr>
<td>COAR</td>
<td>Critical Oregon Airport Relief</td>
</tr>
<tr>
<td>COOP</td>
<td>Continuity of Operations</td>
</tr>
<tr>
<td>CRFR</td>
<td>Columbia River Fire &amp; Rescue</td>
</tr>
<tr>
<td>CSZ</td>
<td>Cascadian Subduction Zone</td>
</tr>
<tr>
<td>DAS</td>
<td>Department of Administrative Services</td>
</tr>
<tr>
<td>DCBS</td>
<td>Department of Consumer and Business Services</td>
</tr>
<tr>
<td>DEQ</td>
<td>Department of Environmental Quality</td>
</tr>
<tr>
<td>DHS</td>
<td>Department of Homeland Security (Federal) / Department of Human Services (State)</td>
</tr>
<tr>
<td>DLD</td>
<td>Department of Land Conservation and Development</td>
</tr>
<tr>
<td>DMAT</td>
<td>Disaster Medical Assistance Team</td>
</tr>
<tr>
<td>DOC</td>
<td>Department of Corrections</td>
</tr>
<tr>
<td>DOD</td>
<td>Department of Defense</td>
</tr>
<tr>
<td>DOGAMI</td>
<td>Department of Geology and Mineral Industries</td>
</tr>
<tr>
<td>DOJ</td>
<td>Department of Justice</td>
</tr>
<tr>
<td>DSL</td>
<td>Department of State Lands</td>
</tr>
<tr>
<td>EAS</td>
<td>Emergency Alert System</td>
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<tr>
<td>ECC</td>
<td>Emergency Coordination Center</td>
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<tr>
<td>EHTR</td>
<td>Emergency Highway Traffic Regulation</td>
</tr>
<tr>
<td>ELT</td>
<td>Electronic Locator Transmitter</td>
</tr>
<tr>
<td>EMP</td>
<td>Emergency Management Plan</td>
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<tr>
<td>EMS</td>
<td>Emergency Medical Services</td>
</tr>
<tr>
<td>EOC</td>
<td>Emergency Operations Center</td>
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<tr>
<td>EOP</td>
<td>Emergency Operations Plan</td>
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<tr>
<td>EPCRA</td>
<td>Emergency Planning and Community Right-to-Know Act</td>
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<tr>
<td>Acronym</td>
<td>Definition</td>
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<tr>
<td>---------</td>
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<tr>
<td>EPI</td>
<td>Emergency Public Information</td>
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<tr>
<td>ERM</td>
<td>Emergency Response Manager</td>
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<tr>
<td>ESF</td>
<td>Emergency Support Function</td>
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<tr>
<td>eVTOL</td>
<td>Electric Vertical Takeoff and Landing aircraft</td>
</tr>
<tr>
<td>FAA</td>
<td>Federal Aviation Administration</td>
</tr>
<tr>
<td>FBI</td>
<td>Federal Bureau of Investigation</td>
</tr>
<tr>
<td>FBO</td>
<td>Fixed Base Operator</td>
</tr>
<tr>
<td>FCO</td>
<td>Federal Coordinating Officer</td>
</tr>
<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
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<tr>
<td>FRC</td>
<td>Fire Rescue Coordinator</td>
</tr>
<tr>
<td>FSA</td>
<td>Federal Staging Area</td>
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<tr>
<td>GIS</td>
<td>Geographic Information System</td>
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<tr>
<td>HAZMAT</td>
<td>Hazardous Materials</td>
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<tr>
<td>HMC</td>
<td>Health and Medical Coordinator</td>
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<td>HSEMC</td>
<td>Homeland Security and Emergency Management Commission</td>
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<td>HSPD</td>
<td>Homeland Security Presidential Directive</td>
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<tr>
<td>IAP</td>
<td>Incident Action Plan</td>
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<td>IAW</td>
<td>In Accordance With</td>
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<td>IC</td>
<td>Incident Commander</td>
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<tr>
<td>ICP</td>
<td>Incident Command Post</td>
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<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
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<tr>
<td>IDA</td>
<td>Initial Damage Assessment</td>
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<tr>
<td>IMA</td>
<td>Initial Mobility Area</td>
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<tr>
<td>IMT</td>
<td>Incident Management Team</td>
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<tr>
<td>JIC</td>
<td>Joint Information Center</td>
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<td>JFO</td>
<td>Joint Field Office</td>
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<tr>
<td>JNACC</td>
<td>Joint Nuclear Accident Coordinating Center</td>
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<tr>
<td>JRSOI</td>
<td>Joint reception, staging, onward movement, and integration</td>
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<tr>
<td>KLM</td>
<td>Crater Lake-Klamath Regional Airport (Air National Guard Base)</td>
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<tr>
<td>LEC</td>
<td>Law Enforcement Coordinator</td>
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<td>LSB</td>
<td>Logistical Staging Base</td>
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<td>MAA</td>
<td>Mutual Assistance Agreement</td>
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<td>MEOC</td>
<td>Mobile Emergency Operations Center</td>
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<td>MICP</td>
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<td>MITL</td>
<td>Medium Intensity Taxiway Lighting</td>
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<td>Mass Notification System</td>
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<td>Medical Reserve Corps</td>
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<td>National Oil and Hazardous Substance Pollution Contingency Plan</td>
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<td>National Disaster Medical System</td>
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<td>National Oceanic and Atmospheric Administration</td>
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<td>NOTAM</td>
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<td>NPIAS</td>
<td>National Plan of Integrated Airport Systems</td>
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<td>NRF</td>
<td>National Response Framework</td>
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<td>NTSB</td>
<td>National Transportation Safety Board</td>
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<td>Oregon Aviation Plan</td>
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<td>ODA</td>
<td>Oregon Department of Agriculture / Oregon Department of Aviation (the official acronym is AERO)</td>
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<tr>
<td>Acronym</td>
<td>Definition</td>
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<td>Oregon Department of Forestry</td>
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<td>Oregon Department of Fish and Wildlife</td>
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<td>Oregon Department of Transportation</td>
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<td>Oregon Office of Emergency Management</td>
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<td>Oregon Health Sciences University</td>
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<td>Oregon Military Department</td>
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<td>Oregon Occupational Safety and Health Division</td>
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<td>Oregon Revised Statute</td>
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<td>ORVOAD</td>
<td>Oregon Volunteer Organizations Active in Disasters</td>
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<td>OSP</td>
<td>Oregon State Police</td>
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<td>Oregon Seismic Safety Policy Advisory Commission</td>
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<td>Oregon Transportation Plan</td>
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<td>PCC</td>
<td>Port of Columbia County [formerly “POSH”]</td>
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<td>PDA</td>
<td>Preliminary Damage Assessment</td>
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<td>PIO</td>
<td>Public Information Officer</td>
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<tr>
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<td>Port of St Helens [replaced by “PCC”]</td>
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<td>PPE</td>
<td>Personal Protective Equipment</td>
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<td>PSAP</td>
<td>Public Safety Answering Point</td>
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<td>Public Utility Commission</td>
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<td>RACES</td>
<td>Radio Amateur Civil Emergency Service</td>
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<td>REACT</td>
<td>Radio Emergency Associated Communication Team</td>
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<tr>
<td>RBC</td>
<td>Responder Base Camp</td>
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<tr>
<td>RDM</td>
<td>Redmond Municipal Airport (FEMA Air Operations Base)</td>
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<tr>
<td>RDPO</td>
<td>Regional Disaster Preparedness Organization</td>
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<td>REO</td>
<td>Resilience Enhancement Option</td>
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<td>RIP</td>
<td>Relief in Place</td>
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<td>Runway Protection Zone</td>
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<td>Responder Support Camp</td>
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<td>State Coordinating Officer</td>
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<td>Situation Report</td>
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<td>SOP</td>
<td>Standard Operating Procedure</td>
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<td>SPB</td>
<td>Scappoose Industrial Airpark</td>
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<td>Scappoose Police Department</td>
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<td>Scappoose Rural Fire Protection District</td>
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<td>State Support Function</td>
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<td>Touchdown and Liftoff Area</td>
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<td>Transportation Security Administration</td>
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<tr>
<td>UAM</td>
<td>Urban Air Mobility</td>
</tr>
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<td>UAS</td>
<td>Unmanned Aircraft System</td>
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<tr>
<td>UAV</td>
<td>Unmanned Aerial Vehicle</td>
</tr>
<tr>
<td>UPS</td>
<td>Uninterruptible Power Supply</td>
</tr>
<tr>
<td>USCG</td>
<td>United States Coast Guard</td>
</tr>
<tr>
<td>USDA</td>
<td>United States Department of Agriculture</td>
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<tr>
<td>UTM</td>
<td>Unmanned Aircraft System Traffic Management</td>
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<tr>
<td>VOAD</td>
<td>Volunteer Organizations Active in Disasters</td>
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<td>VOLAG</td>
<td>Voluntary Agencies</td>
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<tr>
<td>WRD</td>
<td>Water Resources Department</td>
</tr>
<tr>
<td>Z</td>
<td>Zulu Time / Greenwich Mean Time</td>
</tr>
</tbody>
</table>
Activation - During an activation of the State ECC, all essential staff positions are filled. The State ECC may be staffed on a 24-hour basis with representatives of OSP, ODOT, OMD, and other key agencies.

