REPORT

POST-INCIDENT ANALYSIS

Independent Review of the Brookhollow Apartment Fire

PREPARED FOR

Sedgwick County 100 N. Broadway, Ste 610 Wichita, KS 67202

City of Wichita 455 N. Main, 13th Floor Wichita, Kansas 67202

Project #: 1JHM24002 Date: December 16, 2024



PREPARED BY

Jensen Hughes, Inc. 10 South Wacker Drive, Ste 1300 Chicago, IL 60606 USA



December 16, 2024

Russell Leeds Assistant County Manager Sedgwick County 100 N. Broadway, Ste 610 Wichita, KS 67202

Donte Martin Assistant City Manager City of Wichita 455 N. Main, 13th Floor Wichita, Kansas 67202

Dear Mr. Leeds and Mr. Martin:

Please find attached the final report detailing our independent Post-Incident Analysis of the Brookhollow Fire on October 13, 2023, at 8650 W. Central, Wichita, KS.

The report provides a detailed analysis of four key areas: 1) Incident Review, 2) Review of Agencies and their SOP/SOGs involved in the incident, 3) Agencies Contributing Factors to incident outcomes, 4) Strategies and Plans to improve system outcomes and help restore public trust and confidence.

Based upon our review and analysis, the report then provides a series of Findings and Recommendations for each of these areas.

Please let me know if you have any questions about this report or the analysis – in part or whole. We place enormous value on the trust you have extended to us in this matter and look forward to supporting your requirements in the future.

Sincerely,

John H. Mammoser PE, CFEI

Ramplin

Vernon Champlin MPA, EFO, FM

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Executive Summary

Tragedy Provides an Opportunity: Need to Conduct this Post-Incident Analysis

Performing a Post-Incident Analysis provides an opportunity for all involved to learn what went well and what could be improved, identify system strengths and weaknesses, build (or rebuild) team cohesion, document lessons learned, update Standard Operating Procedures/Guidelines (SOPs/SOGs), and provide a foundation necessary for accountability.

The Brookhollow Apartment Fire, which occurred on October 13, 2023, tragically took the life of Ms. Paoly Bedeski, injured several other occupants, and could have harmed many others, including first responders. This incident is an ideal candidate for comprehensive post-incident analysis that will be made available to the public to provide transparency to the residents of Sedgwick County and the City of Wichita.

The Assignment:

Jensen Hughes was selected to provide an independent, third-party Post-Incident Analysis of the Brookhollow Apartment Fire, including a written report documenting the findings and recommendations.

Consistent with the requirements contained within the Request for Proposals, this assessment focused on the following areas:

- Obtain a thorough evaluation of the emergency communications and involved public safety-first response agencies compared to accepted best practices and industry standards.
- Establish a clear understanding of how the emergency communications and involved public safety-first response agencies affected the fatal apartment complex incident.



- Comprehensively compile incident information and data, obtain objective incident analysis, and draw conclusions that meet the parameters, conditions, and mandatory requirements presented in the document.
- + Identify strategies and create a plan to improve system outcomes and help restore public trust and confidence.

Our Process & Approach

During this analysis, the Jensen Hughes team performed analysis on the following:

- organizational frameworks for Sedgwick County Emergency Communications, Sedgwick County EMS, and the City of Wichita Fire and Police Departments,
- applicable Standard Operating Procedures (SOP) and Standard Operating Guidelines (SOG) from Sedgwick County Emergency Communications, Sedgwick County EMS, and the City of Wichita Fire and Police Departments,
- + applicable Wichita Fire and Wichita Police incident reports,
- past and current training materials for Sedgwick County Emergency Communications dispatchers,

- applicable building construction permits, original building design drawings, and other documentation associated with the Brookhollow Apartment Complex.
- lease agreements provided by Alamo Apartments, LLC, owners of the Brookhollow Apartment Complex, and
- + the actions taken and not taken before, during, and after the incident.

- Our team conducted interviews with agency stakeholders, including:
- + Sedgwick County Management
- Sedgwick County Metropolitan Area Building and Construction Department
- + Wichita City Management
- + Wichita Fire Department
- + Wichita Police Department
- + Sedgwick County Emergency Communications
- + Sedgwick County EMS

Conducted two in-person site visits in support of research objectives and process:

- On the first visit, discussions were focused on our team gaining a basis of operational understanding for each of the agencies involved and the system as a whole. This included interviews with stakeholder agency leadership to understand policies, procedures, organizational structure and operations, and interagency cooperation before the Brookhollow Fire incident.
- + On the second visit, activities became more specific to the actual fire, and interviews were conducted with agency stakeholders who were directly involved in the incident.

- Hosted listening sessions with the Sedgwick County Commissioner Chair, another Commissioner, the City
 of Wichita Mayor and Deputy Mayor, and the IAAF 135 President.
 - Statements made by those representatives noted above did not influence our findings or recommendations in the report.

Jensen Hughes' approach with this Post-Incident Analysis is to provide Sedgwick County and the City of Wichita with an overview of the incident, contributing factors resulting in the incident outcome, and recommendations to improve the agencies' training SOPs/SOGs. This report identifies overarching themes and gaps in administrative and operational processes and where agency policies and procedures are considered adequate.

