## Boys and Girls Club of Tabula Rasa

## CONTINUITY OF OPERATIONS (COOP) PLAN



# BOYS & GIRLS CLUB OF TABULA RASA

Provider Signature

Date

**Regional Director** 

Date

#### FOREWORD

The State of Florida is vulnerable to a variety of hazards that threaten its citizens, communities, and the environment. The *Comprehensive Emergency Management Plan* (CEMP) establishes the framework to ensure that the State of Florida Department of Juvenile Justice will be sufficiently prepared to manage all hazards. The Comprehensive Emergency Management Plan outlines the roles and responsibilities of the state agencies, special districts, and local governments before, during, and after an event. The Comprehensive Emergency Management Plan addresses the four phases of emergency management – preparedness, response, recovery, and mitigation.

*Continuity of Operations* (COOP) planning is simply a "good business practice" – part of the fundamental mission of all government agencies as responsible and reliable public institutions. The release of the Executive Order 01-262 on September 11, 2001 re-enforced the government agencies' requirement to prepare disaster preparedness plans under Chapter 252.365, Florida Statutes, through their designated Emergency Coordination Officers. Prior to the unprecedented attacks on the United States of America on September 11, 2001, COOP planning was an individual agency responsibility primarily in response to an emergency within its own organization. The content and structure of these plans were left to the discretion of each agency.

The changing threat paradigm and recent emergencies, including localized acts of nature, accidents, technological emergencies, and military or terrorist attack-related incidents, has shifted awareness to the need for viable COOP capabilities that enable agencies to continue their critical functions across a broad spectrum of emergencies. Also, the potential for terrorist use of weapons of mass destruction/disruption has emphasized the need to provide the Governor of Florida a capability and capacity that ensures continuity of critical government functions across the Florida Executive Branch.

#### **BGCTR**

Continuity of Operations Plan (COOP)

#### SECTION I:

### INTRODUCTION

#### I-1 Purpose

The purpose of this Continuity of Operations (COOP) Plan is to ensure **Boys and Girls Club** <u>of Tabula Rasa</u> is sufficiently prepared to manage all hazards. This plan shall address four phases of emergency management – preparedness, response, recovery, and mitigation. This plan will ensure the facility is prepared for any emergency that could disrupt the orderly operation of the facility, thus adversely affect public safety. The procedure described in Phase II establishes the procedures required to assist the agency in continuation of its mission and remain part of the foundation for survival of the State government. This plan shall be reviewed and updated on an annual basis. This plan will address the following:

- a. Ensure that **BGC of Tabula Rasa** is prepared to respond to emergencies, recover from them and alleviate the impact.
- b. Ensure **BGC of Tabula Rasa** is prepared to provide critical services in an environment that has threatened, diminished or incapacitated **BGC of Tabula Rasa** services.
- c. Establish and enact time-phased implementation procedures to activate various components of the plan to provide sufficient operational capabilities relative to the event or threat thereof.

#### I-2 Applicability and Scope

The requirements of this plan apply to all staff within BGC of Tabula Rasa. Special emphasis is placed on alternate worksites and work procedures for leadership positions as well as residential facilities in the region. The scope of this COOP plan takes into account the following:

- Notification Procedures upon activation of facility COOP Plan.
- □ Maintaining a High Level Readiness.
- □ Implementing COOP Plan with/without warning.
- □ Implementing COOP Plan within 12 hours after activation.
- Activating COOP Plan if the State agency is closed to normal business.
- Activating COOP Plan simultaneously with multiple State agencies.

#### I-3 Authorities

Chapter 252; Chapter 252.365(1), (2), (3), Florida Statutes Executive Order 01-262 (Emergency Management) dated September 11, 2001.

#### I-4 References

- □ FDJJ Policy 8400 (Security)
- Florida Division of Emergency Management (County Coordination Checklist)
- □ FDJJ 1050 COOP Plan Policy
- □ Sections 22.01 23.127, F.S. (Emergency Continuity of Government)
- □ Sections 252.31 252.62, F.S. (Emergency Management Act)

#### I-5 Policy

BGC of Tabula Rasa, with the assistance from the Program Director, will identify and maintain mission-critical functions and the staff to support them.

The **BGC of Tabula Rasa** Program Director shall serve as the Emergency Operations Coordinator and will prepare plans, specifically addressing operations in an emergency.