Actual Event - A disaster (natural or man-made) that has warranted action to protect life, property, environment, public health, or safety. Natural disasters include earthquakes, hurricanes, tornadoes, floods, etc.; man-made (either intentional or accidental) incidents can include chemical spills, terrorist attacks, explosives, biological attacks, etc.

Adjunct Agencies - Organizations within the State ECC that may not be a part of state government but have direct interest in effective disaster recovery. Adjunct agencies may contribute expertise and assets to the response and recovery process.

Advisory Circular (AC) - A series of external FAA publications consisting of all non-regulatory material of a policy, guidance, and informational nature.

Agency - A division of government with a specific function offering a particular kind of assistance. In ICS, agencies are defined either as jurisdictional (having statutory responsibility for incident management) or as assisting or cooperating (providing resources or other assistance).

Agency Operations Center (AOC) – The location or locations from which individual state agencies control their resources and operations. Most state agencies have a single AOC, some have several regional AOCs.

Agency Representative - A person assigned by a primary, assisting, or cooperating state, local, or tribal government agency or private entity that has been delegated authority to make decisions affecting that agency’s or organization’s participation in incident management activities following appropriate consultation with the leadership of that agency.

Aircraft Accident - Any occurrence associated with the operation of an aircraft that takes place between the time person boards the aircraft with the intention of flight and the time such person has disembarked, in which a person suffers death or serious injury as a result of the occurrence or in which the aircraft receives substantial damage.

Aircraft Incident - Any occurrence, other than an accident, associated with the operation of an aircraft that affects or could affect continued safe operation if not corrected. An incident does not result in serious injury to persons or substantial damage to aircraft.

Aircraft Operator – A person, organization, or enterprise engaged in, or offering to engage in, aircraft operations.

Airport Authority - The individual or group of individuals having responsibility for the overall functions of the airport.

Airport Emergency Plan (AEP) – A concise planning document developed by the airport operator that establishes airport operational procedures and responsibilities during various contingencies.

Airport Environs - The area surrounding an airport directly affected by the presence and operation of that airport.

Airport Hazard - Any structure or natural object located on or in the vicinity of a public airport, or any use of land near such airport, that obstructs the airspace required for the flight of aircraft landing, taking off, or taxiing at the airport.

Airport Layout Plan (ALP) - A plan (drawings) for an airport showing boundaries and proposed additions to all areas owned or controlled by the sponsor for airport purposes, the location and nature of existing and proposed airport facilities and structures, and the location on the airport of existing and proposed non-aviation areas and improvements thereon.

Airport Manager - The individual charged with the responsibility for maintaining and
operating the airport safely on a day-to-day basis.

**Airport Operations Area (AOA)** – The area of an airport, including adjacent terrain and facilities and their accesses, where movement takes place and access is controlled.

**Airport Sponsor** - A public agency or tax-supported organization, such as an airport authority, that is authorized to own and operate an airport, to obtain property interests, to obtain funds, and to be legally, financially, and otherwise able to meet all applicable requirements of the current laws and regulations.

**Airport Traffic Area** - Unless otherwise specifically designated in FAR Part 93, that airspace within a horizontal radius of five statute miles from the geographical center of any airport at which a control tower is operating, extending from the surface up to, but not including, an altitude of 3,000 feet above the elevation of an airport. Unless otherwise authorized by air traffic control (ATC), no person may operate an aircraft within an airport traffic area except for the purpose of landing at or taking off from an airport within that area. ATC authorizations may be given as individual approval of specific operations or may be contained in written agreements between airport users and the tower concerned (See Class D Airspace).

**Airside** – The movement area of an airport, adjacent terrain, and buildings or portions thereof, access to which is controlled.

**Alert I** (Local Standby) – An aircraft that is known or suspected to have an operational defect that should normally cause serious difficulty in achieving a safe landing. This is notification only. No response is required. All units involved will be manned and will standby in quarters.

**Alert II** (Full Emergency) – An aircraft that is known or is suspected to have an operational defect that affects normal flight operations to the extent that there is danger of an accident. All units respond to pre-designated positions.

**Alert III** (Aircraft Accident) – An aircraft incident/accident has occurred on or in the vicinity of the airport. Al designated emergency response units proceed to the scene in accordance with established plans and procedures.

**All Hazards** - Any incident caused by terrorism, natural disasters, or any CBRNE accident. Such incidents require a multi-jurisdictional and multi-functional response and recovery effort.

**American Red Cross (ARC)** – A humanitarian organization, led by volunteers, that provides relief to victims of disasters and helps people prevent, prepare for, and respond to emergencies. It does this through services that are consistent with its Congressional Charter and the Principles of the International Red Cross Movement.

**Apron/Ramp** - A defined area on an airport or heliport intended to accommodate aircraft for purposes of loading passengers or cargo, refueling, parking, or maintenance.

**Assessment** - The evaluation and interpretation of measurements and other information to provide a basis for decision-making.

