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Best Practices for TxDOT on Handling Wildfires

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16. Abstract The State of Texas suffered record-setting wildfires in 2011. More than 30,000 wildfires occurred, burning nearly four million acres. Although not directly responsible for fighting wildfires, the Texas Department of Transportation (TxDOT) provides valuable support during fire-fighting operations. The purpose of this research was to document lessons learned during recent wildfire events and to better define the role of TxDOT in responding to wildfires leading to guidance on best practices. Researchers collected information from a number of agencies responsible for emergency operations during wildfire response, including the Texas Division of Emergency Management, the Texas Forest Service, The Texas Intrastate Fire Mutual Aid System, National Wildfire Coordination Group, and the Texas Interagency Coordination Center. Personnel from ten TxDOT districts were interviewed along with personnel from the Department of Public Safety, Texas Forest Service, Volunteer and Community Fire Departments, National Weather Service, and other City and County Officials. Questions used for the interviews covered categories of preparation, communication, responsibilities, and training. Many common responses were found, although several districts provided unique insights. Lack of reimbursement and concerns regarding safety during incident response were two main themes throughout the interviews. Best practices found during the study were collected, synthesized and presented to TxDOT employees in four regional workshops. These workshops were designed to address safety and effectiveness of TxDOT personnel in efforts to improve response to future wildfires.					
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by

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CHAPTER I

INTRODUCTION

Project Background

Texas has seen record-setting numbers of wildfires in 2010 and 2011. The maps shown in Figure 1 compare locations where fire ignitions were detected in 2010 and 2011.

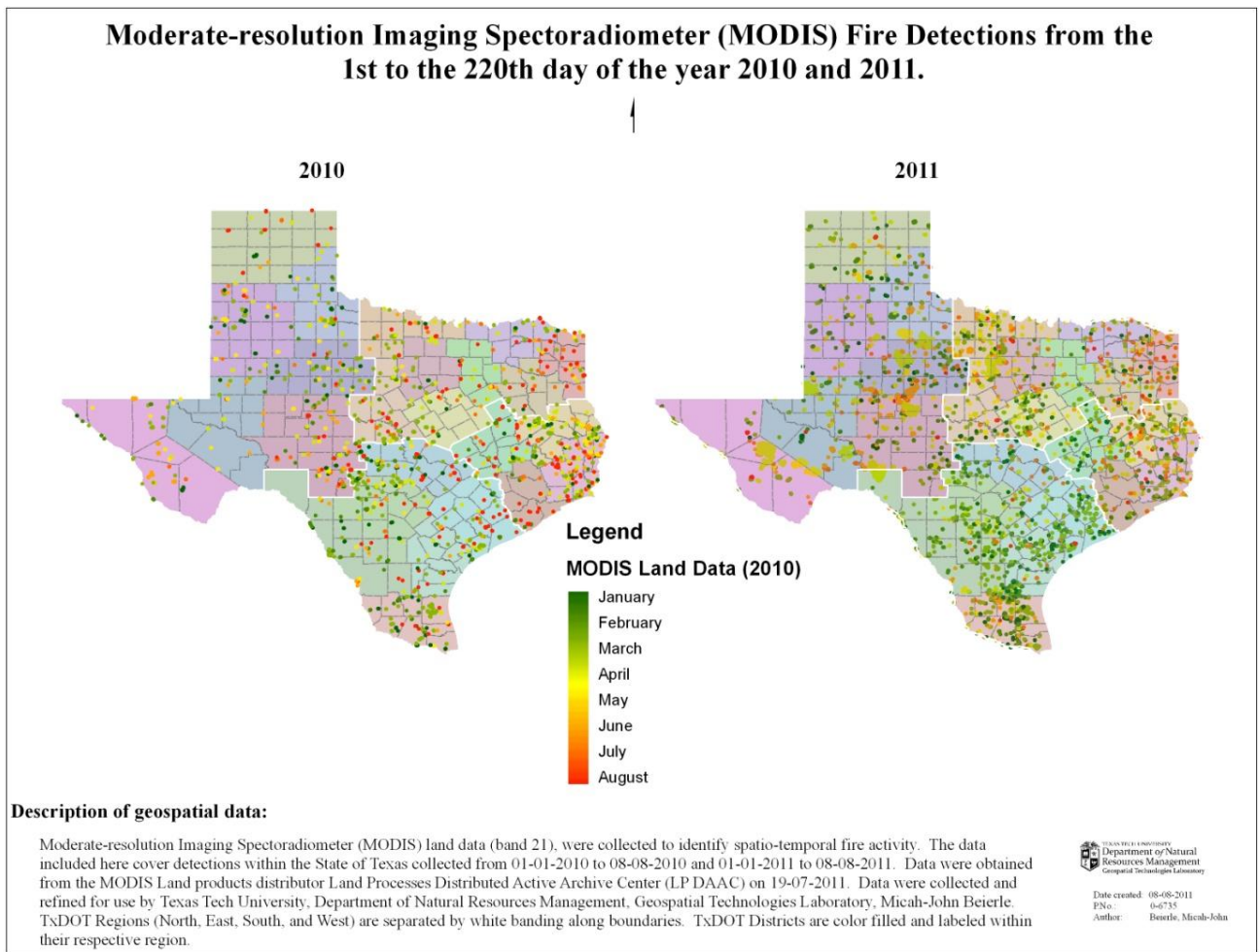


Figure 1. Fire Detections for First to 220th Day of 2010 and 2011

Personnel from the Texas Department of Transportation (TxDOT) are often called upon to provide support in responding to wildfires. In a typical year, the requests for TxDOT support are relatively few. However, the number of requests has increased dramatically over the past few

years. TxDOT recently developed a draft Guidance Document for Wildfire Response (Appendix A), but frequently are asked to perform services not specifically addressed in that document. TxDOT decided to take advantage of the recent increase in wildfire response experiences to document the lessons learned from wildfire events and study the role of TxDOT in the mitigation, containment, and response to wildfires. The objective of this research project is to develop a protocol to help TxDOT effectively respond to wildfire situations that may occur in the state, and to present the protocol in the form of “Best Practices” based on information gathered from many sources both within TxDOT and from agencies outside the department. Using the information collected, researchers will develop a training course for TxDOT personnel who deal with wildfire situations and will conduct four regional training workshops. To accomplish the research objectives, the research team designed a plan to review literature pertinent to wildfire response and to meet with and interview TxDOT personnel from several districts to gather information on their experience with wildfire response. Researchers also met with personnel from TxDOT Maintenance Division Emergency Management Coordinator’s Office and outside agencies including the Texas Forest Service (TFS), Texas Department of Public Safety (DPS), the National Weather Service (NWS), Texas Parks and Wildlife Department and local government agencies. The purpose of this interim report is to present information collected during Task 1 of the research.

CHAPTER II

LITERATURE REVIEW

Researchers developed an extensive bibliographic list on topics pertinent to wildfire and emergency response. A review of the key parts of this review is provided below.

Emergency Management in Texas

Researchers reviewed a number of manuals and documents pertaining to the emergency operations associated with wildfire response in Texas. Summary findings for each document reviewed are presented in the following descriptions.

Provisions of the Texas Administrative Code Relevant to Emergency Response

The Texas Administrative Code (The State of Texas, 2011) stipulates the responsibilities and the authority of state and local government agencies to effectively respond to emergency situations. The following key excerpts highlight the important aspects related to emergency management. The full list of emergency management related legislation is provided in Appendix E.

1. Each county and incorporated city in Texas shall maintain an emergency management agency or participate in a local or inter-jurisdictional emergency management agency.
2. The mayor of each municipal corporation and the county judge of each county are designated as the emergency management director for their respective jurisdictions.
3. The mayor and county judge may each designate an emergency management coordinator who shall serve as an assistant to the presiding officer of the political subdivision for emergency management purposes when so designated.
4. The Division of Emergency Management of the Texas Department of Public Safety shall prepare and maintain a state emergency management plan.
5. The presiding officer of a political subdivision may declare a local State of Disaster if a disaster has occurred or is imminent.
6. In responding to emergencies and disasters, a local government agency is expected to use its own resources and the resources available to it through mutual aid agreements (Texas Forest Service 2011c) before requesting assistance from the State. Municipalities must request assistance from their county before requesting assistance from the State.
7. If local and mutual aid resources prove inadequate for coping with a disaster, the local government may request assistance from the state by contacting the local Disaster District Committee Chairperson, who is the commanding officer of the Texas Highway Patrol district or sub-district in which the jurisdiction is located.
8. All local disaster operations will be directed by officials of local government. Organized state and federal response teams and teams from other local governments and response organizations providing mutual aid will normally work under their existing supervisors, who will take their mission assignments from the local incident commander.

Texas State Emergency Management Structure and Operations

Chapter 418 (Emergency Management) of the Texas Government Code (The State of Texas 2011) requires that emergency management in the state be conducted according to an organized government structure. Chapter 421 (Homeland Security) of the Texas Government Code requires that the Governor shall direct homeland security in the state and develop a statewide homeland security strategy.

The Director of the Governor's Office of Homeland Security is appointed by executive order as the Director of the Governor's Division of Emergency Management (GDEM) and as the Chair of the State Emergency Management Council (SEMC). The SEMC includes representatives of each state agency, board, or commission whose functions or capabilities relate to important phases of emergency management. The SEMC has been authorized to issue directives that are necessary to effectively follow the Texas Disaster Act (The State of Texas, 2011). The membership of the SEMC is given below.

- Adjutant General's Department (AGD)
- American Red Cross (ARC) **
- Department of Information Resources (DIR)
- General Land Office (GLO) *
- Governor's Division of Emergency Management (GDEM)
- Office of Rural Community Affairs (ORCA)
- Public Utility Commission of Texas (PUC) *
- Railroad Commission of Texas (RRC) *
- Salvation Army (TSA)
- State Auditor's Office (SAO)
- State Comptroller of Public Accounts (CPA)
- Texas Animal Health Commission (TAHC)
- Texas Attorney General's Office (OAG)
- Texas Building & Procurement Commission (BPC)
- Texas Commission on Environmental Quality (TCEQ) *
- Texas Commission on Fire Protection (TCFP)
- Department of Aging & Disability Services (DADS)
- Department of Agriculture (TDA) *
- Department of Assisted & Rehabilitative Services (DARS)
- Department of Criminal Justice (TDCJ)
- Department of Housing & Community Affairs (TDHCA)
- Department of Insurance (TDI)
- Department of Protective & Family Services (DFPS)
- Department of Public Safety (DPS) *
- Department of State Health Services (DSHS)
- ***Department of Transportation (TxDOT) ****
- Texas Education Agency (TEA)
- Texas Engineering Extension Service (TEEX) *
- Texas Forest Service (TFS)

- Texas Parks & Wildlife Department (TPWD) *
- Texas Workforce Commission (TWC)

* Indicates departments and agencies which are members of the State Emergency Response Commission (SERC), which carries out certain planning, reporting and public information access responsibilities relating to hazardous materials that are mandated under federal law.

** Non-governmental organizations

The SEMC has been organized into Emergency Support Functions (ESF) by utilizing the personnel and resources of SEMC member agencies and organizations. Each ESF is directed by a primary agency selected based on its authority or capability in that particular functional area (Table 1). Several other agencies and organizations are designated for support based on their ability to provide equipment, personnel, and expertise (see Table 2).

FEDERAL ESF #	FUNCTION	PRIMARY FEDERAL AGENCY	PRIMARY STATE AGENCY
1	TRANSPORTATION	Department of Transportation	Department of Criminal Justice
2	COMMUNICATIONS	Office of Science & Technology Policy	Department of Information Resources
3	PUBLIC WORKS AND ENGINEERING	U.S. Army Corps of Engineers	Department of Transportation
4	FIREFIGHTING	Department of Agriculture	Texas Forest Service
5	INFORMATION & PLANNING	Federal Emergency Management Agency	Governor's Division of Emergency Management
6	MASS CARE	American Red Cross	The Salvation Army
7	RESOURCE SUPPORT	General Services Administration	Texas Building and Procurement Commission
8	HEALTH & MEDICAL SERVICES	Department of Health and Human Services	Department of Health
9	URBAN SEARCH AND RESCUE	Federal Emergency Management Agency	Texas Engineering Extension Service
10	HAZARDOUS MATERIALS	Environmental Protection Agency	Texas Commission on Environmental Quality
11	FOOD	Department of Agriculture	Department of Human Services
12	ENERGY	Department of Energy	Public Utility Commission

Table 1. Primary Federal/State Emergency Functional Responsibilities (The State of Texas 2004)

	A - WARNING	B-COMMUNICATIONS	C-SHELTER AND MASS	D-RADIOLOGICAL EMER	E-EVACUATION	F-FIREFIGHTING	G-LAW ENFORCEMENT	H-HEALTH AND MEDICAL	I-PUBLIC INFORMATION	J-RECOVERY	K-PUBLIC WORKS AND ENGINEERING	L-ENERGY AND UTILITIES	M-RESOURCE SUPPORT	N-DIRECTION & CONTROL	P-HAZARD MITIGATION	Q-HAZMAT & OIL SPILL	R-SEARCH & RESCUE	S-TRANSPORTATION	T-DONATIONS MGMT.	U-TERRORIST INCIDENT RESPONSE	V- FOOD & WATER	W-MILITARY SUPPORT	O-RESERVED/FUTURE USE
ACG		S				S			S					S						S	S	P	
ARC			S					S	S	S				S								S	
CPA										S		S		S					S				
GDEM	S	S		S	S	S			P	P				P	P		S		P	S			
DIR		P												S					S				
DPS	P	S		S	P	S	P		S					S		S	S	S		P			
GLO		S							S					S	S	S		S					
TBPC		S								S	S		P	S				S	S	S			
MHMR								S	S	S				S				S		S			
OAG							S		S	S				S									
ORCA										S				S	S								
PUC		S									P			S									
RRC		S							S			S		S	S	S		S					
SAO														S									
TAHC								S	S	S				S	S					S			
TCFP						S			S					S		S							
TDA				S										S								S	
TDCJ		S				S	S	S			S		S	S			S	P			S		
TXED									S					S									
TDH		S		P				P	S					S		S		S	S	S	S		
DSHS		S		P				P	S					S		S		S	S	S	S		
TDADS								S															
DARS								S															
DFPS							S																
TDHCA										S				S	S								
DHS			S					S		S				S								P	
TDI						S			S	S				S	S	S							
TEA			S											S				S					
TEEX		S				S								S	S	S	P		S				
TFS		S				P	S		S	S	S		S	S	S		S			S			
TCEQ				S				S	S	S	S			S	S	P		S		S	S		
TPWD			S	S			S							S	S	S	S	S					
TRC								S						S									
TSA			P						S	S				S						S	S		
TWC										S			S	S					S				
TXDOT		S			S	S			S	S	P			S	S	S		S		S			

**Table 2. State Emergency Management Council Matrix of Responsibilities
P = primary agency, S = support agency (The State of Texas, 2004).**

State Disaster Districts have been established to divide the state into a number of manageable emergency response/operations areas. These districts parallel the Highway Patrol regions and districts of the Texas Department of Public Safety (Figure 2).

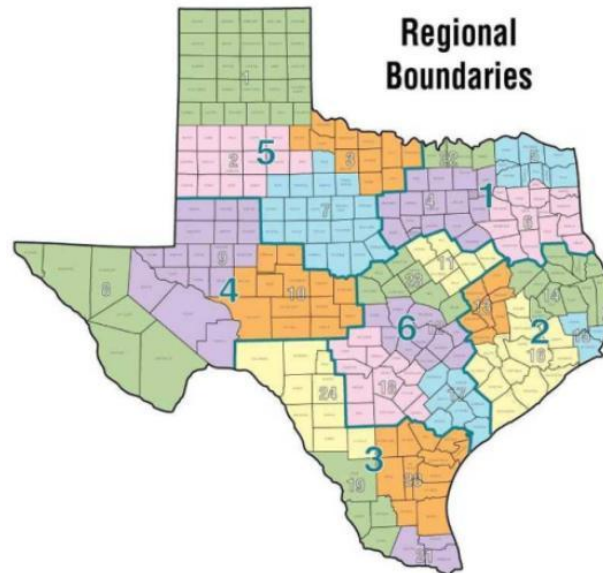


Figure 2. Texas Division of Emergency Management Region & District Map (TDEM 2011)

Each Disaster District Committee (DDC) consists of representatives from each agency/organization in the SEMC, who have regional offices at the Disaster District level. Commanders of Highway Patrol districts and sub-districts serve as DDC Chairs. Some SEMC agencies do not have field offices and cannot provide representatives at all DDCs. DDC Chairs report to the Director of the Office of Homeland Security on matters relating to disasters and emergencies and keep the Director of the Department of Public Safety apprised on all matters as requested by the director of that department. Districts of the Governor's Division of Emergency Management are assigned to each of the Department of Public Safety districts and assist the DDC Chairperson within their assigned areas. Typical state-local emergency management organizational arrangements in the response phase are depicted in Figure 3.

Texas Forest Service Authority, NIMS and ICS

The National Incident Management System (NIMS) consists of standardized framework from which incident command systems (ICS), multi-agency coordination systems, and public information systems are established. The current concepts of NIMS ICS are the same as those of the FIRESCOPE (FIrefighting RESources of California Organized for Potential Emergencies) and NIIMS (National Interagency Incident Management System, which is the predecessor to NIMS) ICS from 1973 and 1982, respectively. This framework provides organizational guidance for a wide range of public safety organizations to work jointly in preparation for, prevention of, response to, and recovery from domestic incidences, regardless of cause, size, or complexity (HSDL 2011). NIMS was created in 2003 under the Homeland Security Presidential

Directive-5, also known as HSPD-5. (HSDL 2011). Because of the complex nature of both natural and anthropogenic incidences, the NIMS is designed to be flexible and standardized. Because of this the importance of the incident command system (ICS) is emphasized. The National Commission on Terrorist Attacks upon the United States recommends national adoption of the ICS to enhance command, control, and communications capabilities (HSDL 2011). In any capacity, TxDOT plays a critical role in public guidance during incident occurrence and their active communication and joint organization with multi-agency task forces under NIMS has been highlighted several times during our project.

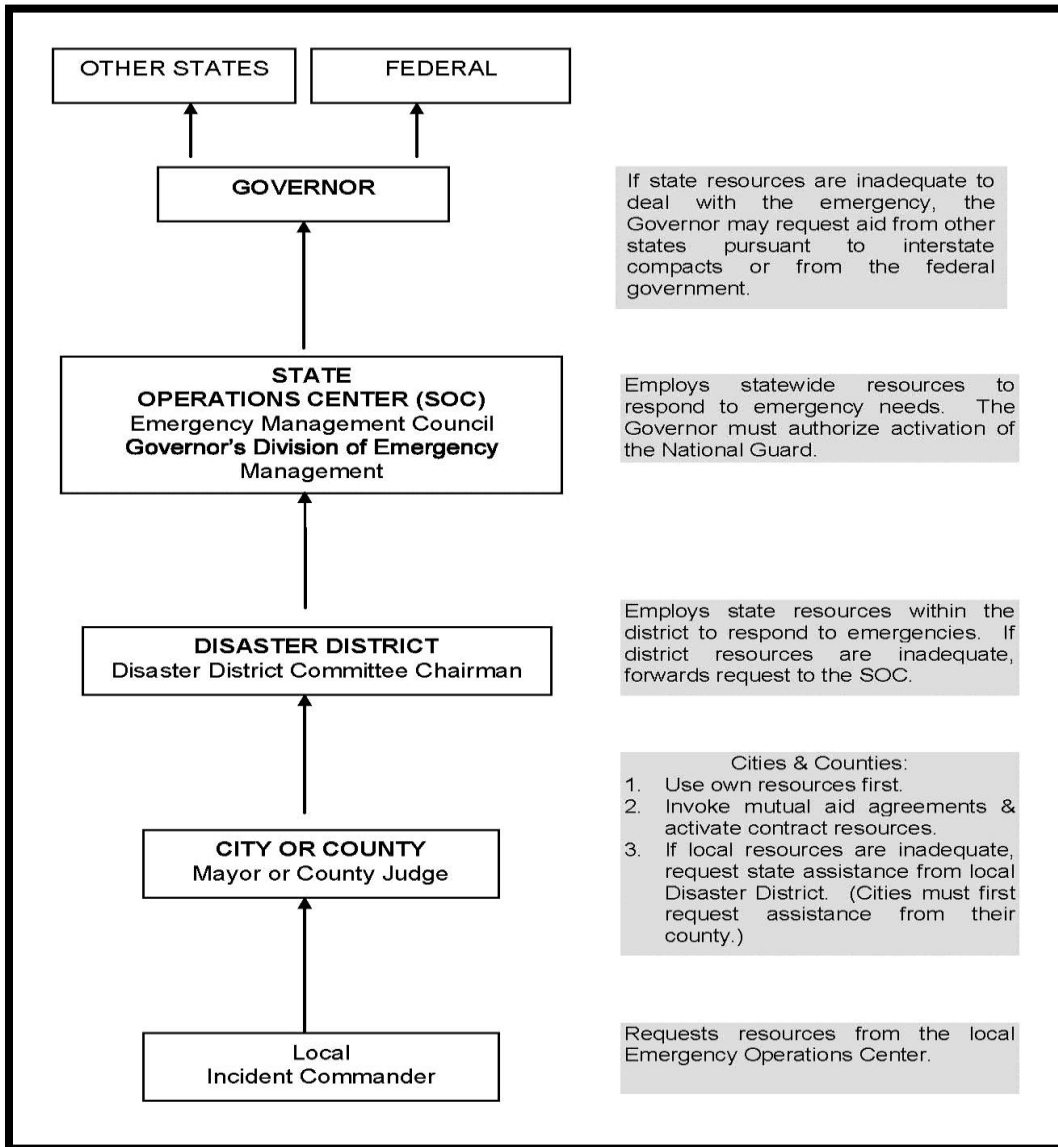


Figure 3. Texas Emergency Assistance Channels (TDEM 2008)

The Governor's Division of Emergency Management and the Texas Department of Homeland Security designate Texas Forest Service as the lead NIMS implementing agency (TFS 2011). NIMS is also the developing agency for Incident Management Teams (IMTs) for the State of Texas (TFS 2011). This responsibility means that once an emergency incident has exceeded a single jurisdiction at the local level and requires the involvement of emergency responders from multiple jurisdictions, TFS has the ability to:

- Deploy IMTs composed of ICS-experienced personnel to manage or assist in management of emergency response operations.
- Provide coordination and controlled infrastructure under NIMS to best manage emergency response.

A common theme has been the joint operations or Unified Command (UC) structure (HSDL 2011, TFS 2011). This structure provides agencies with different legal, geographic, and functional responsibilities to jointly determine objectives, strategies, priorities, resource allocations and needs, and work together to properly execute those needs.

Under NIMS there are five (5) types of incidents rated by complexity.

- Type V incident
 - Response – Initial
 - Resources – one to two
 - Time frame – a few hours
- Type IV incident
 - Response – Initial
 - Resources – multiple
 - Time frame – one operational period
- Type III incident
 - Response – Extended, initial action may fail
 - Resources – multiple
 - Time frame – may require multiple operational periods to resolve
 - Personnel – Some or all IMT command and general staff positions may be activated.
- Type II incident
 - Response – Extended, Complex
 - Resources – multiple
 - Time frame – extends into multiple operational periods
 - Documentation – Requires written action plans, planning meetings and briefings.
 - Personnel – Requiring most of the IMT command and general staff along with their functional staff. Response operations may involve several hundred personnel.
- Type I incident
 - Response – Extended, most complex
 - Resources – multiple
 - Time frame – may require multiple operational periods to resolve

- Personnel – IMT requires all of the command and general staff to be activated along with their functional staff. Response operations may involve thousands of personnel.
- Documentation – Requires written action plans, planning meetings and briefings.
- Public Relations – Management of the incident is often subject to great public and political scrutiny.

The Texas Forest Service is working to develop these management teams across the State of Texas. Currently there are multiple Type III Teams and one Type II Team formed under the Lone Star State IMT. (TFS 2011).

Texas Intrastate Fire Mutual Aid System (TIFMAS)

Texas was one of 10 states involved in the development of the Intrastate Mutual Aids System (IMAS) in 2006 (TFS 2011b). The objective of this movement by fire chiefs was to increase national fire service disaster response capabilities and mobilization using Intrastate Mutual Aid Systems. The Intrastate Fire Mutual Aid System of Texas, also known as **the** Texas Intrastate Fire Mutual Aid System (TIFMAS) is implemented and managed by the Emergency Response Committee (ERC). The ERC is made up of 14 agencies and associations. The State of Texas is divided into 21 geographic regions. Resources within these regions are monitored under the Texas Regional Resource Network (TRRN).

Formal requests from a region or local official are submitted through the normal TDEM channels. These communicational channels are through local to regional DDCs and to the State Operations Centers (SOCs) and to TFS. Once resources are located, TIFMAS coordinators are notified. TIFMAS regional resource coordinators are contacted and regional and local resources are then mobilized. TDEM has the authority to activate TIFMAS directly if resources are needed during any incident response where mutual aid is deemed necessary.

TIFMAS teams are typically Type III IMTs. These crews provide multiple resources over extended periods. They have command and general staff with expertise in incident response and management (TFS 2011b).

National Weather Service (NWS)

Hockenberry (2011) provided a summary of the weather information and guidance resources available that can aid in firefighting. The National Weather Service Instruction 10-401 is a NWS initiative that supersedes the 2009 NWSI 10-401 specification. Its intent is to provide the products and services consisting of the following:

- Digital Forecasts and Services
- Red Flag Warnings/Fire Weather Watches (RFW)
- Spot Forecasts (FWS)
- Fire Weather Planning Forecasts (FWF)
- National Fire Danger Rating System (NFDRS) Forecasts (FWM)

Local applications for forecast products are coordinated with NWS regional headquarters and weather forecast offices (WFOs). Additionally, the National Interagency Fire Center's (NIFC) Geographic Coordination Center (GICC) may coordinate with the WFO and other agencies to produce a Fire Weather Annual Operation Plan (AOP). The National Digital Forecast Database (NDFD) services specific to fire weather have been operational since 2011 for the continental United States. Additional information related to this topic can be found in Hockenberry (2011).

According to Hockenberry's (2011), the *Fire Weather Watch* and *Red Flag Warnings* are created by the Graphical Headline Generator (GHG) software of the Advanced Weather Interactive Processing System (AWIPS). This allows for individual generator and user need specifications to be detailed in the AOP in generating those two outputs. Establishment of regional Red Flag issuance criteria is done by the WFO(s) and land management users in reference to the National Fire-Danger Rating System (NFDRS) and other appropriate fire danger indices. These criteria must be well-documented and made available to WFO forecasters. Forecasters should coordinate with resources listed prior to issuance of a Fire Weather Watch or RFW to ensure accurate information. The *Fire Weather Outlook* prepared by the National Center for Environmental Prediction (NCEP) Storm Prediction Center (SPC) produces narrative and graphical descriptions of 1-day to 8-day outlooks (Hockenberry 2011). These are recommended for use in conjunction with antecedent fuel conditions which favor rapid wildfire propagation in determining large-scale CONUS fire danger risk assessments.

A *Fire Weather Watch* (FWW) is issued 18 to 96 hours prior to the expected onset of high potentials of Red Flag events. Red Flag Warnings (RFW) are issued within 48 hours of impending or occurring conditions consistent with local Red Flag Events. Both FWW and RFW are issued on an event-driven basis. Once criteria have been met for condition expectations to commence, the event begins and continues until the same conditions are expected to end. In addition, smoke Management Forecasts (SMFs) are also issued as needed. Hockenberry (2011) contains in-depth technical descriptions of how issuances should be written and formatted.

Agencies such as TxDOT can request spot forecasts from the regional WMO through the NWS *Spot* web interface. These are non-routine, near-term forecasts consisting of:

- Three forecast periods that detail forecast information as per user specifications.
- General outlooks and extended forecasts can be provided beyond the first three forecast periods when requested.
- A turn-around time of 30 to 60 minutes unless for the next day. Under these conditions it may be delayed due to forecast workload and duty priorities.
- Requests can be up to one day before an anticipated ignition time.

Spot forecasts can be made at <http://www.erh.noaa.gov/bgm/fireweather/spotwx.shtml> or by [calling 607-798-6625](tel:607-798-6625). At or before time of a spot request the following information is to be provided:

- Location of response (latitude, longitude)
- Topography and elevation (if needed)

- Requesting official
- Government agency
- Phone number
- Reason for the spot forecast (natural hazard - wildfire response)

As outlined by Hockenberry (2011), TxDOT may request the *Fire Weather Planning Forecast* (FWF), which is, at a minimum, a once daily, zone-type product intended for decision-making related to pre-suppression and other resource planning management. With the spot forecasts producing Today, Tonight, and Tomorrow information, the FWF provides Today (with 24-hour trends), Tonight (with 24-hour trends), Next Day, and 3- through 7- days trends. Fire Weather Point Forecast Matrices are currently available for Austin/San Antonio NOAA regions. These data are fire-specific matrices and can be requested from <http://www.srh.noaa.gov/ewx/?n=firewx.htm> .

The National Fire Danger Rating System (NFDRS) Forecast utilizes NWS next day forecasts to produce coarse scale Continuous United States (CONUS) fire danger indices. The Nelson model has been recently incorporated to estimate fuel time-lag moistures represented by an “N”. There are also Wet Flag and State of Weather (SOW) user editing options denoted as “O” in the outputs. Rangeland/Grassland Fire Danger Statement (Product Category RFD, WMO Header FNUS6i) is a miscellaneous product providing advisory information.

Texas Statewide Interoperability Channel Plan (TSICP)

The following information was obtained from the Texas Statewide Interoperability Channel Plan. (TSIEC 2009). This document is a Memorandum of Understanding (MOU) to address the need of clear communication mechanisms during joint operations under the NIMS/ICS systems, including guidance for use of interoperability or mutual-aid radio channels by multiple levels of governance (local, state, federal, and private sector incident response). Specifically the document imposes certain protocols, procedures, and obligations upon those jurisdictions with authorization for use of certain radio channels held by the Texas Department of Public Safety (TxDPS). Day-to-day frequencies recommended to be known by responding TxDOT operators are:

- **Texas Law 1:** analog wideband VHF coordination channel for mobile-to-mobile use by emergency personnel on a scene or incident
- **Texas Law 2:** analog wideband VHF calling channel for mobile-to-base use by transient or en-route emergency personnel
- **Texas Law 3:** national analog wideband VHF channel for coordination of law enforcement activities
- **Texas Fire 1, Texas Fire 2, Texas Fire 3,** analog wideband VHF frequencies primarily for fire service use or for use as dictated by Incident Commander on incidents
- **Texas Medical 1,** analog wideband VHF frequency primarily for use by EMS agency personnel on incidents
- **Texas Air 2,** analog wideband VHF frequency for air-to-ground use with state or federal aircraft only at direction of Incident Commander on incidents.

It is recommended that the TxDOT liaison monitor the Texas Law 2 or the designated interoperability calling channel monitored at the Incident Command Post on major incidents requiring significant aid from TxDOT.

For rural and displaced areas, Temporary Base and Repeater/Mobile Relay Stations might be needed and are permitted by the MOU associated with this channel plan under specified conditions. Note that the channel references are to comply with the Phase 1 CAI digital modulation plan beginning January 1, 2015 as discussed on page 25 of the TSIEC 2009 document. The following Mobile Portable Configurations should be pre-programmed into all radio devices and properly labeled:

Mobile and Portable Configuration					
Label	Receive	Transmit	Station Class	CTCSS TX/RX	Use
TXLAW1	154.950	154.950	FBT / MO	CSQ Only	Tactical Channel
TXLAW2 (Mobile)	155.370	154.950	FBT / MO	127.3 TX Only	Calling Channel (Mobile & Portable)
TXLAW3	155.475	155.475	FBT / MO	127.3	Tactical Channel
TXFIRE1	154.280	154.280	FBT / MO	127.3	Tactical Channel
TXFIRE2	154.265	154.265	FBT / MO	127.3	Tactical Channel
TXFIRE3	154.295	154.295	FBT / MO	127.3	Tactical Channel
TXMED1	155.340	155.340	FBT / MO	127.3	Tactical Channel
TXAIR2	151.385	151.385	FBT / MO	127.3	Tactical Channel
Mobile and Portable Configuration					
TXLAW2	155.370	154.950	FBT	127.3 (valid through 12/31/12)	For temporary on scene use (typically trailer/command vehicle)

Table 3. SIEC VHF 150 MHz Wideband Interoperability Channels [Valid Until January 1, 2013] (TSIEC, 2009)

The Texas Law 1 and 2 channels are designated as multi-discipline, multi-agency public safety interoperability channels for all public safety agencies. These channels can be utilized for multi-incident types and should already be integrated into the TxDOT systems. The TXFires 1-3 and others not listed within this document should be noted and integrated into the TxDOT system for wildfire support response.

CHAPTER III

INTERVIEWS

Researchers contacted and interviewed personnel from twelve TxDOT Districts, TxDOT Maintenance Division, Texas Forest Service and the Department of Public Safety. Two of the TxDOT Districts contacted (Corpus Christi and Pharr) did not mobilize State forces for wildfire response in 2011. The other ten Districts were selected for face-to-face interviews due to their significant levels of mobilization during the 2011 wildfire season. Those districts were Abilene, Amarillo, Austin, Beaumont, Childress, El Paso, Fort Worth, Lubbock, Odessa and San Angelo. A detailed questionnaire presented in Appendix D was used in these District interviews to collect information appropriate for the capture of capturing the District experiences to formulate best practices. In many cases, several districts responded with the same or somewhat similar answers to some of the questions. Rather than repeating the same answer for many districts, *Common Answers* to questions are presented in the following section. Some districts had unique responses to some of questions, and those responses are documented in the section entitled *Unique Answers*. The District responses are presented under the same categories of questions identified in the Questionnaire.

Responses Common to All Districts Interviewed

The following section outlines the questions that elicited common responses from all the Districts.

How are they notified of a wildfire event?

District could not respond to a wildfire event until the DPS called to request assistance. Sometimes the districts receive requests for assistance before the DPS call, and in those cases the districts informed the other individuals or agencies that they must call the DPS to request assistance from TxDOT.

Who within the district receives the official notice?

The Director of Maintenance (DOM) received the official notice.

Chain of command for a wildfire event

The DPS calls the DOM or assistant, who in-turn calls the Maintenance Supervisor (MS) for that section, and they gather a crew. However, some districts contact the District Engineer (DE) and Area Engineer (AE) right away, while others wait.

How are resource utilization requests and approvals accomplished within a District?

The DOM authorizes the request, and the request usually comes in the form of a phone call.

District-to-District Communication

When a wildfire event included more than one district, the best way to handle coordination of the districts was to communicate DOM to DOM. Some stated that a possible improvement to this method of communication is to have only one person in charge who could be the DOM of the district that the fire started in.

TxDOT's responsibilities in notifying the general public regarding wildfire events, and who is involved in preparing and delivering such notifications?

The District public notification responsibilities are limited to the updating of Highway Condition Reports (HCR) and providing appropriate traffic control.

Which agencies use the TxDOT utilized in a wildfire event?

Only TxDOT personnel operate TxDOT equipments. However, fuel was another resource provided to marked vehicles involved in the fire response. In the Fort Worth district, mechanics have worked on other agencies' equipment. The rest of the questions had similar answers, with each district adding or taking away parts.

Other Responses for Each District Interviewed

Not all districts provided the same answers to the questions asked. Answers specific to individual districts are presented below by district, stating the question and presenting the district's unique answer.

Abilene District

What services from TxDOT are requested as part of this notification?

The Abilene district has requests for:

- Dozer (Only one available which is not fit for use)
- Maintainers (about 35 for district)
- Fuel trailers
- Water trailers
- Traffic control
- Pickup trucks

How many such requests are made to your district in a typical year?

Abilene has assisted on 22 wildfire events this year; typically they have less than five per year.

How is a district notified of a Governor's Proclamation or a Federal Disaster Declaration?

Abilene is currently working on their own formal protocol for notification. It relaxes the regulations and clears the way for reimbursement.

What TxDOT office both inside and outside the district but outside the chain of command is involved in the event?

The Abilene district involves their regional office as needed, and sends out a district-wide email to the DE, MS and regional office.

Do you use any forms to collect data at the district level to prepare reports or make reimbursement requests?

The Abilene district uses emails sent to the DOM by sections. The DOM then enters that information into the SharePoint site with a specific task number for each wildfire event.

What mechanisms are currently used to ensure adequate data collection?

Abilene indicated that Maintenance Supervisors need Blackberries to receive urgent e-mail notifications.