Limitations of this Analysis

To enable Sedgwick County and the City of Wichita to use this Post-Incident Analysis as a tool for deriving comprehensive insights and preventing future incidents, the specific names of individuals involved or interviewed in connection with the incident have been excluded from this report, except for Ms. Paoly Bedeski. Even with our best efforts, there are limits to this Post-Incident Analysis. Jensen Hughes relied upon the availability and accuracy of the data provided; it is possible that some information was not provided to our team for consideration. Time constraints can lead to superficial analysis focusing on immediate causes rather than systemic issues. Organizational and/or peer pressures can lead to bias. We had sufficient time to conduct this analysis and avoid potential bias from agencies involved in the incident.

As with all our reports of this nature, Jensen Hughes stands behind these findings as 1) objectively determined; 2) accurately reported; 3) legally acquired; 4) compliant with all relevant regulations; 5) comprehensive in scope to the best of our ability; and 6) collected with discretion, investigative diligence and professional respect.

Incident Findings

After conducting a comprehensive review of policies, procedures, training records, radio transmissions, and a series of interviews, we found no single point of failure by any of the agencies involved that could be solely attributed to the fatality of Ms. Paoly Bedeski.

Instead, Jensen Hughes identified a number of systemic shortcomings that, when combined, contributed to an unorganized rescue effort. Had these significant shortcomings not occurred, it would have provided Ms. Bedeski with a better chance of early rescue and subsequent increased potential for survival, provided she was still alive.

The last known time Ms. Bedeski was alive was when she stopped speaking on the 911 call, which occurred before the Wichita Fire Department was dispatched. Her call disconnected before the Wichita Fire Department arrived on the scene.



Figure 1: 3 minutes and 54 seconds between the last words and the arrival of the first WFD apparatus

- We believe that the Sedgwick County Emergency Communications call taker/dispatcher could not understand what Ms. Bedeski was saying when she stated her apartment unit number. However, the dispatcher did not use the instant recall feature to replay the audio. This may have allowed him to better understand her and relay the information to the Wichita Fire Department.
- 2 Sedgwick County Emergency Communications dispatched the requested second alarm after a significant delay. However, we found that the Wichita Fire Department had an adequate number of firefighters on scene to conduct fireground operations of a garden-style apartment before the second alarm was dispatched.
 - We found the Wichita Fire Department's decisions associated with the initial fire attack, an uncoordinated search and rescue effort, ineffective command and control, in addition to the partial collapse of the stairway and subsequent Mayday delayed search efforts.

However, Jensen Hughes cannot conclude that the shortcomings identified would have absolutely changed the ultimate outcome of this fatal incident.

Other Factors

3

Circumstances beyond the control of any involved agency that likely contributed to the fatal outcome of the incident:

- + Past evidence of building residents inappropriately discarding smoking materials on and around Building 300's exit stairway.
- + Exit stairway combustible construction and geometry.
- + Wind conditions the morning of the fire.
- + Evidence found on Ms. Bedeski's social media in the weeks leading up to the fire indicated that a smoke alarm in her apartment had a low battery. It is unknown if the detector was working properly at the time of the incident.
- In reviewing the available fire scene photographs provided by the Wichita Fire Department, patterns of fire impingement on the exterior doors and subsequent heat/smoke damage to the interior walls suggest the exterior door of Unit 306 may have been open during a portion of the incident while other apartment unit doors remained closed.
- + Ms. Bedeski's decision to retreat to her (windowless) bathroom, for unknown reasons, is a contributing factor that resulted in her fatality. Despite the fire exposure to the adjacent apartment, Unit 305, being more severe, those residents survived by going to the front bedroom and jumping from the window prior to the arrival of the Wichita Fire Department.

Opportunities for Improvement

Jensen Hughes found that everyone interviewed as part of this Post-Incident Analysis appears to have the best intentions to provide a high-quality, effective response to emergency incidents for the residents of Sedgwick County and the City of Wichita. Through our analysis, we identified areas for improvement for every agency that will enhance crisis mitigation (reduce risk to civilians and first responders). These recommendations, detailed in the report, would enhance operational readiness for subsequent emergency incidents.

In general, areas for improvement for each agency were identified:



County Emergency Communications Dispatch: We noted opportunities for additional training in the available technology and familiarization with the operations of the agencies they serve.



Wichita Fire Department: We identified opportunities for enhancing training programs, improving fireground operations, strengthening command and control during incidents, and achieving effective fire investigations.



Sedgwick County EMS: We noted opportunities to better serve the overall public safety system by working more closely with the Wichita Fire Department on fire incident response.



Wichita Police Department: We noted opportunities to better serve the overall public safety system by working more closely with the Wichita Fire Department on fire incident response.

Underling Challenges

In addition to analyzing the incident, we uncovered some additional challenges that this public safety system has been facing for some time.



Trust and Collaboration

Tensions and animosity between the Sedgwick County Emergency Communications and some of the agencies it serves have persisted for years, undermining trust and respect. To foster strong working relationships and better serve both the County and the City, it is crucial to move past previous grievances—whether real or perceived and focus on building a foundation of mutual understanding, trust, and cooperation.