**Assignments** - Tasks given to resources to perform within a given operational period that are based on operational objectives defined in the IAP.

**Available Resources** - Resources assigned to an incident, checked in, and available for a mission assignment, normally located in a Staging Area.

**Based Aircraft** - Aircraft stationed at an airport on a long-term or permanent basis, usually by some form of agreement between the aircraft owner and airport management.

**Branch** - The organizational level having functional or geographical responsibility for major aspects of incident operations. A branch is organizationally situated between
the section and the division or group in the Operations Section, and between the section and units in the Logistics Section. Branches are identified by the use of Roman numerals or by functional area.

**Care Area** - Location where the first medical care is given to injured parties.

**Catastrophic Incident** - Any natural or manmade incident, including terrorism that results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions. A catastrophic event could result in sustained national impacts over period of time; almost immediately exceed resources normally available to state, local, regional, tribal and private-sector authorities in the impacted area; and significantly interrupt governmental operations and emergency services to such an extent that national security could be threatened. All catastrophic events are Incidents of National Significance.

**Chain of Command** - A series of command, control, executive, or management positions in hierarchical order of authority.

**Check-In** - The process through which resources first report to an incident. Check-in locations include the incident command post, resources unit, incident base, camps, staging areas, or directly on the site.

**Chief** - The ICS title for individuals responsible for management of functional sections - Operations, Planning, Logistics, Finance/Administration, and Intelligence (if established as a separate section).

**Command Post (CP)** - A point where responding agencies are briefed on the situation as they arrive to report and assume control of the individual aspects of the operation.

**Command** - The act of directing, ordering, or controlling by virtue of explicit statutory, regulatory, or delegated authority.

**Command Staff** - In an incident management organization, the Command Staff consists of the Incident Command and the special staff positions of Public Information Officer, Safety Officer, Liaison Officer, and other positions as required, who report directly to the Incident Commander. They may have an assistant or assistants, as needed.

**Common Operating Picture** – Offers an overview of an incident thereby providing incident information enabling the IC/UC and any supporting agencies and organizations to make effective, consistent, and timely decisions.

**Common Terminology** – Normally used words and phrases—avoids the use of different words/phrases for same concepts, consistency, to allow diverse incident management and support organizations to work together across a wide variety of incident management functions and hazard scenarios.

**Community** – A political entity which has the authority to adopt and enforce laws and ordinances for the area under its jurisdiction. In most cases, the community is an incorporated town, city, township, village, or unincorporated area of a county. However, each state defines its own political subdivisions and forms of government.

**Contamination** – The undesirable deposition of a chemical, biological, or radiological material on the surface of structures, areas, objects, or people.

**Coordinate** - To advance systematically an analysis and exchange of information among principals who have or may have a need to know certain information to carry out specific incident management responsibilities.

**Corrective Action** - Improved procedures that are based on lessons learned from actual incidents or from training and exercises.

**Critical Infrastructure** - Systems and assets, whether physical or virtual, so vital to the United States that the incapacity or
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destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters.

**Critical Rescue and Firefighting Access Area (CRFFAA)** - Rectangular area surrounding any given runway 500 feet wide, 3,300 feet beyond the runway end where most accidents are expected to occur.

**Cyber** - Pertaining to computers and their support systems, such as servers, routers, and switches, which support critical infrastructure.

**Damage Assessment** – The process used to appraise or determine the number of injuries and deaths, damage to public and private property, and the status of key facilities and services such as runways, taxiways, navigational aids, control tower, water and sanitation systems, communications networks, utilities, and other infrastructure networks resulting from a man-made or natural disaster. The appraisal or determination of estimated damage, losses, and impacts resulting from an emergency or disaster. This estimate of the damages to a geographic area is made after a disaster has occurred and may serve as the basis for the Governor’s request for a Presidential Major Disaster Declaration or other request for federal assistance. It also helps local, state, and federal agencies to determine resources that may be needed for recovery in the damaged areas.

**Decontamination** – The reduction or removal of a chemical, biological, or radiological material from the surface of structure, area, object, or person.

**Disaster** – An occurrence of a natural catastrophe, technological accident, or human-caused event that has resulted in severe property damage, deaths, and/or multiple injuries. As used in this Advisory Circular, a “large-scale disaster” is one that exceeds the capability of the airport and local communities and requires state, and potentially, federal involvement.

**Disaster** - (See Major Disaster)

**Disciplines** - A group of personnel with similar job roles and responsibilities. [e.g. law enforcement, firefighting, Hazardous Materials (HazMat), Emergency Medical Services (EMS)].

**Dispatch** - The ordered movement of a resource or resources to an assigned operational mission or an administrative move from one location to another.

**Earthquake** – A sudden slipping or movement of a portion of the earth’s crust and followed by a series of vibrations.

  - **Aftershock** - An earthquake of similar or lesser intensity that follows the main earthquake.
  - **Epicenter** - The place on the earth’s surface directly above the point on the fault where the earthquakes rupture began. Once fault slippage begins, it expands along the fault during the earthquake and can extend hundreds of miles before stopping.
  - **Fault** - The fracture across which displacement has occurred during an earthquake. The slippage may range from less than an inch to more than 10 yards in a severe earthquake.
  - **Ground motion** - Vibration and shaking of the ground during an earthquake causes the most damage to buildings, structures, infrastructure, etc.
  - **Ground surface fault rupture** - The ground shaking is the result of a rupture of a fault beneath the surface which may result in a surface opening of up to 20 feet.
  - **Liquefaction** - The ground temporarily loses it strength and behaves as a viscous fluid (similar to quicksand) rather than a solid.
  - **Magnitude** - The amount of energy released during an earthquake, which is computed from the amplitude of the seismic waves. A magnitude of 7.0 on the Richter Scale indicates an extremely strong earthquake. Each whole number on the scale represents an increase of about 30 times more energy released than the
previous whole number represents. Therefore, an earthquake measuring 6.0 is about 30 times more powerful than one measuring 5.0.

Seismic Waves - Vibrations that travel outward from the earthquake fault at speeds of several miles per second. Although fault slippage directly under a structure can cause considerable damage, the vibrations of seismic waves cause most of the destruction during earthquakes.

Tsunamis - Tsunamis are ocean waves produced by an underwater earthquake. These waves can reach 80 feet and can devastate coastal cities and low-lying areas.

Emergency - (1) Any occasion or instance—such as a hurricane, tornado, storm, flood, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, fire, nuclear accident, or any other natural or man-made catastrophe—that warrants action to save lives and to protect property, public health, and safety. (2) As defined by ORS 401.025 - “Includes any man-made or natural event or circumstance causing or threatening loss of life, injury to person or property, human suffering or financial loss, and includes, but is not limited to, fire, explosion, flood, severe weather, drought, earthquake, volcanic activity, spills or releases of oil or hazardous material as defined by ORS 466.605, contamination, utility or transportation emergencies, disease, blight, infestation, civil disturbance, riot, sabotage, and war.” (3) As defined by the Stafford Act (Public Law 93-288) “An emergency is any occasion or instance for which, in determination of the President, Federal assistance is needed to supplement state and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States.”