The **PROGRAM DIRECTOR** is responsible for scheduling and conducting periodic tests, training and exercises relating to the viability and execution of the **BGC of Tabula Rasa** COOP plan.

The **BGC of Tabula Rasa** Program Director is responsible for ensuring staff is trained regarding the COOP and that the COOP plan is integrated into the Department's overall plan.

Emergency Disaster Preparedness Plans and Continuity of Operation Plans shall be updated annually and/or as needed and made available to all facility personnel.

- 1. Emergency Disaster Preparedness Plans and Continuity of Operation Plans notification plans will be tested semi-annually and the results included in the review referred to in number 5.
- 2. Emergency Disaster Preparedness Plans and Continuity of Operation Plans shall be incorporated into the annual in-service training plan. Training shall include all staff, volunteers and interns. This training shall include operational test of the procedures and equipment utilized in the Continuity of Operation Plans with facilities (Annex).
- 3. Emergency Disaster Preparedness Plans and Continuity of Operation Plans shall be incorporated into the pre-service training plan.
- 4. All equipment scheduled for utilization during Continuity of Operation Plans activation located in facilities articulated in the Cooperative Agreement (Annex) will be subject to the normal testing and validation as required through Directives and Facility Operating Procedures.
- 5. A review of the operational tests, training and scheduled exercises shall be conducted and shortfalls identified will be scheduled into the yearly training plan.
- 6. Staff should have a heightened sense of awareness both on and off the job.

#### SECTION II: CONCEPT OF OPERATIONS

#### II-1 Objectives

The objectives of the **BGC of Tabula Rasa** COOP Plan is to ensure that a viable capability exists to continue critical **BGC of Tabula Rasa** functions across a wide range of potential emergencies, specifically when the program is either threatened or inaccessible. The objectives of this plan include:

- a. Ensure Safety & Accountability of Facility Staff, Youth, Volunteers, and Visitors;
- b. Ensure the continuous performance of the critical functions/operations during an emergency;
- c. Protect critical facilities, equipment, records, and other assets;
- d. Provide for a time-phased implementation of partial or full execution of the plan to mitigate the effects of the emergency and shorten the crises response time;
- e. Minimize Damage and Losses of State and program resources
- f. Identify and designate staff to be relocated;
- g. Facilitate decision-making for execution of the plan and the subsequent conduct of operation and;
- h. Achieve a timely and orderly recovery from the emergency and resumption of full service

#### II-2 Planning Considerations & Assumptions

In accordance with established emergency management principles, a viable COOP capability:

- □ Must be maintained at a high-level of readiness;
- □ Must be capable of implementation both with and without warning;
- □ Must be able to sustain operations for up to 30 days; and
- Should take maximum use of existing state, federal and local government infrastructures.

The following assumptions were used as a basis of design for the plan's concept of operations and implementation procedures:

#### II-3 COOP Execution

- Emergencies, or potential emergencies, may affect the ability of BGC of Tabula Rasa to perform its mission-critical functions. The following are scenarios that could mandate the activation of the BGC of Tabula Rasa COOP Plan.
  - **BGC of Tabual Rasa** is closed to normal business activities as a result of an event or credible threats of action that would preclude access or use of **facility/school sites** and the surrounding area.
  - The metropolitan area is closed to normal business activities as a result of a widespread utility failure, natural disaster, significant hazardous material incident, civil disturbance, or terrorist or military attack(s). Under this scenario there could be uncertainty regarding whether additional events such as secondary explosions, after-shocks, or cascading utility failures could occur, and many, if not all, State agencies and providers will have to activate their COOP plans.
- b. In an event so severe that normal operations are interrupted, or if such an incident appears imminent and it would be prudent to evacuate the Florida area as a precaution, the **Program Director** will direct the activation of the **BGCTR** COOP Plan.
- c. In the event BGCTR is affected and an evacuation of **BGCTR** is not warranted, the selected members of the **BGCTR** COOP Operations Team will prepare the move of critical personnel to TOVA, located in Greenville, FI.
- d. In an event so severe that normal operations are interrupted, or if such an incident appears imminent and it would be prudent to evacuate the area as a precaution, the PROGRAM Director will direct the activation of the BGCTR COOP Plan. The Alternate Relocation Site (ARS) RAM-C, Greenville, FI will be activated if necessary and at the discretion of the PROGRAM Director, will continue region essential functions from that location under the direction and control of the BGCTR COOP Operations Team until the resumption of full operations is re-established at an assembly site or alternate relocation.
- e. Relocation activities will be the responsibility of the **BGCTR** COOP Operations Team which consists of identified **BGCTR** employees. This team will be composed of selected members from the **BGCTR** Region Office who will relocate temporarily to the ARP, if necessary. This team will be responsible to continue mission critical functions of the region within twelve hours of activation and for a period up to 30 days pending regaining access to the **BGCTR** office or the occupation of an alternative relocation site determined by the circumstances in the vicinity.
- f. Such incidents could occur with or without warning and during duty or non-duty hours. Whatever the incident or threat, the **BGCTR** COOP Plan will be executed in