Enhanced Public Safety Systems

Public safety services thrive when collaboration exists between neighboring agencies, driving improvement and innovation. However, in the case of the Wichita Fire and Police, as well as Sedgwick County Emergency Communications and EMS, the lack of nearby comparable advancing agencies fosters complacency. Due to this geographic isolation, agencies must intentionally seek out professional relationships that will contribute to improved service delivery. The public safety system should seek out benchmarking and accreditation as methods to continuously evaluate itself against similar systems.



Fire Department Culture and Accountability

The fire department appears to lack an emphasis on self-reflection and accountability within its culture. By fostering a culture rooted in humility, collaboration, and continuous improvement, the department can enhance its services and strengthen its ability to meet the City's needs effectively.

1.0 Background



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1.1 AGENCY OVERVIEW

1.1.1 Sedgwick County Emergency Communications

The Sedgwick County Emergency Communications (SCEC) serves as the primary answering point for 911 calls and provides dispatching services for 31 public service agencies, including the Sheriff's office, Sedgwick County Emergency Services, Fire District 1, and the Wichita Police and Fire Departments, with a staffing of approximately 108 full-time equivalent employees. Sedgwick County has done a complete organizational pay plan review for all positions to aid in the recruitment and retention of 911 dispatch center staffing.



Since 1994, the consolidated Sedgwick County Emergency Communications Department became the primary Public Safety Answer Point (PSAP) for all Fire, EMS, and Police agencies in Sedgwick County.

In 2022, Emergency Communications answered about 740,000 calls, with 505,000 being emergency calls, responded to about 4,500 texts to 911, and processed almost 7.5 million radio transmissions annually. Call for service for the time frame of July 1, 2023 – June 30, 2024, totaled 595,068. Of those, 212,591 were for the Wichita Police Department, and 59,615 were for the Wichita Fire Department. Their quality improvement (QI) program conducted performance standard reviews of 10,509 emergency events for standards compliance in 2022. The Kansas Department of Transportation maintains workstations in the call center to monitor highway cameras. In 2023, COMCARE embedded qualified mental health providers in the call center to manage behavioral health calls and directly respond to 9-1-1 callers in crisis. By November 27, 2023, Emergency Communications had achieved 92% staffing, up from a post-pandemic low of 65% in 2021.

The Emergency Communications Department has traditionally consisted of dispatchers who serve the dual roles of call taker and dispatcher. The department leadership has been advocating for and moving toward a dedicated call taker/dedicated dispatcher model to the extent that staffing levels have allowed. In 2023, with the expansion and remodel of the Emergency Communications call center and staffing levels around 90%, the dedicated call taker model has begun to show improvements in call answer times and fewer calls answered by dispatchers. Emergency Communications is a member agency of, and meets the standards set forth by, the Kansas 911 Coordinating Council. Department leadership strives to adhere to industry standards established by the National Emergency Numbers Association (NENA).

In 2022, Emergency Communications worked to configure a new Computer Aided Dispatch (CAD) system. This CAD system is utilized by all first responders, tracking emergency events from the time of 911 call to their resolution. The system provides analytics and data tracking to enhance emergency response.

On April 18, 2023, Sedgwick County Emergency Communications "went live" with a new computer-aided dispatching (CAD) software solution, replacing the previous Northrup Grumman CAD software, which had been in service since April 22, 2008. Between April 2, 2023, and August 14, 2023, Emergency Communications operated from its backup location in the Wichita-Sedgwick County Law Enforcement Training Center on the Wichita State University Campus while the Emergency Communications call center underwent demolition, expansion and a complete remodel.

The Advisory Board's members are the Sedgwick County Sheriff, the Wichita Chief of Police, the Derby Chief of Police, the Sedgwick County Fire District 1 Fire Chief, the Wichita Fire Chief, the Derby Fire Chief, the Sedgwick County Emergency Medical Services Director, the Sedgwick County Emergency Management Director, the

County Manager's appointee (Sedgwick County ITS Director), the City of Wichita Manager's appointee (Assistant City Manager), a representative of Suburban Police Departments, and a representative of Suburban Fire Departments.

1.1.2 Wichita Fire Department

The Wichita Fire Department (WFD), established in 1886, is a full-time professional fire service comprised of the Emergency Operations Division, Community Risk Reduction Division, and Support Services Division, with approximately 510 full-time equivalent employees serving an estimated 395,000 residents in the City of Wichita and surrounding communities through automatic aid and mutual aid agreements. The WFD responds from 22 fire stations to provide services in fire suppression, emergency medical, hazardous materials, technical rescue, fire prevention, code administration, fire investigation, and public education. The department responds to more than 55,000 calls for service each year, with nearly 70% of responses being related to low-risk medical calls.



WFD requires all firefighters to be credentialed as EMTs operating under the licensure of the Kansas Board of Emergency Medical Services and under the Clinical leadership of the Sedgwick County Office of the Medical Director. The WFD does not provide medical transport services and relies upon Sedgwick County Emergency Medical Services for patient transport.