Emergency Alert System (EAS) – A digital technology (voice/text) communications system consisting of broadcast stations and interconnecting facilities authorized by the Federal Communication Commission. The system provides the President and other national, state, and local officials the means to broadcast emergency information to the public before, during, and after disasters.

Emergency Coordination Center (ECC) - The purpose of the State ECC is to provide a centralized location where state officials may coordinate activities and implement direction from the Governor. The primary responsibility of the State ECC is to provide information, policy direction and coordination for a major emergency or disaster. This is achieved through a unified management approach.

Emergency Management Assistance Compact - The Emergency Management Assistance Compact is an interstate mutual aid agreement that allows states to assist one another in responding to all kinds of natural and man-made disasters. It is administered by the National Emergency Management Association.

Emergency Medical Services (EMS) – Medical services provided by emergency personnel trained in the administration of medical protocols.

Emergency Operations Center (EOC) - 1) A protected site from which emergency officials coordinate, monitor, and direct emergency response activities during an emergency. 2) The location at which the coordination of information and resources to support incident activities normally takes place. An EOC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement, and medical services), by jurisdiction (e.g., federal, state regional, county, city, tribal) or by some combination thereof.

Emergency Operations Plan - The “steady-state” plan maintained by various jurisdictional levels for responding to a wide variety of potential hazards.
Emergency Plan – A document that describes how people and property will be protected in disaster and disaster threat situations; details who is responsible for carrying out specific actions; identifies the personnel, equipment, facilities, supplies, and other resources available for use in the disaster; and outlines how all actions will be coordinated.

Emergency Support Functions (ESF) - A functional area of response activity established to facilitate the delivery of Federal assistance required during the immediate response phase of a disaster to save lives, protect property and public health, and to maintain public safety. ESF represent those types of federal assistance that the state would most likely need because of the overwhelming impact of a catastrophic or significant disaster on its own resources and response capabilities or because of the specialized or unique nature of the assistance required. ESF missions are designated to supplement state and local response efforts.

Evacuation – Organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.

Evaluation - The process of observing and recording exercise activities, comparing the performance of the participants against the objectives, and identifying strengths and weaknesses.

Event - A planned, non-emergency activity. ICS can be used as the management system for a wide range of events, e.g., parades, concerts, or sporting events.

Exercise - Exercises are a planned and coordinated activity allowing homeland security and emergency management personnel (from first responders to senior officials) to demonstrate training, exercise plans, and practice prevention, protection, response, and recovery capabilities in a realistic but risk-free environment. Exercises are a valuable tool for assessing and improving performance, while demonstrating community resolve to prepare for major incidents.

Federal - Of or pertaining to the Federal Government of the United States of America.

Federal Assistance - Aid to those affected by disaster and state or local governments by federal agencies authorized to provide assistance under federal statutes.

Federal Coordinating Officer (FCO) - The Federal Officer who is appointed to manage Federal resource activities related to Stafford Act disasters and emergencies. The FCO is responsible for coordinating the timely delivery of Federal Disaster assistance resources and programs to the affected state and local governments, individuals affected by a disaster, and the private-sector.

Federal Emergency Management Agency - The federal agency created in 1979 to provide a single point of accountability for all federal activities related to disaster mitigation and emergency preparedness, response, and recovery. The Federal Emergency Management Agency manages the President’s Disaster Relief Fund and coordinates the disaster assistance activities of all federal agencies in the event of a Presidential Disaster Declaration. On March 1, 2003, FEMA became part of the U.S. Department of Homeland Security (DHS). FEMA’s continuing mission within the new department is to lead the efforts to prepare the nation for all hazards and effectively manage federal response and recovery efforts following any national incident. FEMA also initiates proactive mitigation activities, trains first responders, and manages the National Flood Insurance Program.

First responder awareness level – This covers individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency
response sequence by notifying proper authorities of the release. Examples of these individuals on the airport might be Operations personnel conducting inspections, security personnel on patrol, air cargo employees.

**First responder operations level** – This covers individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Many ARFF personnel have received this level of training.

**Fixed Base Operator (FBO)** - (1) A business operating at an airport that provides aircraft services to the general public, including but not limited to sale of fuel and oil; aircraft sales, rental, maintenance, and repair; parking and tie-down or storage of aircraft; flight instruction; air taxi/charter operations; and specialty service such as instrument and avionics maintenance, painting, overhaul, aerial application, aerial photography, aerial hoists, or pipeline patrol. (2) The owner of such an operation.

**Flood** - A general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal water, unusual or rapid accumulation or runoff of surface waters, or mudslides, mudflows caused by accumulation of water.

Floodplain - Any land area susceptible to inundation by floodwaters from any source.

100-Year Flood - The flood having a one percent chance of being equaled or exceeded in magnitude in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years.

100-Year Floodplain - The area adjoining a river, stream, or watercourse covered by water in the event of a 100-year flood.

Encroachment - Any man-made obstruction in the floodplain which displaces the natural passage of flood waters.

Flood Fringe - That portion of the floodplain outside the floodway that is inundated by flood waters in which encroachment is permissible.

Floodway - The channel of a river or watercourse and the adjacent areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water surface elevation more than one foot.

Surcharge - An increase in flood elevation due to destruction of the floodplain that reduces its conveyance capacity.

**Function** - Function refers to the five major activities in ICS - Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, e.g., the planning function. A sixth function, Intelligence, may be established, if required, to meet incident management needs.

**General Aviation** - All civil aviation (excluding military) except those classified as air carrier or air taxi. The types of aircraft typically used in GA activities vary from multiengine jet aircraft to single-engine piston aircraft.

**General Staff** – A group of incident management personnel organized according to function and reporting to the Incident Commander. The General Staff normally consists of the Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief. An Intelligence/Investigations Chief may be established, if required, to meet incident management needs.

**Governor’s Authorized Representative (GAR)** - The individual empowered by the Governor, in accordance with the FEMA-State Letter of Agreement, to manage and coordinate the state’s disaster response and recovery efforts following a federal Declaration of Emergency. Under [ORS 401.270](https://oregonlaws.org/ors/ORS%20401%20-%20Emergency%20Management%20Activities%20-%20Chapter%204) the OEM...
Director is designated as the GAR for certain disaster response and recovery activities.

**Grid Map** – A plan view of an area with a system of squares (numbered and lettered) superimposed to provide a fixed reference to any point in the area.

**Group** – Established to divide the incident management structure into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. Groups, when activated, are located between Branches and resources in the Operations Section.

**Hangar** - A large building at an airport where planes can be stored and maintained.

**Hazard** – (1) Something that is potentially dangerous or harmful, often the root cause of an unwanted outcome. (2) Any situation with the potential for causing damage to people, property or the environment.

**Hazard Mitigation** – Any action taken to reduce or eliminate the long-term risk to human life and property from hazards. The term is sometimes used in a stricter sense to mean cost-effective measures to reduce the potential for damage to a facility or facilities from a disaster event.