Do you conduct advance briefings for the district response team before they leave for wildfire-related activities? How are such meetings conducted and what information is conveyed to participants?

Abilene has a local county standard. They also conduct daily tailgate meetings. Once sent out to a wildfire, the crew goes to the command center for information. The MS or assistant is always present.

Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

The Abilene district does not have de-briefing meetings in general. They are held as needed and the county makes that decision.

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?

Abilene has no formal responsibilities except traffic control.

What agencies does TxDOT interact with relating to the wildfire event? Please provide information on such interactions

The Abilene district stated that they deal with the following agencies:

- TFS
- VFD
- County
- City
- DPS
- Local charities
- Red Cross
- USFS
- Media through PIO

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

Abilene district meets as needed with DPS and TFS.

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

Abilene does not have a formal protocol. There have been some problems related to trouble finding POC once on fire. The IC is the local fire chief.

What TxDOT resources are typically utilized during wildfire events?

In the Abilene district the following resources are used:

- Dozer (One is available but it is not fit for use)
- Maintainers (about 35 for district)
- Fuel trailers
- Water trailers
- Traffic control
- Pickup trucks

How many TxDOT field personnel are typically mobilized for a wildfire event? The districts were asked to give exact numbers if possible, but they were encouraged to indicate a range if they were not sure.

The Abilene district has four to 10 per shift, and operates on two 12 hr. shifts.

How many TxDOT District employees serve in volunteer fire departments in their locality?

Abilene has an average of two firefighters per county.

Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?

The Abilene district stated that leave can be requested and can be paid through TxDOT.

How often does your District provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?

- In the Abilene district, fuel is given out at most events. The maximum amount they have given out was at the Nolan county fire and it was \$8000. A more typical amount given was for the Kent fire at 500 gallons of diesel and 50 gallons of gas.
- In addition to fuel, does your district provide any other resources to outside agencies to effectively deal with the wildfire event?
- The Abilene district has transported equipment for TFS while waiting for new equipment to arrive at the wildfire event.

Who handles the cost reimbursement requests related to wildfire events within your District?

The DOM is responsible for reimbursement requests.

What is your success rate of reimbursement for expenses incurred for a wildfire response?

Indicate separately for different agencies that may be involved

The Abilene district stated that they have not received reimbursement so far, and that TxDOT receives the funds, not the district office.

What additional employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

Abilene instructs employees to protect themselves and not to put themselves in bad situations.

Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments, equipment, and training?

The Abilene district feels that they do not have adequate safety equipment for the roles they have been asked to perform. They need more training and equipment because in recent events

they have come very close to fires (feet away). During one incident, a grader would not start and fire was on three sides of it.

What public safety-related responsibilities does TxDOT have that are specific to wildfire events?

The Abilene district is responsible for smoke-related road closures, blading structures, and traffic safety.

Do you have any advance preparation and readiness protocols to respond to wildfire situations? If so, are they unique to your district?

The Abilene district monitors red flag warnings and gets TFS notifications on fire storm days. They prepare if called in advance. Also, they make sure that the equipment is ready to go at all times.

Do you make advance preparations by monitoring weather, ground conditions or other factors? Please provide details of how conditions affect your decision for readiness preparation.

Abilene utilizes information the TFS sends out. TFS can identify fire weather fairly well.

Provide information about your readiness plans including coordination activities, staging areas, resource mobilization, etc.

The Abilene district stated that they don't have a specific plan. They instruct their employees to know where they are going at all times. A side note that they shared was that cedar trees explode, so they are aware that the danger is great.

Comment on the following existing resources/guidance from TxDOT and other agencies such as TDEM, TFS, FEMA, etc.

- *TxDOT Guidance for Wildfire Response.* Abilene stated that their role needs to be defined and field coordinator breakdowns need to be placed in the document.
- *TxDOT Maintenance Operations Manual.* Abilene would like to address everything in one guidance document.
- *Training courses/modules.* The Abilene district indicated that after TxDOT's role in responding to wildfire events is defined, training needs to be determined. Some suggestions were survival training and TFS-offered training.

What are your suggested improvements to TxDOT wildfire response protocols? Please include topics such as employee safety, training, TxDOT command structure, TxDOT support services, dealing with outside agencies and dealing with the public.

Abilene made the following suggestions:

- DEFINE ROLE
- Protect structures
- Indirect, not direct attack
- Use wisdom and avoid dangerous situations.
- Overcome command breakdown

Amarillo District

What services from TxDOT are requested as part of this notification?

Amarillo has request for:

- Any equipment necessary
- Motor graders
- Trucks
- Barricades
- Fuel trailers
- Front-end loader
- Personnel
- Loading slurry mixture
- Burying livestock
- Traffic control
- Blocking roads

How many such requests are made to your district in a typical year?

The Amarillo district has had approximately 50 requests for assistance in 2011.

How is a district notified of a Governor's Proclamation or a Federal Disaster Declaration?

The Amarillo district was not sure if there is a formal protocol on this topic. Most districts heard about the proclamation on the news or received an email. The Amarillo district stated that the information comes from the Austin office or the State Operations Center (SOC). This facilitates easing of some regulations, opening for FEMA application options, proclamation pays for supervisor overtime, and the fact that TxDOT (State) pays the workers when under declaration and overtime counts toward FEMA application expenses.

What TxDOT office both inside and outside the district but outside the chain of command is involved in the event.

At the Amarillo district the Area Engineer is outside the chain of command.

Do you use any forms to collect data at the District level to prepare reports or make reimbursement requests?

Amarillo communicates through the District Maintenance Office Assistant using the standard notification SharePoint® site maintained by the Maintenance Division in Austin.

What mechanisms are currently used to ensure adequate data collection?

The Amarillo district uses Austin's SharePoint database. This is reported before 2pm the day after an event. One way they make sure that the information is all there is by using time sheets and making sure that fuel goes to designated fire vehicles/equipment.

Do you conduct advance briefings for the district response team before they leave for

wildfire-related activities? How are such meetings conducted and what information is conveyed to participants?

Amarillo generally does not conduct briefings. Personnel are sent to the IC on scene for a briefing.

Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

Amarillo did not have any de-briefing sessions in 2011. However, in 2006 they did.

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?

In Amarillo they have none unless ordered to not respond to a wildfire event by the chain of command.

What agencies does TxDOT interact with relating to the wildfire event? Please provide information on such interactions.

The Amarillo district interacts with:

- Major cities within district
- Amarillo
- Counties
- Local Gov
- DPS
- TAHC
- TCEQ
- Utilities
- TFS

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

The Amarillo district primarily interacts with the EOC of Amarillo and PANTEX.

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

The Amarillo district contacts the RLO.

What TxDOT resources are typically utilized during wildfire events?

Amarillo uses the following resources:

- Personnel
- Maintainers
- Pickups
- Tractor trailers
- Loaders
- Fuel trailers
- Small tractor loader
- Dump truck

The Amarillo district has had to shut down TxDOT operations to respond to wildfire events before. The shutdown may not be immediate, but they respond as soon as possible.

How many TxDOT field personnel are typically mobilized for a wildfire event?

The Amarillo district has a minimum of two personnel at an event. One example is when the DPS asked for two maintainers, so two operators and a supervisor were sent to the event. Typically what is requested is sent if it is available. However, it is sent with a supervisor/chief to act as the liaison/intermediate with the IC and an additional person for back up to get water, replacement or for support.

How many TxDOT District employees serve in volunteer fire departments in their locality?

The Amarillo district has quite a few, no specific number was given and no estimations. Notation was made that one supervisor is the chief in his area; however, it was not specified that he was a volunteer. It is most likely that he is not municipal or incorporated due to the fact that he is a TxDOT employee.

Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?

The Amarillo district releases TxDOT employees on the honor system.

How often does your district provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?

The Amarillo district avoids providing fuel to outside agencies, and when it is given, the amount is unknown. They estimate that the amount is low. They bring the fuel for TxDOT equipment only and try not to supply it to anyone else.

In addition to fuel, does your district provide any other resources to outside agencies to effectively deal with the wildfire event?

Amarillo district supplies water with the few small water tanks they have.

Who handles the cost reimbursement requests related to wildfire events within your district?

In the Amarillo district the Office Manager is responsible for reimbursement. To accomplish this they collect and relay reports to Austin.

What is your success rate of reimbursement for expenses incurred for a wildfire response? Indicate separately for different agencies that may be involved.

Amarillo district has not filed for reimbursement.

What additional employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

Amarillo stated that there are no specific instructions regarding wildfire events. There is very little training on wildfires. They recommended best practices and Nomex[®]

equipment (EOC referenced fire fighter bunker gear a few times. However, bunker gear is for structure firefighting and is not wildland fire gear.

Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments, equipment, and training?

Amarillo district stated NO. None are provided with PPEs but they would like to have access to them. They would like some training on how to respond when equipment fails or becomes stuck.

What public safety-related responsibilities does TxDOT have that are specific to wildfire events?

The Amarillo district stated is responsible for traffic control and public control notification for road closure.

Do you have any advance preparation and readiness protocols to respond to wildfire situations? If so, are they unique to your district?

The Amarillo district stated that although they previously had pre-staging protocols, these were abandoned due to complications involving unpredictability.

Do you make advance preparations by monitoring weather, ground conditions, or other factors? Please provide details of how conditions affect your decision for readiness preparation.

The Amarillo Area EOC sends out Red Flag notices, which are forwarded to a supervisor. However, typically that is all that is done in advance.

Please provide information about readiness plans including coordination activities, staging areas, resource mobilization, etc.

The Amarillo district did not respond to this question.

Please comment on existing resources/guidance from TxDOT and other agencies such as TDEM, TFS, FEMA, etc. you have.

- *TxDOT Guidance for Wildfire Response.* Amarillo district stated that there was not much guidance in the document.
- *TxDOT Maintenance Operations Manual.* Amarillo stated that most supervisors have done ICS through FEMA online training.
- *Training courses/modules.* The Amarillo district indicated that it did not have much guidance.

What are your suggested improvements to TxDOT wildfire response protocols? Please include topics such as employee safety, training, TxDOT command structure, TxDOT support services, dealing with outside agencies and dealing with the public.

Amarillo suggested the following:

District Maintenance Office and DDC has been proactive because they have been tested by numerous fires. They have set things up so they can respond when necessary. The Panhandle Regional Planning Commission (PRPC) has helped the District to get organized.

We could benefit from more assets and training.
District relies on supervisors or operators to know limits or ability of operator and equipment.
Would like to have improved training.
Would like a lot more guidance/training/information.
Effective communication during emergency situations.
Sometimes the State mutual aid channels are not fully utilized before State agencies are called upon, which is how it should be done by the county.
Some fires are too large for channel bands to cross.
Concerns of roots from trees, pipelines are a major hazard, and buried power lines
The cities may have access to maps but getting them to the crews in a timely manner is not always doable.
FIMSA, EXCEL or local coops may have some GIS data layers that could be beneficial but there is no standard GIS structure.
TNRIS may be having something in the future but the district does not know of anything currently in the pipeline.

Austin District

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?

The Austin district said that its notification responsibilities are similar to those of a traffic incident or construction project.

What outside agencies does TxDOT interact with during a wildfire event?

The Austin district interacts with the following agencies:

- Parks and wildlife
- County emergency operation center
- DPS
- TFS
- NFS
- All state agencies
- Bastrop convention center

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

The Austin district contacts the following agencies outside of a wildfire event:

- EOC
- DPS

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

The Austin district indicated that their initial protocol when interacting with other agencies is to establish a staging area and cooperatively prepare a situational response.

What TxDOT resources are typically utilized during wildfire events?

During a wildfire event, the Austin district typically uses the following resources:

- Fuel trucks
- Water containers
- Traffic control
- Dozers
- Maintainers
- Water trailers
- Graders
- Fuel trailers
- Message boards

What agencies use the resources indicated above?

The Austin district indicated that only TxDOT personnel use TxDOT resources.

How many TxDOT field personnel are typically mobilized for a wildfire event?

The Austin district indicated that they typically mobilize 30 to 40 people for a wildfire event.

How many TxDOT district employees serve in volunteer fire departments in their locality?

The Austin district indicated that there are no firefighters in Bastrop.

Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?

The Austin district releases volunteer firefighters to work at night.

How often does your district provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?

The Austin district provides fuel on a basis of what is needed. The district can provide up to 7356 gallons of diesel fuel and 3379 gallons of gasoline.

In addition to fuel, does your district provide any other resources to outside agencies to effectively deal with the wildfire event?

The Austin district provides pumping trucks for pre-wetting and dust control.

Who handles district activities related to cost reimbursement requests on wildfire events?

The Director of Maintenance

What employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

The Austin district has FEMA responsibilities and policies to follow.

Do you have any suggestions to change TxDOT practices for more effective wildfire responses?

The Austin district recommends:

- Better training
- Familiarity with the area
- Awareness of hazards

- PPE
- The ability to deny requests
- Observers paired with dozers
- Better utilization of state resources

Beaumont District

What services from TxDOT are requested as part of this notification?

The Beaumont district was asked for:

- Signs
- Fuel
- 300 gallon fuel tanks
- Traffic control

How many such requests are made to your district in a typical year?

This year is the first year that the Beaumont district has had to assist on a wildfire event, and they have had nine requests.

How is a district notified of a Governor's Proclamation or a Federal Disaster Declaration?

In Beaumont, because this is their first year dealing with wildfires, they have not had to know about the Governor's Proclamation.

What TxDOT office both inside and outside the district but outside the chain of command is involved in the event.

The Beaumont district informs the regional office and the TxDOT Emergency Management Coordinator.

Do you use any forms to collect data at the district level to prepare reports or make reimbursement requests?

Beaumont uses the Wildfire Resource Committed Notes made in Maintenance Sharepoint and emailed to the District Office Manager.

What mechanisms are currently used to ensure adequate data collection?

The Beaumont district uses the MNT SharePoint database. However, they indicated that the information is sent to the Director of Maintenance (DOM) on employees' Blackberry phones.

Do you conduct advance briefings for the District response team before they leave for wildfire-related activities? How are such meetings conducted and what information is conveyed to participants?

Beaumont district conducts tailgate meetings with the crew responding to the event.

Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

The Beaumont district has informal supervisor team meetings.

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?
Beaumont states that they are assisting only and have no responsibilities to notify others.

What agencies does TxDOT interact with relating to the wildfire event? Please provide information on such interactions.

The Beaumont district interacts with the following agencies:

- TFS – USFS
- DPS
- VFD
- County

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

The Beaumont district interacts with the DPS every May for hurricane season.

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

Beaumont district follows the protocol employed on May 1st for hurricane season.

What TxDOT resources are typically utilized during wildfire events?

Beaumont utilizes only the follow resources:

- Fuel
- Signs

How many TxDOT field personnel are typically mobilized for a wildfire event? The districts were asked to give exact numbers if possible, but they were encouraged to indicate a range if they were not sure.

Typically a three-person team is sent to a wildfire event.

How many TxDOT district employees serve in volunteer fire departments in their locality?

Approximately 10 volunteers.

Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?

The Beaumont district has never had the issue arise before, so they follow standard procedure.

How often does your District provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?

The Beaumont district gives out fuel every time they get a request. They have given out 600 gallons at large fires. However, 300 gallons is what is typically given.

In addition to fuel, does your district provide any other resources to outside agencies to effectively deal with the wildfire event?

The Beaumont district provides signs.

Who handles the cost reimbursement requests related to wildfire events within your district?

Jeanie Lecklider in MNT is in charge of reimbursement. However, it has been determined that in all fires, the expenses have been less than the minimum threshold set forth by FEMA to file for reimbursement.

What is your success rate of reimbursement for expenses incurred for a wildfire response? Indicate separately for different agencies that may be involved.

Beaumont has had some success when filing for reimbursement on hurricanes. However, they are still waiting for funds on the 2005 and 2008 hurricanes.

What additional employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

The safety-related responsibilities Beaumont districts has are for employees/internal. They have a morning call/briefing every day during a wildfire event. They are instructed to stay out of harm's way, and that they are not firefighters and need to use proper judgment when asked to do things.

Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments, equipment and training?

Extra safety equipment is not needed due to the fact that they are just there to fuel firefighting equipment. However, it would be helpful to have a 4X4 with a winch to pull fuel trailers. The 4X4 pickups would be used when TFS sends crews with TxDOT on trails to fuel equipment that could not make it back to the staging area.

What public safety-related responsibilities does TxDOT have that are specific to wildfire events?

Beaumont district is responsible for signs and traffic control.

Do you have any advance preparation and readiness protocols to respond to wildfire situations? If so, are they unique to your district?

Beaumont has staged "fuel takes" at strategic locations in order to adequately and quickly provide fuel in case of a wildfire event. In Beaumont they have moved the 300 gal fuel tanks to all maintenance yards. They have some 1,000 gallon fuel tanks at the district office but rarely use these for wildfire events.

Do you make advance preparations by monitoring weather, ground conditions or other factors? Please provide details of how conditions affect your decision for readiness preparation.

Since this is the first fire the Beaumont district has assisted with, they have not made any such advance preparations.

Provide information about your readiness plans including coordination activities, staging areas, resource mobilization, etc.

Beaumont does not have any type of readiness plan for wildfire events. However, they indicated that they would check to see if they could send to the TechMRT researchers the hurricane readiness plan.

Comment on existing resources/guidance from TxDOT and other agencies such as TDEM, TFS, FEMA, etc.

- *TxDOT Guidance for Wildfire Response.* Prior to our interview, the Beaumont district had not seen this document. They quickly looked it over and suggested that the central contact person be placed in it. They stated that it looked like just general guidelines.

- *TxDOT Maintenance Operations Manual.* The Beaumont district indicated that all the information would be best in one book and online.

- *Training courses/modules.* Beaumont would like training on FEMA paperwork and filing documentation. Beaumont District has undergone training for hurricanes, and think that there is a need for half-day training statewide for other emergency situations such as wildfires.

What are your suggested improvements to TxDOT wildfire response protocols? Please include topics such as employee safety, training, TxDOT command structure, TxDOT support services, dealing with outside agencies and dealing with the public.

Beaumont had the following suggestions:

- An emergency response manual similar to the hurricane manual would be beneficial.
- Emergency situation training, or at least general guidelines, would be beneficial. During hurricane events people from all over the nation come in for disaster response, so that response is not regional specific. Training for wildfire response may need to be more regional specific.
- Communications need to be better with FS, FDs
- Provide formal protocols for response to wildfire events.

Childress District

What services from TxDOT are requested as part of this notification?

Each district stated that they supply whatever is requested. However, the requested assistance varies by district.

The District has requests for:

- Dozers, bladders/motor- graders/maintainers, trailers, haulers, water trailers
- Personnel
- Fuel (provided only to equipment known to be involved in fire suppression and active fire departments. TxDOT maintains records such as vehicle tag and license numbers of vehicles fueled and no fuel is provided to personal vehicles).
- Signs
- In-kind activities such as transporting fire retardants

How many such requests are made to your district in a typical year?

District personnel stated that they have assisted in approximately 25 wildfires from the last weekend in February to the 20th of July, 2011. However, they have only had a few fuel requests this year.

How is a district notified of a Governor's Proclamation or a Federal Disaster Declaration?

The Districts are not sure if there is a formal protocol on this topic. Most districts heard about the proclamation on the news or received an email. The Childress district did not hear about the Governor's Proclamation regarding a state of wildfire emergency until March, 2011 and it was declared in December, 2010.

What TxDOT office, either inside and outside the district but outside the chain of command, is involved in the event?

The maintenance director and occupational safety division are involved. However, there is no special crew; whoever is available is contacted when fire occurs.

What forms are used to collect data at the district level to prepare reports or make reimbursement requests?

The District inputs entries into the maintenance division database for Austin to file for reimbursement. Also, Childress suggested that a comprehensive and unified database might be useful for record maintenance. Another thing that Childress stated was that the current system is insufficient for what FEMA defines as necessary information.

What mechanisms are currently used to ensure adequate data collection?

The Childress district uses the Maintenance Division's database for resources used. There are task numbers assigned – large fires receive their own task number; small fires are grouped and separated by time stamps.

Does your District conduct advance briefings for the District response team before they leave for wildfire-related activities? How are such meetings conducted and what information is conveyed to participants?

The Childress district conducts an on-site safety meeting but there is no standard protocol for the briefings.

Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

The Childress District does not typically have a de-briefing meeting, except for large fires or incidents. However, at the close of season there are large meetings covering lessons learned, safety tips, things to improve upon, what worked and what did not work.

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?

The Childress district stated that it has no responsibility to notify any agencies outside TxDOT.

What agencies does TxDOT interact with relating to the wildfire event?

The Childress District interacts with:

- Department of Public Safety
- Texas Forest Service
- County Officials

- Texas Commission on Environmental Quality
- Utility companies
- Local Fire Departments
- National Weather Service
- Local oil/gas producers

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

The Childress district routinely interacts with utilities for road closures and traffic control when running cabling across the road.

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

The Childress district indicated that there is no formal protocol. They go through Incident Command (IC), however access to the IC is sometimes a problem.

What TxDOT resources are typically utilized during wildfire events?

- dozers
- bladers
- motor- graders
- maintainers
- trailers
- haulers
- water trailers
- personnel
- fuel signs

How many TxDOT field personnel are typically mobilized for a wildfire event?

The Childress district indicated that they have 12-15 employees per shift on two 12 hr. shifts per day. There are usually three dozers, three to four motor- graders, and ‘a few’ pickups, supervisor, operators, and necessary personnel for equipment, plus a few additional personnel in case the situation changes. The maximum number of TxDOT personnel who worked this season’s fire suppression was 50 from this district, plus they had an additional 25 at one time from the Lubbock district.

How many TxDOT District employees serve in volunteer fire departments in their locality?

In the Childress district there were three volunteer firefighters present at the interview. There were approximately one to five volunteers per section, with an average of two. Approximately 25 personnel from the entire district are volunteer firefighters.

Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?

Childress stated that TxDOT employment is the first priority. However, employees may request leave, and have eight hours per year to work on fire events outside TxDOT.

How often does your District provide fuel to agencies outside of TxDOT that are involved

in the wildfire event? How much fuel is typically provided?

The Childress district has rarely given out fuel for a wildfire event, and then only to requesting fire departments. They have given approximately 500 gallons this 2011 season.

In addition to fuel, does your District provide any other resources to outside agencies to effectively deal with the wildfire event?

The Childress district has provided resources including personnel and in-kind transportation for TFS or U.S. Forest Service (USFS). They transported slurry from Odessa to East Amarillo Complex (EAC) suppression staging in 2006.

Who handles the cost reimbursement requests related to wildfire events within your District?

The Childress DOM provides the information to the database for the Maintenance Division to file.

What is your success rate of reimbursement for expenses incurred for a wildfire response?

The Childress district was unsure of the reimbursement success rate and suggested that the Maintenance Division would be the best source of information on success rate. The best reference would be task numbers. FEMA reimburses the State and not the District.

What additional employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

The Childress district stated that the employees do not have the proper safety equipment.

Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments, equipment and training?

The Childress district stated are NOT equipped properly.

What public safety-related responsibilities does TxDOT have that are specific to wildfire events?

The Childress district did not offer any beyond normal operations.

Do you have any advance preparation and readiness protocols to respond to wildfire situations, if so are they unique to your district?

The Childress district has end of day equipment preparation and loading, and monitoring of weather during 'fire season' [February to August]. Childress has a training PowerPoint presentation that they adapted from a TFS PowerPoint presentation. Childress has no permanent DMS signs, but have trailer signs so they make sure that these are ready each day.

Do you make advance preparations by monitoring weather, ground conditions or other factors? Please provide details of how conditions affect your decision for readiness preparation.

The Childress district monitors weather from the NWS; during fires and fire season, the district monitors information from TFS and the EOC.

Please provide information about readiness plans including coordination activities, staging areas, resource mobilization, etc.

Childress indicated that readiness plans depend on the fire. Supervisors usually know of fires before the County Judge knows. The crews have on-site coordination with fire departments. The central station for heavy equipment is the district headquarters, while the motor graders are located within sections. Message boards may be dispatched if necessary. However, the signs are not fixed and are not often used unless during multi-day events.

Please comment on the following existing resources/guidance from TxDOT and other agencies such as TDEM, TFS, FEMA, etc. that they might have.

- *TxDOT Guidance for Wildfire Response.* Childress stated that they would like more detail in *TxDOT Guidance for Wildfire Response.*
- *TxDOT Maintenance Operations Manual.* Childress responded that they were unsure this resource applied to wildfire response but were sure it also needed more detail. Also, they think an update to fire guards would be beneficial.
- *Training courses/modules.* Childress indicated that they like TFS training materials. They would like the materials to have more explanation for those employees who are not exposed to any fire suppression. Also, they would be interested in a specified TxDOT training. The TFS training materials are not included in TxDOT training materials. For now, employees take some firefighting training including Independent Study (IS) from FEMA training, and NWCG training.

When asked for suggested improvements to TxDOT wildfire response protocols and employee safety, training, TxDOT command structure, TxDOT support services, dealings with outside agencies and dealing with the public, the Childress TxDOT personnel had the following suggestions:

- Improve safety training/experience
- Provide “stories:” condensed into a Powerpoint presentations or videos

El Paso District

What services are requested from TxDOT as part of this notification?

The El Paso district receives requests for the following services:

- Personnel
- Water
- Maintainers/ dozers
- Traffic control
- Fuel
- Road closures
- Mop up

How many such requests are made to your district in a typical year?

The El Paso district typically receives two to three such requests in a year, although they

may receive 11 in an extreme year.

*How is the district notified of a Governor's Proclamation or Federal Disaster Declaration?
How does a District benefit from this?*

The El Paso district usually hears about a Governor's Proclamation either through the DPS website, the TxDOT Maintenance Administration, or an FMAG issuance.

What TxDOT offices (both within and outside the district) but outside of the district chain of command are involved in the wildfire event?

The El Paso district responded that the following TxDOT offices are involved in a wildfire event:

- Maintenance
- Regional
- Local
- Purchasing
- Area Engineer

Do you use any forms to collect data at the district level to prepare reports or make reimbursement requests?

The El Paso district the following resources for data collection and entry:

- Employee diaries
- DARs
- Situation reports
- Summaries of fuel and water use
- Equipment and personnel logs

The district collects this data using MMIs with task numbers.

What mechanisms/ technologies are currently used to ensure adequate data collection?

The El Paso district uses an employee-driven data entry system that uses Maintenance Division EOC website diaries and DARs.

Do you conduct advance briefings for the district response team before they leave for wildfire-related activities? How and where are such meetings conducted and what information is conveyed to participants?

The El Paso district conducts no formal briefing but provides advice and a needs assessment upon dispatch. If a briefing is done, it is at the Section or Command site.

Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

The El Paso district conducts a safety briefing the following morning, and equipment is discussed. The district meets with the DPS RLO as part of the process.

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?

The El Paso district's only responsibility to notify others is to update the HCR if there are road closures. The district sometimes sends advisories out to local media.

What outside agencies does TxDOT interact with during a wildfire event?

The El Paso district interacts with the following agencies:

- County officials
- City officers
- USFS
- TFS
- Volunteer fire departments
- Local residents
- DPS
- State and US Congressmen
- Sheriffs and police

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

The El Paso district routinely interacts with the following agencies:

- County officials
- City officials
- US and State Congressmen
- Local residents
- Border Patrol
- US Customs
- TFS
- DPS
- Sheriffs and Police
- International Boundary and Water Commission
- Vendors
- Contractors
- Consultants
- Media

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

The El Paso district first works to determine the need and usage of personnel and equipment. They work to cooperate with other agencies to "get it done." All information is channeled through the district EOC office and area ROL.

What TxDOT resources are typically utilized during wildfire events?

The El Paso district indicated that during wildfire events, the following TxDOT resources are typically used:

- Water trucks/ tanks
- Maintainers/ dozers
- Excavators
- Mop-up/ debris clean-up
- Fuels trucks
- Traffic control

- Message boards
- Pickups
- Dump trucks
- Loaders
- Personnel
- Trailers

How many TxDOT field personnel are typically mobilized for a wildfire event?

The El Paso district indicated that they have anywhere from two to 20 employees mobilized for a wildfire depending on the severity of the fire. A very severe fire required 54 employees.

How many TxDOT district employees serve in volunteer fire departments in their locality?

The El Paso district has indicated that there is one employee who has served with a volunteer fire department, and he has done so for over 20 years.

Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?

The El Paso district indicated that they do release their volunteer firefighter during an event, but he normally assists TxDOT during the event. The decision on what to do is left with him.

How often does your district provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?

The El Paso district does not often provide fuel to outside agencies, although it will on large events. The amount of fuel ranges from no fuel to 5000 gallons on one event.

In addition to fuel, does your district provide any other resources to outside agencies to effectively deal with the wildfire event?

The El Paso district provides the following resources:

- Water
- Traffic control
- Mop-up
- Debris hauling

Who handles district activities related to cost reimbursement requests on wildfire events?

The El Paso district indicated that the Maintenance Management section handles cost reimbursement.

What is your success rate of reimbursement for expenses incurred for a wildfire response?

The El Paso district has had a high success rate for reimbursement. This has been aided by the MNT handling the reimbursement process and sending emails to a website formatted to capture necessary information for submission of information.

What employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

The El Paso district places extra emphasis on safety and reminds TxDOT employees that they are not authorized to do anything for which they are not trained. District employees hold tailgate meetings and attend safety meetings from outside agencies.

Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments and training?

The El Paso district indicated that their employees have typical PPE and paper masks for smoke, but need radios in compliance with interoperability standards. The district indicated a desire for improved gear.

What public safety-related responsibilities does TxDOT have that are specific to wildfire events?

The El Paso district indicated that their safety responsibilities during a wildfire event include traffic control, providing message boards, and updating the HCR.

Do you have any advance preparation and readiness protocols to respond to wildfire situations?

The El Paso district indicated that they do not have any advance preparation protocols, although they put employees and equipment on standby and move them to a needed area if it is anticipated that TxDOT will be needed.

Do you make any advance preparations by monitoring weather, ground conditions, or other factors? Please provide details of how conditions affect your decision for readiness preparation.

The El Paso district does monitor weather and environmental conditions because not doing so would create a safety risk for their employees.

Please comment on existing resources/ guidance from TxDOT and other agencies?

- *TxDOT Guidance for Wildfire response:* The El Paso district has received good directions from this resource.
- *TxDOT Maintenance Operations Manual:* The El Paso district has received good directions from this resource.
- *Training courses/modules including those conducted by the District, TxDOT (statewide) and outside agencies:* The El Paso district uses ICS training from FEMA. This has been extremely beneficial when working an emergency. A good understanding of the ICS command structure and the relationship between TxDOT and the SOC is crucial for a proper response to an event.
- *Other (please specify):* The El Paso district would like to have good working relationships prior to an event, ICS training, and a cohesive management joint structure.

Do you have any suggestions to change TxDOT practices for more effective wildfire response?

The El Paso district recommended the following suggestions:

- Equipment operator training
- Fire training video

- Better equipment and PPE
- Understand do's and don'ts during a fire
- Acknowledgment form management to improve morale
- Safety training specific to wildfires.
-

Fort Worth District

What services from TxDOT are requested as part of notification of a wildfire?

The Fort Worth district is asked for:

- Traffic control
- Signs
- Fuel (TFS has requested this lately)
- Heavy equipment
- Dozers (operator)
- Motor grader
- Track loader
- Water tenders

How many such requests are made to your district in a typical year?

The Fort Worth district has had 10 to 12 requests at the time of the interview. In a typical year Fort Worth has around six requests.

How is a district notified of a Governor's Proclamation or a Federal Disaster Declaration?

The Fort Worth district was not sure of a formal protocol on this topic. They were also unaware of who should be the point of knowledge. However, at the Fort Worth interview the DPS were present and stated that the district can sign up for e-mails to receive state notifications. State agencies such as TxDOT can receive additional funding and restraints can be waived during Governor's Proclamations.

What TxDOT office both inside and outside the district but outside the chain of command is involved in the event?

For the Fort Worth district, the purchasing and regional offices are involved.

Do you use any forms to collect data at the district level to prepare reports or make reimbursement requests?

Fort Worth District has a system but it can use some improvement. The agency-to-agency mechanisms/technologies do not match-up for auditing when applying for FEMA, so their system is inadequate. There needs to be a daily report to Austin for the FEMA record applications.

What mechanisms are currently used to ensure adequate data collection?

Fort Worth discussed the **Compass** project and stated that Brandye Munn is the POC for this program development and implementation.

Do you conduct advance briefings for the District response team before they leave for wildfire-related activities? How are such meetings conducted and what information is conveyed to participants?

In the Fort Worth district, advanced briefings are held at staging zones. The crew that is sent out to the wildfire is dispatched with the request, contact person, and contact number.

Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

The Fort Worth district has “lessons learned” meetings. They discuss what to do for the next wildfire event. TxDOT may check with other agencies/entities to see if there is anything for cleanup, but these are not official de-briefing meetings.

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?

Fort Worth district office has none listed in their system. However, if the wildfire is a large event, the Maintenance Division (MNT) is informed. Also, the PIO informs the County Commissioner.

What agencies does TxDOT interact with relating to the wildfire event? Please provide information on such interactions.

The agencies that the Fort Worth district interacts with are:

- TFS
- TX Parks and Wildlife
- TX Dept. of Criminal Services
- DPS
- USFS
- TCEQ
- Texas Animal Health

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

The Fort Worth district stated that they only routinely interact with the DPS.

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

Fort Worth indicated that there is no formal protocol.

What TxDOT resources are typically utilized during wildfire events?

In the Fort Worth district the resources used are:

- Dozers
- Fuel trucks/Fuel
- Maintainers/Blades
- Crowd control devices
- Mechanics

- Traffic Control
- Personnel
- Water

How many TxDOT field personnel are typically mobilized for a wildfire event?

This depends on the fire size and is relative to personnel need. The maximum number the Fort Worth district has had on one wildfire event is 78 on the Possum Kingdom (PK) fire. They do not have employees working a fire at night due to visibility issues.

How many TxDOT District employees serve in volunteer fire departments in their locality?

The Fort Worth district has 10 to 12 district wide and had several in the past. A few of the current volunteers are in more rural counties.

Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?

There appears to be some discrepancy on this between rural and urban sections within the Fort Worth District. They referenced the HR manual § 2 Ch. 10.

How often does your District provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?

Fort Worth has had issues with giving out fuel. They stated that they give out fuel “too often” and are trying to reduce this. One agency that routinely asks for fuel is TFS.

In addition to fuel, does your district provide any other resources to outside agencies to effectively deal with the wildfire event?

Fort Worth provides county maps, mobile message signs, ROW debris clean up, and ROW reclamation.

Who handles the cost reimbursement requests related to wildfire events within your district?

Fort Worth is in the process of filing for reimbursement for the PK fire. Tom Brown and Vickie Webb are in charge of reimbursement for that event.

What is your success rate of reimbursement for expenses incurred for a wildfire response? Indicate separately for different agencies that may be involved.

Fort Worth is in the process to filing for FEMA reimbursement so the success rate is unknown.

What additional employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

Fort Worth has an RLO preparing a document for Lookouts-Communications-Escape Routes-Safety Zones (LCES) type instructions. However, there are two safety officers for the Fort Worth District.

Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments, equipment and training?

The Fort Worth district indicated that there is no safety equipment. They have been provided some Nomex[®] jumpers when working with USFS on the PK fire. Also, they have SAT phones but their use is limited to employees' knowledge.

What public safety-related responsibilities does TxDOT have that are specific to wildfire events?

The Fort Worth district had typically 50 troopers per shift in the PK complex fire, while DPS and TxDOT maintain road blockades. This frees-up local PD to evacuate.

Do you have any advance preparation and readiness protocols to respond to wildfire situations? If so, are they unique to your district?

Fort Worth stated that they are always fueled and ready to go. Once notified the crews in the areas will prepare based on resources requested.

Do you make advance preparations by monitoring weather, ground conditions or other factors? Please provide details of how conditions affect your decision for readiness preparation.

Fort Worth relies on the State Operations Center (SOC) and daily weather alerts on the news.

The district was asked to provide information about readiness plans including coordination activities, staging areas, resource mobilization, etc.

Fort Worth has a readiness plan for the ROWs. If the fire is on ROW then they use stock pile locations as staging areas.

Comment on existing resources/guidance from TxDOT and other agencies such as TDEM, TFS, FEMA, etc.

- *TxDOT Guidance for Wildfire Response* – The Fort Worth district stated that this document was mostly about signs.

TxDOT Maintenance Operations Manual – Fort Worth district would like to see information on fire breaks and fire lines. Richard stated that they have a red binder for emergency events with specific SOPs. He would like all emergency events in one red book.