response to a full-range of disasters and emergencies, to include natural disasters, terrorist threats and incidents, and technological disruptions and failures.

- g. It is expected that, in most cases, the **BGCTR** will receive a warning of at least a few hours prior to an incident. Under these circumstances, the process of activation would normally enable the activation of the **BGCTR**COOP Plan.
- h. The ability to execute the **BGCTR** COOP Plan following an incident occurring with little or no warning will depend on the severity of the incident's impact on the physical facilities, and whether program personnel are present in the Region Office or in the surrounding area. Under the worst-case scenario the facility selected staff (with prior written delegation from the **Program Director** would assume operational direction and control of functions within the program until otherwise advised.
- i. Positive personnel accountability throughout all phases of emergencies, to include COOP, is of utmost concern, especially if the emergency occurs without warning, during duty hours. Building Evacuation Plans and Office COOP Implementation Plans should provide for such accountability.

#### II-4 Time-Phased Implementation:

Depending upon the facts surrounding any impending emergency, the **Program Director** will initiate an "alert code". Code **"amber"** indicates there are approximately 48-72 hours remaining to the emergency event impacting an area. Code "**yellow**" indicates there is approximately 24-48 hours remaining to the emergency event impacting an area. Code **"blue"** indicates the emergency event is anticipated to impact an area within 24 hours.

The Department is divided into regions and circuits based on functions. Thus, depending upon the emergency event, each region will not necessarily be under the same alert code. Alert codes will be issued only for those areas experiencing the emergency event. If an alert is issued to the **North Region** the **BGCTR** COOP Operations Team will be activated at the discretion of the Program Director or designee. Alerts will be forwarded to the facilities within the region.

In the more severe circumstances, an emergency event may preclude implementation of any alert code. In such cases, immediate steps will be taken to initiate the COOP Plan applicable for location of the event.

#### **II-5 Mission-Essential Functions**

Reference **Annex (?)** for a listing of essential functions and responsible staff. Mission critical functions consist of those actions required to provide for public safety while at the same time maintaining offenders in a safe and secure environment in residential and correctional facilities.

- <u>Staffing</u> Facilities Ensure an adequate number of staff are available to supervise offenders as well as any support staff required. The number of staff required may be impacted by the nature of the emergency. Each facility should have an extensive Emergency plan, which would provide for adequate coverage in all emergencies. Ensure essential personnel are available 24/7 as the emergency event dictates.
- <u>Staffing</u> Food Service Ensure contract and state-operated food service operations continue operating 24/7 throughout the emergency. Additionally, the contractor and food services FTEs needs to remain alert to any changing requirements for delivery of additional meals during any emergency event.
- <u>Utilities</u> Maintain utilities (communications, electric, water, sewage) operational so that offenders can remain in their present facility without the need for evacuation.
- <u>Equipment</u> Maintain equipment essential for operation of a facility is in good repair through preventive maintenance. Ensure necessary supplies (fuel, oil, filters, etc.) are maintained fully stocked and available. Additionally, equipment that could reasonably be anticipated to be essential in responding to an emergency event should be maintained in good repair, placed on priority for repair, and related supplies are immediately available. (i.e. generators, portable lights, vehicles, etc.)
- <u>Records</u> Maintain essential **records** on offenders in a safe and secure environment.

#### II-6 Delineation of Mission Critical Functions

The **BGC of Tabula Rasa** COOP Plan will contain mission critical functions for the facility (See ANNEX?) and will also contain those down to the program/facility level. If for some catastrophic reason the **BGCTR** plans cannot be implemented, the **BGCTR** functions will revert to the DJJ Regional Office Team, who will then determine which program facility or Department program area will perform this critical departmental mission.