The WFD's Fire Investigation Unit (FIU) is comprised of one captain, three lieutenants, and three firefighters and is part of the Community Risk Reduction Division headed by the Fire Marshal. Personnel assigned to the FIU are Fire Department Employees with police powers and law enforcement responsibilities. While operating with police authority, the WPD policies and procedures must also be followed in addition to all WFD policies.

It is the responsibility of the FIU to respond to and investigate fires and are tasked with determining the origin and cause of fires that occur within the incorporated city limits of Wichita, Kansas. Investigators assigned to the FIU are also tasked with locating, apprehending, and charging individuals responsible for criminally starting fires. According to the FIU, they investigate approximately 300 fires per year. This is an increase from the approximately 200 fires they investigated 10 years ago.

The WFD is dispatched by Sedgwick County Emergency Communications (SCEC) and receives information about calls over the air with mobile (apparatus) and portable (handheld) radios and on Mobile Computer Terminals (MCTs) located in fire apparatus. Each fire station is provided with station alerting systems. WFD calls are initially dispatched on the Fire Resource channel. Personnel then communicate with SCEC Dispatch on a Fire Operations (Ops) channel. When two or more WFD units are dispatched to an incident, SCEC Dispatch allocates a Fire Tactical (TAC) channel for fireground communications. Once a TAC channel is assigned, Incident Command communicates with the fireground on TAC and dispatch on Ops.

1.1.3 Sedgwick County EMS

The Sedgwick County Emergency Medical Services (SCEMS) is the only provider of complete emergency medical services (response and transport) for all cities and rural areas of Sedgwick County, including the City of Wichita. The SCEMS is managed by an EMS Chief (Director) who is responsible for all aspects of ambulance service operations, supported by a Deputy Chief of Administration and Deputy Chief of Operations. Clinical leadership for pre-hospital care and certification is the primary responsibility of the Sedgwick County Office of the Medical Director. The SCEMS is licensed under the Kansas Board of Emergency Medical Services and accredited by the Commission on Accreditation of Ambulance Services (CAAS). SCEMS employs EMT-Basic (EMT-B), Advanced EMT (AEMT), and EMT-Paramedic (EMT-P) trained staff.



Each ambulance is provided with advanced life support (ALS) personnel and equipment. SCEMS has 17 posts throughout the County including:

- + 10 located within the City of Wichita
- + 7 located within communities surrounding the City of Wichita
- + 2 located within the surrounding rural area

Some SCEMS posts accommodate up to two ambulances simultaneously for periods of the day. SCEMS can staff up to 21 ambulances during peak periods on a typical day, with a lower number of staffed ambulances off-peak. Staffing of ambulances can increase on certain days/weeks of the year or for special events. The SCEMS Operations Division is led by an Operations Division Chief and District Chiefs. Three EMS District Chiefs serve as front-line supervisors during peak periods (10 a.m. – 10 p.m.), and two EMS District Chiefs cover off-peak hours (10 p.m. – 10 a.m.).

The full-time EMS staff is supplemented by the reserve volunteer unit. This volunteer program allows certified and credentialed EMS providers to serve their community in such a capacity. Sedgwick County EMS will provide all training and assessment necessary to assure Reserve readiness for their duty assignments, which include, but are not limited to, disaster support, standby medical services, and third-person ambulance crew experience. All reserve staff are subject to all applicable Sedgwick County and EMS departmental policies.

In 2023, SCEMS responded to about 68,000 calls for service throughout the county averaging approximately 187 calls per day. The majority of calls, 87.67% in 2023, were located within the City of Wichita.

SCEMS calls are dispatched on an EMS Ops radio channel. Personnel then communicate with SCEC Dispatch on the EMS Ops channel. When two or more SCEMS units are sent to a scene, SCEC Dispatch allocates an EMS TAC channel for EMS communications. Once a TAC channel is assigned, the Medical Incident Command or the Medical Branch Chief (on an incident) communicates with the on-scene EMS units on TAC and with dispatch on EMS Ops.

1.1.4 Wichita Police Department

As part of the public safety and emergency response capabilities within the City of Wichita, primary law enforcement responsibilities fall under the jurisdiction of the Wichita Police Department (WPD). The WPD is led by the Police Chief, who is appointed by and reports to the City Manager. Organizationally, the agency is divided into three major Divisions – Field Services, Investigations, and Support Services – each overseen by a Deputy Chief.

The Field Services Division, the largest of all WPD Divisions, is divided into five Bureaus – Patrol North, Patrol East, Patrol South, Patrol West, and Traffic. The four

patrol bureaus provide first responder patrol services for the respective geographical areas. Each bureau operates 24 hours per day, seven days per week. This enables rapid response for delivering public safety services throughout the city. The primary responsibility of the Field Services Division is 911 call response. Historically, WPD has not been dispatched as primary responders to structure fires. They have fulfilled a secondary role, providing traffic control and scene security upon the request for assistance from the fire department on scene. This request is relayed through Sedgwick County Emergency Communications (SCEC).