**Hazard Mitigation Plan** - As defined by 44 CFR 206.401 - “Hazard mitigation plan means the plan resulting from a systematic evaluation of the nature and extent of vulnerability to the effects of natural hazards present in society and includes the actions needed to minimize future vulnerability to hazards…”

**Hazardous Material (HAZMAT)** – 1) Any substance or material that when involved in an accident and released in sufficient quantities, poses a risk to people’s health, safety, and/or property. These substances and materials include explosives, radioactive materials, flammable liquids or solids, combustible liquids or solids, poisons, oxidizers, toxins, and corrosive materials. 2) A flammable, corrosive, reactive or toxic chemical, infectious biological (etiological) agent, or radioactive material. A hazardous material can be either a material intended for use or a waste intended to be treated or disposed.

**Hazardous Materials Technician/Specialist** – This covers individuals who try to stop the release. This is usually accomplished by members of a local or State-certified Hazardous Materials Response Team.

**Holding Area** - Location to which the injured aircraft occupants are transported.


**Hurricane** – A tropical cyclone, formed in the atmosphere over warm ocean areas, in which wind speeds reach 74 miles per hour or more and blow in a large spiral around a relatively calm center or “eye”. Circulation is counterclockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.

**Identification and Authentication** – Individuals and organizations that access the NIMS information management system and, in particular, those that contribute information to the system (e.g., situation reports), must be properly authenticated and certified for security purposes.

**Incident** – An occurrence or event, natural or manmade, that requires a response to protect life or property. Incidents can, for example, include major disasters, emergencies, terrorist attacks, terrorist threats, civil unrest, wild land and urban fires, floods, hazardous materials spills, nuclear accidents, aircraft accidents, earthquakes, hurricanes, tornadoes, tropical storms, tsunamis, war related disasters, public health and medical emergencies, and other occurrences requiring an emergency response.

**Incident Action Plan** - An oral or written plan containing general objectives reflecting the overall strategy for managing an incident. It may include the identification of operational resources and assignments. It may also include...
attachments that provide direction and important information for management of the incident during one or more operational periods.

**Incident Command Post (ICP)** - The field location at which the primary tactical-level, on-scene incident command functions are performed. The ICP may be collocated with the incident base or other incident facilities and is normally identified by a green rotation of flashing light.

**Incident Command System (ICS)** – A standardized organizational structure used to command, control, and coordinate the use of resources and personnel that have responded to the scene of an emergency. The concepts and principles for ICS include common terminology, modular organization, integrated communication, unified command structure, consolidated action plan, manageable span of control, designated incident facilities, and comprehensive resource management. (see National Incident Management System)

**Incident Commander (IC) -** The individual in charge of operations at any given time during an incident, emergency, major emergency, or disaster. In cases of multiple events or multiple locations there may be multiple Incident Commanders.

**Incident Management Team** - The IC and appropriate Command and General Staff personnel assigned to an incident.

**Incident Objectives** - Statements of guidance and direction necessary for selecting appropriate strategy(s) and the tactical direction of resources. Incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow strategic and tactical alternatives.

**Infrastructure** - The manmade physical systems, assets, projects, and structures, publicly and/or privately owned, that are used by or provide benefit to the public. Examples of infrastructure include utilities, bridges, levees, drinking water systems, electrical systems, communications systems, dams, sewage systems, and roads.

**Initial Action** - The actions taken by those responders first to arrive at an incident site.

**Initial Response** - Resources initially committed to an incident.

**Interagency** - An organization or committee comprised of multiple agencies.

**Interoperability** – The capability to communicate within and across agencies and jurisdictions via voice, data or video on demand, in real time. Joint Information Center (JIC) - A central point of contact for all news media near the scene of a large-scale disaster. News media representatives are kept informed of activities and events by public information officials who represent all participating agencies that are collected at the JIC.

**Investigation** - A process conducted for the purpose of accident prevention, which includes the gathering of data, analysis of the information, and the drawing of conclusions, to include the determination of a cause or causes and, when appropriate, the making of safety recommendations.

**Joint Field Office (JFO)** - A temporary Federal facility established locally to provide a central point for federal, state, local and tribal executives with responsibility for incident oversight, direction, and/or assistance to effectively coordinate protection, prevention, preparedness, response, and recovery actions. The JFO will combine the traditional functions of the JOC, the FEMA DFO and the JIC within a single federal facility. In the event of multiple incidents, multiple JFOs may be established at the discretion of the Secretary.

**Joint Information Center (JIC)** - A facility staffed by officials of all affected jurisdictions or agencies to jointly coordinate the Public
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Information function during an emergency or disaster.

**Joint Operations Center** - The focal point for all investigative law enforcement activities during a terrorist or potential terrorist incident or any other significant criminal incident. The JOC is managed by the FBI's Special Agent in Charge (FBI SAC). The JOC becomes a component of the JFO when the JFO is established.

**Jurisdiction** - A range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority. Jurisdictional authority at an incident can be political or geographical (e.g., city, county, tribal, state, or federal boundary lines) or functional (e.g., law enforcement, public health).

**Lead State Agency** - Within the State ECC, the state agency representative that provides technical direction and expertise in the Director’s Section. The Lead State Agency is determined by plan, statute, Governor’s direction or operational need.

**Liaison Officer** - A member of the Command Staff responsible for coordinating with representatives from cooperating and assisting agencies.

**Liaison** - A form of communication for establishing and maintaining mutual understanding and cooperation.

**Local Government** - A county, municipality, city, town, township, local public authority, school district, special district, intrastate district, council of governments (regardless of whether the council of governments is incorporated as a nonprofit corporation under state law), regional or interstate government entity, or agency or instrumentality of a local government; an Indian tribe or authorized tribal organization, or in Alaska a Native village or Alaska Regional Native Corporation; a rural community, unincorporated town or village, or other public entity. See Section 2 (10), Homeland Security Act of 2002, Pub. L. 107-296, 116 Stat. 2135 (2002).

**Local Traffic** - Aircraft operating in the traffic pattern or within sight of the tower, aircraft known to be departing or arriving from flight in local practice areas, or aircraft executing practice instrument approaches at the airport.

**Logistical Staging Base (LSB)** - A temporary site established in close proximity to an impact area immediately after impact of an event in order to provide resource support.

**Logistics** - Providing resources and other services to support incident management.

**Logistics Officer (LO)** – The person responsible to provide oversight of logistical support activities.

**Logistics Section** - The section responsible for providing facilities, services, and material support for the incident.

**Major Disaster** - As defined under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5122), a major disaster is “any natural catastrophe (including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of states, tribes, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby.”

**Mass Care** – The actions that are taken to protect evacuees and other disaster victims from the effects of the disaster. Activities include providing temporary shelter, food, medical care, clothing, and other essential life support needs to those people that have been displaced from their homes because of a disaster or threatened disaster.
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Medical Transportation Area - That portion of the triage area where injured persons are staged for transportation to medical facilities under the direct supervision of a medical transportation officer.

Memorandum of Agreement (MOA) – A written agreement between parties.

Mitigation - (Part of the Emergency Management Cycle) Activities designed to reduce or eliminate risks to persons or property or to lessen the actual or potential effects or consequences of an incident.