Training courses/modules – Fort Worth indicated that they would like some training but it depends on what they are getting into. They indicated that they would like TFS expectations training and DPS training on ICP and ICS for upper level personnel.

What are your suggested improvements to TxDOT wildfire response protocols? Please include topics such as employee safety, training, TxDOT command structure, TxDOT support services, dealing with outside agencies and dealing with the public.

- Need a mechanism in place for hands-on training for all field personnel with TFS.
- Ideas from maintenance supervisors on what can be done to give more

- knowledge and safety-related training recommendation from DPS
- Have DOM, DPS, and TFS work together to identify what TxDOT needs to organize.
- Match training with real-world expectations.
- How should TxDOT regional employees respond to wildfire events?
- Define the district's role in wildfire response.

Lubbock District

The Lubbock district submitted the following unique answers during our interview.

What services from TxDOT are requested as part of this notification?

- Fuel
- Maintenance
- Traffic control
- Water
- Dozers
- Lightning
- Personnel

How many such requests are made to your district in a typical year?

The Lubbock District stated that this is not a typical year. They had more than 23 requests during 2011. In 2010, they received four to five requests, and in prior years had on average two requests per year.

How is a district notified of a Governor's Proclamation or a Federal Disaster Declaration?

Information on the Governor's Proclamation has sometimes come from the District Disaster Coordinator (DDC) or the Regional Liaison Officer (RLO). Some of the restrictions are relaxed, such as working off right-of-way (ROW) without the DPS notification. Also, some of the procurement restraints are released as a result of such proclamations.

What TxDOT office both inside and outside the district but outside the chain of command is involved in the event? For the Lubbock district the other agencies involved are the TxDOT Public Information Office (PIO) and the regional offices (in the case of equipment fleet and purchasing).

Do you use any forms to collect data at the district level to prepare reports or make reimbursement requests?

The Lubbock district has the section supervisors summarize and enter data into a Maintenance Division SharePoint website. Allocations are updated by 3:00 p.m. daily to SharePoint for record keeping reporting.

What mechanisms are currently used to ensure adequate data collection?

Lubbock utilizes the Daily Activity Reports (DARs). This information could be accurately gathered using the task numbers for labor, equipment, and all other resources used. One person remarked that this is standard for districts and is not unique to Lubbock. Lubbock District suggested that one thing that could be done is to setup a survey form, similar to other hazard response survey forms, for wildfire response. This would make entry uniform and more complete within the system.

Do you conduct advance briefings for the district response team before they leave for wildfire-related activities? How are such meetings conducted and what information is conveyed to participants?

The Lubbock district has on-site meetings at the location of a wildfire event. If time permits they have a meeting prior to leaving for a fire. However, they typically do not conduct the meetings until they are on-site. These briefings are informal general safety meetings.

Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

The Lubbock district sometimes has post-event meetings. For example, they had a meeting after the Borden County fire. Lubbock also sends out closed notification e-mails. After the Matador fire they had a meeting but it was not necessarily a debriefing, because it involved upper management, RLO, and TFS organizing future potential training ops.

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?

The Lubbock district says that they update HCR and have no other responsibilities than for internal employees.

What agencies does TxDOT interact with relating to the wildfire event? Please provide information on such interactions.

The Lubbock district interacts with the following agencies;

- DPS
- RLO
- TFS
- Electric
- Utility providers
- Local Emergency Management Coordinator (A county level employee designated by the Judge)
- County Commissioner
- Sherriff's Office
- FD
- Mayor
- TCEQ
- DHHS (livestock disposal)
- FEMA

- FHWA
- RRC
- NOAA

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

The Lubbock district stated that most of the agencies they interact with during a wildfire event may also be intermittently interacted with *outside* of a wildfire event. However, they routinely interact with utilities for installations, and dig tests. They also interact with NOAA on a routine basis.

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

The Lubbock District referred to the TxDOT Communications Manual. However, this manual is not necessarily always followed.

What TxDOT resources are typically utilized during wildfire events?

- Maintainers
- Dozers (Only dozer available was broken)
- Pickups
- Sedan (for transport of personnel)
- Trailers
- Emergency trailers (contain – signs, barricades, message boards)
- Water tanks
- Loaders
- Supplies (non-specific)
- Personnel

How many TxDOT field personnel are typically mobilized for a wildfire event? The districts were asked to give exact numbers if possible, but they were encouraged to indicate a range if they were not sure.

A minimum of eight personnel are on the scene of a wildfire event. Typically there are two to three motor graders, so two to three operators plus one supervisor. Lubbock has had a maximum of 30 personnel on one event.

How many TxDOT District employees serve in volunteer fire departments in their locality?

Approximately 50 volunteer firefighters.

Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?

Employees may be released to work on fire events. In fact, most have left in response to a wildfire before TxDOT receives notification of a wildfire event. However, they are not on the clock after the eight-hour coverage is used.

How often does your district provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?

Fuel is rarely provided. Only upon request is fuel taken out and given to the fire departments. Only 110 gallons were given this year.

In addition to fuel, does your district provide any other resources to outside agencies to effectively deal with the wildfire event?

Lubbock stated that water is the other most common resource provided to outside agencies.

Who handles the cost reimbursement requests related to wildfire events within your District?

The Maintenance Management officer is in charge of reimbursement.

What is your success rate of reimbursement for expenses incurred for a wildfire response? Indicate separately for different agencies that may be involved.

The Lubbock district has not filed for reimbursement.

What additional employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

Lubbock does not have any wildfire firefighting or personal protection equipment. TFS is working with them to develop a shortened course for TxDOT personnel on how to handle potential hazards when working suppression associated with wildfire events. This will be an abbreviated course specific to heavy machinery with some wildfire behavior, tactics, according to the Lubbock RFC.

Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments, equipment, and training?

Lubbock stated that currently no they are not provided with adequate resources. However, they would like to have the proper equipment, as well as maps for detours. They recommended possible up-to-date electronic mapping to show best routes possible for large events to avoid issues with road closures.

What public safety-related responsibilities does TxDOT have that are specific to wildfire events?

Traffic control and livestock disposal.

Do you have any advance preparation and readiness protocols to respond to wildfire situations? If so, are they unique to your district?

Lubbock has advanced planning under red flag conditions, but this is rare. They do pre-loading only with minimal pre-staging.

Do you make advance preparations by monitoring weather, ground conditions or other factors? Please provide details of how conditions affect your decision for readiness preparation.

The regional fire weather contact from NOAA sends an e-mail notifying of hazardous

weather warnings. These e-mails are then forwarded to the supervisors. However, if supervisors only have cell phones and no e-mail contact when out on a job, sending an e-mail notifying of hazardous conditions won't be received until they arrive back in the office.

Please provide information about readiness plans including coordination activities, staging areas, resource mobilization, etc.

Lubbock has no formal readiness plans. They use TxDOT emergency response protocols. Their plan is reactive, primarily because they have a large area and do not have the personnel or abilities to respond according to a planned manner. They have general preparation such as specific weekend prep during high wildfire season.

Please comment on existing resources/guidance from TxDOT and other agencies such as TDEM, TFS, FEMA, etc.

The first resource discussed was the TxDOT Guidance for Wildfire Response. Lubbock indicated that they have seen parts of this document, and some of the parts are okay. Based on the responses during the interviews, few have seen/read the document. The second document in this topic was the TxDOT Maintenance Operations Manual. Lubbock thinks expansion of this document would be beneficial. Also, they stated that they would like "crash cards" for reference and for new employees. These cards would have tips and rules on them. The third set of documents discussed in the section was training courses/modules. The Lubbock district thinks that customized training with TFS would be helpful. Right now they use online FEMA ICS courses and (NIMS) training.

What are your suggested improvements to TxDOT wildfire response protocols? Please include topics such as employee safety, training, TxDOT command structure, TxDOT support services, dealing with outside agencies and dealing with the public.

Lubbock made the following suggestions:

- Better communication or better command post establishment with better communication
- Radio communication
- Supervisor should ask requestor (DPS) who else has been contacted.
- Need established point of contact (POC) and a better ICS
- Supervisor training so they can make safe knowledgeable calls on go/no-go situations.
- Representative with the IC at the Incident Command Post to relay information to the personnel on the ground on activities and actions
- Residential versus pasture protocol
- No work in dark.
- Typically have a motor-grader followed by a pickup or pumper truck if close to the fire.
- Would like safety equipment requisition through equipment supply – shelters (on equipment) Nomex[®] overalls

What services from TxDOT are requested as part of this notification?

- Fuel

- Maintenance
- Traffic control
- Water
- Dozers
- Lightning
- Personnel

How many such requests are made to your district in a typical year?

The Lubbock District stated that this is not a typical year. They had more than 23 requests during 2011. In 2010, they received four to five requests, and in prior years had on average two requests per year.

How is a district notified of a Governor's Proclamation or a Federal Disaster Declaration?

Information on the Governor's Proclamation has sometimes come from the District Disaster Coordinator (DDC) or the Regional Liaison Officer (RLO). Some of the restrictions are relaxed, such as working off right-of-way (ROW) without the DPS notification. Also, some of the procurement restraints are released as a result of such proclamations.

What TxDOT office both inside and outside the district but outside the chain of command is involved in the event? For the Lubbock district the other agencies involved are the TxDOT Public Information Office (PIO) and the regional offices (in the case of equipment fleet and purchasing).

Do you use any forms to collect data at the district level to prepare reports or make reimbursement requests?

The Lubbock district has the section supervisors summarize and enter data into a Maintenance Division SharePoint website. Allocations are updated by 3:00 p.m. daily to SharePoint for record keeping reporting.

What mechanisms are currently used to ensure adequate data collection?

Lubbock utilizes the Daily Activity Reports (DARs). This information could be accurately gathered using the task numbers for labor, equipment, and all other resources used. One person remarked that this is standard for districts and is not unique to Lubbock. Lubbock District suggested that one thing that could be done is to setup a survey form, similar to other hazard response survey forms, for wildfire response. This would make entry uniform and more complete within the system.

Do you conduct advance briefings for the district response team before they leave for wildfire-related activities? How are such meetings conducted and what information is conveyed to participants?

The Lubbock district has on-site meetings at the location of a wildfire event. If time permits they have a meeting prior to leaving for a fire. However, they typically do not conduct the meetings until they are on-site. These briefings are informal general safety

meetings.

Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

The Lubbock district sometimes has post-event meetings. For example, they had a meeting after the Borden County fire. Lubbock also sends out closed notification e-mails. After the Matador fire they had a meeting but it was not necessarily a debriefing, because it involved upper management, RLO, and TFS organizing future potential training ops.

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?

The Lubbock district says that they update HCR and have no other responsibilities than for internal employees.

What agencies does TxDOT interact with relating to the wildfire event? Please provide information on such interactions.

The Lubbock district interacts with the following agencies;

- DPS
- RLO
- TFS
- Electric
- Utility providers
- Local Emergency Management Coordinator (A county level employee designated by the Judge)
- County Commissioner
- Sherriff's Office
- FD
- Mayor
- TCEQ
- DHHS (livestock disposal)
- FEMA
- FHWA
- RRC
- NOAA

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

The Lubbock district stated that most of the agencies they interact with during a wildfire event may also be intermittently interacted with *outside* of a wildfire event. However, they routinely interact with utilities for installations, and dig tests. They also interact with NOAA on a routine basis.

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

The Lubbock District referred to the TxDOT Communications Manual. However, this manual is not necessarily always followed.

What TxDOT resources are typically utilized during wildfire events?

- Maintainers
- Dozers (Only dozer available was broken)
- Pickups
- Sedan (for transport of personnel)
- Trailers
- Emergency trailers (contain – signs, barricades, message boards)
- Water tanks
- Loaders
- Supplies (non-specific)
- Personnel

How many TxDOT field personnel are typically mobilized for a wildfire event? The districts were asked to give exact numbers if possible, but they were encouraged to indicate a range if they were not sure.

A minimum of eight personnel are on the scene of a wildfire event. Typically there are two to three motor graders, so two to three operators plus one supervisor. Lubbock has had a maximum of 30 personnel on one event.

How many TxDOT District employees serve in volunteer fire departments in their locality?

Approximately 50 volunteer firefighters.

Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?

Employees may be released to work on fire events. In fact, most have left in response to a wildfire before TxDOT receives notification of a wildfire event. However, they are not on the clock after the eight-hour coverage is used.

How often does your district provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?

Fuel is rarely provided. Only upon request is fuel taken out and given to the fire departments. Only 110 gallons were given this year.

In addition to fuel, does your district provide any other resources to outside agencies to effectively deal with the wildfire event?

Lubbock stated that water is the other most common resource provided to outside agencies.

Who handles the cost reimbursement requests related to wildfire events within your District?

The Maintenance Management officer is in charge of reimbursement.

What is your success rate of reimbursement for expenses incurred for a wildfire response? Indicate separately for different agencies that may be involved.

The Lubbock district has not filed for reimbursement.

What additional employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

Lubbock does not have any wildfire firefighting or personal protection equipment. TFS is working with them to develop a shortened course for TxDOT personnel on how to handle potential hazards when working suppression associated with wildfire events. This will be an abbreviated course specific to heavy machinery with some wildfire behavior, tactics, according to the Lubbock RFC.

Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments, equipment, and training?

Lubbock stated that currently no they are not provided with adequate resources. However, they would like to have the proper equipment, as well as maps for detours. They recommended possible up-to-date electronic mapping to show best routes possible for large events to avoid issues with road closures.

What public safety-related responsibilities does TxDOT have that are specific to wildfire events?

Traffic control and livestock disposal.

Do you have any advance preparation and readiness protocols to respond to wildfire situations? If so, are they unique to your district?

Lubbock has advanced planning under red flag conditions, but this is rare. They do pre-loading only with minimal pre-staging.

Do you make advance preparations by monitoring weather, ground conditions or other factors? Please provide details of how conditions affect your decision for readiness preparation.

The regional fire weather contact from NOAA sends an e-mail notifying of hazardous weather warnings. These e-mails are then forwarded to the supervisors. However, if supervisors only have cell phones and no e-mail contact when out on a job, sending an e-mail notifying of hazardous conditions won't be received until they arrive back in the office.

Please provide information about readiness plans including coordination activities, staging areas, resource mobilization, etc.

Lubbock has no formal readiness plans. They use TxDOT emergency response protocols. Their plan is reactive, primarily because they have a large area and do not have the personnel or abilities to respond according to a planned manner. They have general preparation such as specific weekend prep during high wildfire season.

Please comment on existing resources/guidance from TxDOT and other agencies such as TDEM, TFS, FEMA, etc.

- *TxDOT Guidance for Wildfire Response.* Lubbock indicated that they have seen parts of this document, and some of the parts are okay. Based on the responses during the interviews, few have seen/read the document.
- *TxDOT Maintenance Operations Manual.* Lubbock thinks expansion of this document would be beneficial. Also, they stated that they would like “crash cards” for reference and for new employees. These cards would have tips and rules on them.
- *Training courses/modules.* The Lubbock district thinks that customized training with TFS would be helpful. Right now they use online FEMA ICS courses and (NIMS) training.

What are your suggested improvements to TxDOT wildfire response protocols? Please include topics such as employee safety, training, TxDOT command structure, TxDOT support services, dealing with outside agencies and dealing with the public.

Lubbock made the following suggestions:

- Better communication or better command post establishment with better communication
- Radio communication
- Supervisor should ask requestor (DPS) who else has been contacted.
- Need established point of contact (POC) and a better ICS
- Supervisor training so they can make safe knowledgeable calls on go/no-go situations.
- Representative with the IC at the Incident Command Post to relay information to the personnel on the ground on activities and actions
- Residential versus pasture protocol
- No work in the dark.
- Typically have a motor-grader followed by a pickup or pumper truck if close to the fire.
- Would like safety equipment requisition through equipment supply – shelters (on equipment) Nomex[®] overalls

Odessa District

What services from TxDOT are requested as part of this notification?

Odessa has request for the following services:

- Traffic control 80% of the time their services are requested.
- Equipment
- Fuel

How many such requests are made to your district in a typical year?

Odessa typically has less than five requests per year, excluding traffic control. However, this year they have had 10 requests. Including the traffic control, this year there has been a total of 100 requests.

How is a district notified of a Governor’s Proclamation or a Federal Disaster Declaration?

There have not been any fires started in this district.

What TxDOT office both inside and outside the district but outside the chain of command is involved in the event?

The Odessa district does not have a structured chain of command. The request can go up or down the ladder.

Do you use any forms to collect data at the district level to prepare reports or make reimbursement requests?

Odessa uses DARs for data collection. However, they are waiting on the Fire Management Assistance Grant (FMAG) meeting that the DPS has scheduled.

What mechanisms are currently used to ensure adequate data collection?

The Odessa district does not have anything to ensure adequate data collection. They call the sections after the fact, to get what is available.

Do you conduct advance briefings for the district response team before they leave for wildfire-related activities? How are such meetings conducted and what information is conveyed to participants?

Odessa watches the weather service during fire season and try to be prepared to respond to situations.

Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

The Odessa district does not have de-briefing meetings because they are never the lead agency on a wildfire event.

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?

The Odessa district has no responsibility to notify others. Most of the time everyone already knows.

What agencies does TxDOT interact with relating to the wildfire event? Please provide information on such interactions.

Odessa interacts with the following agencies for a wildfire event:

- DPS
- VFDs
- TFS
- Maintenance
- Utilities
- Counties

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

In the past, the Odessa district office had an annual meeting with the DPS. However, the DPS has not arranged that meeting in the last few years.

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

The Odessa district has all requests go through the RLO.

What TxDOT resources are typically utilized during wildfire events?

In Odessa the following resources are utilized:

- Traffic control
- Message boards
- Blades
- Water
- Small amounts of fuel
- Transportation of fire retardant

How many TxDOT field personnel are typically mobilized for a wildfire event? The districts were asked to give exact numbers if possible, but they were encouraged to indicate a range if they were not sure.

Odessa does not have a standard number of employees that are sent to assist on wildfire events. The number of employees varies from one to 20, depending on the fire.

How many TxDOT District employees serve in volunteer fire departments in their locality?

In Odessa there are approximately 20 volunteer firefighters.

Does TxDOT release such volunteer firefighter employees from TxDOT duties during wildfire events?

The volunteer firefighters are released if TxDOT can spare them, otherwise they are not. These employees can request compensatory time. They are allowed five days a year for volunteer firefighter training.

How often does your district provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?

The Odessa district rarely gives out fuel for wildfire events. This year they have given out 80 gallons of fuel.

In addition to fuel, does your district provide any other resources to outside agencies to effectively deal with the wildfire event?

The Odessa district provides water and transportation of fire retardant.

Who handles the cost reimbursement requests related to wildfire events within your district?

The DOM handles activities related to reimbursement.

What is your success rate of reimbursement for expenses incurred for a wildfire response? Indicate separately for different agencies that may be involved.

Odessa has never had to file for reimbursement.

What additional employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

In the Odessa district the employees are told that they are not firefighters. They are support only for wildfire events. The district feels that they should not be in the wildfire event at all.

Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments, equipment, and training?

No. Odessa District has someone stay around the firefighters to know if there is a shift in the fire so they can keep TxDOT employees out of harm's way. Usually, TxDOT is briefed by the IC. There is a hurricane video that the Odessa employees watch. This video gives information on what to expect, and situational awareness.

What public safety-related responsibilities does TxDOT have that are specific to wildfire events?

The Odessa district is responsible for traffic control. Sometimes they are asked to help evacuate by knocking on doors.

Do you have any advance preparation and readiness protocols to respond to wildfire situations? If so, are they unique to your district?

The Odessa stages equipment based on DPS information. They also have the trailers loaded and traffic control equipment ready.

Do you make advance preparations by monitoring weather, ground conditions or other factors? Please provide details of how conditions affect your decision for readiness preparation.

Odessa does not base advanced preparations on the weather. They rely on the weather service or the RLO will give notice.

Provide information about your readiness plans including coordination activities, staging areas, resource mobilization, etc.

The Odessa district has no formal protocols.

Please comment on the following existing resources/guidance from TxDOT and other agencies such as TDEM, TFS, FEMA, etc.

- TxDOT Guidance for Wildfire Response.
The Odessa district stated that the Guidance document needs to be updated.
- TxDOT Maintenance Operations Manual.
Odessa indicated that the Maintenance Operations Manual is not of much use.
- Training courses/modules.
For the Odessa district, local training is the key.

What are your suggested improvements to TxDOT wildfire response protocols? Please include topics such as employee safety, training, TxDOT command structure, TxDOT support services, dealing with outside agencies and dealing with the public.

Odessa had the following suggestions:

- Some districts may be overstepping in terms of what TxDOT should be doing on wildfires
- TxDOT's responsibilities at a wildfire event should be clearly defined and not overstepped.
- These districts may need to be pulled back before an accident occurs
- Do not contract traffic control

San Angelo District

What services from TxDOT are requested as part of this notification?

San Angelo District has provided:

- Dozers
- Bladers
- Motor graders
- Fuel trailer
- Water trailer
- Sign trailers
- Pickup trucks
- Personnel
- Portable Changeable Message Signs (PCMS)

How many such requests are made to your district in a typical year?

The San Angelo district has received 19 requests this year. In a typical year they have one to two requests.

How is a district notified of a Governor's Proclamation or a Federal Disaster Declaration?

The San Angelo district heard on the news that the Wildcat fire received the Governor's Proclamation.

What TxDOT office, either inside or outside the district but outside the chain of command is involved in the event?

In San Angelo the District engineer (DE), area engineer (AE), regional office, and purchasing office are outside the chain of command but involved in a wildfire event.

Do you use any forms to collect data at the district level to prepare reports or make reimbursement requests?

The San Angelo district relies on an email sent by DOM to Maintenance Supervisors asking for information on the event.

What mechanisms are currently used to ensure adequate data collection?

San Angelo uses DARs and SharePoint to ensure adequate data collection.

Do you conduct advance briefings for the district response team before they leave for wildfire-related activities? How are such meetings conducted and what information is conveyed to participants?

The San Angelo district does not conduct advanced briefings, because the fires are usually emergency situations. A supervisor meeting is held to give the information to the crews responding.

Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

There is no standard procedure for debriefing.

Once notified of a wildfire, what responsibilities does TxDOT have to notify others?

If there are road closures, the San Angelo district updates (HCR).

What agencies does TxDOT interact with relating to the wildfire event? Please provide information on such interactions.

San Angelo interacts with the following agencies:

- DPS
- Local Gov.
- TFS
- USFS
- VFD

What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?

San Angelo district interacts with the DPS on a routine basis.

Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

The DOM handles all contact with outside agencies.

What TxDOT resources are typically utilized during wildfire events?

The San Angelo district uses the following:

- Dozers
- Blades
- Motor graders
- Fuel trailer
- Water trailer
- Sign trailers
- Pickup trucks
- Personnel
- PCMS

How many TxDOT field personnel are typically mobilized for a wildfire event? The districts were asked to give exact numbers if possible, but they were encouraged to

indicate a range if they were not sure.

The San Angelo district usually has four to five personnel that run on shifts of 12 hours. The maximum number of personnel on one wildfire event was 37 for the Wildcat Fire.

How many TxDOT district employees serve in volunteer fire departments in their locality?

San Angelo district has two in Junction, one in Sterling City, and one in Ballinger for a total of four volunteer firefighters district wide.

Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?

San Angelo allowed miscellaneous leave this year for those who serve in VFDs.

How often does your district provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?

San Angelo district has provided fuel at every fire they have responded to. The most fuel given at one event was 10,000 gallons. They usually give out 500 gallons at one event.

In addition to fuel, does your district provide any other resources to outside agencies to effectively deal with the wildfire event?

The San Angelo district also provides water.

Who handles the cost reimbursement requests related to wildfire events within your district?

In the San Angelo district, Adie Gomez from the DOM office aids MNT for filing of reimbursement.

What is your success rate of reimbursement for expenses incurred for a wildfire response? Indicate separately for different agencies that may be involved.

San Angelo has been reimbursed for ice emergencies but not for fires.

What additional employee safety-related responsibilities does TxDOT have that are specific to wildfire events?

The San Angelo district instructs teams that they are not firefighters and should get no closer to a fire than blading.

Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments, equipment, and training?

The San Angelo would like shelters, as nothing is currently provided. Also they would like to look into fire clothing.

What public safety-related responsibilities does TxDOT have that are specific to wildfire events?

San Angelo district handles road closures notifications.

Does the district have any advance preparation and readiness protocols to respond to wildfire situations? If so, are they unique to your district?

San Angelo prepares by having the equipment on trailers and fueled by Thursday for the weekend. They work a four-day work week.

Do you make advance preparations by monitoring weather, ground conditions or other factors? Please provide details of how conditions affect your decision for readiness preparation.

San Angelo district does not have any formal advance preparation. They listen to weather alerts on the news.

Provide information about your readiness plans including coordination activities, staging areas, resource mobilization, etc.

The San Angelo district has staging areas established by TFS. They also have the hurricane plan that they adapt to wildfires. Another way that the district is prepared is that supervisors know whom to call for the teams that assist with wildfire events.

Please comment on existing resources/guidance from TxDOT and other agencies such as TDEM, TFS, FEMA, etc. that they might have.

TxDOT Guidance for Wildfire Response. The San Angelo district indicated that this document was pertinent to signs, and needs to be expanded to include how to help, how close to get, and what to do sections.

TxDOT Maintenance Operations Manual. The San Angelo district responded that this document was sketchy and brief. They also think the information needs to be in one place.

Training courses/modules. The San Angelo district thinks there should be some fire training ICS (FEMA), and TIFMAS.

What are your suggested improvements to TxDOT wildfire response protocols? Please include topics such as employee safety, training, TxDOT command structure, TxDOT support services, dealing with outside agencies and dealing with the public.

San Angelo suggested the following:

Clarification on who is POC on events. This will allow for more clear communication and coordination during the event.

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Appendices

- A. Texas Department of Transportation, Draft Guidance for Wildfire Response
- B. List of Acronyms
- C. Data Maps for Each District Interviewed
- D. Questionnaire
- E. Texas Administrative Code

APPENDIX A

Texas Department of Transportation

DRAFT GUIDANCE FOR WILDFIRE RESPONSE



Texas Department of Transportation

GUIDANCE FOR WILDFIRE RESPONSE

Burn Ban Signs

Electronic Message Signs

Generally, the Texas Department of Transportation (TxDOT) does not post burn ban messages on electronic message signs such as permanent Dynamic Message Signs or Portable Changeable Message Signs. However, TxDOT may post burn ban messages on electronic message signs, under special circumstances:

- Permanent Dynamic Message Signs (DMS)
 - If there is an active, catastrophic wildfire affecting the area, and the Disaster District Committee (DDC) Chairperson directs TxDOT to post burn ban messages,
or
 - Upon request by the State Operations Center and with the approval of TxDOT Administration,
or
 - At the discretion of the District Engineer, with regard to heightened fire activity.
- Portable Changeable Message Signs (PCMS).
 - If there is an active, catastrophic wildfire affecting the area, and the Disaster District Committee (DDC) Chairperson directs TxDOT to post burn ban messages,
or
 - At the discretion of the District Engineer, with regard to heightened fire activity.

TxDOT approval is required for message content, mainly to ensure that the message is effectively displayed based on the capabilities of the message sign. Portable Changeable Message Signs (PCMS) have less character-space than permanent Dynamic Message Signs

(DMS), so they are less-effective at handling longer messages. For example, a message about calling an Arson Hotline would need to be displayed on DMS rather than PCMS.

The Dynamic Message Signs and Portable Changeable Message Signs are traffic control devices used for managing travel, controlling and diverting traffic, and identifying current and anticipated roadway conditions. Use of the message signs for the purpose of publicizing burn bans is restricted, because the message signs are better suited for other purposes. If needed and available, electronic message signs can be used to display TxDOT-approved messages about detours, road closures, visibility problems due to smoke, or other traffic control issues, as warranted by the emergency. This is normal TxDOT practice.

The target audience for routine burn ban messages tends to be the people living in a county that has a county commissioner's court burn ban in effect. Those people are typically made aware of the burn ban by newspapers and radio. Drivers passing through that county are not the main target audience.

What if a County wants burn ban messages displayed?

- During a catastrophic wildfire, a local elected official who wants TxDOT to display burn ban messages may request this through the DDC Chairperson.
- If a county perceives a need to display burn ban signs, and electronic display is denied, perhaps permanent, county-provided, ground-mounted signs would be an appropriate alternative.

Permanent Ground-Mounted Signs for Burn Bans

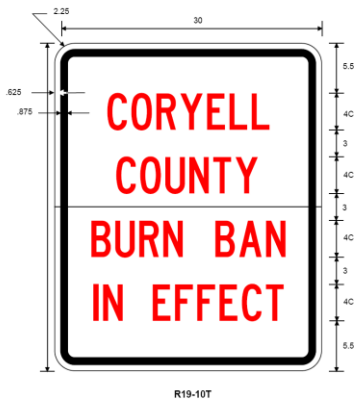
Counties are permitted to provide and install their own burn ban signs along TxDOT-maintained right of way, but only if those signs comply with TxDOT policy. (See table and references below.) TxDOT approves sign-mount locations and inspects and documents installations according to District-determined procedures. It is the County's responsibility to coordinate with utility companies, as applicable, when placing signs.

Burn ban signs must be concealed or removed from view unless a burn ban is in effect. (Example: A hinged sign opened to display a burn ban advisory should be returned to its folded/closed position when a burn ban is discontinued.) TxDOT suggests that burn ban signs be white with red letters. Burn ban signs must not block other signs from view.

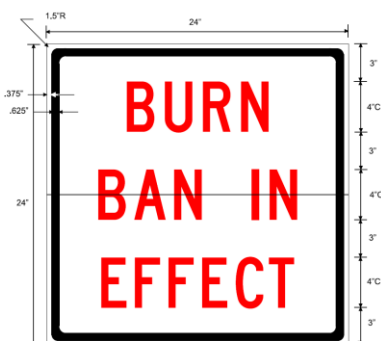
Sign material	Location	Type of Support	Notes
Metal	Adjacent to ROW line	Breakaway	
Wood	Adjacent to ROW line	Breakaway	
Paper	Adjacent to ROW line or with location approval by TxDOT	If within the clear zone (which typically means within 30' of the travel lane), must be on a compliant work zone traffic control device	<ul style="list-style-type: none"> • Temporary or permanent • Safer sign material
Plastic	Adjacent to ROW line or with location approval by TxDOT	If within the clear zone (which typically means within 30' of the travel lane), must be on a compliant work zone traffic control device	<ul style="list-style-type: none"> • Temporary or permanent • Safer sign material

Burn Ban signs allowed on TxDOT ROW

County Provided, Installed and Maintained



- Substrate: Metal or Wood- 30" x 36"
- White reflective background with red lettering and font
- County provided, installed and maintained, including flipping up and down
- TxDOT approved breakaway support provided, installed and maintained by County
- Bottom of sign must be minimum 7' above travel lane (unless >30' from travel lane)
- Installed at location agreed upon by District Engineer
- Fabricated at 3rd party shop (county or private business)
- Not allowed as attachment to existing sign post
- Displayed only during burn bans



- Substrate: composite (thermoplastic between 2 sheets of thin aluminum)- 24" x 24"
- White reflective background with red lettering and font
- County provided, installed and maintained, including flipping up and down
- May be attached on existing TxDOT route marker or county line sign support
- Top of this sign must be within 3" of the bottom of the route marker shield
- Installation must be approved by District Engineer
- Fabricated at TDCJ- (Tim Williams of TDCJ at 903-928-2217, Ext. 3462).
- No substitutes permitted due to traffic hazards
- Displayed only during burn bans



- Substrate: Vinyl- 48” x 48” with grommets
- Red non-reflective background with white lettering and font
- County provided, installed and maintained, including removal from ROW after burn ban is lifted
- May be attached on ‘T’ post, and only adjacent to ROW line
- Fabricated by any supplier
- Installation must be approved by District Engineer
- Substitutes for substrate, size, wording and color permitted with District Engineer’s approval
- Displayed only during burn bans

TxDOT policies for permanent ground-mounted signs can be found on the TxDOT Internet Site, accessible through the following link: <http://www.dot.state.tx.us>

1. On the TxDOT web page, click on Business.
2. On the Business page, scroll down to Specifications and Plans and click on CAD Standards.
3. At the Statewide CAD Standard Plan Files Disclaimer, click on I Accept.
4. Scroll down to the Traffic Operations Division section; click on Traffic Engineering Standard Plan Sheets.
5. Scroll down to the Sign Mounting Standards. Recommended printout size is 11”x17”.

(The TxDOT Intranet link is: <ftp://ftp.dot.state.tx.us/pub/txdot-info/cmd/cserve/standard/traffic/smd2002.pdf>)

Approved supports for temporary signs are in the Compliant Work Zone Traffic Control Device List, available upon request. The TxDOT Intranet link is: <http://crossroads.org/trf/TRFTEPS2/cwztcdf>

Fuel for Volunteer Fire Departments

Under circumstances that warrant it, TxDOT will supply Volunteer Fire Departments (VFDs) with fuel. When supplying VFDs with fuel, the District should track the fire name, amount of fuel supplied, itemized by type, license plate number of the volunteer vehicle and signature. Enclosed is a sample sheet which can be used.

- Fire name
- Number of gallons of gasoline
- Number of gallons of diesel
- License number of VFD vehicle
- Signature of Volunteer receiving fuel

Providing fuel to VFDs

- Must be in response to a catastrophic active fire.
- Only upon request by the State Operations Center or Disaster District Committee (DDC).
- Will be at the discretion of the District Engineer who will ensure fuel is being used as intended.

TxDOT Employees Who Are Volunteer Firefighters

TxDOT employees who are volunteer firefighters may be granted miscellaneous leave to respond to emergency fire calls as needed during normal work hours. DE/DD/OD/RD may use discretion in granting leave for firefighting duty. Under no circumstances will employees perform firefighting duties while on TxDOT time.

Responder Equipment Repairs

TxDOT is not tasked to repair or maintain vehicles of other agencies. Assistance for repairing equipment's mechanical problems will need to be handled through the Texas Forest Service.

Fireguards

General

For locations on the TxDOT right of way (ROW), TxDOT will conduct shredding, mowing, emergency blading, or other activities to assist in prevention of wildfire spread. Personnel safety is our number one concern, when requested to perform emergency wildfire support, if possible request a fire response unit to be near to provide protection for the operator and equipment. For another agency to assist with such ROW activities, a wildfire must be approaching and the Incident Commander must have decided to use the highway as a firebreak. Work on the right of way in unapproved areas or using unapproved methods will be considered a violation of this effort and will be dealt with as needed to prevent unnecessary destruction of state property.

To interrupt the spread of wildfire and assist in its containment, blading of vegetation may be needed, to form firebreaks. The result of this process, unfortunately, has the potential to cause erosion, pollution, and possibly a need for additional resources to re-vegetate the bladed ROW. Operational vigilance and completion of compliancy paperwork are needed, in an effort to preserve the environment as much as possible.

Because of the environmental impact of firebreaks, TxDOT strives to limit emergency blading to special circumstances:

- If there is an active, catastrophic wildfire affecting the area, and the DDC Chairperson directs TxDOT to clear vegetation,
or
- Upon request by the State Operations Center
and
- with the approval of TxDOT Administration.

What if a County wants TxDOT to create a firebreak?

A local elected official requesting TxDOT to perform emergency activities, for locations either on or off of the ROW, may request this through the DDC Chairperson. Standard procedures for mobilizing TxDOT equipment for assistance remain in place. Use of TxDOT equipment to clear vegetation is at the discretion of the District Engineer, and without an immediate threat of fire danger, it is highly unlikely that TxDOT will provide off-ROW assistance.

Paperwork Requirements for On-ROW Fireguards

Fireguards constructed within TxDOT's right-of-way for the protection of agricultural lands do not require authorization under the Construction General Permit (CGP). Chapter 2 (State Agricultural Policy) of the Agriculture Code defines agriculture as the cultivation of the soil to produce crops, horticulture, floriculture, or viticulture, forestry or the raising of livestock or poultry.

When a disaster proclamation issued by the Governor suspends all rules and regulations that may inhibit or prevent the prompt response to the threat, the CGP may be considered suspended with regard to blading of fireguards in the counties specified in the proclamation. Under these conditions, fireguards may be constructed as necessary to prevent or to lessen the potential for disaster.