- <u>Staffing</u> Facilities Superintendents/Directors are responsible for making personnel adjustments as appropriate to meet the emergency needs. Advance designation of essential facilities functions will be included in any local emergency operating plans. Staff will be trained in regard to their responsibilities in maintaining these essential functions. In the event the local Superintendent/Director does not have sufficient personnel resources to meet the emergency needs, the Regional Director is authorized to divert staff from another nearby facility to assist in addressing the emergency need.
- Records BGCTR is responsible to ensure plans are in place for the safe and secure protection and retention of official records. This may involve "in place" protection of the records or transfer of the records to a secure location. Backup computer tapes should be stored "off-site" to ensure their protection and ready accessibility should destroyed computer data banks need to be restored.

#### II-7 Warning Conditions

Upon receiving notification that a disaster has occurred or is about to occur, **BGC Tabula Rasa** will respond in accordance with the Department's Continuity of Operations Plan and the Regional Residential Services COOP Plan.

#### II-8 Operational Hours

The BGC Sites operate three to four hours per day after school. As such, staff's work schedules depend upon their shift and post assignment. During an emergency event, as deemed appropriate by the program director or designee, operating schedules may be extended to twelve-hour shifts for the duration of the need. Scheduled leave will be cancelled during an emergency event.

Staff Awareness: Staff will be aware that the <u>Shift Supervisor</u> can activate the COOP plan if conditions described do exist. In the event that the plan is activated, it will be implemented using the procedures described in Phase II.

- 1. Staff should have a heightened sense of awareness both on and off the job.
- 2. Staff are encouraged to prepare a personal plan for their families.
- 3. During an emergency situation, the supervision of youth must continue to take place. Staff should be prepared to work in an environment that is threatened, diminished, or incapacitated.

Ensuring Adequate Coverage During an Emergency:

- 1. Staff rosters shall include the names, telephone numbers and emergency contact number for all employees.
- 2. Staff rosters shall be updated as changes occur.
- 3. Shift Supervisors should prepare for the possibility that staff will want to be relieved of duty to care for their families:
  - a. Communicate with staff to determine what their personal situations are and what reaction staff will have in the event an emergency does occur.
  - b. Prepare a list of staff that will be willing to report for duty in the event of an emergency situation.
  - c. Prioritize the staff roster and highlight the names of staff that are in a position to respond.

#### II-9 Alert and Notification

1. Activation With Warning:

If the situation allows for warning, staff may be alerted prior to a notification of COOP activation.

- 1. The <u>Program Director</u> or designated successor(s) will direct the activation of the <u>BGC Tabula Rasa</u>COOP Plan.
- 2. Information and guidance for <u>(850-379-8344)</u> employees will normally be passed telephonically using existing emergency notification cascades. Depending on the situation, current information will also be available via the announcements released to local radio and television stations.
- 3. Employees should listen for specific instructions and should remain at their facility if on duty or home until specific guidance is received.

<u>Alert Phase:</u> The alert phase requires two plans (normal working hours and after hours, weekends, and holidays). Both plans include the following:

- 1. The Program Director and Assistant Director maintain current listings of home addresses, home telephone numbers, work numbers, cell phone numbers, and pager numbers of key staff.
- 2. The <u>Shift Supervisor</u> or designee alerts the Program Director of the status and begins preparation for potential mobilization.
- 3. The <u>Shift Supervisor</u> makes assessments as to the safety of the facility, equipment, and records at risk.
- 4. The <u>CEO</u> will notify the Program Director to activate and start preparation for relocation in an event so severe normal operations are interrupted, or such an incident appears imminent and it would be prudent to evacuate the area as a precaution. If the <u>Program Director</u> was unable to operate, the <u>Assistant</u> <u>Director</u> would be empowered to assume responsibility for continued <u>Mobilization</u> functions until otherwise instructed.

#### Notification Procedures:

Upon notification to activate the BGCTR Plan:

- 1. The **CEO** converses with the Program Director identified in the plan and renders a decision of the current situation and when to activate the COOP Plan.
- 2. The **BGCTR** Director or Assistant Program Director will notify their staff—(critical and non-critical members) using their internal telephone notification cascades by contacting the second-level notifiers as outlined in the **BGCTR** COOP plan.