Mitigation Measure - An action that can be planned or taken to alleviate (mitigate) an adverse environmental impact. Mitigation measures may be implemented prior to, during, or after an incident. Mitigation measures are often developed in accordance with lessons learned from prior incidents. Mitigation involves ongoing actions to reduce exposure to, probability of, or potential loss from hazards. Measures may include zoning and building codes, floodplain buyouts, and analysis of hazard-related data to determine where it is safe to build or locate temporary facilities. Mitigation can include efforts to educate governments, businesses, and the public on measures they can take to reduce loss and injury.

Mobilization - The process and procedures used by all organizations—state, local, and tribal—for activating, assembling, and transporting all resources that have been requested to respond to or support an incident.

Mutual Aid – Reciprocal assistance by emergency services under a predetermined plan.

Mutual Aid Agreement - Written agreement between agencies and/or jurisdictions that they will assist one another on request, by furnishing personnel, equipment, and/or expertise in a specified manner.

National Incident Management System (NIMS) – (1) Provides a systematic, proactive approach guiding government agencies at all levels, the private sector, and nongovernmental organizations to work seamlessly to prepare for, prevent, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life or property and harm to the environment. (2) A system mandated by HSPD-5 that provides a consistent, nationwide approach for federal, state, local, and tribal governments; the private-sector; and NGO’s to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents regardless of cause, size, or complexity. To provide for interoperability and compatibility among federal, state, local, and tribal capabilities, the NIMS includes a core set of concepts, principles, and terminology. HSPD-5 identifies these as the Incident Command System (ICS); multi-agency coordination systems; training; identification and management of resources (including systems for classifying types of resources); qualification and certification; and the collection, tracking, and reporting of incident information and incident resources.

National Infrastructure Protection Plan - Provides a coordinated approach to critical infrastructure and key resources (CI/KR) protection roles and responsibilities for federal, state, local, tribal, and private-sector security partners. The NIPP sets national priorities, goals and requirements for effective distribution of funding and resources which will help ensure that our government, economy, and public services continue in the event of a terrorist attack or other disaster.

National Plan of Integrated Airport Systems (NPIAS) - Public-use airports considered necessary to provide a safe, efficient, and integrated system of airports to meet the needs of civil aviation, national defense, and the U.S. Postal Service (previously called the National Airport System Plan).

National Response Framework - 1) A guide to how the Nation conducts all-hazards incident management. It is built upon flexible, scalable,
and adaptable coordinating structures to align key roles and responsibilities across the Nation. It is intended to capture specific authorities and best practices for managing incidents that range from the serious but purely local, to large-scale terrorist attacks or catastrophic natural disasters. The National Response Framework replaces the former National Response Plan. 2) A comprehensive, national, all-hazards approach to domestic incident response.

**National Transportation Safety Board (NTSB)** - The independent federal agency charged with investigating and finding “probable cause” of transportation accidents.

**Non-Governmental Organization (NGO)** - A nonprofit entity that is based on interests of its members, individuals, or institutions and that is not created by a government, but may work cooperatively with government. Such organizations serve a public purpose, not a private benefit.

**Notice to Airmen (NOTAM)** - A notice containing information (not known sufficiently in advance to publicize by other means) concerning the establishment, condition, or change in any component (facility, service, procedure of, or hazard in) the National Airspace System (NAS), the timely knowledge of which is essential to personnel concerned with flight operations.

**Obstacle** - An existing object, object of natural growth, or terrain, at a fixed geographical location, or which may be expected at a fixed location within a prescribed area, with reference to which vertical clearance is or must be provided during flight operation.

**Operation** - A takeoff or landing.

**Operational Period** - The time scheduled for executing a given set of operation actions, as specified in the Incident Action Plan. Operational periods can be of various lengths, although usually not over 24 hours.

**Operations Section** - The section responsible for all tactical incident operations. In ICS, it normally includes subordinate branches, divisions, and/or groups.

**Oregon Emergency Response System (OERS)** - OERS is a service provided 24 hours a day as prescribed by ORS 401.275. OERS provides a coordinated state and federal response to incidents involving chemicals, petroleum products, biological agents, radioactive materials, and other technological and natural hazards. OERS is the point of contact for initiating state assistance in Search and Rescue activities. It is the only telephone number that local agencies need to call in order to notify the appropriate state and federal agencies (1-800-452-0311 or (503) 378-6377). OERS activities are governed by the OERS Council.

**Oregon Volunteers Active in Disaster (OR-VOAD)** - An umbrella organization that brings together volunteer agencies whose missions are to provide emergency relief to Oregon’s citizens beyond what is normally provided by government during emergencies and disasters.

**Planning** - A method to developing objectives to be accomplished and incorporated into an EOP.

**Planning Section** - Responsible for the collection, evaluation, and dissemination of operational information related to the incident, and for the preparation and documentation of the IAP. This section also maintains information on the current and forecasted situation and on the status of resources assigned to the incident.

**Preparedness** - (Part of the Emergency Management Cycle) - The range of deliberate, critical tasks and activities necessary to build, sustain, and improve the operational capability to prevent, protect against, respond to, and recover from domestic incidents. Preparedness is a continuous process involving efforts at all levels of government and between government and private-sector and non-governmental organizations to identify
threats, determine vulnerabilities, and identify required resources.

**Presidential Declaration** - A formal declaration by the President that an Emergency or Major Disaster exists based on the request for such a declaration by the Governor and with the verification of FEMA preliminary damage assessments.

**Prevention** - (Part of the Emergency Management Cycle) Actions taken to avoid an incident or to intervene to stop an incident from occurring. Prevention involves actions taken to protect lives and property. It involves applying intelligence and other information to a range of activities that may include such countermeasures as deterrence operations; heightened inspections; improved surveillance and security operations; investigations to determine the full nature and source of the threat; public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and, as appropriate, specific law enforcement operations aimed at deterring, preempting, interdicting, or disrupting illegal activity and apprehending potential perpetrators and bringing them to justice.

**Private Sector** - Organizations and entities that are not part of any governmental structure. It includes for-profit and not-for-profit organizations, formal and informal structures, commerce and industry, and private voluntary organizations.

**Processes** - Systems of operations that incorporate standardized procedures, methodologies, and functions necessary to provide resources effectively and efficiently. These include resource typing, resource ordering and tracking, and coordination.

**Public Assistance Program** - The program administered by FEMA that provides supplemental Federal disaster grant assistance for debris removal and disposal, emergency protective measures, and the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of certain private nonprofit organizations.

**Public Health** - Protection, safety, improvement, and interconnections of health and disease prevention among people, domestic animals and wildlife.

**Public Information Officer (PIO)** - A member of the Command Staff responsible for interfacing with the public and media or with other agencies with incident-related information requirements.

**Qualification and Certification** - This subsystem provides recommended qualification and certification standards for emergency responder and incident management personnel. It also allows the development of minimum standards for resources expected to have an interstate application. Standards typically include training, currency, experience, and physical and medical fitness.