Fireguards constructed in counties not included in the Governor's disaster proclamation or not constructed to protect agricultural lands, may be authorized under the CGP as described in the streamlined Storm Water Prevention Plan (SW3P) for Fireguards. SW3P for Fireguards can be found as an attachment to this document and at the following link:

<http://crossroads.org/env/Guidance/NRM/wrm.htm>

Operational Considerations for Emergency Blading

- **Safety of our personnel is our number one concern, when possible have fire personnel near, standing by.**
- Blading should be conducted at a depth of no more than 2-4 inches.
- During blading, earthen dams should be created at each outfall to create a temporary holding basin for runoff.
- No blading will be allowed within the high water mark of creek and river crossings that fall under US Corps of Engineers' jurisdiction. (TxDOT offices should be familiar with these locations.)
- After the event, materials bladed from TxDOT ROW should be redistributed at the bladed site.
- Where TxDOT ROW vegetation was bladed, if re-vegetation does not occur within 90 days after normal rainfall patterns have resumed, TxDOT must employ additional stabilization techniques.

Carcass Disposal

Texas Commission on Environmental Quality (TCEQ) is generally responsible for ensuring compliance with environmental regulations in the aftermath of a wildfire. For obtaining approved procedures for carcass disposal, contact the TxDOT District Environmental Quality Coordinator (DEQC) who may coordinate with TCEQ and Texas Animal Health Commission. Typically, livestock as a wildfire casualty is buried. Regulations apply, such as restrictions regarding proximity to water sources, the amount of material allowed burial in each location, the amount of coverage needed, and permission to work on private property.

Critical Incident Stress Management (CISM)

TxDOT employees should be reminded that they may use EAP as a resource.

- Employee Assistance Program (EAP) counselors can be called on by individuals or asked to serve a group.

It is possible that teams of counselors will be available from other state and non-profit agencies. TxDOT may request their services via the State Operations Center.

Updates on Road Conditions

TxDOT will continue to enter road closures into the Highway Condition Reporting System (HCRS) which the public can access online or by calling (800) 452-9292.

Media Relations

TxDOT's normal public information activities will be in place. This includes providing appropriate representation at the TxDOT EOC and respective TxDOT District Emergency Operations Centers (EOC's). Public Information Officers serving at the district level and/or at the TxDOT statewide level will be available to coordinate with a Joint Information System (JIS).

A District Public Information Officer (PIO) should:

- Publicize burn bans issued for a county, via local media. The goal is to reduce need for burn ban signs along roadways.
- Set up a Joint Information Center (JIC) if asked to do so by the DDC Chairperson. This could entail finding and/or providing a location and serving as a lead PIO.

Governor's Proclamation

During an extreme fire hazard which threatens many counties in the state, the Governor may issue a proclamation certifying a state of disaster for the entire state or for certain named counties. A governor's proclamation means all rules and regulations that may inhibit or prevent prompt response to the threat of fire are suspended (reference Texas Government Code 418.016).

TxDOT Web Sites

TxDOT will continue to provide information as applicable to the external TxDOT Internet Site and to the Maintenance Intranet Site

http://crossroads.org/mnt/MS/EmgyMgmt/index_files/Page599.htm (on Crossroads). The Maintenance Intranet Site offers a link to Texas Forest Service information. (Note: Internet access is required for a user to access information via this Texas Forest Service link.)

<http://txforestsERVICE.tamu.edu/main/default.aspx>

APPENDIX B

LIST OF ACRONYMS RELATED TO WILDFIRE RESPONSE

LIST OF ACRONYMS RELATED TO WILDFIRE RESPONSE

AAR – After Action Review
AC – Area Commander
ACA – Alternative Consultation Agreement
AD – Administratively Determined Pay Plan
AFF – Automated Flight Following
AFS – Alaska Fire Service
AMD – Aviation Management Directorate
AMR – Appropriate Management Response
AMRS – All-Hazards Meteorological Response System
APMC - Agency Provided Medical Care
APT – Administrative Payment Team
ARD – Air Resources Division
ARD – Associate Regional Director
ASAT – Aviation Safety Assistance Team
ASCADS – Automated Sorting, Conversion, and Distribution System
ASMI – Aerial Supervision Module
ATD – Actual Time of Departure

BAER – Burned Area Emergency Response
BAR – Burned Area Rehabilitation
BAU – Budget Advisory Unit
BIA – Bureau of Indian Affairs
BLM – Bureau of Land Management
BPA – Blanket Purchase Agreement / Business Purchase Agreement
BUYT – Buying Team

C# - Crew Resource Request Number
CA – Community Assistance
CAA – Clean Air Act
CAR – Communities-at-Risk
CAT – Cost Apportionment Team
CBI – Composite Burn Index
CDO – Communications Duty Officer
CE – Categorical Exclusion
CESU – Cooperative Education Studies Unit
CFFP – Cooperative Forest Fire Prevention Program
CFR – Code of Federal Regulations
CIO – Chief Information Officer
CLMS – Claims Specialist
CMMS – Computer Maintenance Management System
CMSY – Commissary Manager
CO – Contracting Officer
COMC – Communications Coordinator

COML – Incident Communication Unit Leader
COP – Continuation of Pay / Chief-of-Party
COR – Contracting Officer Representative
COST – Cost Unit Leader
COTR – Contracting Officer Technical Representative
CPIC – Capital Planning and Investment Control
CREP – Crew Representative
CRM – Crew Resource Management
CTR – Crew Time Report
CWN – Call-When-Needed agreements
CWPP – Community Wildfire Protection Plan

DASHO – Designated Agency Safety and Health Official
DASP – Disaster Assistance Support Program
DAWG – Data Administration Working Group
DCO – Defense Coordination Officer
DIAR – Department of the Interior Acquisition Regulation
DM – Departmental Manual
DMS – Dispatch Messaging System
DO – Director’s Order
DOD – Department of Defense
DOI – Department of the Interior
DOT – Department of Transportation
DRGS – Direct Readout Ground Station
DRM – Data Reference Model
DROT – DOMSAT Receive-only Terminal

E# - Equipment Resource Request Number
EA – Enterprise Architecture
EA – Environmental Assessment
EERA – Emergency Equipment Rental Agreements
EFT – Electronic Funds Transfer
EFTR – Emergency Firefighter Time Report
EIS – Environmental Impact Statement
ELA – Enterprise License Agreement
EPA – Environmental Protection Agency
EQTR – Equipment Time Recorder
ES – Emergency Stabilization
ESA – Endangered Species Act
ESF – Environmental Screening Form
ESM – Environmental Statement Memorandum
ESR – Emergency Stabilization and Rehabilitation
ETA – Estimated Time of Arrival
ETD – Estimated Time of Departure
ETE – Estimated Time En route

FAAP – NPS Fire and Aviation Applications Portal
FAR – Federal Acquisition Regulation
FAST – Wildland Fire and Aviation Safety Team
FBO – Fixed Base Operator
FEA – Federal Enterprise Architecture
FEAT – Fire Ecology Assessment Tool
FEC – Fire Executive Council
FECA – Federal Employees Compensation Act
FEIS – Fire Effects Information System
FEMO – Fire Effects Monitor
FFS – Federal Financial System
FGDC – Federal Geographic Data Committee
FIREMON – Fire Effects Monitoring and Inventory System
FISMA – Federal Information Security Management Act
FLE – Fire Line Explosives
FLSA – Fair Labor Standards Act
FMLB – Fire Management Leadership Board
FMO – Fire Management Officer
FMP – Fire Management Plan
FMPC – Fire Management Program Center
FMU – Fire Management Unit
FOG – Field Operations Guide
FONSI – Finding of No Significant Impact
FOR – Fixed Ownership Rate
FPA – Fire Program Analysis
FPU – Fire Planning Unit
FRAMES – Fire Research and Management Exchange System
FRAWS – Wildfire Support Remote Automated Weather Station
FRCC – Fire Regime and Condition Class
FS – Forest Service
FSC – Finance/Administration Section Chief
FTE – Full Time Equivalency
FTP – File Transfer Protocol
FTS – Forest Technology Systems
FUM – Fire Use Manager
FUMT – Fire Use Management Team
FWS – Fish and Wildlife Service

GACC – Geographic Area Coordination Center
GACG – Geographic Area Coordinating Group
GIS – Geographic Information System or Geospatial Information System
GMAC – Geographic Multi-Agency Coordination Group
GMP – General Management Plan
GOES – Geostationary Operational Environmental Satellite
GPO – Government Printing Office
GPRA – Government Performance Results Act

GPS – Global Positioning System
GS – General Schedule (Pay Plan)
GSA – U.S. General Services Administration
GTG – NWCG Geospatial Technology Group
GVW – Gross Vehicle Weight Rating

HFI – Healthy Forests Initiative
HMGB – Helicopter Manager Single Resource
HSPD – Homeland Security Presidential Directive
HUDC – Host Unit Dispatch Center

I&M – Inventory and Monitoring
IA – Initial Attack
IAP – Incident Action Plan
IARR – Interagency Resource Representative
IBC – Incident Business Advisor
IC – Incident Commander
ICC – International Code Council
ICO – Incident Contracting Officer
ICP – Incident Command Post
ICS – Incident Command System
ICS 209 – Incident Status Summary
IDIQ – Indefinite Delivery, Indefinite Quantity
IDT – Interdisciplinary Team
IFP – Incident Finance Package
IFPM – Interagency Fire Program Management
IGO – Intra-Governmental Order
IHC – Interagency Hotshot Crew
IMET – Incident Meteorologist
IMSR – Incident Management Situation Report
IMT – Incident Management Team
INCINET – Incident Network
INJR – Injury Compensation Specialist
IPAC – Intra-Governmental Payment and Collection
IQCS – Incident Qualifications and Certification System
IRAWS – Incident Remote Automatic Weather Station
IRIN – Infrared Interpreter
IRM – Information Resource Management
IRPG – *Incident Response Pocket Guide* (NFES 1077, PMS 461)
ISO – Incident Support Organization
ISOG – Interagency SEAT Operations Guide
IT – Information Technology
ITIC – Information Technology Investment Council

JCC – Job Corp Center
JFSP – Joint Fire Science Program

JFO – Joint Field Office
JHA – Job Hazard Analysis

LAL – Lightning Activity Level
LCES – Lookouts-Communications-Escape Routes-Safety Zones
LODD – Line of Duty Death
LWOP – Leave Without Pay

M# - Medical Resource Order Number
MAC – Multi-Agency Coordinating Group
MAFFS – Modular Airborne Fire Fighting System(s)
MCAD – Military Crew Advisor
MCR – Human-caused Risk
MIST – Minimum Impact Suppression Tactics
MMA – Maximum Manageable Area
MOA – Memorandum of Agreement
MOU – Memorandum of Understanding
MRE – Meals Ready to Eat
MTBS – Monitoring Trends in Burn Severity

NAAQS – National Ambient Air Quality Standards
NAFRI – National Advanced Fire and Resource Institute
NASF – National Association of State Foresters
NCO – National Contracting Officer
NEPA – National Environmental Policy Act
NFDRS – National Fire Danger Rating System
NFES – National Fire Equipment System
NFP – National Fire Plan
NFPA – National Fire Protection Agency
NFPET – National Fire Prevention Education Team
NFPORS – National Fire Plan Operations and Reporting System
NGO – Non-governmental Organization
NHPA – National Historic Preservation Act
NICC – National Interagency Coordination Center
NIFC – National Interagency Fire Center
NIIMS – National Interagency Incident Management System
NIMO – National Incident Management Organization Teams
NIRSC – National Incident Radio Support Cache
NISC – National Information Systems Center
NITC – National Information Technology Center
NMAC – National Multi-Agency Coordination [Group]
NMAS – National Map Accuracy Standard
NOI – Notice of Intent
NPS – National Park Service
NRCC – National Response Coordination Center
NRF – National Response Framework

NWCG – National Wildfire Coordinating Group
NWFEA – National Wildland Fire Enterprise Architecture

O# - Overhead Resource Request Number
OF – Optional Form
OFDA – Office of Foreign Disaster Assistance
OGC – Office of General Council (USDA)
OMB – Office of Management and Budget
ONPS – Operations of NPS funding
OPF – Official Personnel Folder
OSHA – Occupational Safety and Health Administration
OWCP – Office of Workers’ Compensation Programs
OWDC – Operations and Workforce Development Committee
OWFC – Office of Wildland Fire Coordination

P.L. – Public Law
PAX - Passengers
PII – Personally Identifiable Information
PM – Particulate Matter
PMIS – Project Management Information System
PMS – Publication Management System
PMU – Program Management Unit
POC – Point of Contact
POE – Point of Entry
PPE – Personal Protective Equipment
PRAWS – A non-fire project support Remote Automated Weather Station
PROC – Procurement Unit Leader
PRM – Performance Reference Model
PSD – Prevent Significant Deterioration
PTB – Position Task Book
PTRC – Personnel Time Recorder
PWE – Primary Work Element

QA/QC – Quality Assessment / Quality Control

RAMS – Risk Assessment and Mitigation Strategies
RAO – Regional Aviation Officer
RAWS – Remote Automated Weather Station
RCU – Responsibilities for Computer Use
RFD – Rural Fire Department
RMP – Resource Management Plan
ROD – Record of Decision
ROMAN – Real-time Observation Monitoring and Analysis Network
ROSS – Resource Ordering and Status System
RRCC – Regional Response Coordination Center
RSFWSU – Remote Sensing Fire Weather Support Unit

RSS – Resource Stewardship Strategy
RX – Prescribed (fire)

S# - Supply Resource Request Number
SACS – Shared Application Computer System
SAIT – Serious Accident Investigation Team
SCC – Service-wide Comprehensive Call
SCSEP – Senior Community Service Employment Program
SEAT – Single Engine Air Tanker
SF – Standard Form
S&PF – State and Private Forestry
SHPO – State Historic Preservation Office
SIP – State Implementation Plan
SLA – Service Level Agreement
SME – Subject Matter Expert
SMIS – Safety Management Information System
SMTP – Simple Mail Transfer Protocol
SOP – Standard Operating Procedure
SPOC – Single Point of Contact
STLM – Strike Team Leader - Military
SUA – Satellite User Agreements
SWB – Statement of Work and Budget

T&E – Threatened and Endangered
TFR - Temporary Flight Restriction
THPO – Tribal Historic Preservation Office
THSP - Technical Specialist
TIME – Time Unit Leader
TMA - Truck- Mounted Attenuator

USC – United States Code
USDA – United States Department of Agriculture
USFA – United States Fire Administration
UTF – Unable to Fill

VOR - VHF Omnidirectional Range
VLAT - Very Large Airtanker

YCC – Youth Conservation Corp
YOYP – You Order You Pay

WASO – Washington Support Office
WCF – Working Capital Fund
WFEWT – Wildland Fire Education Working Team
WFIEB – Wildland Fire Investment Evaluation Board

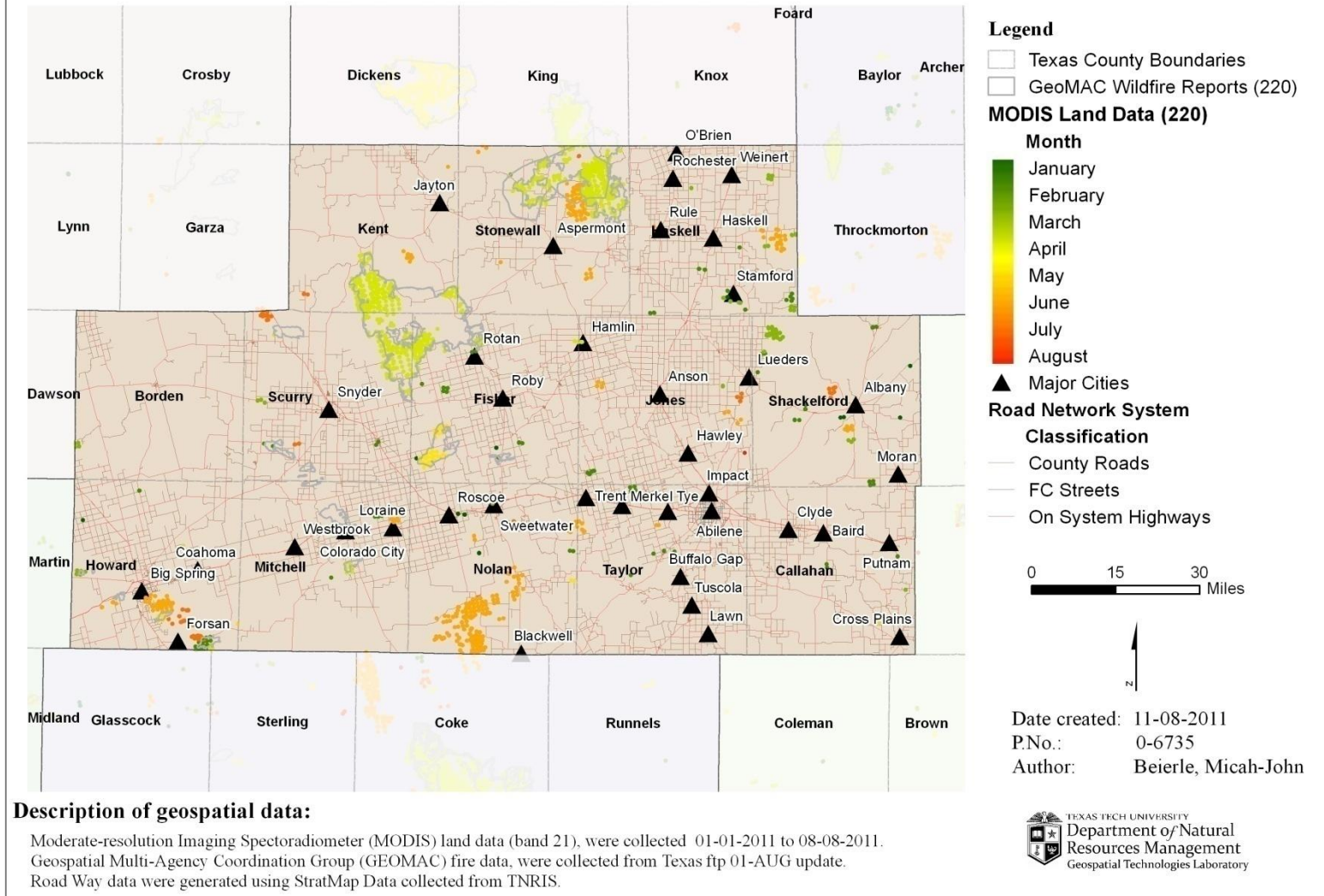
WFIP – Wildland Fire Implementation Plan
WFLC – Wildland Fire Leadership Council
WFMI – Wildland Fire Management Information System
WFSA – Wildland Fire Situation Analysis
WG – Wage Grade (Pay Plan)
WIMS – Weather Information Management System
WL – Wage Leader
WRCC – Western Region Climate Center
WS- Wage Supervisor
WUI – Wildland Urban Interface

APPENDIX C

WILDFIRE LOCATION AND EMERGENCY MANAGEMENT DISTRICT MAPS FOR EACH DISTRICT INTERVIEWED

Abilene

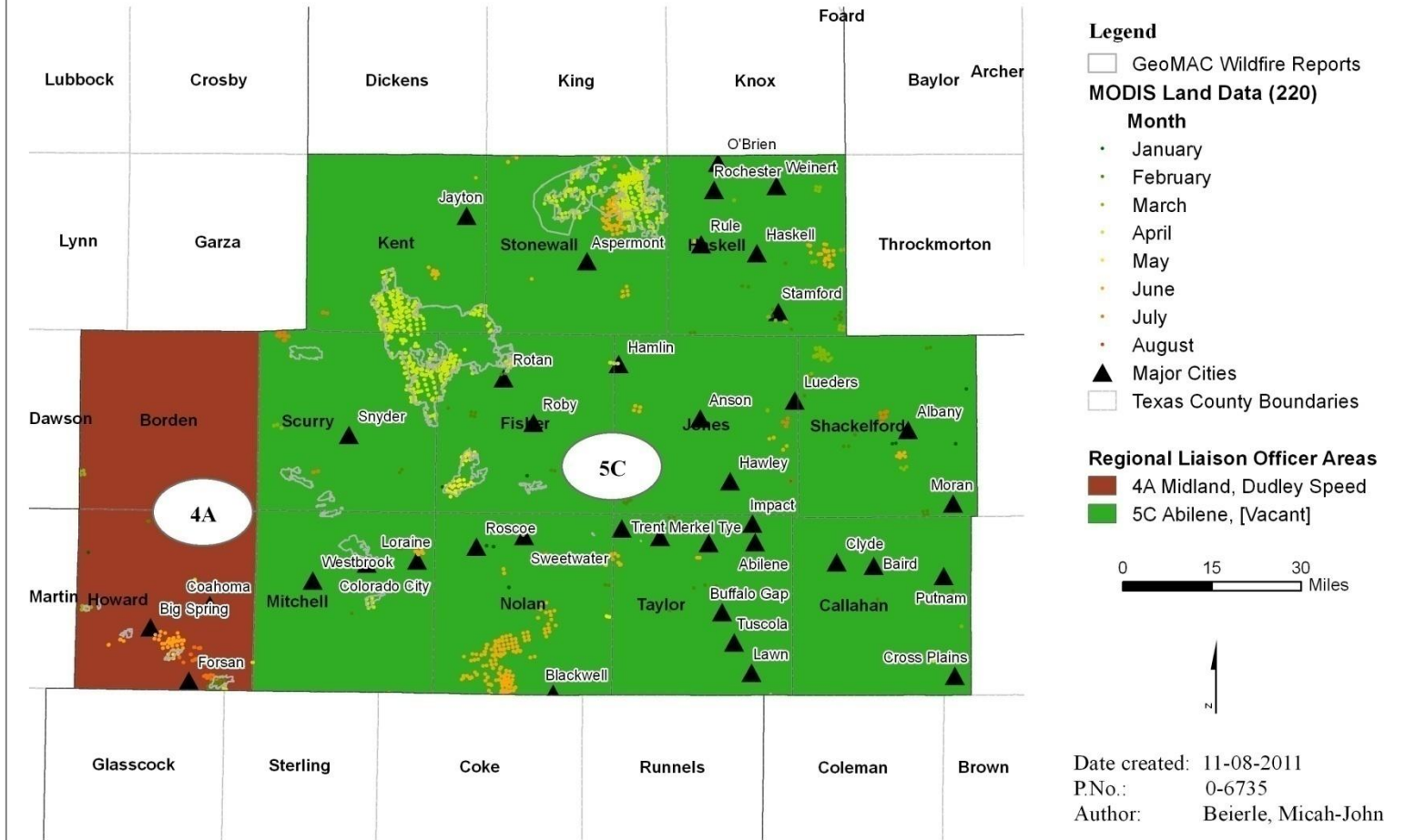
Multi-resource Wildfire Detections for January 2011 to the 220th (Aug, 8th) day of 2011 within the Abilene TxDOT District



Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 08-08-2011. Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update. Road Way data were generated using StratMap Data collected from TNRIS.

Multi-resource Wildfire Detections from January 1st 2011 - August 8th 2011 Abilene TxDOT District, Regional Liaison Officer Areas



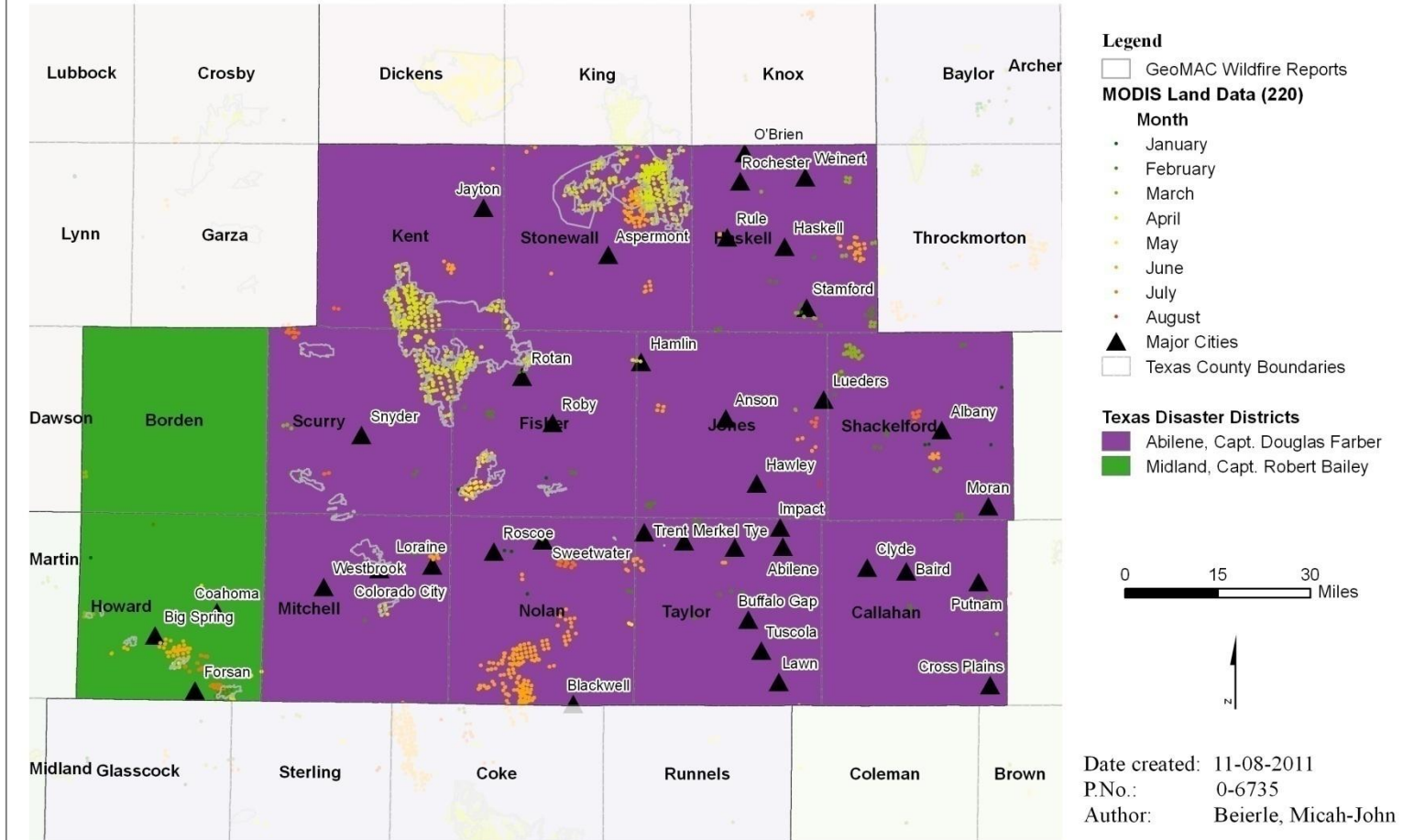
Date created: 11-08-2011
P.No.: 0-6735
Author: Beierle, Micah-John

Description of geospatial data:

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Multi-resource Wildfire Detections from January 1st 2011 - August 8th 2011 Abilene TxDOT District, Texas Disaster Districts

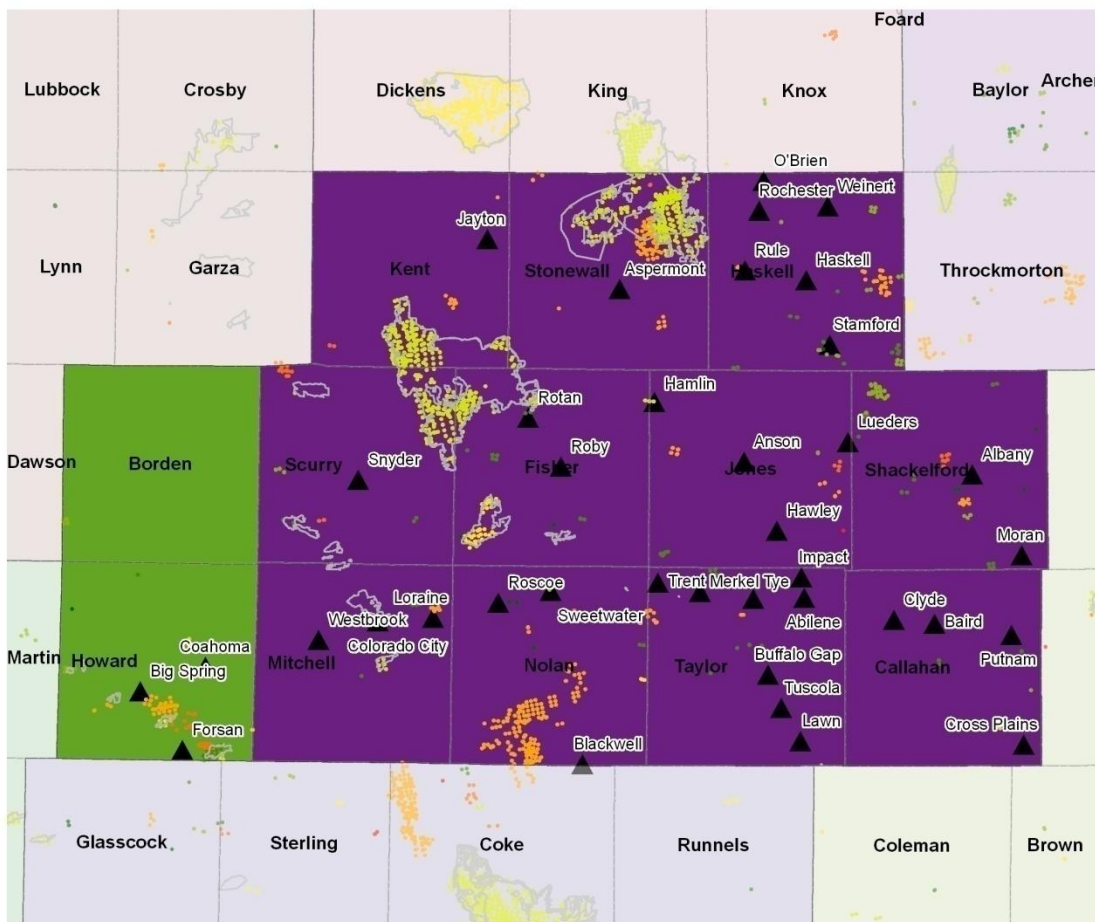


Description of geospatial data:

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Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
Road Way data were generated using StratMap Data collected from TNRRIS.



Multi-resource Wildfire Detections for January 1st 2011 - August 8th 2011 Abilene TxDOT District, Texas Forest Service Regional Fire Coordinators



Legend

- Texas County Boundaries
- GeoMAC Wildfire Reports

MODIS Land Data (220)

Month

- January
- February
- March
- April
- May
- June
- July
- August
- ▲ Major Cities

TRFC_Regio

- Abilene, Brad Britten
- Fort Stockton, Bill Davis

0 12.5 25 Miles



Date created: 09-08-2011
P.No.: 0-6735
Author: Beierle, Micah-John

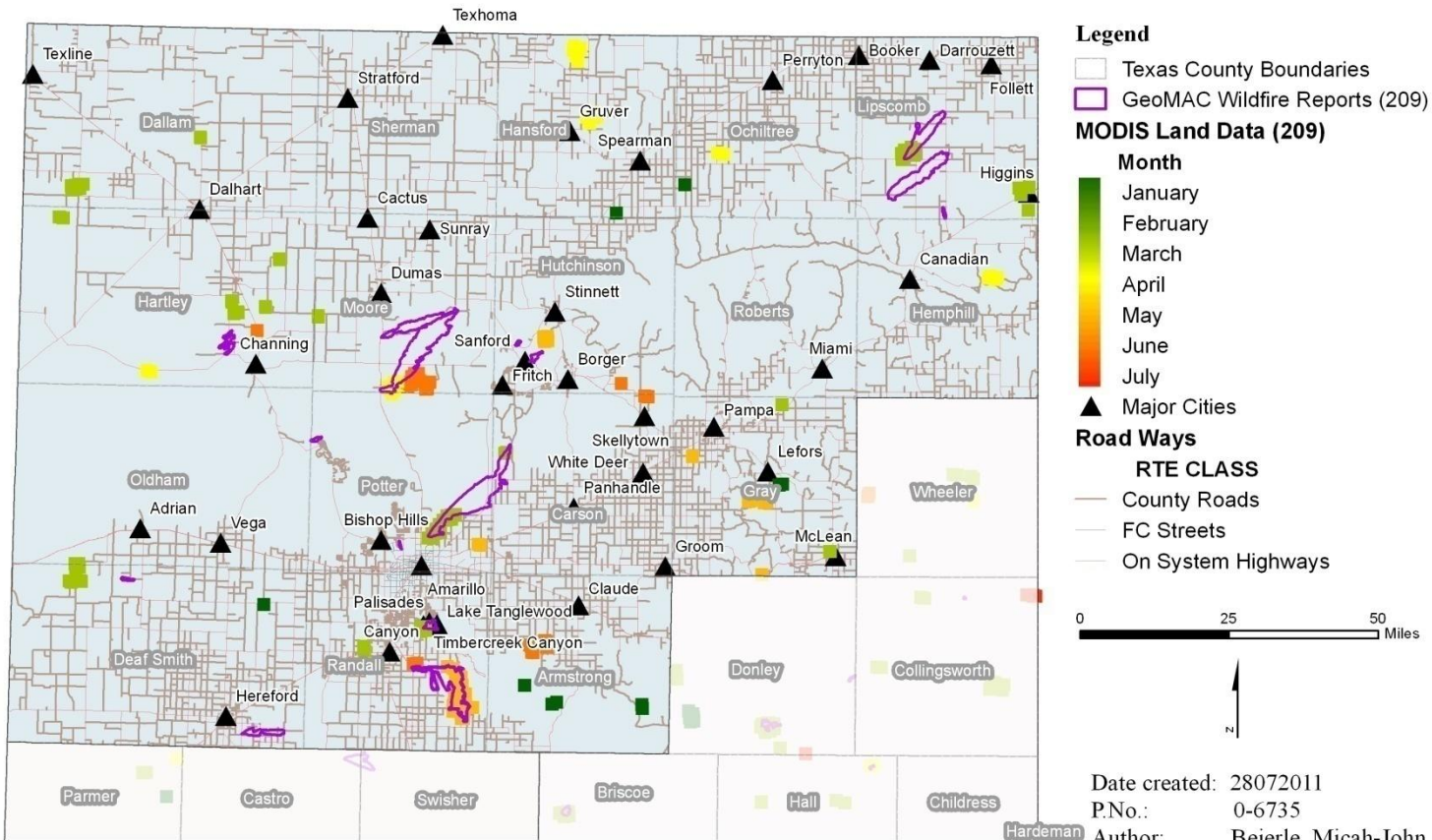
Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 08-08-2011. Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update. Road Way data were generated using StratMap Data collected from TNRS.



Amarillo

Multi-resource Wildfire Detections for January 1st 2011 to the 209th (Jul, 28th) day of 2011 within the Amarillo TxDOT District

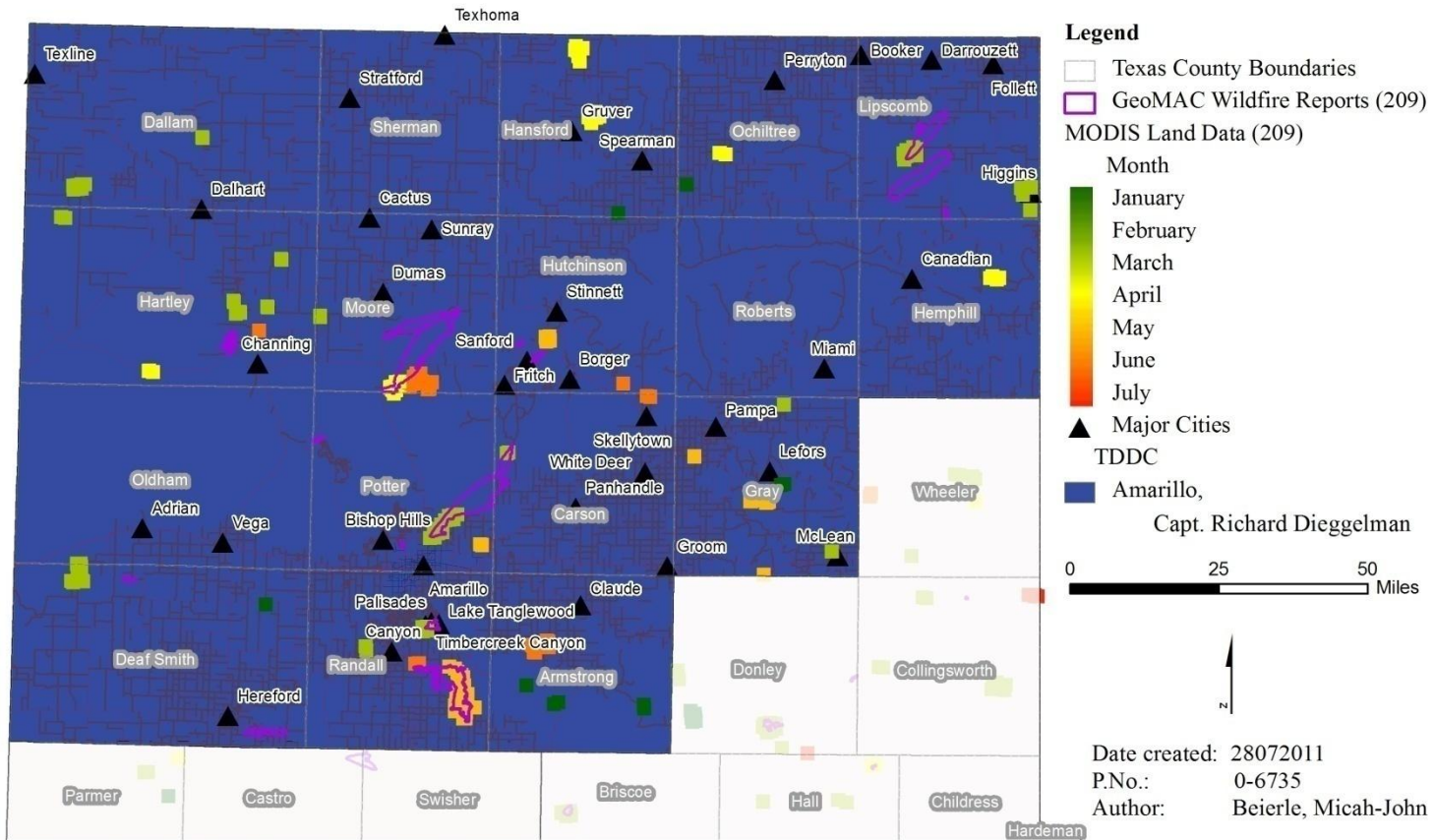


Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01012011 to 28072011. Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update. Road Way data were generated using StratMap Data collected from TNRIS.