1.2 BROOKHOLLOW APARTMENT COMPLEX

The Brookhollow Apartment Complex is located at 8165 E. Central Avenue in Wichita, Kansas, southeast of E. Central Avenue and N. Rock Road intersection and behind the Brookhollow Center Retail Plaza. The apartment complex is accessed from a single dead-end drive from E. Central Avenue. Once in the complex, the driveway leads to a drivable loop around the entire apartment building and provides for resident parking. A wood fence on the north, west, and south sides and a water retention drainage ditch on the east surround the approximately 2-acre property. An approximate 4-foot opening on the northwest side of the wood fence allows pedestrian access to the retail establishments to the north and west.





Figure 2: Satellite Image of Brookhollow Apartment Complex. (Credit: Google Maps 2024)

The overall structure is approximately 36,900 gross square feet (gsf), plus exterior stair projections totaling approximately 3,500 gsf. The building is considered a two-story structure with a basement (garden-level) and is "C"-shaped. The basement level is approximately 5-foot 7-inch below grade; therefore, it is not considered a story above grade by building codes. An outdoor pool is located in the center of the "C." The complex includes 72 apartments consisting of studio and one-bedroom units distributed across 12 "buildings," which are connected but fire-separated.



Figure 3: Undated Photo of Brookhollow Apartment Building 300.

Each building has six units, two per floor. One-bedroom units are approximately 580 gross square feet (gsf), and studio units are approximately 440 gsf. The subject fire occurred in Building 300, which is comprised of all one-bedroom units. The one-bedroom units include a living room, combined kitchen and dining area, bedroom, full bathroom with closet, and small mechanical closet. Each unit has an electric range, an electric water heater, and a forced air furnace.

The construction permit was issued in April 1977 by the City of Wichita Central Inspection Division and the Fire Prevention Bureau. Construction was reportedly completed in 1978. Based on permit drawings, the building was constructed under the Uniform Building Code (no specific edition noted) as a Type VN – Wood Frame that is unprotected (non-fire resistive) and has exposed wood. The first and second floors are constructed of 2-inch X 10-inch wood joists with ½-inch plywood sheathing and 1-1/2-inch lightweight concrete floor topping, whereas the basement (garden level) floor is poured concrete. The interior walls are load-bearing and constructed of 2X wood studs with gypsum board or plaster finish. Ceilings inside units are finished with gypsum board or

Unit		Unit
305	Ŋ	306
Unit	irwa	Unit
303	Sta	304
Unit		Unit
301		302

Figure 4: Building 300 Unit Configuration.

plaster. The exterior wall is a combination of brick at the garden level above grade, which transitions into a mansard roof with asphalt shingles and wood trim. Exterior walls are provided with batt insulation. The roof itself is flat with a bituminous covering. Permit drawings indicate each building is separated from one another by 2-hour fire resistance-rated party walls constructed of offset 2-inch X 4-inch wood studs with two layers of gypsum board attached to each side.

Single-station smoke alarms were required and provided in each unit. Automatic fire protection systems (fire sprinklers) were not provided or required. Dry chemical Type ABC fire extinguishers were required and are provided in each unit by property management.

A single exterior, partially enclosed stairway provides exits from each apartment unit. The exterior stairway is constructed of dimensional lumber with 2-inch X 12-inch open stair treads, 2inch X 6-inch joists and plywood landings, wood guardrails with balustrades, and cedar wall finishes/trim. A roof is provided, enclosing the top of the stair tower. On each side of the exterior stair, approximately 4-foot by 4-foot framed openings are provided at the basement, first, and second floors — an additional opening on the front of the exterior stairway, also approximately 4 feet by 4 feet.

Based on a review of the permit drawings from 1977 in comparison to UBC editions (1973, 1976) available at the time of construction that the City of Wichita may have adopted, the building as designed complied with the building code with regards to height, areas, construction type, fire separations, egress, and fire detection, alarm, and fire suppression.



Figure 5: Architectural floor plan of even numbered Building 300 units (302, 304, 306); odd numbered units are mirrored along the living room wall.

Today, the City of Wichita construction permits are overseen by the Sedgwick County Metropolitan Area Building and Construction Department (MABCD). The MABCD uses the Wichita-Sedgwick County Unified Building & Trade Code (UBTC), which is adopted by the City of Wichita and other incorporated cities within Sedgwick County. The current UBTC adopts and amends the 2018 editions of the International Code Council's I-Codes, including the 2018 International Building Code.

If the Brookhollow Apartment complex were to be constructed today, it would be required to be provided with an automatic sprinkler system.

Jensen Hughes was provided copies of construction permits (original and subsequent permits that were on file with MABCD), housing complaints, and WFD Fire Prevention Inspections from 2015 through 2016. The only document provided that was relevant to this Post-Incident Analysis was a December 2015 violation regarding the report of a missing smoke alarm in one unit of the 1100 building reported by WFD Station 15. WFD Fire Prevention followed up, and based on the report, the unit passed inspection a few days later.

1.2.1 Fire Department Access

Previously noted, fire department access to the complex is provided at one location on the site's north side by a driveway from E. Central Avenue, past the Brookhollow Center retail plaza. The driveway encircles the Brookhollow Apartment building, allowing 360-degree access once you are in the complex.