**Recovery** - (1) The long-term activities beyond the initial crisis period and emergency response phase of disaster operations that focus on returning all systems at the airport to a normal status or to reconstitute these systems to a new condition that is less vulnerable. (2) (Part of the Emergency Management Cycle) The development, coordination, and execution of service- and site-restoration plans for impacting communities and the reconstitution of government operations and services through individual, private-sector, non-governmental, and public assistance programs that identify needs and define resources; provide housing and promote restoration; address long-term care and treatment of affected persons; implement additional measures for community restoration; incorporate mitigation measures and techniques, as feasible; evaluate the incident to identify lessons learned; and develop initiatives to mitigate the efforts of future incidents.

**Recovery Plan** - A plan developed by a state, local, or tribal jurisdiction with assistance from
responding Federal agencies to restore the affected area.

**Resource Management** – (1) Those actions taken by an organization to identify sources and obtain resources needed to support disaster response activities; coordinate the supply, allocation, distribution, and delivery of resources so that they arrive where and when most needed; and maintain accountability for the resources used. (2) Efficient incident management requires a system for identifying available resources at all jurisdictional levels to enable timely and unimpeded access to resources needed to prepare for, respond to, or recover from an incident. Resource management under the NIMS includes mutual-aid agreements; the use of special state, local, and tribal teams; and resource mobilization protocols.

**Resources** - Personnel and major items of equipment, supplies, and facilities available or potentially available for assignment to incident operations and for which status is maintained. Resources are described by kind and type and may be used in operational support or supervisory capacities at an incident or at an EOC/ECC.

**Response** - Activities that address the short-term, direct effects of an incident. Response includes immediate actions to save lives, protect property, and meet basic human needs. Response also includes the execution of emergency operations plans and of mitigation activities designed to limit the loss of life, personal injury, property damage, and other unfavorable outcomes. As indicated by the situation, response activities include applying intelligence and other information to lessen the effects or consequences of an incident; increased security operations; continuing investigations into the nature and source of the threat; ongoing public health and agricultural surveillance and testing processes; immunization, isolation, or quarantine; and specific law enforcement operations aimed at preempting, interdicting, or disrupting illegal activity and apprehending perpetrators and bringing them to justice.

**Responder Support Camp (RSC)** - The Responder Support Camp (RSC) program provides sleeping, dining, and sanitation facilities in support of FEMA and other federal, state and local responders in the continental United States (and contractors who provide these services for FEMA) when required during disaster response. The RSC provides the capability to acquire or construct facilities within 36 hours for a minimum population of 100, and is capable of supporting a maximum population of 2,000 within 72 hours following the award of a task order and also includes expanded cold weather capability. RSCs may also house personnel sponsored by non-profit organizations that are members of the National Voluntary Organizations.

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**Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act)** - Public Law (PL) 93-288, as amended, gives the President broad powers to supplement the efforts and available resources of state...
Glossary

and local governments in carrying out their responsibilities to alleviate suffering and damage resulting from disasters.

**Runway (RWY)** - A defined rectangular area on a land airport prepared for the landing and takeoff run of aircraft along its length. Runways are normally numbered in relation to their magnetic direction, rounded off to the nearest 10 degrees—e.g., Runway 15, Runway 33.

**Runway Protection Zone** - A trapezoidal area at ground level for which the perimeter conforms to the projection on the ground of the innermost portion of the approach surface as defined in Federal Aviation Regulations (FAR) Part 77. The RPZ is centered on the extended runway centerline and begins at the end of the FAR Part 77 primary surface, terminating below the line where the approach surface reaches a height of 50 feet above the elevation of the runway end. FAA regulations require that RPZs be kept free of obstructions and any uses that might cause an assemblage of persons.

**Runway Safety Area (RSA)** - cleared, drained, graded, and preferably turfed area symmetrically located about the runway which, under normal conditions, is capable of supporting snow removal, firefighting, and rescue equipment and of accommodating the occasional passage of aircraft without causing major damage to the aircraft.

**Safety Officer** - A member of the Command Staff responsible for monitoring and assessing safety hazards or unsafe situations and for developing measures for ensuring personnel safety.

**Search and Rescue (SAR)** - The act of searching for, rescuing, or recovery by means of ground, marine, or air activity any person who becomes lost, injured, or is killed while outdoors or as a result of a natural or human caused event, including instances of searching for downed aircraft when ground personnel are used.

**Section** - The organizational level having responsibility for a major functional area of incident management, e.g., Operations, Planning, Logistics, Finance/Administration, and Intelligence (if established). The section is organizationally situated between the branch and the Incident Command.

**Significant Body of Water** – A body of water or marsh land is significant if the area exceeds one-quarter square mile and cannot be traversed by conventional land rescue vehicles.

**Span of Control** - The number of individuals a supervisor is responsible for, usually expressed as the ratio of supervisors to individuals. (Under the NIMS, an appropriate span of control is between 1:3 and 1:7.)

**Specialized Aviation Service Operation (SASO)** - Similar to a fixed-base operator (FBO) but generally providing a single-service or specialized aeronautical service as opposed to full-service or multi-aeronautical service.

**Staging Area** – A pre-arranged, strategically placed area where support response personnel, vehicles and other equipment can be held in readiness for use during an emergency.

**Staging Area** - Location established where resources can be placed while awaiting a tactical assignment. The Operations Section manages Staging Areas.

**Standard Operating Procedure (SOP)** – (1) A set of instructions constituting a directive, covering those features of operations which lend themselves to a definite, step-by-step process of accomplishment. SOPs supplement AEPs by detailing and specifying how tasks assigned in the AEP are to be carried out. (2) A complete reference document that details the procedures for performing a single function or a number of independent functions.

**State** - When capitalized, refers to any state of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the

**State Coordinating Officer (SCO)** - The individual appointed by the Governor to act in cooperation with the Federal Coordinating Officer (FCO) to administer disaster recovery efforts. The SCO may also function as the alternate Governor’s Authorized Representative.

**Strategic** - Strategic elements of incident management are characterized by continuous, long-term, high-level planning by organizations headed by elected or other senior officials. These elements involve the adoption of long-range goals and objectives, the setting of priorities, the establishment of budgets and other fiscal decisions, policy development, and the applications of measures of performance or effectiveness.

**Strategic Plan** - A plan that addresses long-term issues such as impact of weather forecasts, time-phased resource requirements, and problems such as permanent housing for displaced people affected by a disaster, environmental pollution, and infrastructure restoration.

**Strategy** - The general direction selected to accomplish incident objectives set by the IC.

**Strike Team** - A set number of resources of the same kind and type that have an established minimum number of personnel.

**Subject Matter Expert (SME)** - An individual who is a technical expert in a specific area or in performing a specialized job, task or skill.

**Support Agencies** - Within the State ECC, support agencies provide resources and staffing that contribute to the overall accomplishment of the mission of the State Support Function. Not every Support Agency will have input to, or responsibilities for, the accomplishment of every mission assigned to the SSF.

**Tagging** - A method used to identify casualties as require immediate care (Priority 1), delayed care (Priority 2), minor care (Priority 3), or deceased.

**Task Force** - Any combination of resources assembled to support a specific mission or operational need. All resource elements within a Task Force must have common communications and a designated leader.