Multi-resource Wildfire Detections for January 1st 2011 to the 209th (Jul, 28th) day of 2011 within the Amarillo TxDOT District, Texas Disaster Districts

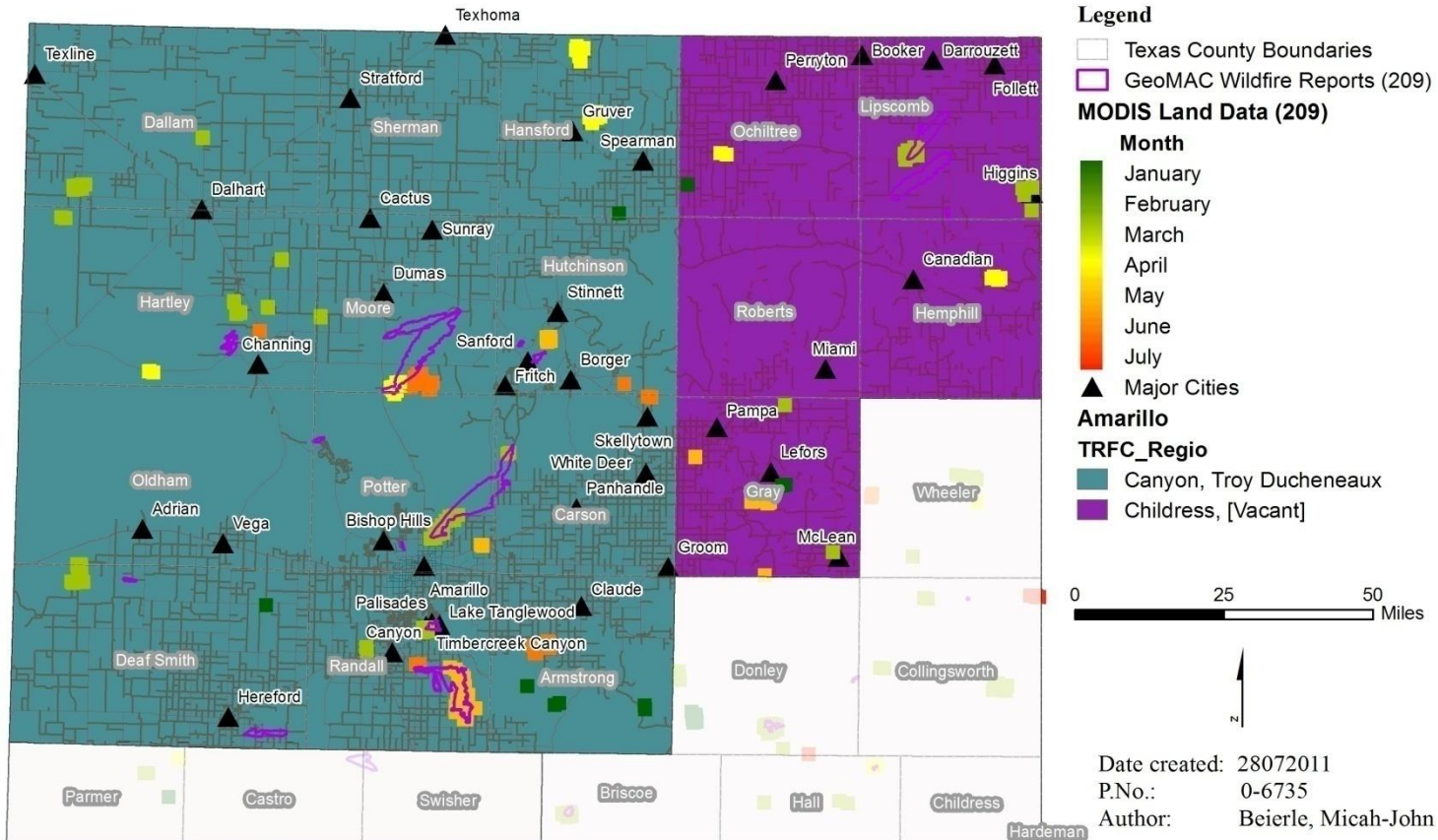


Description of geospatial data:

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 Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
 Road Way data were generated using StratMap Data collected from TNRIS.



Multi-resource Wildfire Detections for January 1st 2011 to the 209th (Jul, 28th) day of 2011 within the Amarillo TxDOT District, Texas Forest Service Regional Fire Coordinators



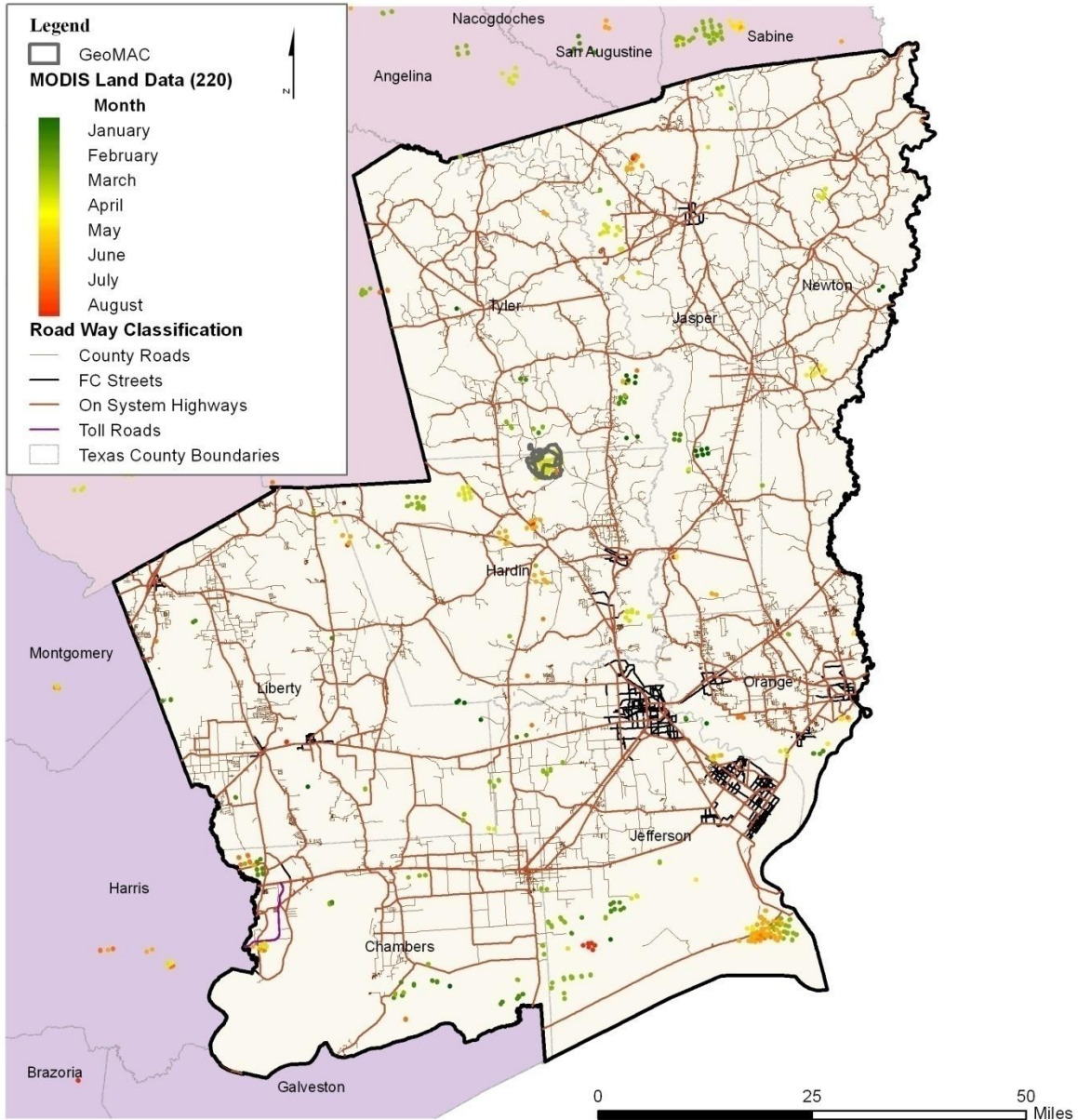
Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01012011 to 28072011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
Road Way data were generated using StratMap Data collected from TNRIS.



Beaumont

Multi-resource Major Wildfire Detections for January 2011 to the 220th (Aug, 8th) day of 2011 within the Beaumont TxDOT District



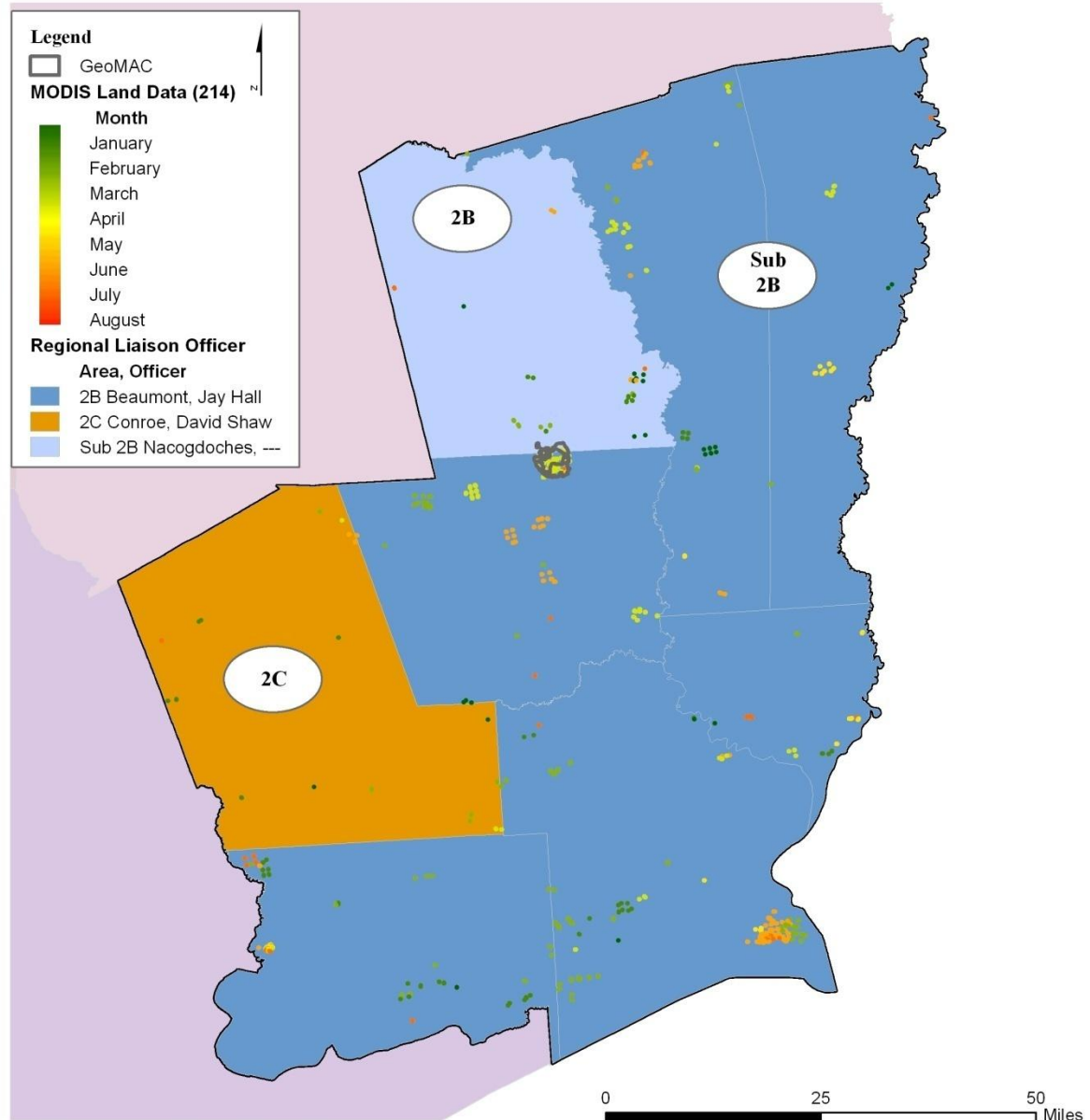
Description of geospatial data:

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 Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
 Road Way data were generated using StratMap Data collected from TNRS.

Date created: 08-08-2011
 P.No.: 0-6735
 Author: Beierle, Micah-John



Multi-resource Major Wildfire Detections for January 2011 to the 214th (Aug, 2nd) day of 2011 within the Beaumont TxDOT Districts three Regional Liaison Officer Areas



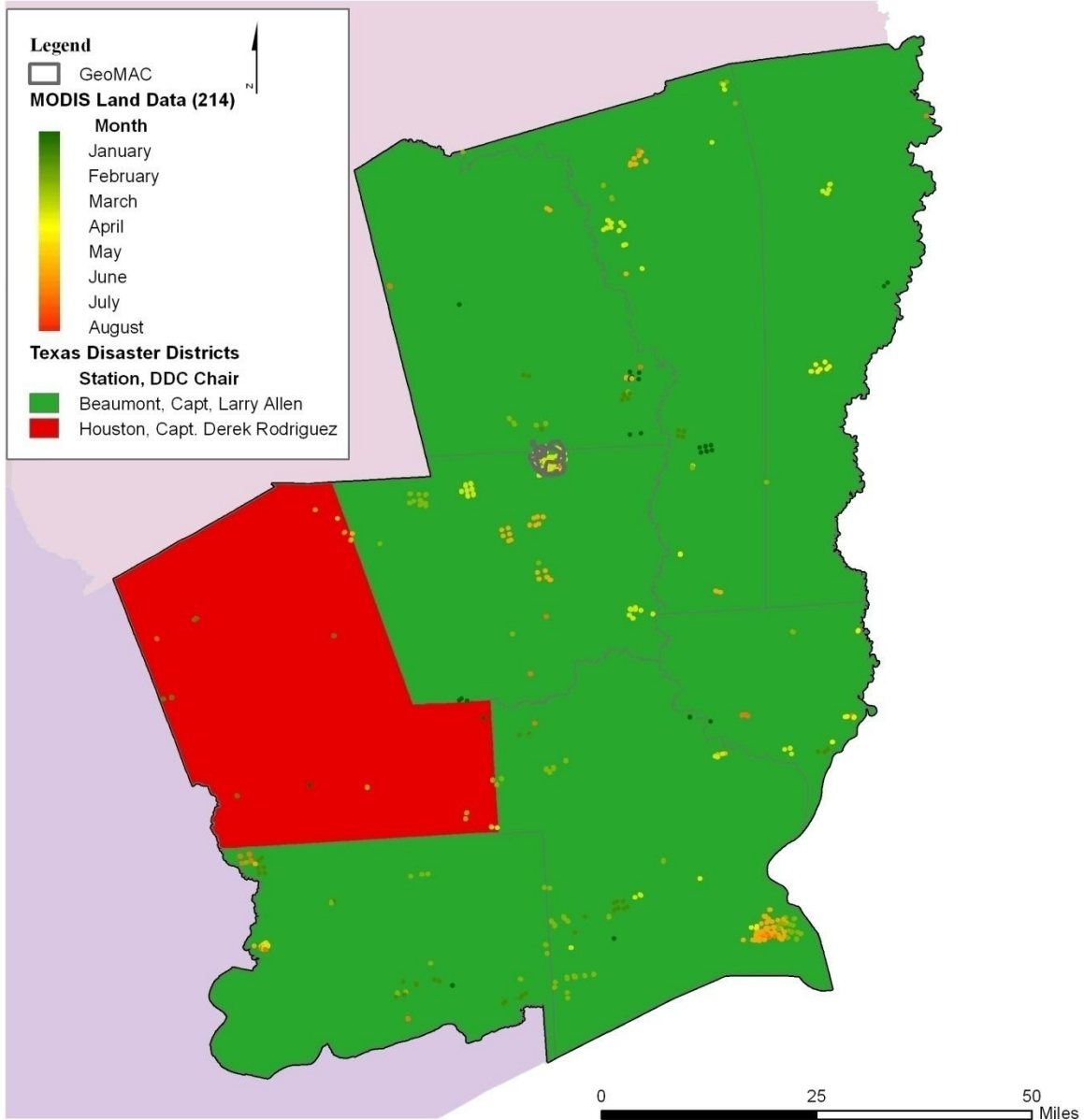
Description of geospatial data:

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 Road Way data were generated using StratMap Data collected from TNRS.

Date created: 03-08-2011
 P.No.: 0-6735
 Author: Beierle, Micah-John



Multi-resource Major Wildfire Detections for January 2011 to the 214th (Aug, 2nd) day of 2011 within the Beaumont TxDOT Districts Texas Disaster Districts



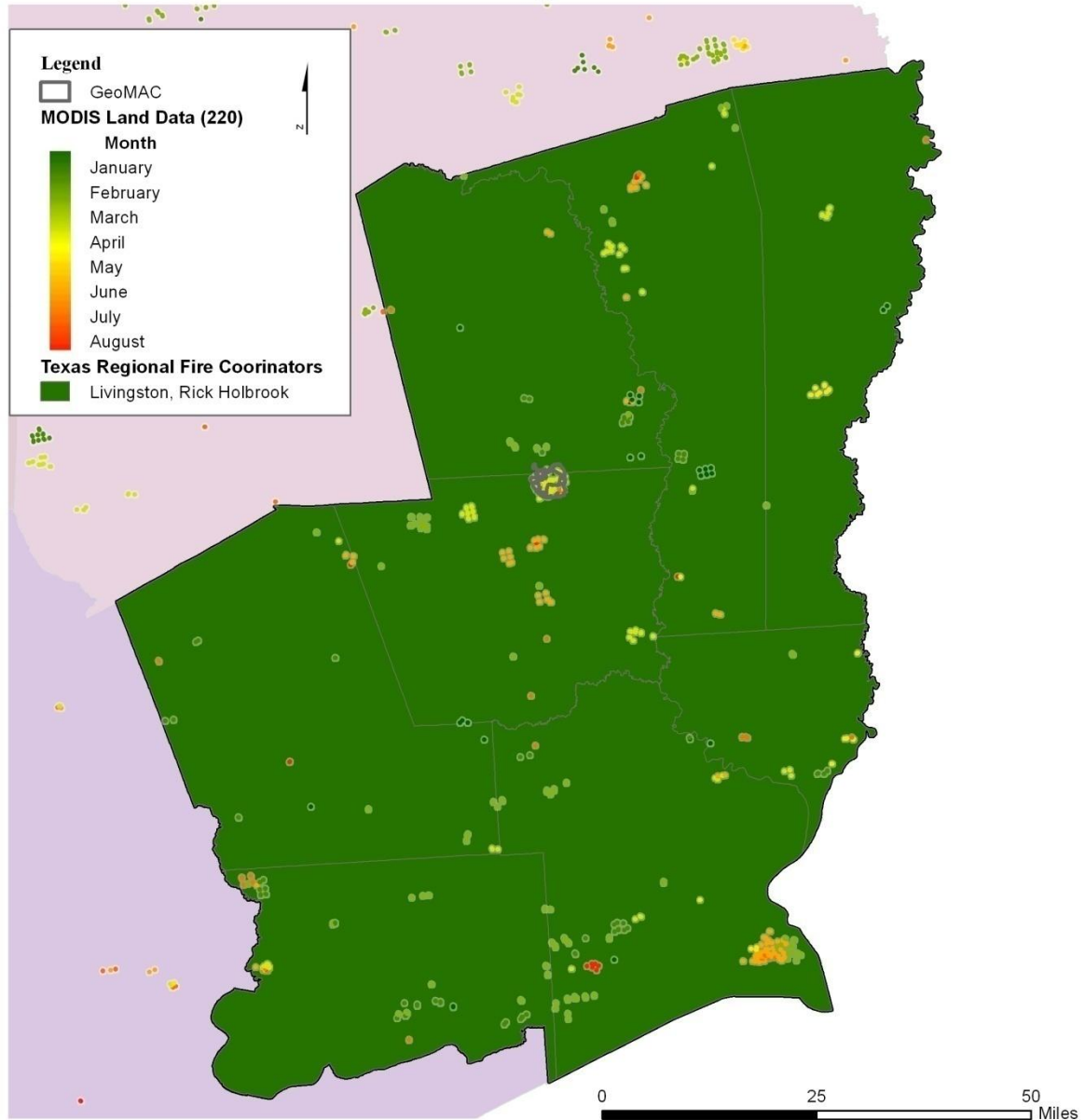
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Date created: 03-08-2011
P.No.: 0-6735
Author: Beierle, Micah-John



Multi-resource Major Wildfire Detections for January 2011 to the 220th (Aug, 8th) day of 2011 within the Beaumont TxDOT Districts Texas Forest Service Regional Fire Coordinators



Description of geospatial data:

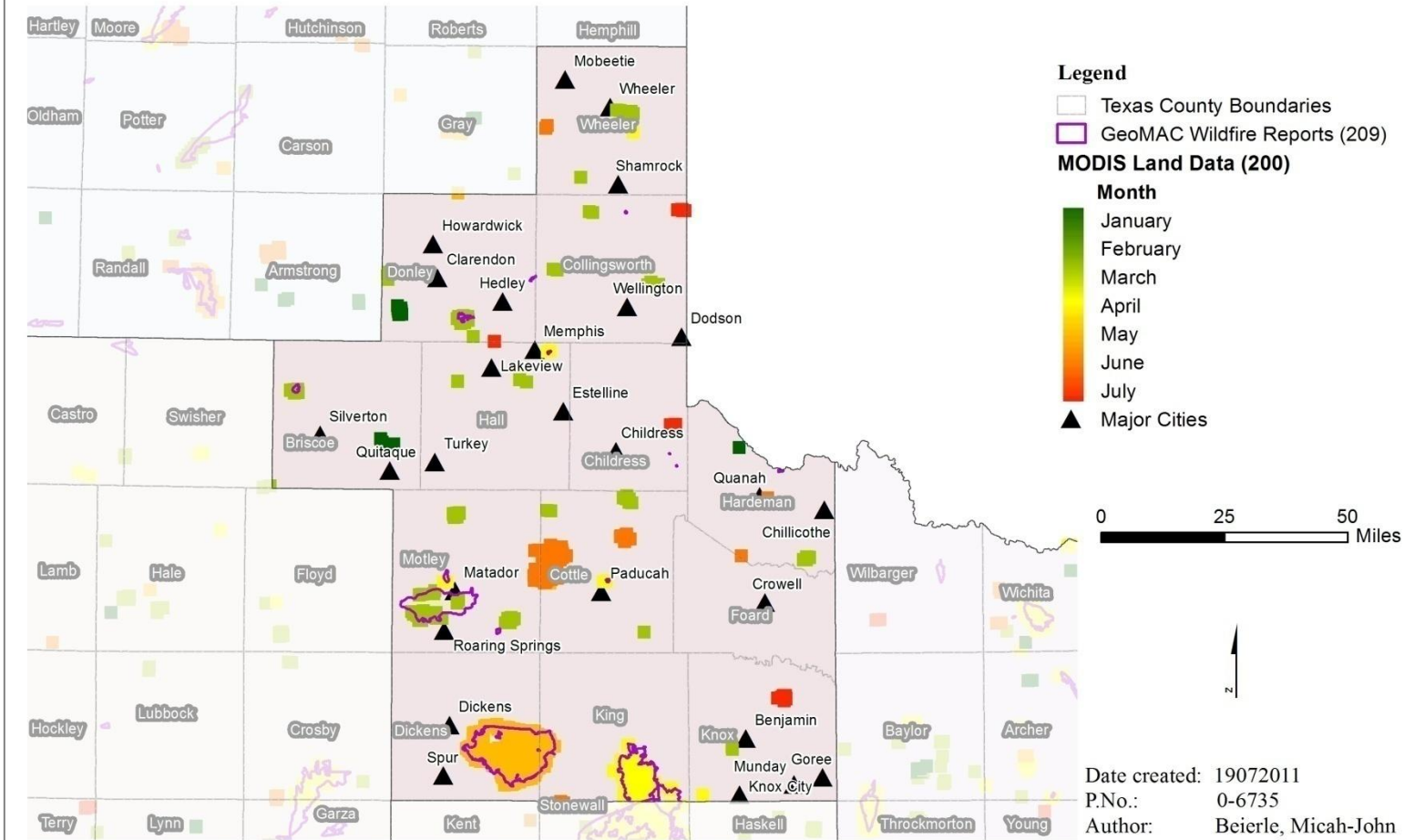
Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 08-08-2011.
 Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
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Date created: 08-08-2011
 P.No.: 0-6735
 Author: Beierle, Micah-John



Childress

Multi-resource Wildfire Detections for January 1st 2011 to the 200th (Jul, 19th) day of 2011 within the Childress TxDOT District

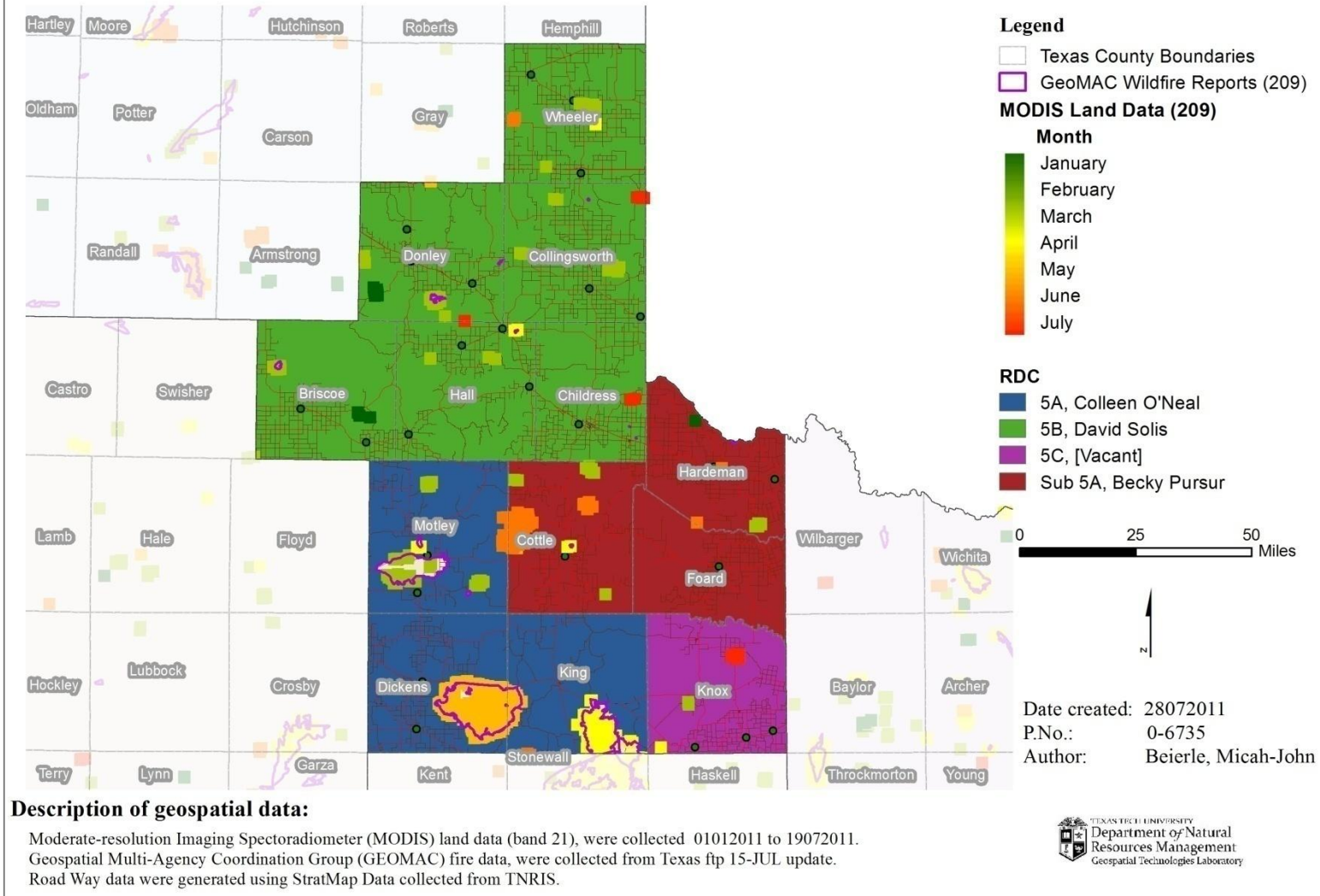


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Road Way data were generated using StratMap Data collected from TNRIS.



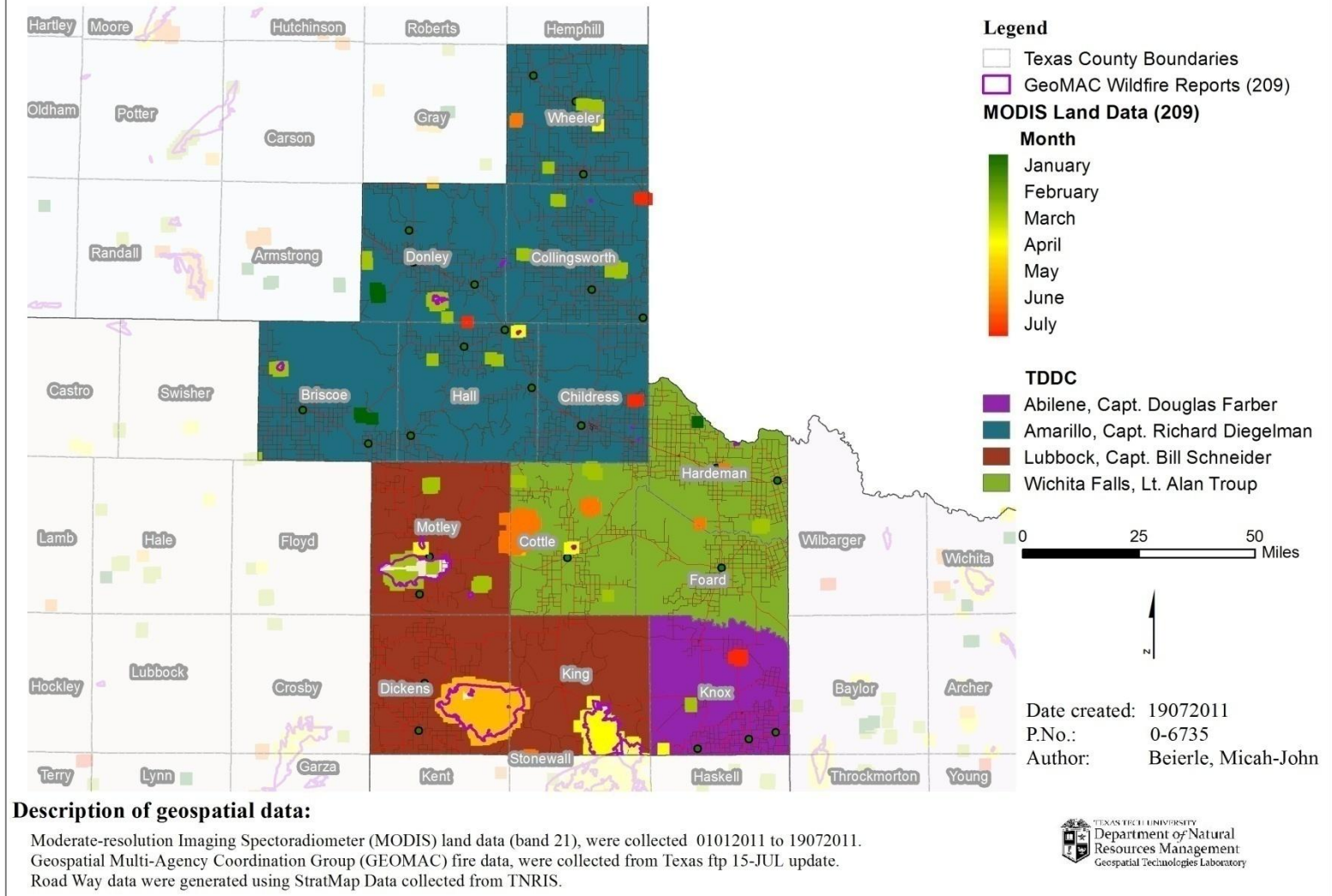
Multi-resource Wildfire Detections for January 1st 2011 to the 200th (Jul, 19th) day of 2011 within the Childress TxDOT District, Regional Distinct Coordinator



Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01012011 to 19072011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 15-JUL update.
Road Way data were generated using StratMap Data collected from TNRIS.

Multi-resource Wildfire Detections for January 1st 2011 to the 200th (Jul, 19th) day of 2011 within the Childress TxDOT District, Texas Disaster Districts

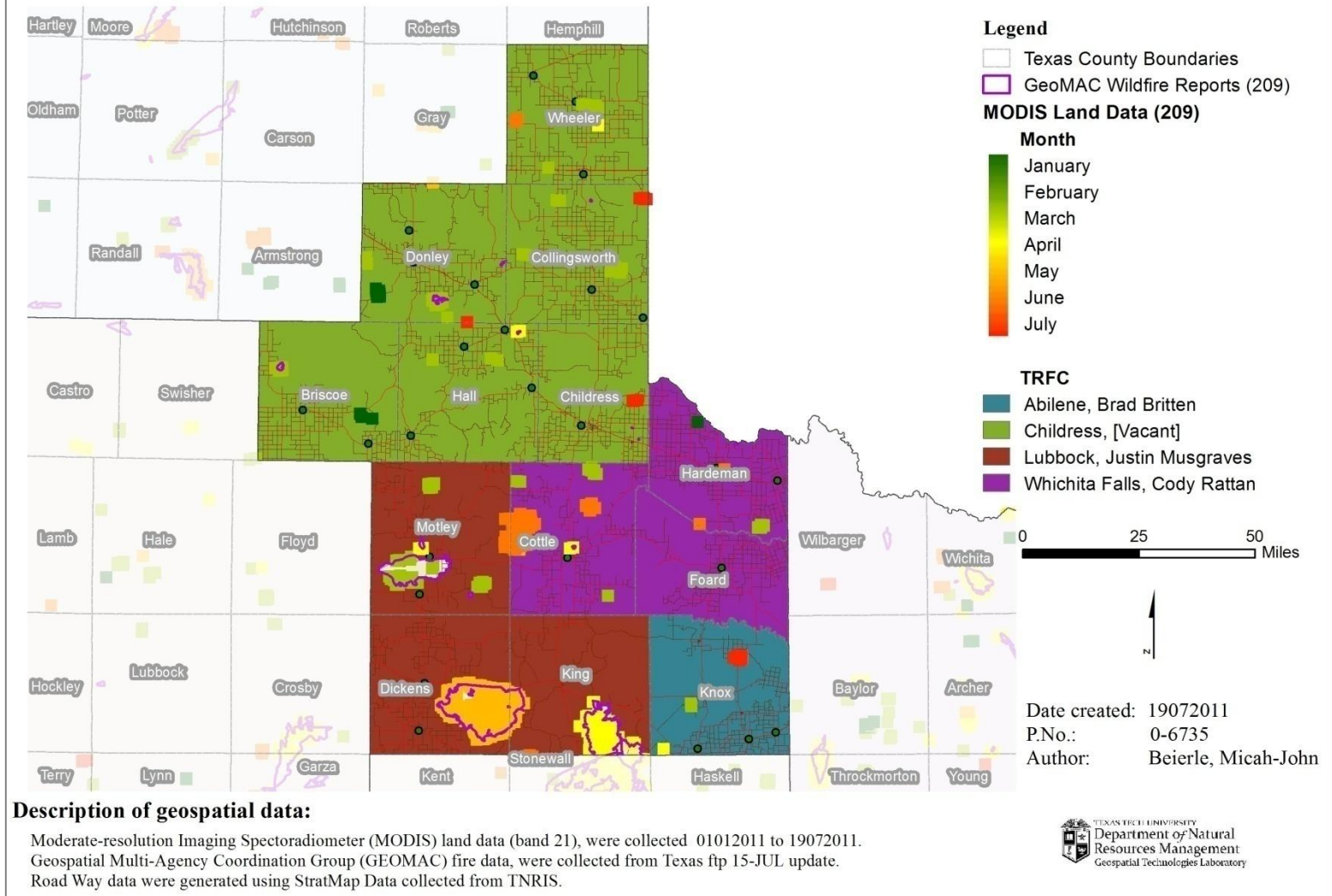


Description of geospatial data:

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 Road Way data were generated using StratMap Data collected from TNRIS.