- 3. The Program Director will notify staff using the program's telephone notification cascades (ANNEX?)
  - a. The notifiers then initiate their respective COOP telephone cascade by calling each person in their chain and relaying the information and guidance provided by the Program Director or Assistant Program Director.
  - b. The notifiers will make a second attempt to contact those individuals who were not initially available. If this attempt is unsuccessful, the notifiers will leave a message or send a page.
  - c. Once initial contact is made (message left/page sent), notifiers will call the Program Director or Assistant Program Director and report the status of the cascade, including personnel not contacted.
  - d. The BGCTR Program Director will in turn report status to the CEO (Kevin Kidd) via telephone or e-mail, if available.
  - e. For personnel not initially contacted, once the message or page is received, they should immediately contact the notifier.
  - f. Notification may be via personal contact, telephone, cell phone, pager, radio and TV broadcasts, or a combination thereof.
  - g. When a call or other notification is received by anyone in a calling cascade, the information given by the notifier should be carefully recorded to ensure that it is passed accurately to the next person in the cascade.
  - BGCTR will notify CEO upon completion of their notification process. Notifiers will report all unsuccessful contact attempts to the JUST/TOVA II Program Director.
- 4. The **CEO** will notify the regional personnel that an emergency relocation of a program or headquarters is anticipated or in progress.

#### **EMPLOYEE OBSERVATION/COMMENT FORM**

Complete during COOP implementation:

Checklist YES NO	Comment
1. Did staff know where CC	OP Plan
was located?	
2. Was plan pulled and acti	
<ol><li>Were there sufficient cop</li></ol>	ies of the
plan available?	
4. Was the plan current?	
<ol><li>Was phone/notification p followed?</li></ol>	
<ol><li>Was the plan inclusive for of event?</li></ol>	or this type
<ol> <li>Did the plan incorporate from the Department's pl</li> </ol>	
8. What was first reaction to of the emergency?	o the notice
<ol> <li>Were notifications perfor appropriate manner?</li> </ol>	med in
10. Was staff training sufficie	ent?
11. Did staff know their respo in the emergency situation	
12. Was staff able to apply th in the exercise?	neir training
13. Was staff demeanor app	ropriate?
14. Were sufficient equipme	
vehicles available if evac	uation
necessary?	
15. Were sufficient supplies	
16. Was communication from adequate?	n HQ
17. Was communication from	n local area
adequate?	

#### Other narrative

General comments of participant

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#### UPS AND DOWNS QUICK REPORT

Identify three good and three bad outcomes from the COOP Implementation. Describe the reason for the outcome.

	GOOD	BAD
1. Overall Strengths		
0.0		
2. Overall Weaknesses		
3. Headquarters Involvement		
4. DJJ Assistance		
5. Program Involvement		
6. Supplies and Equipment		
7. ARP		
8. Relocation Team		
9. Reconstitution		
10.		
11.		
12.		
13.		
Program Name:		

Other narrative

General comments:

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#### Annex 3

#### HURRICANE AND TORNADO REFERENCE GUIDE

DEFINITIONS			
Tropical Depression	A disturbance with a clearly defined low pressure area; highest wind speed is 38 mph.		
Tropical Storm	A distinct low pressure area defined by a counterclockwise rotating circulation with winds of 39-73 mph.		
Hurricane	Once a tropical storm's constant wind speed reaches 74 mph or greater, it is classified as a hurricane. In the western Pacific, hurricanes are called "typhoons," and similar storms in the Indian Ocean are called "cyclones."		
Tornado	A violent, destructive, tropical thunderstorm categorized as a whirling windstorm accompanied by a funnel shaped cloud that progresses in a narrow, destructive path over land.		

HURRICANE CATEGORIES				
Category	Sustained Winds	Damage		
1	74-95 mph	Minor		
2	96-110 mph	Moderate		
3	111-130 mph	Major		
4	131-155 mph	Severe		
5	above 155 mph	Catastrophic		

Hurricane Evacuation Levels				
Evacuation Level	Wind Velocity (MPH)	Potential Tide Heights		
А	74-95	To 6'		
В	96-110	To 10'		
С	111-130	To 13'		
D	131-155	To 20'		
Е	156 and over	To 21'		