1.2.2 Fire Protection Water Supply

Per the Uniform Building Code (1973, 1976 editions), the Brookhollow Apartment building, located more than 150 feet from a public street, was required to be provided with fire hydrants connected to a network providing

adequate fire flow if required by the Fire Chief [UFC 13.301(c)].

Based on the 1977 permit drawings, a single city-supplied fire hydrant is located on the northeast side of the building along the eastern driveway, near the entrance to the 100 Building. Notes on the original drawings indicate that the fire hydrant is fed from the north by an 8-inch water main. The next closest fire hydrant to the complex is over 300 feet away, located at the west driveway of the Brookhollow Center retail building on E. Central Avenue. Additional fire hydrants are located on the southeast corner of N. Rock and E. Central and across the water retention area east of N. Tara.



Figure 6: Brookhollow Complex water mains and hydrants. (Credit: Google Maps 2024)

1.2.3 Brookhollow Apartment Records

According to Sedgwick County records, the current ownership group purchased the property in 2014. Ownership provided an example lease agreement for our review. The lease indicates that ownership provides working smoke detectors (alarms) for each apartment unit. Tenants are required to maintain smoke detectors and to replace batteries. This portion of the lease is consistent with Kansas Statute 31-162 regarding the responsibility of providing and maintaining smoke detectors. Property management indicated in July 2024 interviews that if notified by a Tenant that a smoke detector battery was dead, they would replace the battery for them.

Tenants are required to sign several lease addendums when signing the lease. We are unaware if the residents in Building 300 at the time of the fire signed these exact documents, however property management indicated these documents had not changed in some time. The following are some relevant addendums:

- Tenants are not permitted to use cooking equipment on combustible balconies, charcoal, or gas, based on WFD regulations (307.5 and 307.5.1). The Landlord also indicates that electric grills are considered a violation of the lease agreement.
- + Trash is not to be left outside "the front door of the apartment or other resident's area at any time..." without being subject to a fine.
- + Smoking was permitted on the property, but the addendum to community policies reminded tenants that cigarette butts were to be disposed of "...in the trash and not in the rock beds, grass, or any areas on the property.

Both in our interviews with property management and interviews WFD FIU conducted with property management interviews, it was noted that there were prior issues with smoking materials being left in and around Building 300's exterior stairs, as reported by a Building 300 resident. Multiple residents in Building 300 reportedly smoked. Property management stated they notified residents about the issue and began regular inspections around the property looking for discarded smoke materials. Property management noted that residents who smoked started using ceramic and plastic pots (for potted plants) outside their doorway for discarded smoking materials after the notices went out. Property management noted the issue was "resolved" after the notice was issued, and before October 13, 2023.

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2.0 Incident Overview



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2.1 WEATHER

Based on data from the Eisenhower National Airport weather station (per Weather Underground), the weather in Wichita on October 12, 2023, the day before the fire, was reported to have average temperatures of 68°F, an average dew point of 60°F, and an average humidity of 77%. Winds varied between 8 and 31 mph, with an average wind speed of 23 mph and gusts of 41 mph.

On the morning of the fire, October 13, 2023, between 3 a.m. and 5 a.m., the weather at the airport was reported to have average temperatures of 54°F, an average dew point of 52°F, and an average humidity of 60%. Sustained winds ranged between 17 and 25 mph out of the west-northwest, with gusts up to 38mph, and the skies were mostly cloudy. There was no reported lightning in the area.



Figure 7: Wind direction the morning of the fire. (Credit: Google Maps 2024)

2.2 NARRATIVE TIMELINE OF EVENTS

The following narrative timeline ¹ was developed through a review of 911 call recordings, Emergency Communications Call for Service Detail Reports, radio communications, and interviews with the Wichita Fire Department (WFD), Sedgwick County EMS (SCEMS), Wichita Police Department (WPD), and Sedgwick County Emergency Communications (SCEC) Dispatchers.

At approximately 3:58 a.m. on October 13, 2023, Ms. Paoly Bedeski called 911 from her cellular telephone, which was answered by Sedgwick County Emergency Communications (SCEC) Dispatch Center. With a distressed tone in her voice and screaming at times, Ms. Bedeski tells the call taker/dispatcher that her apartment is on fire and that she lives at the Brookhollow Apartments. She is unsure of the building address, but she is in Unit 306, and she provides her name. Ms. Bedeski asks for help and forty-eight (48) seconds after the call with dispatch starts, there are no other recognizable verbal sounds from Ms. Bedeski on the phone. For approximately two (2) minutes after losing voice contact, audible touch tones are heard on the open phone line; then the call goes silent.

During this time, and continuing for several more minutes, the Sedgwick County call taker/dispatcher begins the process of dispatching the Wichita Fire Department (WFD) for an apartment fire. The first alarm for the fire department is dispatched just over one (1) minute after Ms. Bedeski's call is answered at SCEC. Shortly after, the dispatcher also notified SCEMS District Chief, Medic 2, that there was a reported fire, but per SOG's, SCEMS was not yet requested to respond. Within about two (2) minutes after Ms. Bedeski's call begins, SCEC received one additional phone call from a resident in Building 300 reporting that the building was on fire.