Multi-resource Wildfire Detections for January 1st 2011 to the 200th (Jul, 19th) day of 2011 within the Childress TxDOT District, Texas Forest Service Regional Fire Coordinators



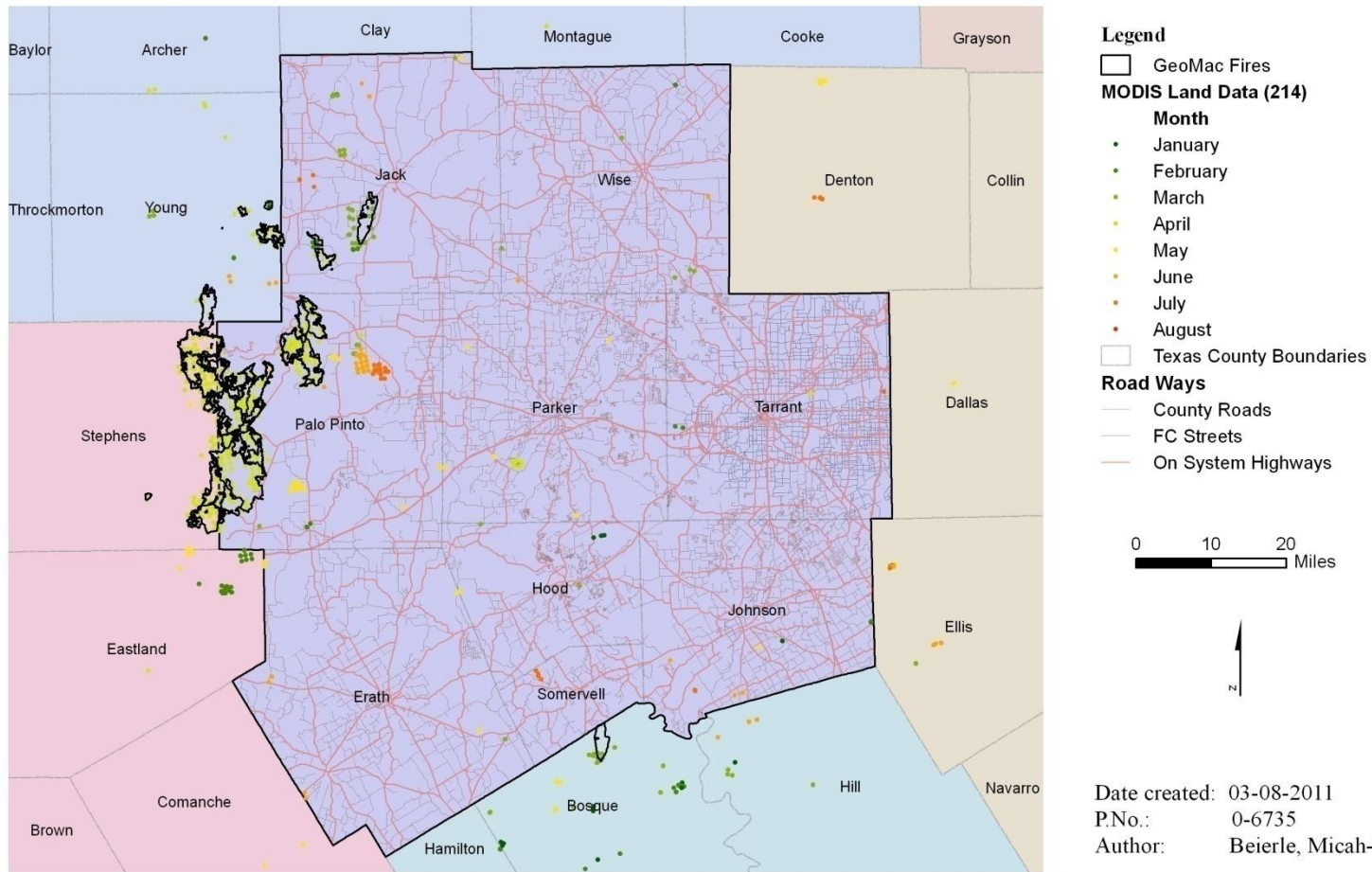
Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01012011 to 19072011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 15-JUL update.
Road Way data were generated using StratMap Data collected from TNRIS.



Fort Worth

Multi-resource Wildfire Detections for January 2011 to the 214th (Aug, 2nd) day of 2011 within the Fort Worth TxDOT District



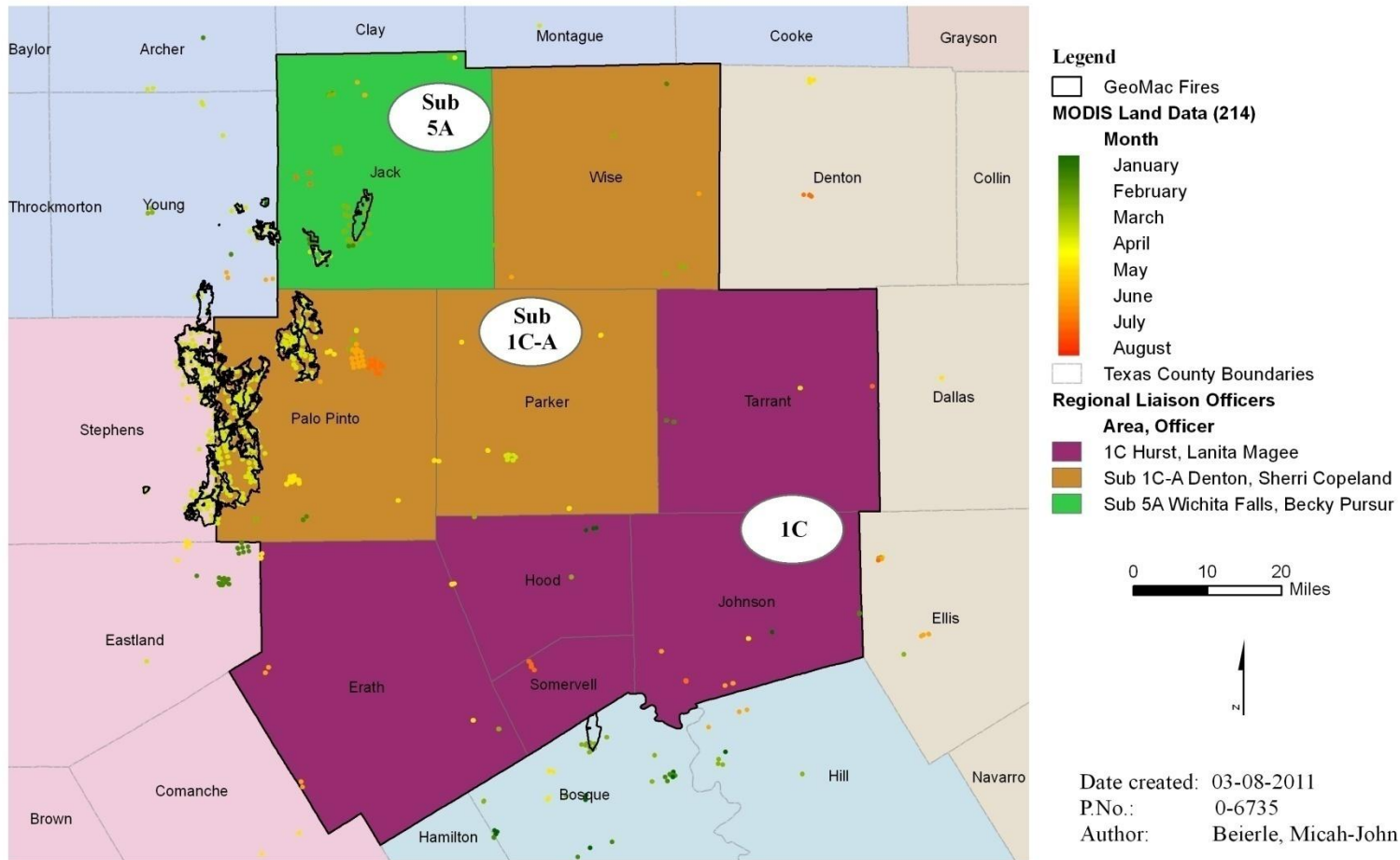
Date created: 03-08-2011
P.No.: 0-6735
Author: Beierle, Micah-John

Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 28-07-2011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
Road Way data were generated using StratMap Data collected from TNRS.



Multi-resource Wildfire Detections for January 2011 to the 214th (Aug, 2nd) day of 2011 within the Fort Worth TxDOT Districts - Regional Liaison Officer Areas

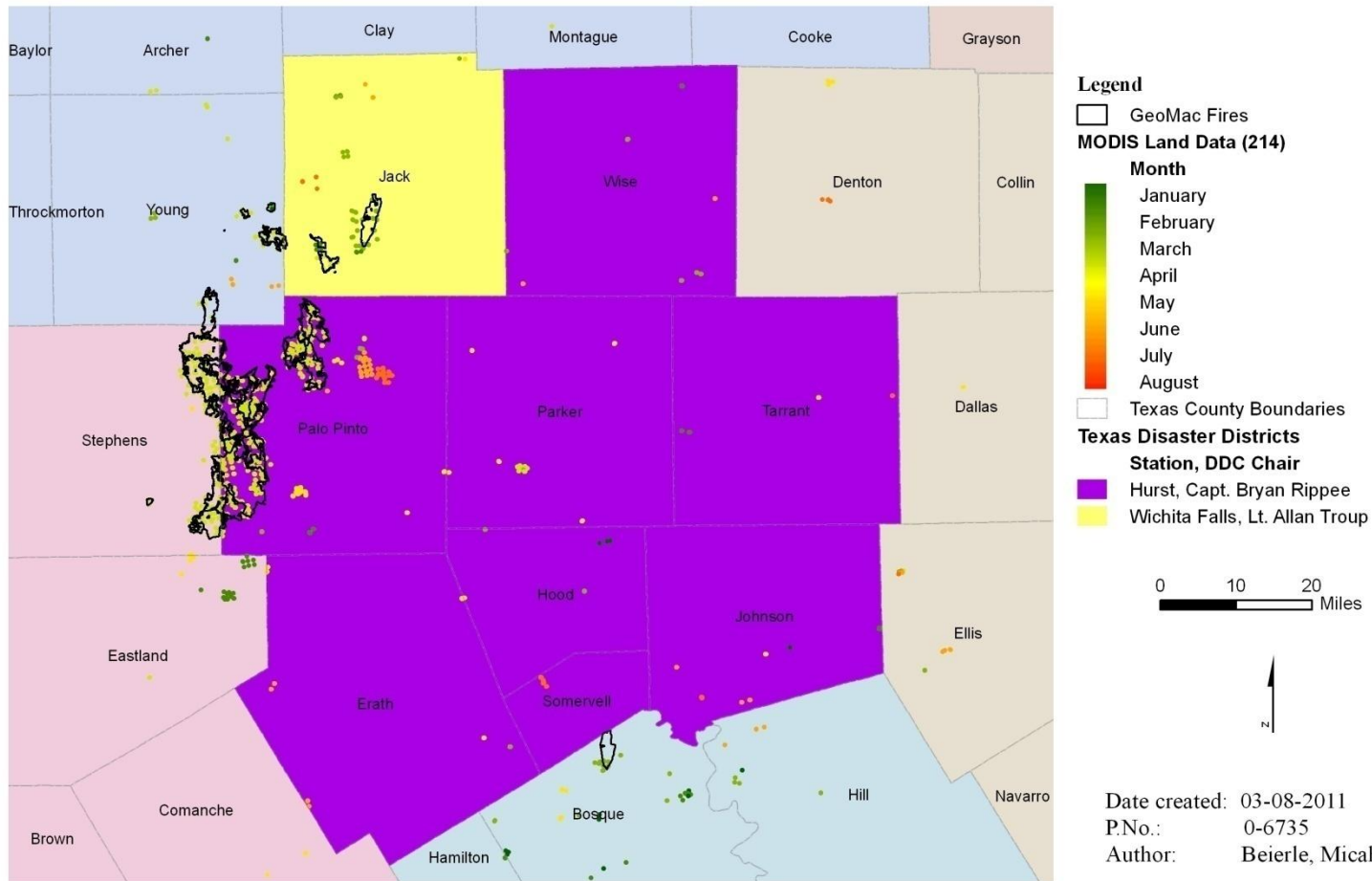


Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 28-07-2011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
Road Way data were generated using StratMap Data collected from TNRIS.



Multi-resource Wildfire Detections for January 2011 to the 214th (Aug, 2nd) day of 2011 within the Fort Worth TxDOT Districts - Texas Disaster Districts

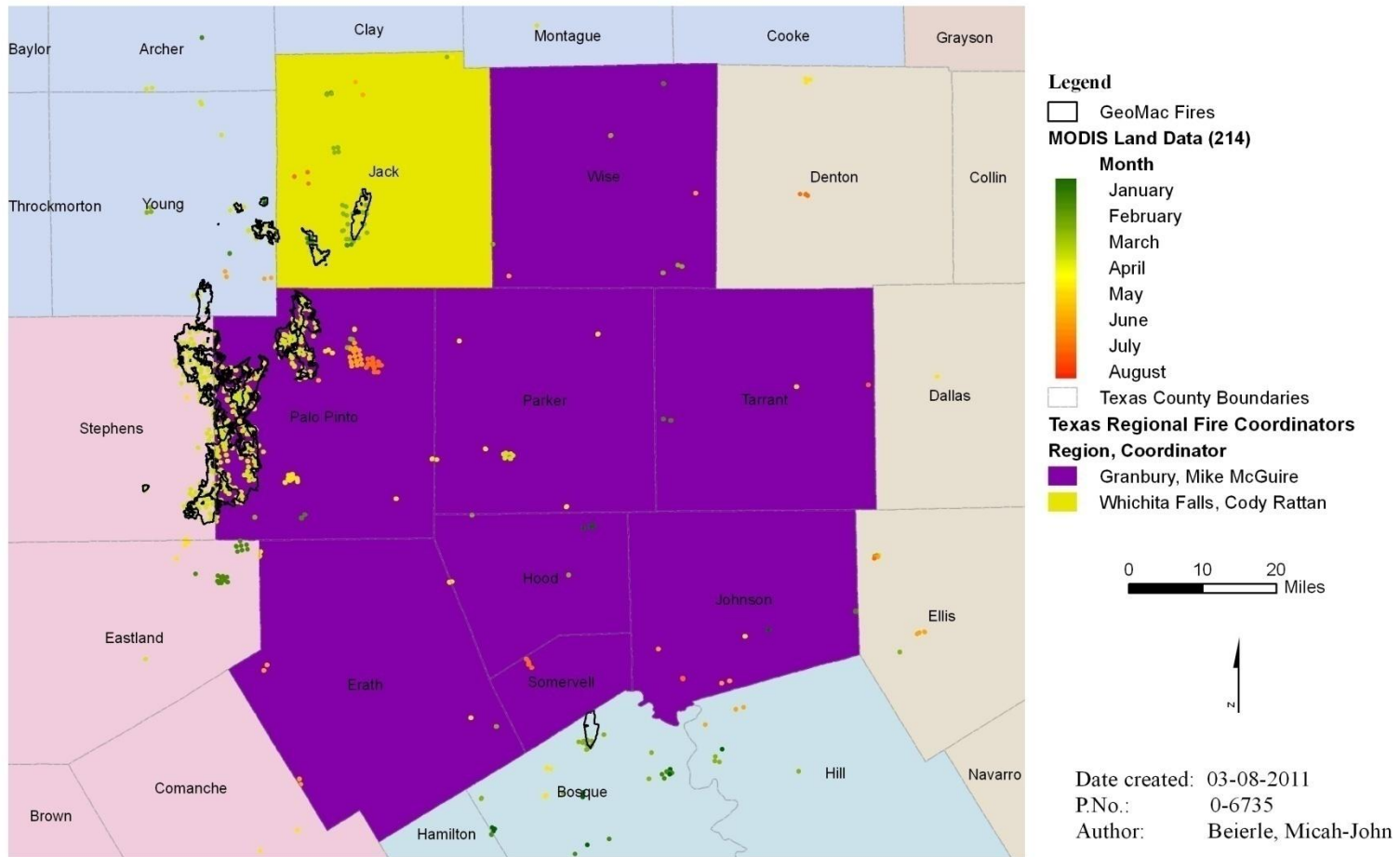


Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 28-07-2011. Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update. Road Way data were generated using StratMap Data collected from TNIRIS.



Multi-resource Wildfire Detections for January 2011 to the 214th (Aug, 2nd) day of 2011 within the Fort Worth TxDOT Districts - Texas Forest Service Regional Fire Coordinators



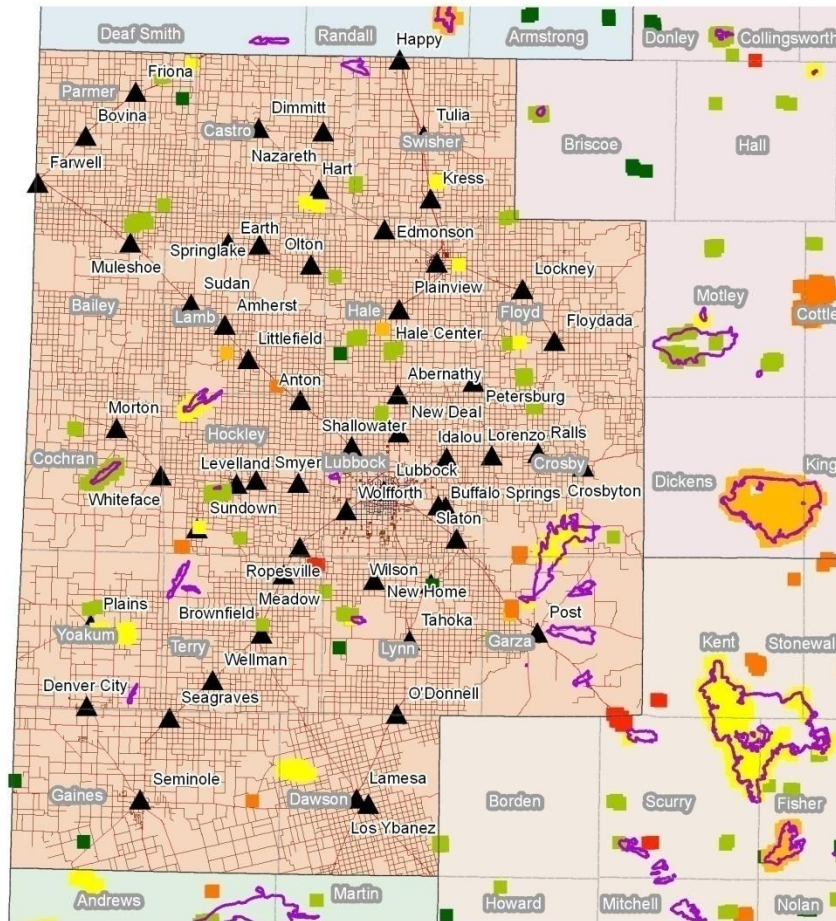
Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 28-07-2011. Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update. Road Way data were generated using StratMap Data collected from TNRRIS.



Lubbock

Multi-resource Wildfire Detections for January 1st 2011 to the 209th (Jul, 28th) day of 2011 within the Lubbock TxDOT District



Legend

- Texas County Boundaries
- GeoMAC Wildfire Reports (209)

MODIS Land Data (209)

Month

- January
- February
- March
- April
- May
- June
- July

- Major Cities

Road Ways

RTE CLASS

- County Roads
- FC Streets
- On System Highways

0 25 50 Miles



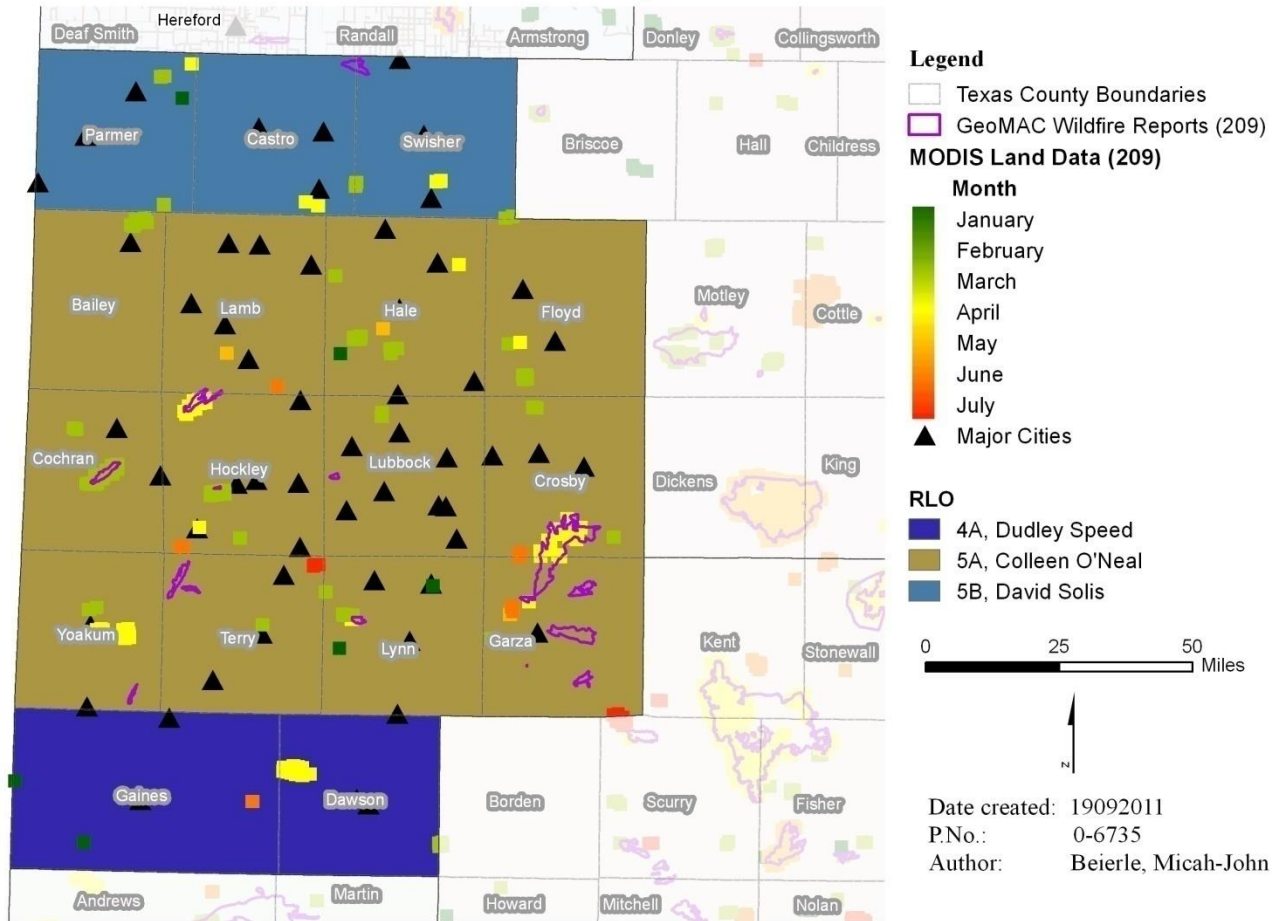
Date created: 29092011
 P.No.: 0-6735
 Author: Beierle, Micah-John

Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01012011 to 25072011.
 Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 15-JUL update.
 Road Way data were generated using StratMap Data collected from TNRS.



Multi-resource Wildfire Detections for January 1st 2011 to the 200th (Jul, 19th) day of 2011 within the Lubbock TxDOT District, Regional Distinct Coordinator

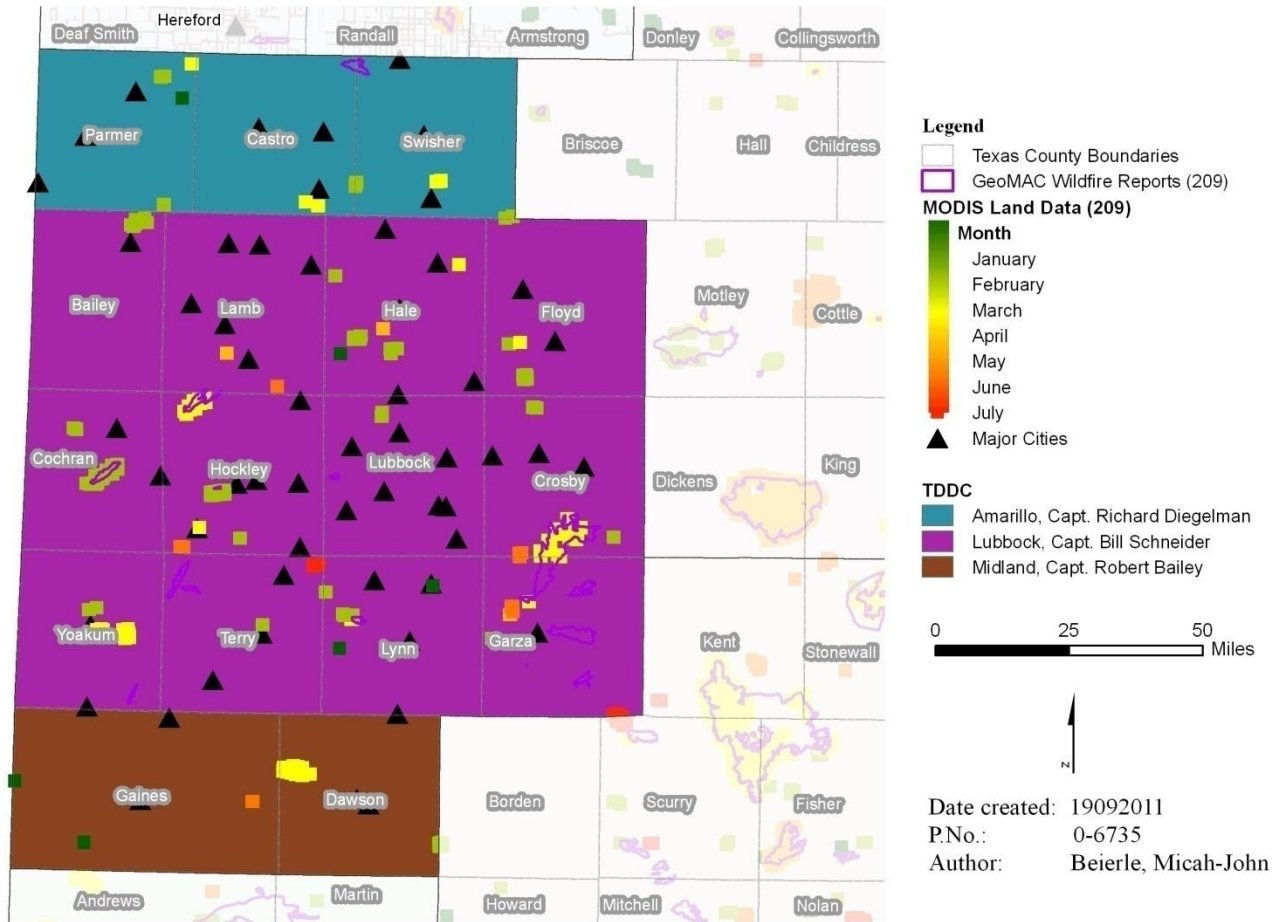


Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01012011 to 25072011.
 Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 15-JUL update.
 Road Way data were generated using StratMap Data collected from TNRIS.



Multi-resource Wildfire Detections for January 1st 2011 to the 200th (Jul, 19th) day of 2011 within the Lubbock TxDOT District, Texas Disaster Districts

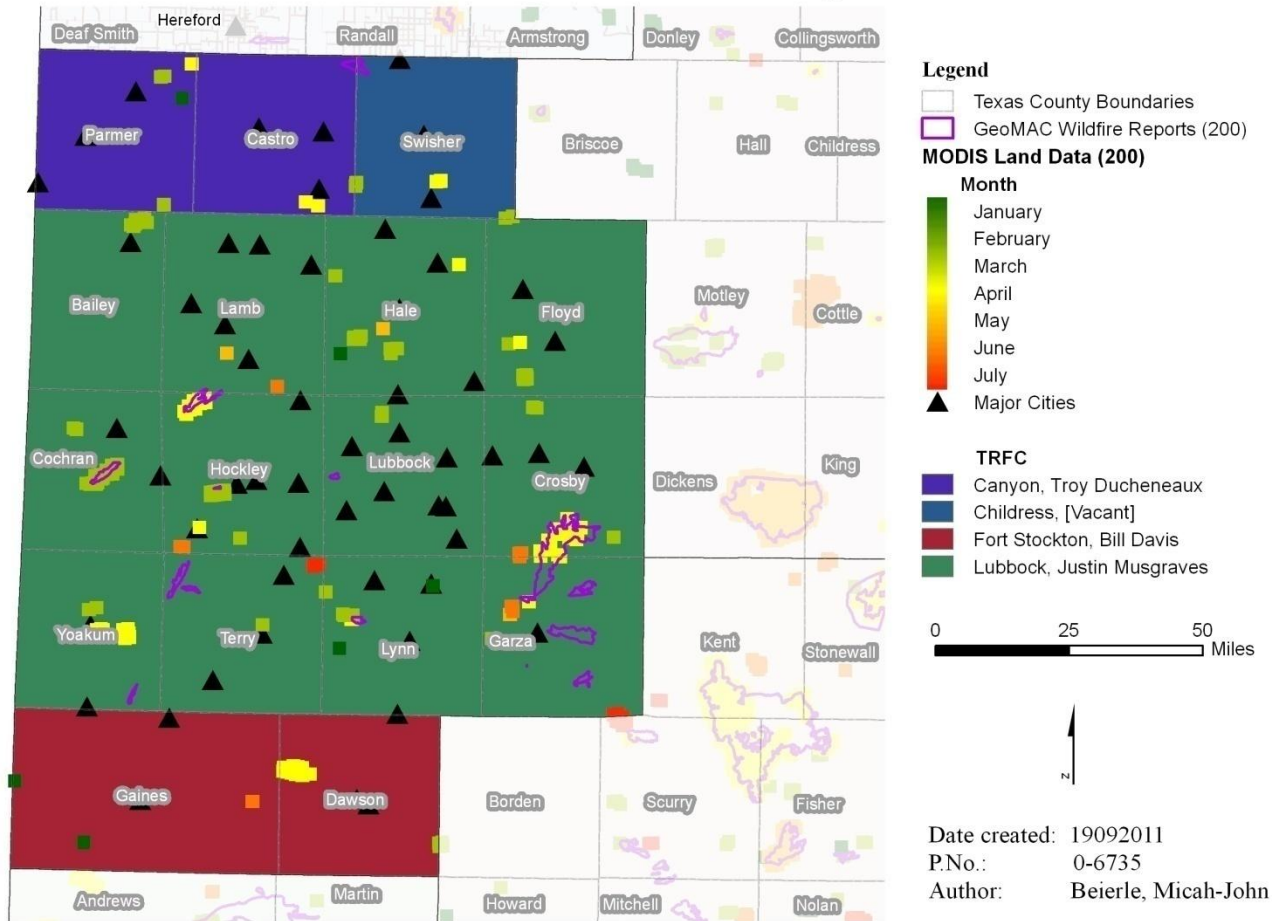


Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01012011 to 25072011.
 Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 15-JUL update.
 Road Way data were generated using StratMap Data collected from TNRIS.



Multi-resource Wildfire Detections for January 1st 2011 to the 200th (Jul, 19th) day of 2011 within the Lubbock TxDOT District, Texas Forest Service Regional Fire Coordinators



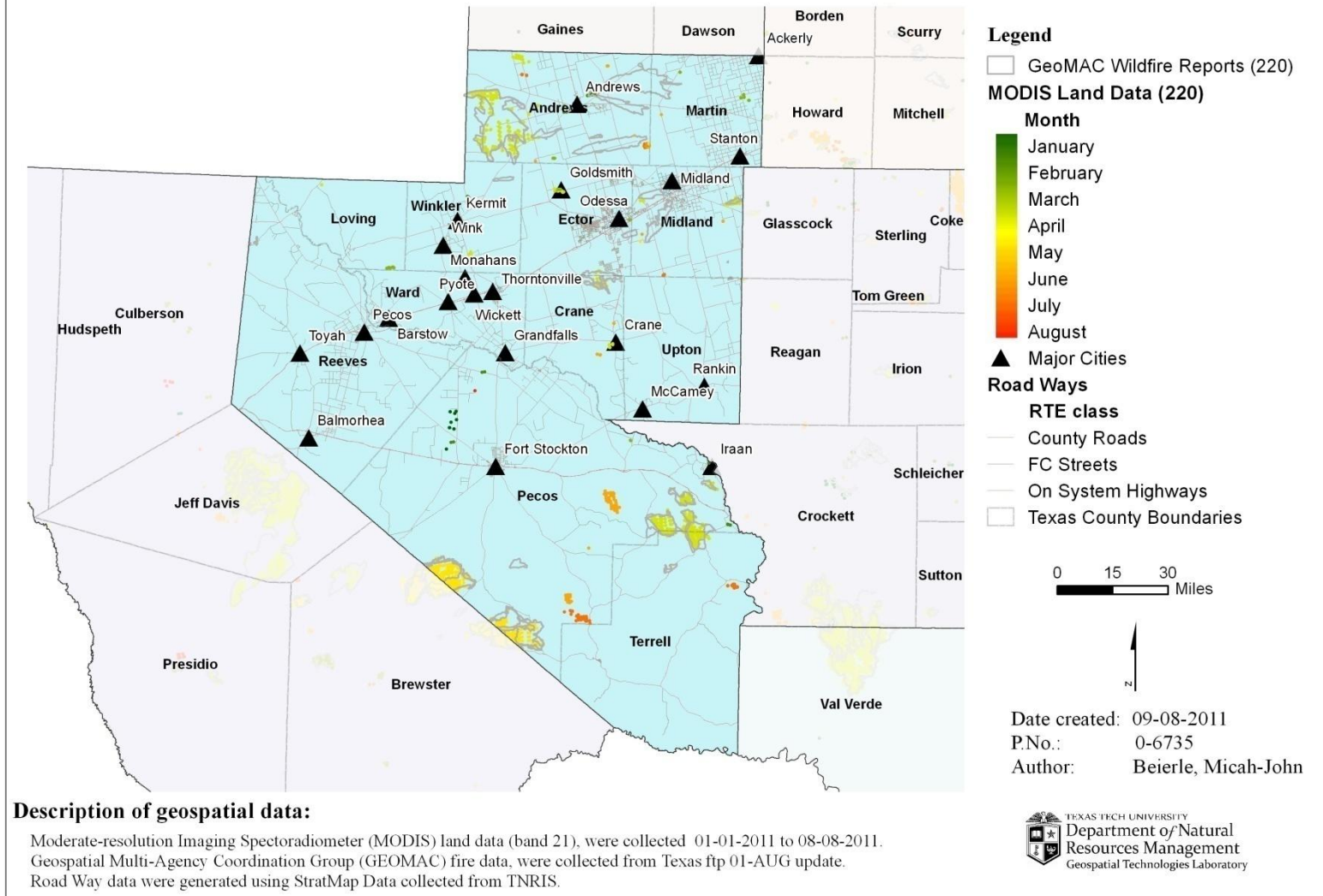
Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01012011 to 25072011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 15-JUL update.
Road Way data were generated using StratMap Data collected from TNRIS.



