

## Appendix A: Hazard, Risk and Vulnerability (HRV) Assessment

Hazard/Threat*	Probability HIGH <span style="color: red;">●</span>	Probability MEDIUM <span style="color: blue;">●</span>	Probability LOW <span style="color: green;">●</span>	Human Impact <span style="color: brown;">●</span>	Property Impact <span style="color: orange;">●</span>	Business Impact <span style="color: purple;">●</span>
Severe Weather						
Major Structure Fire						
Hazardous Materials Release						
Successful Cyber Attack						
Infectious Disease						
Domestic Terrorism						
Civil Disturbance						
Mass Casualties Incident						
Major Utility Failure						■
Earthquake						■
International Terrorism						

**\* Not in ranked order of probability or likely occurrence. Probabilities and related impacts are based on current trends and similar occurrences in other jurisdictions.**

### Description of Hazard or Threat

Hazards and threats included in this document are a listing of various hazards, man-made, technological, and weather related that could impact Jacksonville State University (JSU) community. This list is not all inclusive of all the hazards and threats that could impact JSU.

**Severe Weather** (Includes tornadoes, hurricanes, flooding, and lightning)

**Historical:**

**Tornadoes** - 1884-2018 - Calhoun County- Nearly a tornado every other year  
2018, 2001, 1994, 1961, 1929, 1884- actual damage in Jacksonville, AL

1961 and 2018 - Most damage was on JSU campus where several buildings were severely damaged and numerous automobiles overturned.

**Flooding** -1995 - Hurricane Opal caused flooding on Forney Ave from Salls Hall area past Campus Inn Apartments

**Probability:** High- Increased hurricane activity in the Atlantic and Gulf regions will likely impact the state of Alabama with potential tornadoes, high winds, and flooding resulting from higher rainfall amounts.

**Mitigation Activities:** JSU Police Department continues to work hard in their efforts to educate, prevent, and improve severe weather safety measures on campus.

**Major Structure Fire**

**Historical:** There have been actual fires on campus.

**Probability:** High- Fires on campus will continue to occur as the campus continues to grow and attract additional faculty, staff, and students.

**Mitigation Activities:** JSU Department of Safety and Security continues to work hard in their efforts to educate, prevent, and improve fire safety measures on campus.

### **Hazardous Materials Release or Spill**

**Historical:** Martin Hall lab projects have caused fires in the past

**Probability:** High- This is a likely event due to the nature of research ongoing at JSU in labs on campus. Construction and a possible intentional release (terrorism) could be potential sources of hazardous materials that could threaten JSU's campus.

**Mitigation Activities:** The Safety Manager should be working daily with researchers and with personnel who are responsible for buildings containing hazardous material and /or chemicals. Inspections and continued education programs will help promote a safer environment across campus. If a chemical spill should occur on campus, JSUPD will respond with help from JFD and Calhoun County EMA, who will then contact Calhoun County HAZMAT team.

### **Successful Cyber Attack**

**Historical:** According to JSU's Library Systems Administrator there are many "port probes" that are stopped at the campus firewall, and occasionally there are attempts to guess passwords on the library database authentication system, but very few have any likelihood of success.

**Successful intrusions:** 1997- JSU's web pages were defaced December -2006 - major worm outbreak on campus February- 2007- recurrences of 12-06 worm

**Probability:** High- These attacks will continue and increase in frequency as methods and the technical expertise of the attackers improves.

**Mitigation Activities:** The University must have good information and physical security plans and procedures to prevent or mitigate against a cyber-attack. Preparedness for an information attack requires constant and active vigilance to detect an attack early enough to minimize and mitigate against the consequences. This includes having a highly effective surveillance activity as part of the university's Information Security Plan, user education, an information program in effect which provides the user with the information and awareness to note abnormalities with their equipment and software functioning, and procedures and protocols for immediate reporting to the responsible operational office.

### **Infectious Diseases: (Pandemic Influenza)**

**Historical:** 2020-22 we are dealing with an ongoing COVID-19 pandemic

**Probability:** High- Federal and State Public Health officials consider some strains of influenza of pandemic proportion to be probable in the United States. Currently, influenza is primarily spread from human to human through the air. Virus particles are released into the air through coughing and sneezing of persons who are ill with influenza. Crowded conditions in enclosed spaces provide ideal conditions for the spread of influenza.