**Taxi** - The movement of an airplane under its own power on the surface of an airport; also, the surface movement of helicopters and UAS equipped with wheels.

**Taxilane** - The portion of the aircraft parking area used for access between taxiways, aircraft parking positions, hangars, storage facilities, etc.

**Taxiway (TWY)** - A defined path, from one part of an airport to another, selected or prepared for the taxiing of aircraft.

**Technical Assistance** - Support provided to state, local, and tribal jurisdictions when they have the resources but lack the complete knowledge and skills needed to perform a required activity (such as mobile-home park design and hazardous material assessments).

**Terminal Area** - A general term used to describe the space of the building used to provide passenger service to the traveling public.

**Terrorism** – (1) The use of or threatened use of criminal violence against civilians or civilian infrastructure to achieve political ends through fear and intimidation, rather than direct confrontation. Emergency management is typically concerned with the consequences of terrorist acts directed against large numbers of people (as opposed to political assassination or hijacking, which may also be considered “terrorism”). (2) Any activity that 1) involves an act that (a) is dangerous to human life or potentially destructive of critical infrastructure or key resources; and (b) is a violation of the criminal laws of the United States or any state or other subdivision of the United States; and 2) appears to be intended (a) to intimidate or
coerce a civilian population; (b) to influence the policy of a government by intimidation or coercion; or (c) to affect the conduct of a government by mass destruction, assassination, or kidnapping.

**Threat** - An indication of possible violence, harm, or danger.

**Tools** - Those instruments and capabilities that allow for the professional performance of tasks, such as information systems, agreements, doctrine, capabilities, and legislative authorities.

**Tornado** – A local atmospheric storm, generally of short duration, formed by winds rotating at very high speeds, usually in a counter-clockwise direction. The vortex, up to several hundred yards wide, is visible to the observer as a whirlpool-like column of winds rotating about a hollow cavity or funnel. Winds may reach 300 miles per hour or higher.

**Touch-and-Go Operation** - A practice maneuver consisting of a landing and a takeoff performed in one continuous movement—the aircraft lands and begins takeoff roll without stopping. A touch-and-go is considered two operations.

**Training** - Specialized instruction and practice to improve performance and lead to enhanced emergency management capabilities.

**Transient Aircraft** - Aircraft not based at an airport.

**Triage** – Sorting and classification of casualties to determine the order of priority for treatment and transportation.

**Tribal** - Any Indian tribe, band, nation, or other organized group or community, including any Alaskan Native Village as defined in or established pursuant to the Alaskan Native Claims Settlement Act (85 stat. 688) (43 U.S.C.A. and 1601 et seq.), that is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

**Type** - A classification of resources in the ICS that refers to capability. Type 1 is generally considered to be more capable than Types 2, 3, or 4, respectively, because of size; power; capacity; or, in the case of incident management teams, experience and qualifications.

**Unified Command (UC)** - An application of ICS used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the Unified Command to establish their designated Incident Commanders at a single ICP and to establish a common set of objectives and strategies and a single Incident Action Plan.

**Unit** - The organizational element having functional responsibility for a specific incident planning.

**Unity of Command** - The concept by which each person within an organization reports to one and only one designated person. The purpose of unity of command is to ensure unity of effort under one responsible commander for every objective.

**Unmanned Aerial Vehicle (UAV)** - An unmanned aerial vehicle, commonly known as a drone and referred to as a remotely piloted aircraft by the International Civil Aviation Organization, is an aircraft without a human pilot aboard. Its flight is controlled either autonomously by onboard computers or by the remote control of a pilot on the ground or in another vehicle. The typical launch and recovery method of an aircraft is by the function of an automatic system or an external operator on the ground.

**Unmanned Aircraft System (UAS)** - An aircraft and associated elements (including communication links and the components that control the aircraft) that are required for the remote pilot in command to operate safely and efficiently in the national airspace system.

**Unmanned Aircraft System Traffic Management (UTM)** - A "traffic management" ecosystem for uncontrolled operations that is...
separate from, but complementary to, the FAA’s Air Traffic Management (ATM) system.

**Urban Air Mobility (UAM)** - A safe, efficient, accessible, quiet, and multi-use air transportation system for passenger mobility, cargo delivery, and emergency management within or traversing a metropolitan area. UAM can include both on-board/ground-piloted and autonomous operations.

**Utility** - Structures or systems of any power company or co-op, water storage, supply, or distribution, sewage collection and treatment, telephone, transportation, or other similar public service.

**Volunteer** - For purposes of the NIMS, a volunteer is any individual accepted to perform services by the lead agency, which has authority to accept volunteer services, when the individual performs services without promise, expectation, or receipt of compensation for services performed. See, e.g., 16 U.S.C. 742f(c) and 29 CFR 553.101.

**Volunteer Organization (VOLAG)** - Any chartered or otherwise recognized tax-exempt local, state, or national organization which has provided or may provide services to the state, local or tribal governments, or individuals in a disaster or emergency.

**Vulnerability** - Susceptibility of life, property, or the environment to damage if a hazard manifests to potential. A level of vulnerability is also assessed on the resources and capability of a jurisdiction to respond to emergencies and disasters.

**Wake Turbulence** - Turbulent air conditions caused by small, tornado-like horizontal whirlwinds trailing an aircraft’s wingtips (wingtip vortices). Wake turbulence associated with larger aircraft flying at slow speeds (as on takeoff or landing approach) is the most severe and can cause loss of control for smaller aircraft following close behind. Controllers use defined separation standards to avoid the problem for takeoff, landing, approach, and departure operations. The term includes vortices, thrust stream turbulence, jet blast, jet wash, propeller wash, and rotor wash, both on the ground and in the air.

**Warning** – The alerting of emergency response personnel and the public to the threat of extraordinary danger and the related effects that specific hazards may cause. A warning issued by the National Weather Service (e.g. severe storm warning, tornado warning, tropical storm warning) for a defined area indicates that the particular type of severe weather is imminent in that area.

**Watch** - Indication by the National Weather Service that, in a defined area, conditions are favorable for the specified type of severe weather (e.g. flash flood watch, severe thunderstorm watch, tornado watch, tropical storm watch).

- **Advisory** - Hurricane and storm information is disseminated to the public every six hours.
- **Gale Warning** - Sustained winds of 35-54 mph and strong wave action are expected.
- **Hurricane Warning** - A hurricane is expected to strike within 24 hours or less, with sustained winds of 74 mph or more and dangerously high water.
- **Hurricane Watch** - There is a threat of hurricane conditions within 24-36 hours.
- **Special Advisory** - Information is disseminated when there is significant change in storm-related weather conditions.
- **Storm Warning** - Sustained winds of 55-73 mph are expected.

**Wind Shear** - Large changes in either wind speed or direction at different altitudes that can cause sudden gain or loss of airspeed. Wind shear is especially hazardous when aircraft airspeeds are low on takeoff or landing.
References


References

Oregon Department of Land Conservation and Development. (n.d.) Airport Planning. Retrieved from https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=3063


Oregon Transportation Regional Resiliency Assessment Program (OR RRAP). (2020). In-Progress Review. Cybersecurity & Infrastructure Security Agency.