Odessa

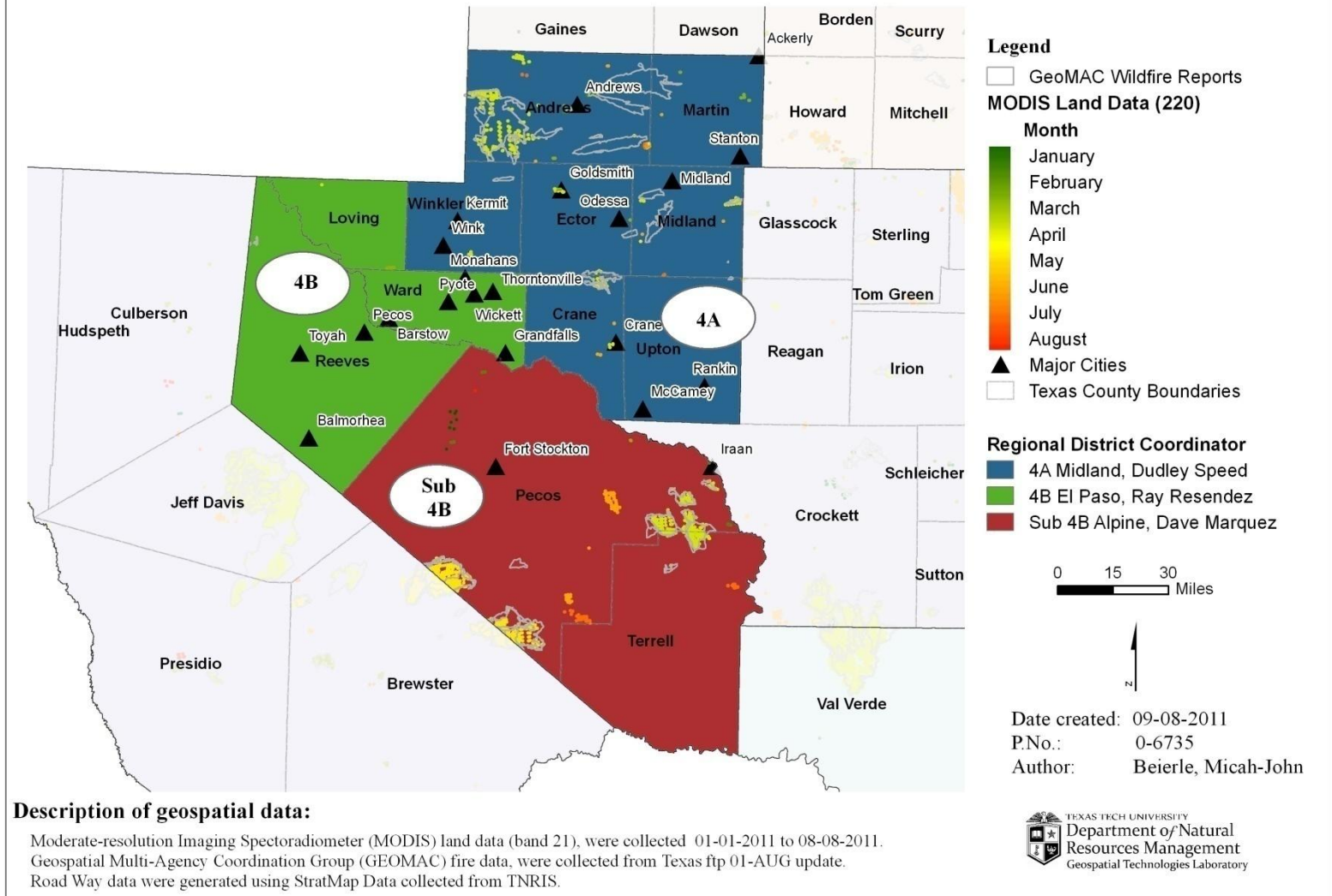
Multi-resource Wildfire Detections for January 2011 to the 220th (Aug, 8th) day of 2011 within the Odessa TxDOT District



Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 08-08-2011. Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update. Road Way data were generated using StratMap Data collected from TNRRIS.

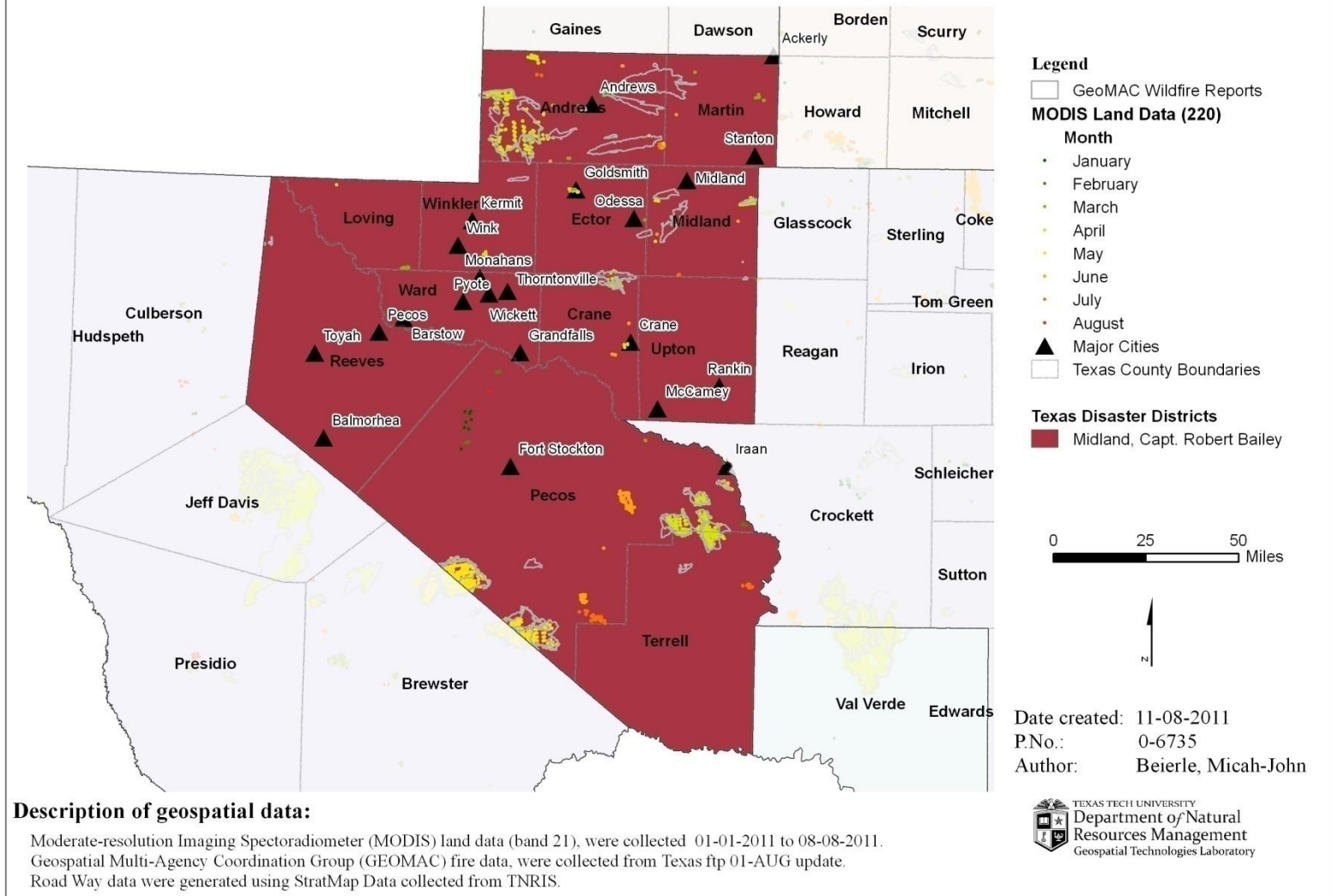
Multi-resource Wildfire Detections from January 1st 2011 - August 8th 2011 Odessa TxDOT District, Regional District Coordinator



Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 08-08-2011. Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update. Road Way data were generated using StratMap Data collected from TNRS.

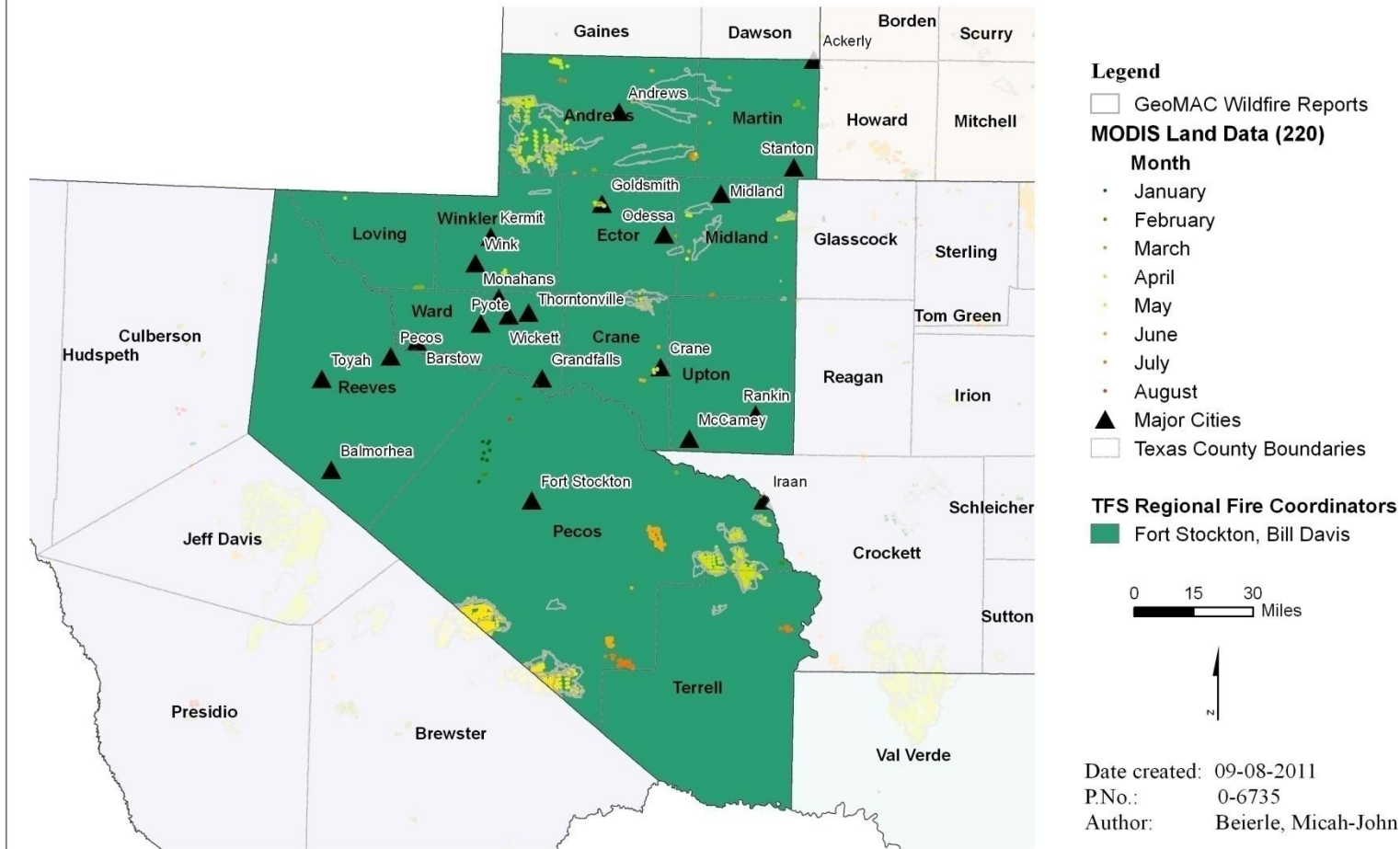
Multi-resource Wildfire Detections from January 1st 2011 - August 8th 2011 Odessa TxDOT District, Texas Disaster Districts



Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 08-08-2011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
Road Way data were generated using StratMap Data collected from TNRIS.

Multi-resource Wildfire Detections for January 1st 2011 - August 8th 2011 Odessa TxDOT District, Texas Forest Service Regional Fire Coordinators



Description of geospatial data:

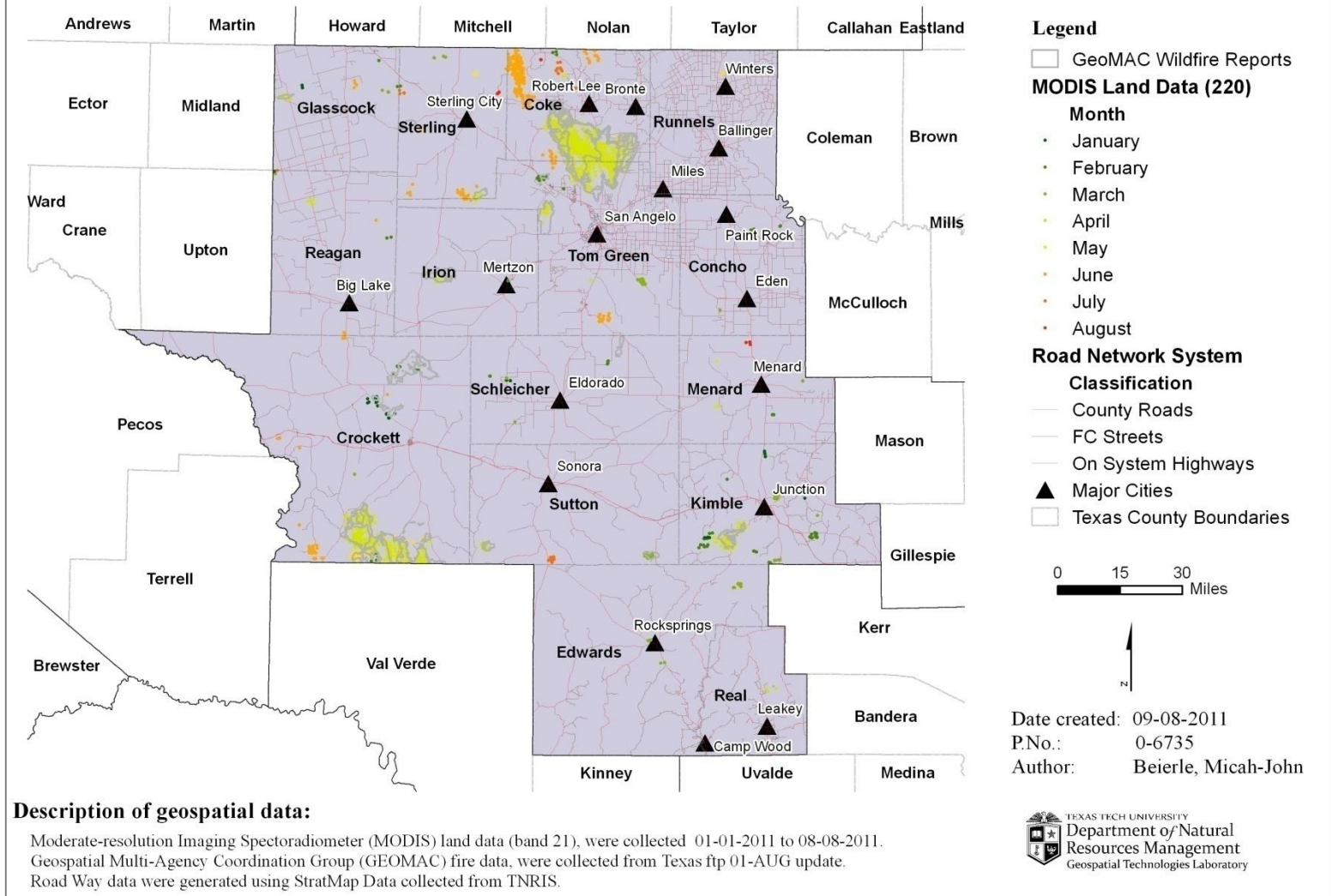
Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 08-08-2011.
 Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
 Road Way data were generated using StratMap Data collected from TNRRS.

Date created: 09-08-2011
 P.No.: 0-6735
 Author: Beierle, Micah-John



San Angelo

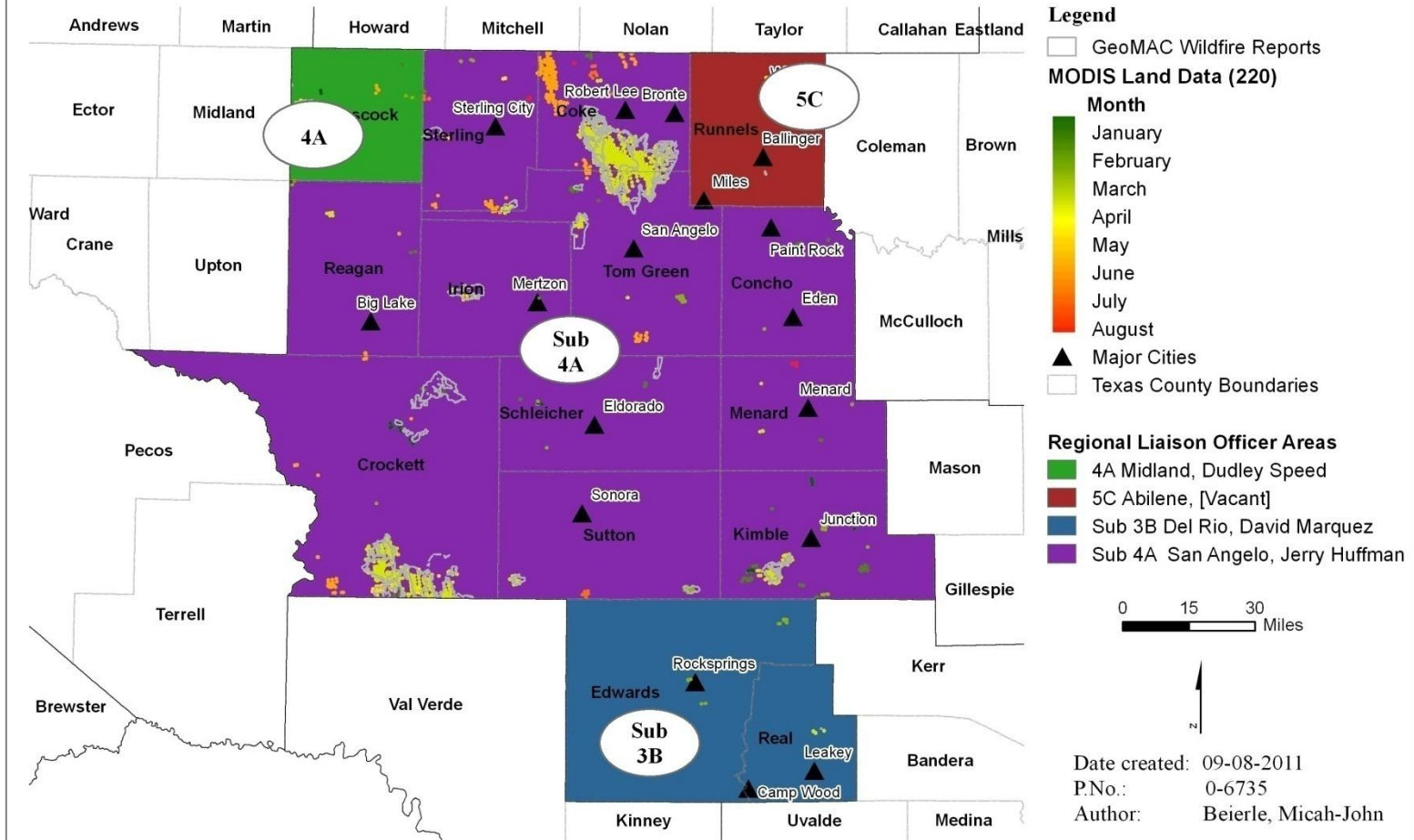
Multi-resource Wildfire Detections for January 2011 to the 220th (Aug, 8th) day of 2011 within the San Angelo TxDOT District Major Cities



Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 08-08-2011. Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update. Road Way data were generated using StratMap Data collected from TNRRS.

Multi-resource Wildfire Detections from January 1st 2011 - August 8th 2011 San Angelo TxDOT District, Regional Liaison Officer Areas

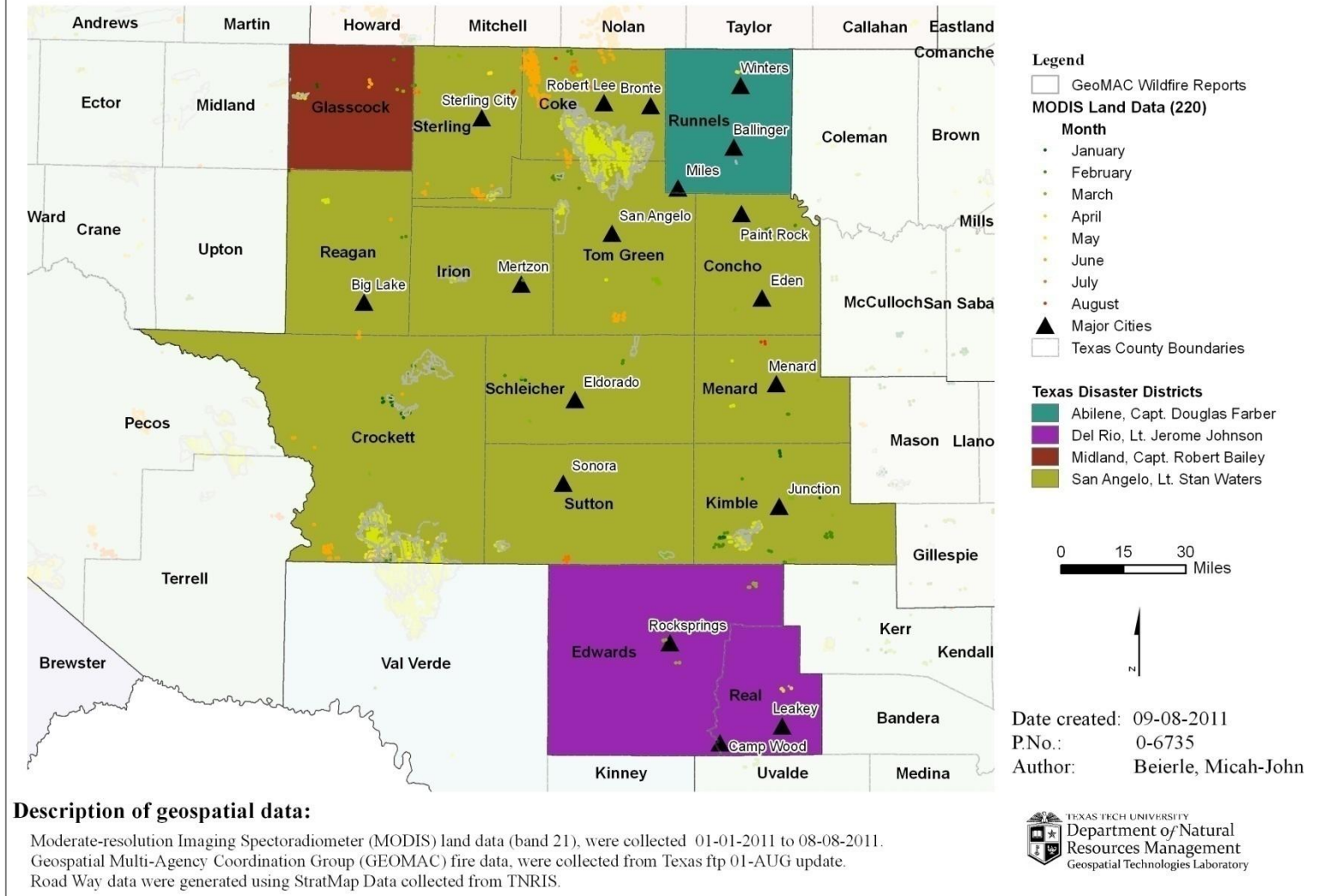


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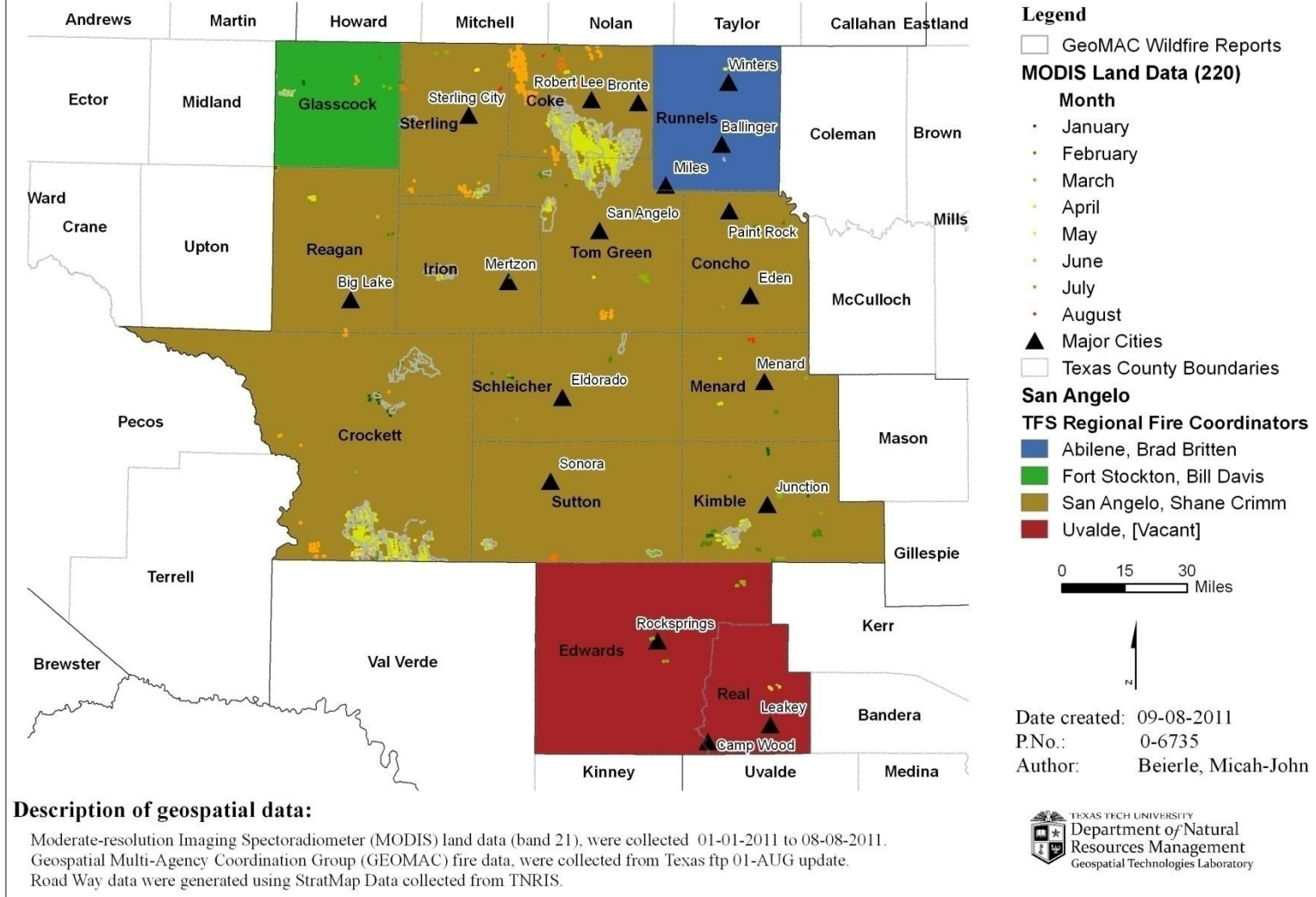
Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 08-08-2011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
Road Way data were generated using StratMap Data collected from TNRRIS.



Multi-resource Wildfire Detections from January 1st 2011 - August 8th 2011 San Angelo TxDOT District, Texas Disaster Districts

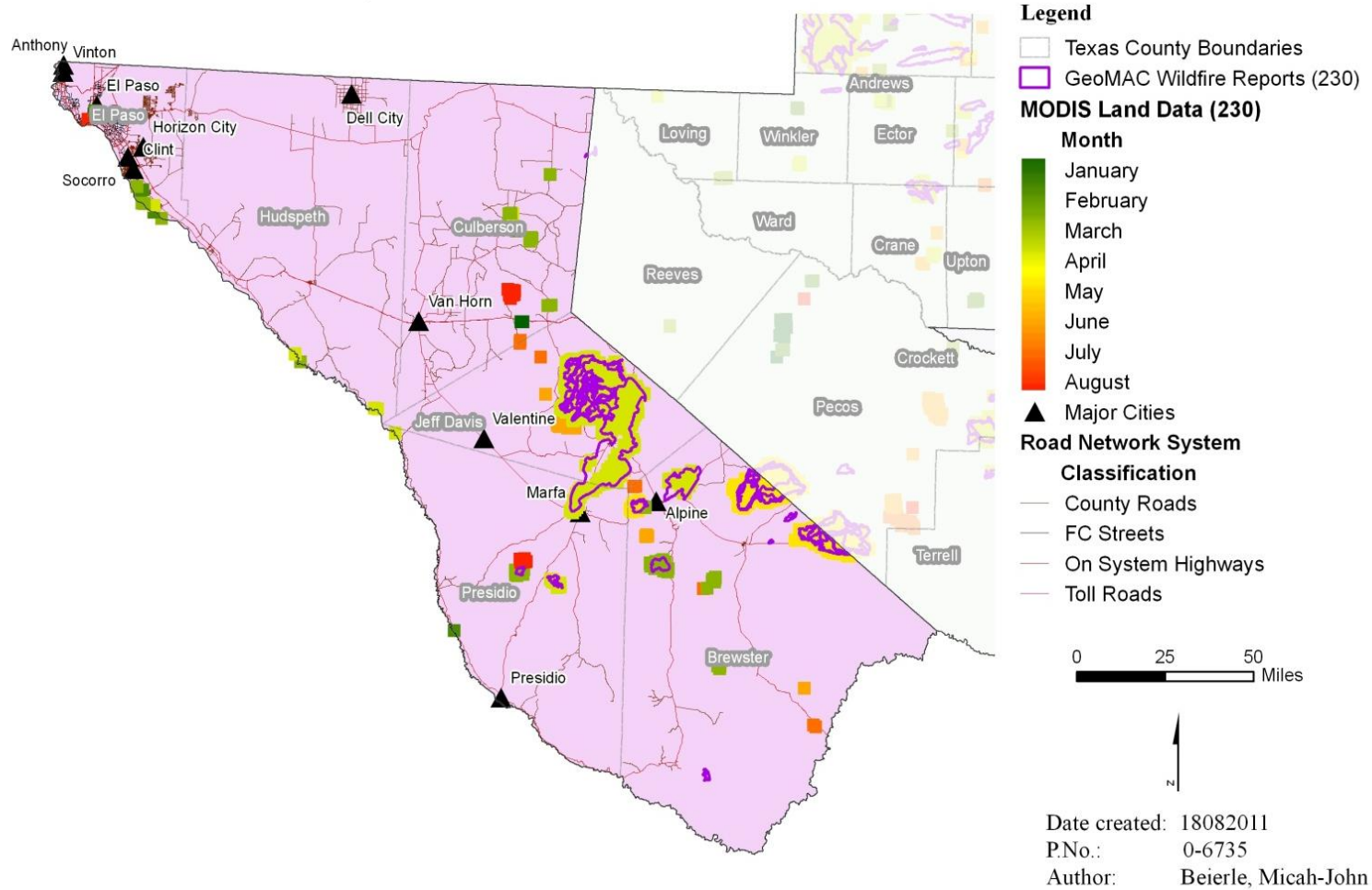


Multi-resource Wildfire Detections for January 1st 2011 - August 8th 2011 San Angelo TxDOT District, Texas Forest Service Regional Fire Coordinators



El Paso

Multi-resource Wildfire Detections for January 2011 to the 230th (Aug, 18th) day of 2011 within the El Paso TxDOT District

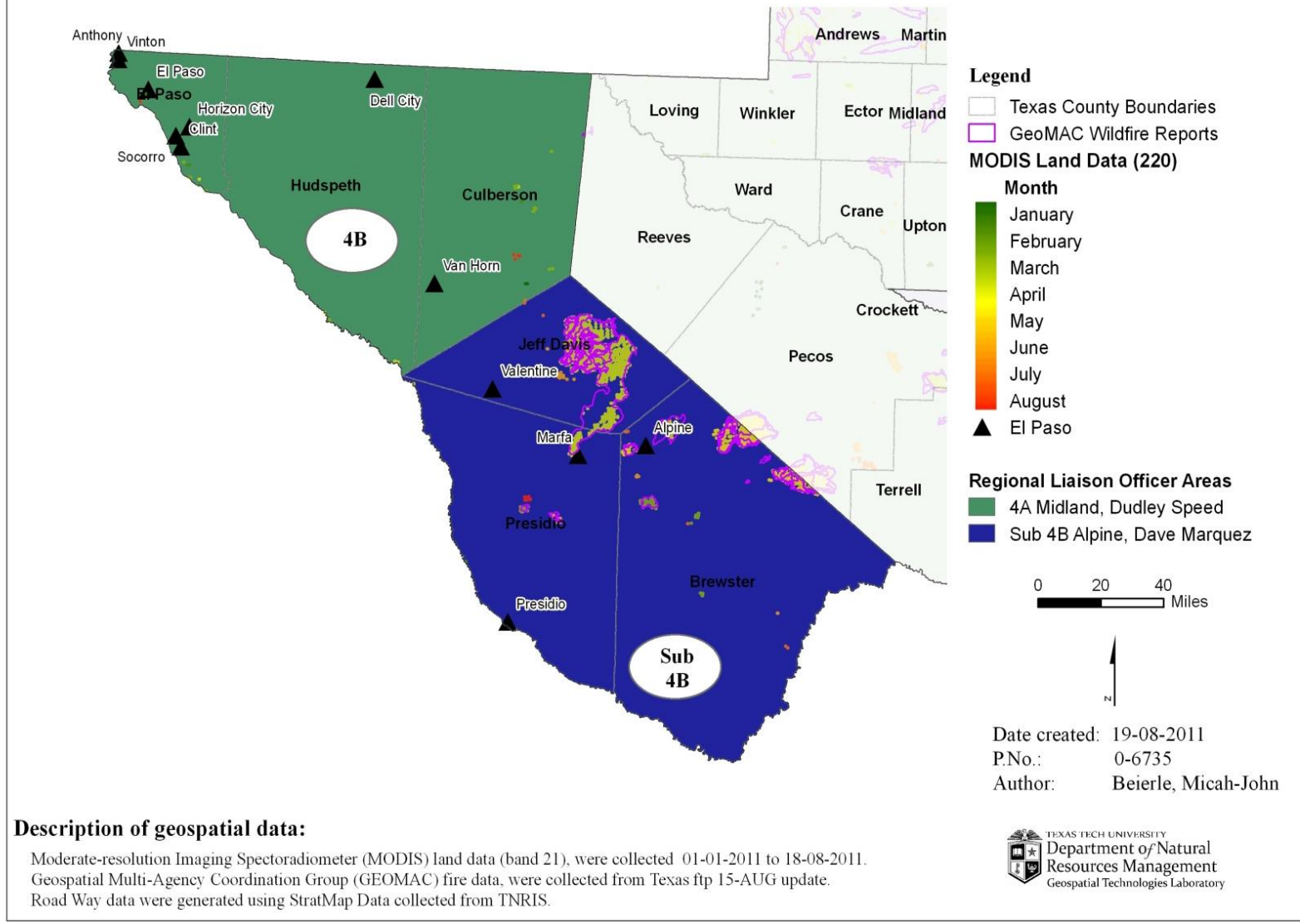


Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01012011 to 18082011. Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 15-AUG update. Road Way data were generated using StratMap Data collected from TNRIS.