On the first alarm assignment for this apartment fire, WFD responded with four (4) engines, two (2) trucks, two (2) squads, one (1) rescue vehicle, one (1) rehab vehicle, one (1) mobile air unit, and three (3) battalion chiefs. In addition to the units assigned, an additional two (2) engines responded in tandem with their assigned station squads.

Within about one (1) minute of being dispatched, Station 15 companies (Engine 15 and Squad 15) are the first companies to respond over the radio, as they are housed in the closest fire station to the Brookhollow Apartments. The other dispatched fire companies indicate they are responding over the next few minutes.

Within about six (6) minutes of the first 911 call, SCEC received five

Before any fire department companies are on the Brookhollow Apartment scene, two residents in Unit 304 and two residents from Unit 305 jump from their respective windows, one resident in Unit 303 runs down the exterior stairs through fire, and one resident from Unit 301 exits through their front door to escape.

additional 911 calls reporting the fire from residents of other buildings within the Brookhollow complex, nearby homes in the neighborhood, and the parking lot across Rock Road. About seven (7) minutes after Ms. Bedeski's call to 911 started, a call was received from a friend calling on behalf of an individual in basement Unit 302 who could not self-evacuate.

While in route heading north on N. Rock Road, Engine 15 could see flames at Brookhollow and requested a second alarm about one and one-half (1-1/2) minutes after responding. Engine 15 and Squad 15 are on the

¹ Where times of day or times of events are noted in this report, they are done so attempting to align timestamps on 911 calls with audio on six radio channels and CAD timestamps, starting with the victims call to 911. All times in this report should be considered approximations.

scene about one (1) minute later. They report heavy fire from the second floor of a two-story apartment building, and together, they begin to deploy a 2-1/2" hose line to start a fire attack and search operation.

Around this time, Battalion 3 established "Incident Command." Station 15 companies are joined by Squad 14, pulling a second hose line (1-3/4 inch) to assist with the initial fire attack and search operation. Upon the arrival of Engine 18, they advanced a third hose line (2-1/2 inch) at the direction of Incident Command.

Additional fire companies arrive over the next several minutes and are communicating with Command:

- + Truck 3 sets up the truck for aerial operations and ventilation behind Engine 15 in front of Building 300 and deploys ground ladders,
- + Engine 9 stages at a fire hydrant on E. Central,
- + Truck 5 sets up on the east side of the building to provide roof ventilation and evacuate residents from the back of the building (Building 1000, 1100, 1200), later assisted by Engine 18,
- + Battalion 2 is assigned to Safety,
- + Battalion 1 is assigned to RIT Group Leader with Rescue 1 and Engine 4 (who self-dispatched after hearing Engine 15 call for a 2nd alarm),
- + Rescue 2 and Engine 10 self-dispatch to the scene after hearing the call for a 2nd alarm and joins the RIT Team under Battalion 1.

Engine 14 arrives on the scene and tries to identify a fire hydrant to supply Engine 15. The hydrant on E. Central Avenue is determined to be less than ideal because the opening in the fence on the north side of the property is the size of a person and will not allow a vehicle through. Engine 14 identifies a hydrant on the northeast side of the Brookhollow Apartment building to use to supply Engine 15 with water.

The main body of fire is reported by the fire companies as being on the first landing (in front of Unit 303 and 304) and second landing (in front of Unit 305 and 306) inside the exterior exit stair, which is the only exit from

About 4-1/2 minutes from when WFD arrived on scene, dispatch reports on the Ops channel that a person is trapped in Unit 302. [~4:07 a.m.] the six apartment units. The initial fire attack crew first washed down the stairway from the outside then entered the stair enclosure. The fire attack crew began to extinguish fire on the first landing with a 2-1/2" hoseline, advancing upward to the intermediate landing while Squad 15 advanced up the stair to search Unit 303. At about this time, Squad 14 evacuated the 400 Building and began a search of Units 301 and 302, finding the resident in Unit 302 needing help. Engine 15 engineer reports to Incident Command that they are nearly out of tank water, and Engine 14 is still working to get a 4" supply line to Engine 15.

The EMS District Chief on duty for this area, Medic 2, saw the note of a person trapped on his mobile computer, so he started his response to the fire scene and requested the EMS dispatcher send two ambulances to the fire with him. Prior to arriving on the scene but after the Mayday call, Medic 2 requested one additional ambulance be dispatched to the fire.

Similar to SCEMS, WFD requires SCEC to notify but not automatically dispatch the Wichita Police Department (WPD) to this fire scene. WFD does request the WPD to respond to the scene to address a belligerent individual harassing the WFD and two units are dispatched. [~4:06 a.m.]

At about seven (7) minutes after the first fire companies were on the scene (about twelve (12) minutes after the first 911 call), portions of the stairway roof collapsed on Engine 15 and Squad 15. A Mayday is transmitted over

the fireground tactical (TAC) channel and multiple fire companies working in the immediate area go to help by repositioning ground ladders from apartment windows to the stair openings. Incident Command announces a change of operational strategy on the tactical channel from offensive to defensive and orders everyone out of the building. Engine 15 officer has his helmet knocked off and his

The first WPD unit arrives on scene. [~4:10 a.m.]