**Mitigation Activities:** Planning with Public Health and Calhoun County emergency services is ongoing.

### **Domestic Terrorism**

**Historical:** No documented evidence or record involving an incident was found

**Probability:** Medium- Environmental activist groups have struck other campuses around the nation, typically targeting property and not people in their attacks.

**Mitigation Activities:** The Jacksonville State University Police Department (JSUPD) works with other groups on campus (Security, Safety) to curtail possible internal and external threats.

### **Civil Disturbance/Unruly Protest**

**Historical:** JSU has experienced some protest over the years as well as large civil disturbances as a result of student gatherings and parties held on campus (Fitzpatrick Hall in 1988).

**Probability:** Medium- Nonviolent anti-war and political protests appear to be the trend in our nation today with the ongoing War in Iraq and upcoming elections.

**Mitigation Activities:** Large social gatherings where alcohol might fuel inappropriate or illegal activities could create larger civil disturbances. JSU has revised and improved their emergency preparedness plan to include evacuations.

### **Mass Casualties Event**

**Historical:** No records exist that detail a mass casualty event occurring on campus.

**Probability:** Medium- A mass casualty event is defined as any event or disaster where local resources are overwhelmed due to the number of fatalities caused by a man-made incident or natural disaster.

Threats and incidents such as pandemic flu, a tornado strike on campus, an incident at JSU Stadium, or an act of terrorism could potentially generate a mass casualty event on campus due to our high concentration of faculty, staff, students, and visitors. JSU has a high population density in a relatively small land area which would likely contribute to high casualty numbers should a large-scale disaster occur on campus.

**Mitigation Activities:** Pandemic Influenza planning is ongoing with Public Health and local emergency services. The police/security plan has been revised, and campus notification systems are being researched and evaluated in order to provide the campus community with instant notification and information to reduce panic and promote appropriate responses in the event of an emergency.

### **Major Utility Failure**

**Historical:** JSU and the Calhoun County area have experienced disruptions in utility services due to winter storms (1993), hurricanes (Hurricane Opal), brief repair work, and other accidents that contribute to outages and/or disruption in service.

**Probability:** Medium- Utility failures are unpredictable, but they are generally associated with severe weather, ice storms, and disruptions caused by accidents. There are concerns regarding power grids or water supply systems being targeted that stem from the threat of terrorism.

**Mitigation Activities:** Alternate supplies of water and power need to be considered in planning. Buildings and departments should consider the feasibility of backup generators, fuel sources, and sustainability for critical infrastructure.

### **Earthquake**

**Historical:** Recent seismic activity focused around Northeastern Alabama has sparked concern from many seismologist and emergency management officials regarding the frequency of earthquakes.

April 2003- 25 km (15 miles) ENE of Fort Payne, Alabama- magnitude of 4.6

**Probability:** Low

**Mitigation Activities:** The JSU EOP has been revised to reflect "Earthquake" emergency procedures. Training sessions conducted by the University contain information on earthquake preparedness and response procedures.

### **International Terrorism**

**Historical:** No direct threats or incidents at JSU have occurred.

**Probability:** Low- Several recent events have occurred at other institutions of higher education which may indicate that colleges and universities have become potential targets for international terrorism. A few recent sample incidents occurring on higher education campuses include:

- October 2005- Oklahoma University "suicide bomber" incident outside a crowded OU football stadium
- September 2005- Arrest and investigation of a University of Memphis student who was inquiring about being a pilot and who has ties to international terrorist organizations
- February 2006- Ricin was discovered in a University of Texas dormitory
- March 2006- American Islamic student at the University of North Carolina who intentionally drove into a group of students for retribution purposes

**Mitigation Activities:** Terrorism from international groups historically involves the targeting of people and buildings, whether political or symbolic, for greatest media and psychological impact. The University Police Department, Safety department, and other campus entities continue to work with our federal, state, and local partners in planning, training, and exercising to help prepare, prevent, respond, and recover from "all hazards" events in a safe and effective manner.