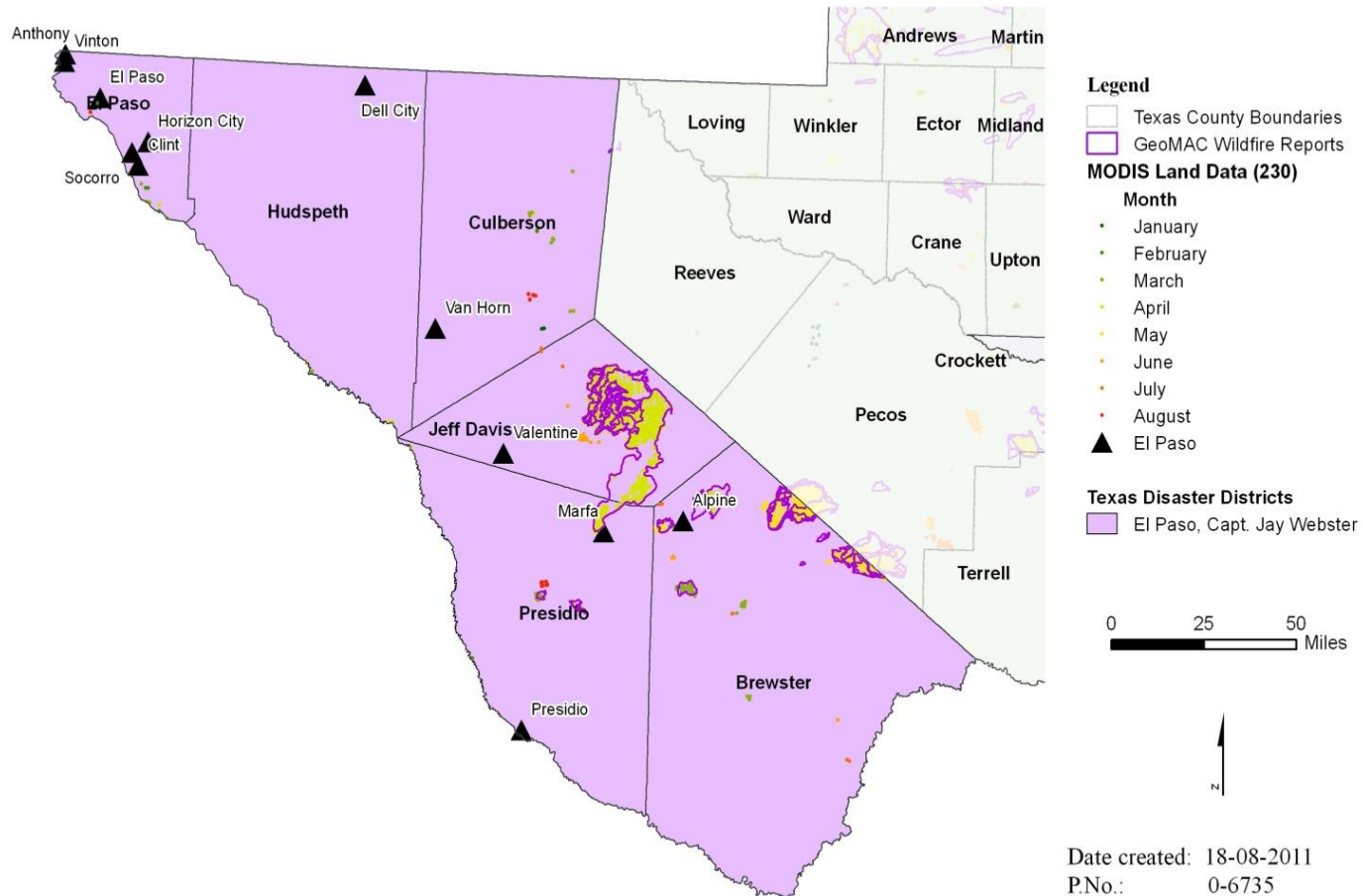
Multi-resource Wildfire Detections from January 1st 2011 - August 18th 2011 El Paso TxDOT District, Regional District Coordinator



Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 18-08-2011. Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 15-AUG update. Road Way data were generated using StratMap Data collected from TNRS.

Multi-resource Wildfire Detections from January 1st 2011 - August 18th 2011 El Paso TxDOT District, Texas Disaster Districts



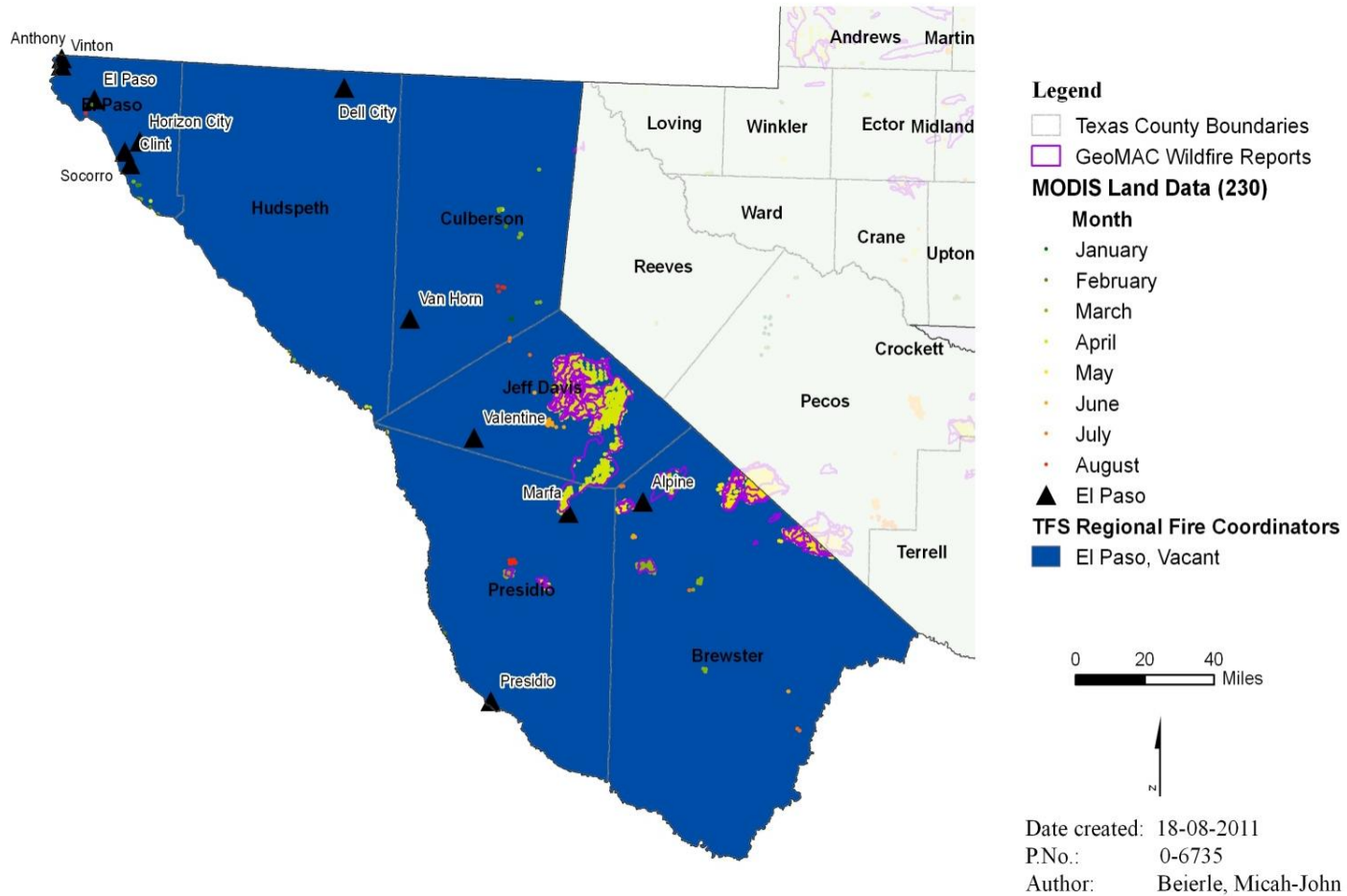
Date created: 18-08-2011
P.No.: 0-6735
Author: Beierle, Micah-John



Description of geospatial data:

Moderate-resolution Imaging Spectoradiometer (MODIS) land data (band 21), were collected 18-01-2011 to 08-08-2011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 15-AUG update.
Road Way data were generated using StratMap Data collected from TNRIS.

Multi-resource Wildfire Detections for January 1st 2011 - August 18th 2011 El Paso TxDOT District, Texas Forest Service Regional Fire Coordinators



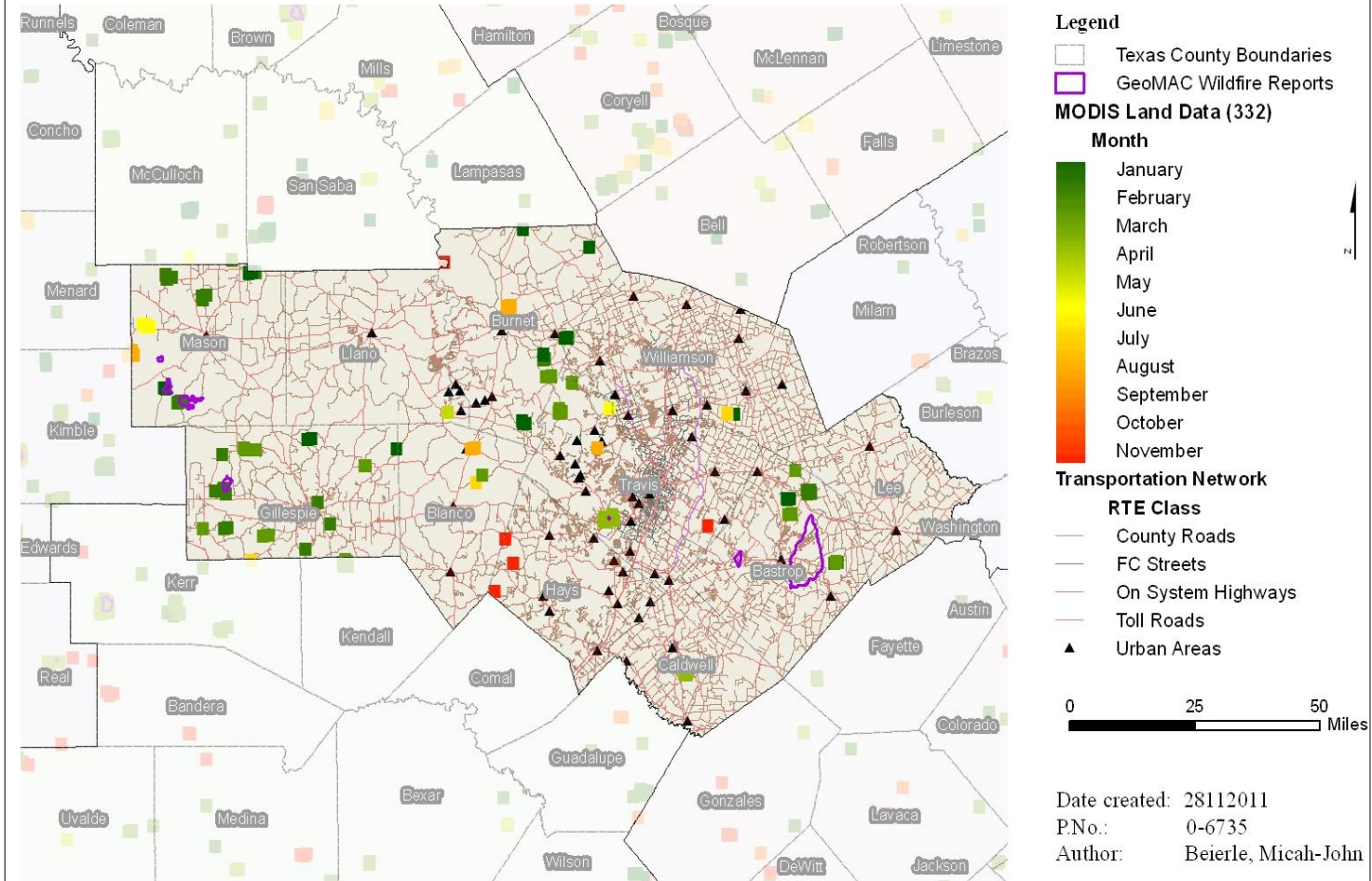
Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01-01-2011 to 18-08-2011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 15-AUG update.
Road Way data were generated using StratMap Data collected from TNRS.



Austin

Multi-resource Wildfire Detections for January 2011 to the 332nd (Nov, 28th) day of 2011 within the Austin TxDOT District

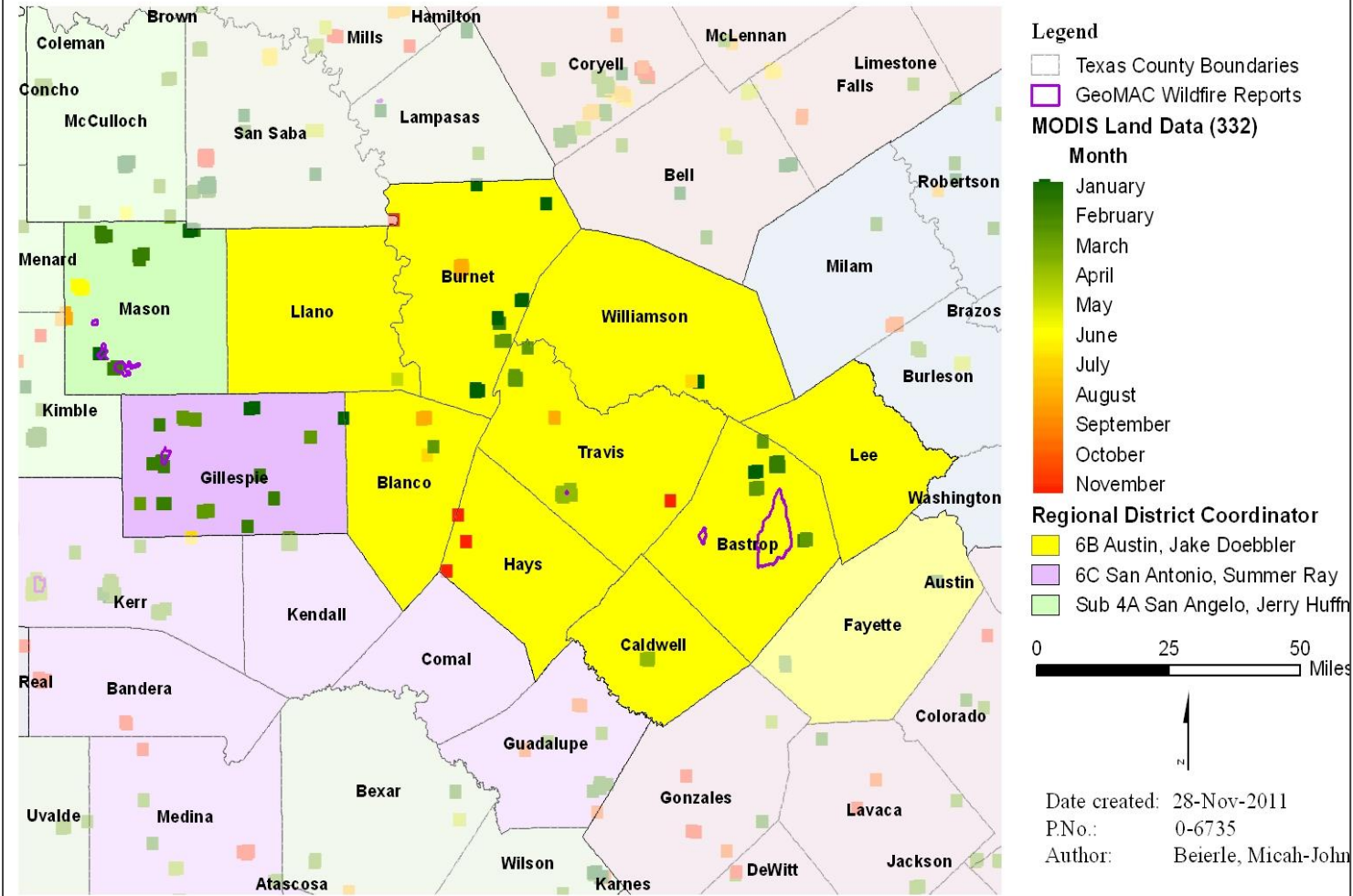


Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01Jan2011 to 28Nov2011.
 Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 01-AUG update.
 Road Way data were generated using StratMap Data collected from TNRIS.



Multi-resource Wildfire Detections from January 1st 2011 - November 28th 2011 Austin TxDOT District, Regional District Coordinator

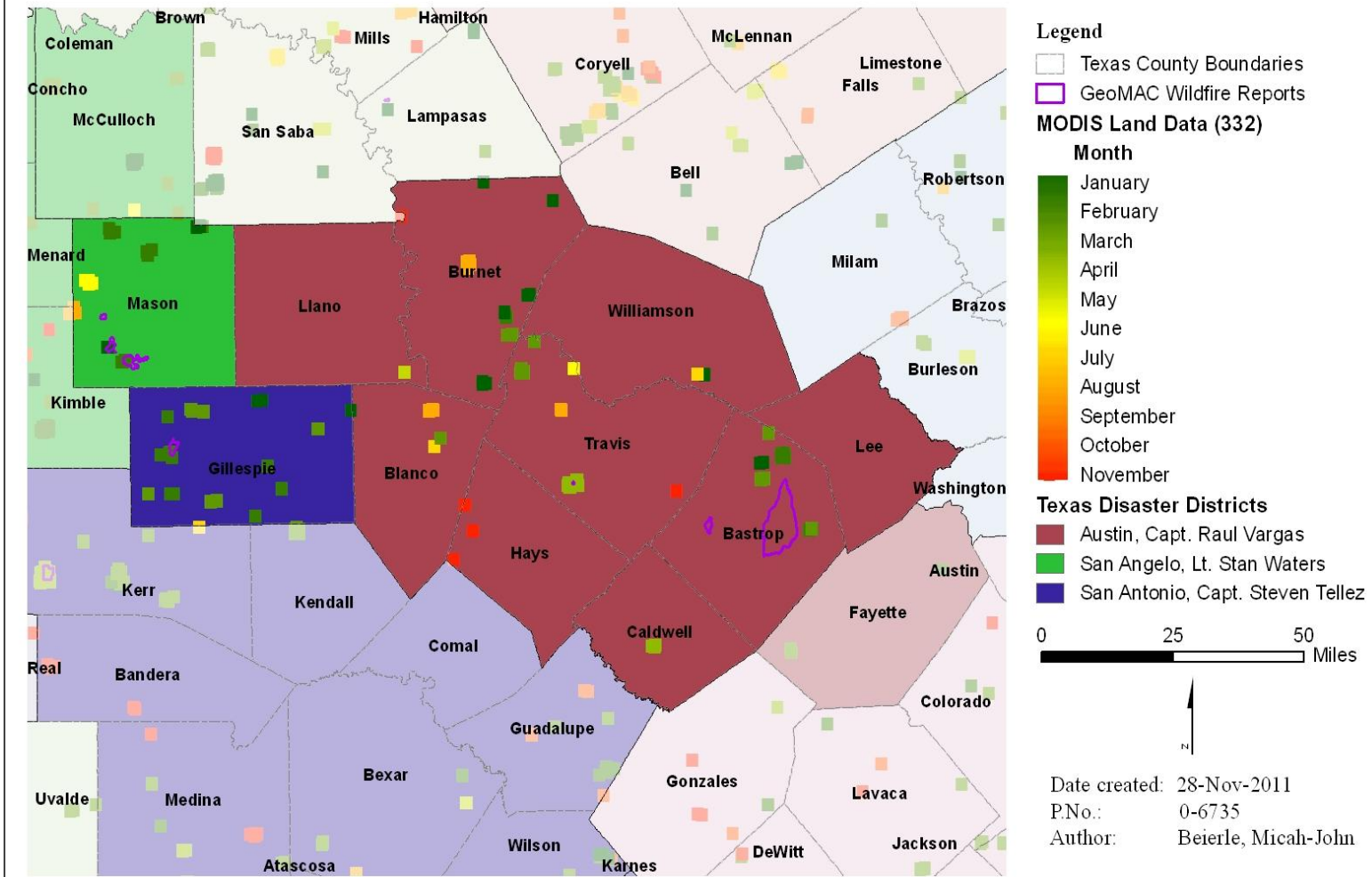


Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01Jan2011 to 28Nov2011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 14-Nov update.
Road Way data were generated using StratMap Data collected from TNRIS.



Multi-resource Wildfire Detections from January 1st 2011 - November 28th 2011 Austin TxDOT District, Texas Disaster Districts

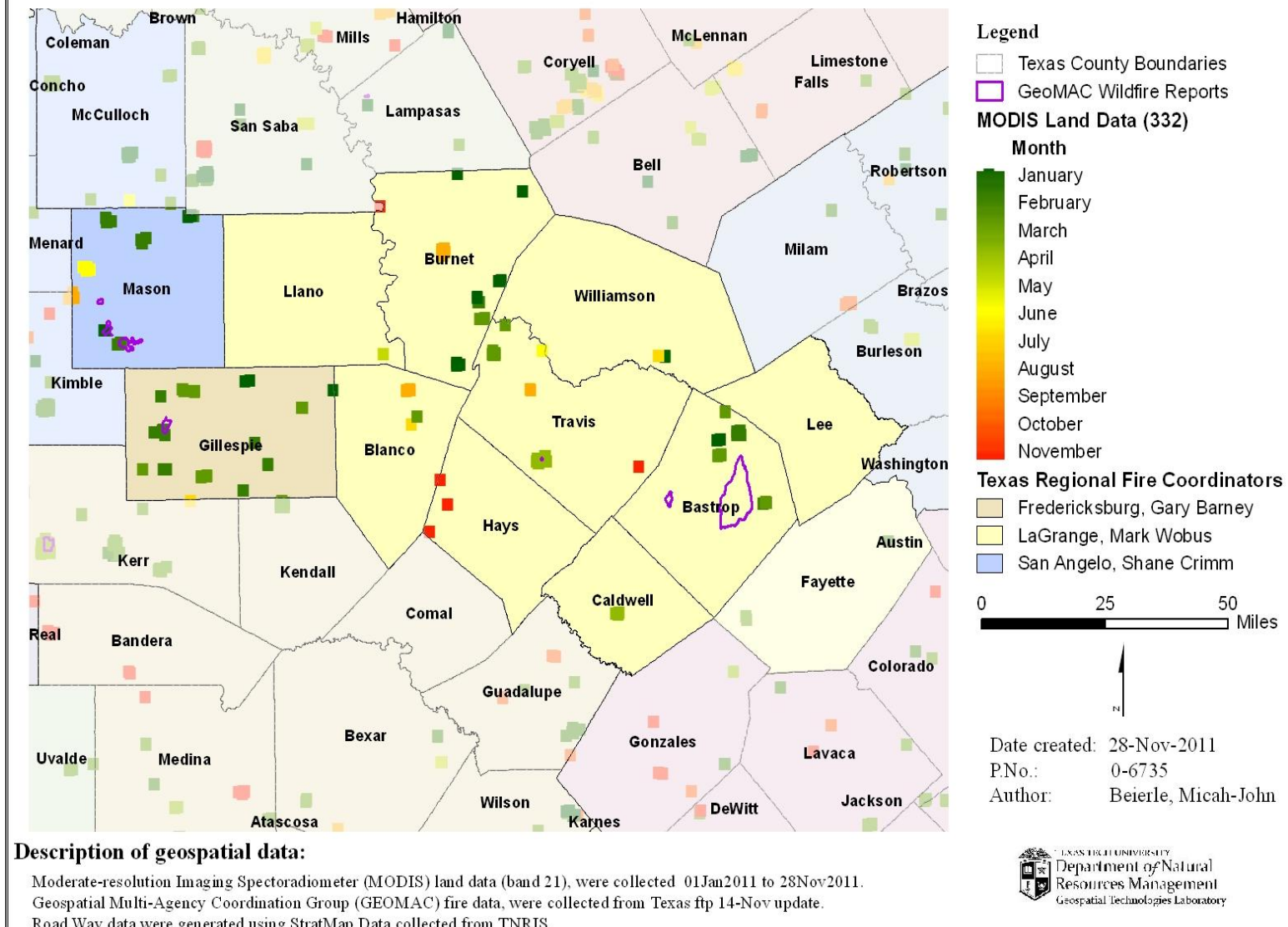


Description of geospatial data:

Moderate-resolution Imaging Spectroradiometer (MODIS) land data (band 21), were collected 01Jan2011 to 28Nov2011.
Geospatial Multi-Agency Coordination Group (GEOMAC) fire data, were collected from Texas ftp 14-Nov update.
Road Way data were generated using StratMap Data collected from TNRIS.



Multi-resource Wildfire Detections from January 1st 2011 - November 28th 2011 Austin TxDOT District, Texas Regional Fire Coordinators



APPENDIX D

Interview Questionnaire

0-6735: Best Practices for TxDOT on Handling Wildfires

Interview Questionnaire

1. Advance preparation, readiness and training

- a. Do you have any advance preparation and readiness protocols to respond to wildfire situations? If so, are they unique to your district?
- b. Do you make advance preparations by monitoring weather, ground conditions or other factors? Please provide details of how conditions affect your decision for readiness preparation.
- c. Please provide information about your readiness plan including coordination activities, staging areas, resource mobilization, etc.
- d. Do you have training programs already in place or being planned for your District personnel regarding wildfire response? If so, please provide details of such activities or efforts.

2. Notification/Request for services to a TxDOT District for a wildfire event

- a. What agency/office issues the official notification of a wildfire event? What is the form(s) of this notification?
- b. Who within the District receives the official notification?
- c. What services from TxDOT are requested as part of this notification?
- d. How many such requests are made to your district in a typical year?
- e. How is the District notified of a Governor's Proclamation or Federal Disaster Declaration?

3. Communication related to a wildfire event within TxDOT

- a. What is the chain of command for wildfire-related action within your district?
- b. What offices within TxDOT but outside of the District chain of command in (a) above are involved in the wildfire event?
- c. How are resource utilization requests and approvals accomplished within a District?
- d. What forms do you submit for reporting and reimbursement requests? (Please provide a copy)
- e. What mechanisms are currently used to ensure adequate data collection?
- f. Do you use any internal forms to collect such data within the District?
- g. If a wildfire event includes more than one District, how do you handle coordination efforts between Districts?
- h. What are TxDOT's responsibilities in notifying the general public regarding wildfire events? Who is involved in preparing and delivering such notifications?
- i. Do you conduct advance briefings for the District response team before they leave for wildfire-related activities? How are such meetings conducted and what information is conveyed to participants?
- j. Once the fires have been extinguished, do you conduct a formal de-briefing session(s) to discuss lessons learned and to ensure that all action necessary for cost reimbursement is completed?

4. Communication with outside agencies

- a. Once notified of a wildfire, what responsibilities does TxDOT have to notify others?
- b. What agencies does TxDOT interact with relating to the wildfire event? Please provide information on such interactions.
- c. What outside agencies does TxDOT interact with routinely in times other than during wildfire events and how often?
- d. Are there formal protocols to be followed by TxDOT personnel when contact is made with outside agencies both during and outside of wildfire events?

5. TxDOT Responsibilities to ensure employee and public safety

- a. What additional employee safety-related responsibilities does TxDOT have that are specific to wildfire events?
- b. What additional public safety-related responsibilities does TxDOT have that are specific to wildfire events?

6. Resource utilization by TxDOT during wildfire events

- a. What TxDOT resources are typically utilized during wildfire events?
- b. What agencies use the resources indicated in (a) above?
- c. How many TxDOT field personnel are typically mobilized for a wildfire event? (You may indicate a range here.)
- d. How many TxDOT District employees serve in volunteer fire departments in their locality?
- e. Does TxDOT release such firefighter employees from TxDOT duties during wildfire events?
- f. What is your success rate of reimbursement for expenses incurred for a wildfire response? Indicate separately for different agencies that may be involved.
- g. How often does your District provide fuel to agencies outside of TxDOT that are involved in the wildfire event? How much fuel is typically provided?
- h. In addition to fuel, does your District provide any other resources to outside agencies to effectively deal with the wildfire event?
- i. Who handles the cost reimbursement requests related to wildfire events within your District?
- j. Are TxDOT personnel who respond to wildfire situations provided with adequate safety garments, equipment and training?

7. Information from recent wildfires (Be sure to take a list of fires to the district/agency interview)

- a. Name of fire
- b. Code/Key of the fire in the State wildfire information database
- c. Extent of the wildfire and its duration
- d. Cause(s) of wildfire (if known)
- e. What work was performed by TxDOT during the wildfire event and immediately thereafter?
- f. What resources were utilized by TxDOT in responding to this wildfire event?
- g. What other outside agencies responded to the wildfire event? What were their duties?
- h. What resources were expended by other outside agencies to help fight the wildfire?

- i. What was the total cost incurred by TxDOT for this wildfire event?
- j. What is the success rate of cost reimbursement for each reimbursing agency
- k. Challenges faced by TxDOT and its employees during the wildfire event
- l. Lessons learned by TxDOT and its employees during the wildfire event
- m. Suggested improvements to TxDOT wildfire response protocols in areas including employee safety, training, TxDOT command structure, TxDOT support services, dealing with outside agencies and dealing with the public.

8. In your opinion, how effective was the training and/or guidance documentation in effectively responding to wildfire situations?

9. Comments on existing resources/guidance from TxDOT and other agencies such as TDEM, TFS, FEMA, etc.

- a. TxDOT Guidance for Wildfire Response
- b. TxDOT Maintenance Operations Manual
- c. Training courses/modules
- d. Other (please specify)

APPENDIX E

Texas Administrative Code

Texas Administrative Code

TITLE 37 PUBLIC SAFETY AND CORRECTIONS
PART 1 TEXAS DEPARTMENT OF PUBLIC SAFETY
CHAPTER 7 DIVISION OF EMERGENCY MANAGEMENT

Subchapter A: EMERGENCY MANAGEMENT PROGRAM REQUIREMENTS

Rule #	Rule Title	Adopted	Amended	Rule Description
7.1	Emergency Management Organization Required	01/01/1976	12/22/1982 12/20/2007	Each county and incorporated city in Texas shall maintain an emergency management agency or participate in a local or inter-jurisdictional emergency management agency.
7.2	Responsibilities of the Chief Elected Official	01/01/1976	12/22/1982 03/14/1999 12/20/2007	The mayor of each municipal corporation and the county judge of each county are designated as the emergency management director for their respective jurisdictions. The mayor and county judge may each designate an emergency management coordinator who shall serve as an assistant to the presiding officer of the political subdivision for emergency management purposes when so designated.
7.3	Notification Required	01/01/1976	12/22/1982 03/14/1999 12/20/2007	The presiding officer of each political subdivision of the state shall notify the Governor's Division of Emergency Management of the manner in which the political subdivision is providing or securing an emergency management program and the person designated to head that program. Notification should be made using form DEM-147 (Emergency Management Director/Coordinator Appointment), which is available from the division's web site* and from its Regional Liaison Officers stationed around the State.

* <http://www.txdps.state.tx.us/dem/pages/index/htm>

Subchapter B: EMERGENCY MANAGEMENT PLANNING AND PREPLANNING REQUIREMENTS

Rule #	Rule Title	Adopted	Amended	Rule Description
7.11	State Plan Required	01/01/1976	12/22/1982 12/20/2007	The Division of Emergency Management of the Texas Department of Public Safety shall prepare and maintain a state emergency management plan. This plan is on file at the division's office, 5805 North Lamar, Austin, Texas, and with each member agency of the Emergency Management Council. A copy of the plan is posted on the division's web site*.
7.12	Local Planning Required	01/01/1976	12/22/1982 06/18/2003 12/20/2007	Each local and interjurisdictional emergency management agency shall prepare, keep current, and distribute to appropriate officials a local or interjurisdictional emergency management plan that includes the minimum content specified by the Division of Emergency Management in its local emergency planning standards and has been signed by the presiding officer(s) of the jurisdiction(s) for which it was prepared. Local and interjurisdictional plans shall be reviewed annually and must have been prepared or updated during the last five (5) years to be considered current. A copy of each plan and any changes to it will be provided to the Division.
7.13	Eligibility for Federal Incentive Programs Described	01/01/1976	12/22/1982 03/14/1999 06/18/2003 12/20/2007	(a) The Division of Emergency Management administers certain federal assistance programs authorized under the Robert T. Stafford Disaster Relief and Emergency Assistance Act as amended, and other statutes. To participate in these programs, a city or county must meet, as a minimum, the following basic eligibility requirements: (1) Have a local emergency management agency legally established by city ordinance or commissioner's court order or participate in an interjurisdictional emergency agency established by joint resolution of the participating local government. (2) Have a local or interjurisdictional emergency management plan that meets state planning standards for minimum content and is current. (3) Have formally adopted and be implementing the National Incident Management System (NIMS) as its incident management system. (4) Submit an acceptable project narrative or work plan and budget for eligible activities. (b) Many grants have more specific eligibility requirements and additional terms and conditions.

* <http://www.txdps.state.tx.us/dem/pages/index/htm>

Subchapter C: EMERGENCY MANAGEMENT OPERATIONS

Rule #	Rule Title	Adopted	Amended	Rule Description
7.21	Declaration of a State of Disaster and Effects of a Declaration	01/01/1976	12/22/1982 12/20/2007	The presiding officer of a political subdivision may declare a local State of Disaster if a disaster has occurred or is imminent. A disaster declaration activates the response provisions of the local emergency plan, if that has not been previously accomplished, and also activates recovery provisions of the plan. Such a declaration can be sustained for a maximum of seven days, unless extended by the governing body of the political subdivision.
7.22	State of Disaster Publicized	01/01/1976	12/22/1982	A local declaration of disaster must be given general publicity and shall be promptly filed with the city secretary or county clerk.
7.23	Local Government's Responsibility	12/20/2007		In responding to emergencies and disasters, a local government is expected to use its own resources and the resources available to it through mutual aid agreements before requesting assistance from the state. Municipalities must request assistance from their county before requesting assistance from the state.
7.24	Requesting State Assistance	01/01/1976	12/22/1982 12/20/2007	If local and mutual aid resources prove inadequate for coping with a disaster, the local government may request assistance from the state by contacting the local Disaster District Committee Chairperson, who is the commanding officer of the Texas Highway Patrol district or sub-district in which the jurisdiction is located.
7.25	Request from Chief Elected Official Required	01/01/1976	12/22/1982 03/14/1999	Requests for assistance must be made by the chief elected official of the city or county or by another official specifically authorized by them.
7.26	Local Government Control Affirmed	01/01/1976	12/22/1982 12/20/2007	All local disaster operations will be directed by officials of local government. Organized state and federal response teams and teams from other local governments and response organizations providing mutual aid will normally work under their existing supervisors, who will take their mission assignments from the local incident commander.
7.27	Protective Action Recommendations for the Public	01/01/1976	12/22/1982 03/14/1999 06/18/2003 12/20/2007	The decision to recommend that the public take shelter, evacuate, or relocate rests solely with the Governor and with the officials of local government. The chief elected official of a local government has the legal authority to order the evacuation of areas within the government's jurisdiction that are at risk from or have been impacted by a disaster.

Subchapter D: RECOVERY AND REHABILITATION REQUIREMENTS

Rule #	Rule Title	Adopted	Amended	Rule Description
7.41	Initiation of Requests for Recovery Assistance	01/01/1976	12/20/2007	Requests for state or federal recovery assistance must be initiated by local government. The chief elected official of the jurisdiction must have declared a local State of Disaster before requesting disaster recovery assistance.
7.42	Written Request Required	01/01/1976	03/14/1999 12/20/2007	Requests for recovery assistance and/or a state disaster declaration by the Governor must be made by the local chief elected official in writing to the Governor of Texas through the Division of Emergency Management. The request must indicate that the disaster is of such magnitude that local resources are inadequate to deal with it and the affected locality cannot recover without state and/or federal assistance. Request should be transmitted to the Division by facsimile or courier.
7.43	Supporting Information for a Request for Assistance	12/20/2007		The following should be attached to requests for assistance and/or for a state disaster declaration by the Governor. (1) An estimate of the extent of damage sustained to public and private property, including homes and business and data on the number of people who are deceased, injured, or displaced. The Damage Summary Outline (form DEM-93), available from the Division of Emergency Management field staff and posted on the division's web site* should be used for this purpose. (2) A copy of the local disaster declaration issued for the disaster.
7.44	Joint Damage Assessments	12/20/2007		When a local government has requested state or federal disaster recovery assistance and/or a state disaster declaration, state and, where appropriate, federal emergency management officials will normally deploy to the affected area to conduct a joint damage assessment with local officials that will be used in developing state and federal disaster recovery program recommendations. Local governments are expected to make available personnel who are knowledgeable about the damages suffered by the community to participate in this effort.
7.45	State and Federal Disaster or Emergency Declarations	12/20/2007		(a) After consultation with appropriate emergency management officials, the Governor may issue a state disaster declaration for a local, regional, or statewide emergency situation. (b) The Governor may also request a federal major disaster or emergency declaration for the emergency situation, which would, if approved, activate certain federal disaster relief and recovery programs.

* <http://www.txdps.state.tx.us/dem/pages/index.htm>

4. SUMMARY AND CONCLUSIONS

The following text is a placeholder for the main body of the document, which contains the summary and conclusions of the research. The text is currently blank and appears to be a scan of a document where the content has been obscured or is otherwise missing.



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