#### Hurricane Disaster Alert Codes and Activities

Code	Approximate Hours Before Hurricane	Actions
AMBER	72-48	<ul> <li>Initial announcement of hurricane alert status</li> </ul>
		<ul> <li>Advise Corporate Headquarters, and Regional Director or disaster plan implementation, (Central Regional Office).</li> </ul>
		<ul> <li>Coordinate youth releases with Intake &amp; Release Department and the courts.</li> </ul>
		<ul> <li>Assign responsibilities and establish communications with state EOC.</li> </ul>
		<ul> <li>Assign responsibilities and establish communications with state EOC.</li> </ul>
		<ul> <li>Initial personnel notification of potential increased alert.</li> </ul>
		<ul> <li>Alert facilities likely to be affected.</li> </ul>
		<ul> <li>Verify operational and availability status of pre-located emergency equipment inventory</li> </ul>
		<ul> <li>Emergency food/water (Meals, Ready to Eat (MRE) and supplies inventories checked; re-stock if necessary.</li> </ul>
		<ul> <li>Identify perishable food for removal and coordinate transportation to move it.</li> </ul>
		<ul> <li>Review key personnel rosters identify back ups.</li> </ul>
		<ul> <li>Modify facility and personnel schedules and advise employees to take family safety precautions.</li> </ul>
Code		Actions
YELLOW	•	<ul> <li>Modify plans according to changes in the hurricane threa</li> </ul>
	•	<ul> <li>Fully staff the facility and implement emergency management staffing shift rotations (12 hour)</li> </ul>
	-	<ul> <li>Coordinate designated/key personnel to their disaster pla assignments.</li> </ul>
	-	<ul> <li>Inform youths of pending movement and what articles the</li> </ul>

can take.

- Advise Alternate Relocation Site of potential need for evacuation and of the staff and youth count they should expect.
- Secure and protect records, files, and equipment on-site.
- Implement facility protection procedures, i.e., collect debris, disassemble antennae; fill sand bags; board up windows, etc.
- Suspend routine Movement of youths.
- Contact and implement Emergency Response Team into active status.
- Make final facility security effort.
- Authorize administrative leave for non-emergency designated staff and release them from duty.

	<ul> <li>Activate specifically designated hot-line communications and/or Ham radio network.</li> </ul>
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Code	Approximate Hours Before Hurricane		Actions
BLUE	24-0	•	Modify plans according to changes in the hurricane threat.
		•	Designated officers remain secure.
		<ul> <li>Maintain security of any youths remaining.</li> </ul>	
		•	Care for injured.

• Protection of facility to extent possible.

Warnings and Advisories			
Tropical Storm Watch	An alert for specific areas that a tropical storm may pose a threat within 36 hours.		
Tropical Storm Warning	An alert that tropical storm conditions, including sustained winds of 39 to 73 mph, are expected in specific areas within 24 hours.		
Hurricane Watch	An alert for specific areas that hurricane conditions pose a threat to an area within 36 hours.		
Hurricane Warning	An alert that hurricane conditions are expected in a specified coastal area within 24 hours. All precautions should be complete immediately.		
Tornado Watch	An alert that tornado conditions are expected in a specified area within a designated timeframe.		
Tornado Warning	An alert that tornado conditions exist in a specified area, and an accompanying tornado, twister, funnel cloud, or water spout has been spotted within the specified geographical area.		
Evacuation Order	The most important instruction you will receive. Once issued, an evacuation order is mandatory.		

TORNADO CATEGORIES				
Category	Intensity Phrase	Intensity (MPH)	Damage	
F-0	Gale tornado	40-72	Light	
F-1	Moderate tornado	73-112	Moderate	
F-2	Significant tornado	113-157	Considerable	
F-3	Severe tornado	158-206	Severe	
F-4	Devastating tornado	207-260	Devastating	
F-5	Incredible tornado	261-318	Incredible	

#### The Fujita Scale of Tornado Damage

F-0: (Light Damage) Chimneys are damaged, tree branches are broken, shallow-rooted trees are toppled.

F-1: (Moderate Damage) Roof surfaces are peeled off, windows are broken, some tree trunks are snapped, unanchored manufactured homes are over-turned, attached garages may be destroyed.

F-2: (Considerable Damage) Roof structures are damaged, manufactured homes are destroyed, debris becomes airborne (missiles are generated), and large trees are snapped or uprooted.

F-3: (Severe Damage) Roofs and some walls are torn from structures, some small buildings are destroyed, non-reinforced masonry buildings are destroyed, and most trees in forest are uprooted.

F-4: (Devastating Damage) Well-constructed houses are destroyed, some structures are lifted from foundations and blown some distance, cars are blown some distance, and large debris becomes airborne.

F-5: (Incredible Damage) Strong frame houses are lifted from foundations, reinforced concrete structures are damaged, automobile sized debris becomes airborne, and trees are completely debarked.