SCBA damaged by falling debris. The stair roof collapse cuts off Engine 15 nozzle from Engine 15 officer on the intermediate landing before the top stair landing.

Immediately prior to and during the Mayday transmission, Battalion Chief 4 not yet dispatched to the scene, asked Sedgwick County Emergency Communications dispatcher what companies have started in on the 2^{nd} alarm. Dispatch does not respond with a definitive response, and Battalion 4 asks the dispatcher to expedite this request given the report of persons trapped and a Mayday. F196 (off duty Chief) hears this radio traffic and having seen an internal fire department notification about a 2^{nd} alarm, indicates he is responding and requests a dedicated dispatcher. [~4:10 a.m. ~ 4:13 a.m.]

Squad 15 was searching Unit 303 during the stair collapse. They quickly completed a primary of Unit 303, finding no victims, and evacuated out of a window via a ground ladder with the help of other crews. Squad 14,

inside Unit 302, had started to evacuate the resident when the Mayday occurred. They went back into the apartment unit temporarily until they confirmed they could get themselves and the resident out safely below the partially collapsed stairway above. Two from Truck 3 then assisted Squad 14 evacuate the resident from Unit 302. Engine 15 officer bailed out of the opening in the stair enclosure and Engine 15 nozzle was removed via a ground ladder from the front opening in the stairway enclosure. Incident Command orders all fire companies out of the structure and conducted a Personnel Accountability Report (PAR).

During the Mayday, a positive water supply from a fire hydrant was established to Engine 15 with a 4" supply line pumped by Engine 14. [~4:11 a.m.]

All fire personnel were accounted for after about six- and one-half minutes (6-1/2 minutes after Mayday was called over the radio. There were no reported firefighters injured. [~4:17 a.m.]

Medic 2 arrives on scene with Medic 34 about fifteen (15) minutes after the fire department was first on scene, establishes the Medical Branch and begins to direct EMS crews to locate patients. Medic 34 is assigned to triage.

SCEC transmits the 2nd alarm about eighteen (18) minutes after it was first requested by Engine 15. The 2nd alarm assignment includes Battalion Chief 4, Engine 5, Squad 5, and Truck 2.

About eight (8) minutes after the Mayday is declared, Truck 3 advises Incident Command that a primary search has been completed for the adjacent buildings (200 and 400 buildings) and cleared along with the two lower units of Building 300. About three (3) minutes later, Battalion 1 indicated that Rescue 1, Rescue 2, and Engine 4 were going to check the top floor, which had not been searched before the stair collapse and Mayday transmission.

The second WPD unit arrives on scene. [~4:20 a.m.]

Using ground ladders, Battalion 1 has Rescue 1 and Engine 4 conduct a primary search of Unit 305 while Rescue 2 and Engine 10 conduct a primary search of Unit 306. Rescue 1 and Engine 4 enter Unit 305 from a window. They find smokey and moderately hot conditions, but no visible fire and do not find any victims in the

unit. From a ground ladder, Rescue 2 breaks the bedroom window in Unit 306 and three firefighters enter the bedroom. They find smokey conditions (smoke to the floor) and moderately hot conditions. After searching the bedroom, two firefighters move into the living room area. One firefighter conducts a left-hand search entering the living room and

WFD Fire Investigators selfdispatch to Brookhollow after hearing the radio traffic. [~4:23 a.m.]

the other conducts a right-hand search. The firefighter conducting the right-hand search identifies a bathroom and finds a victim in the bathtub. The Rescue 2 firefighter communicates that he has a victim to the other firefighter in the living room and to Incident Command. The three firefighters work to get the victim to the bedroom window.

An Engine 10 firefighter is at the top of the ladder to the bedroom window and is handed the victim. Once down the ladder, E10 starts CPR on the patient, Ms. Bedeski, at about 4:26 a.m. About six (6) minutes later, Medic 22 is reported as being with the Code Blue patient who was brought down the ladder. At some point when M22 and M1 start to treat Ms. Bedeski, they move the patient from an area near the bottom of the ladder to a safe area because initial triage and treatment was in close proximity to firefighting activity.

Without an initial triage area setup by WFD, EMS searched patients needing attention. Most patients were sent by WPD to an area on Rock Road near a fast-food sandwich restaurant close to Incident Command. EMS reported first being in contact with a patient at about 4:21 a.m.

EMS begins to triage, treat, and transport four patients to the hospital as follows:

- + (~4:34am) Medic 32 begins transporting a Code Red patient with burns, from Unit 303 to St. Francis Hospital. They arrive at the hospital about eight (8) minutes later.
- (~4:54am) Medic 22 with Medic 1 on-board begins transporting a Code Blue patient with burns, Unit 306 occupant Ms. Bedeski, to St. Francis Hospital. They arrive at the hospital about eight (8) minutes later.

WFD Fire Investigators arrive on scene. [~4:36 a.m.]

(~4:56am) Medic 27 reports they are transporting two Code Yellow patients to St. Francis Hospital, both from Unit 305. They arrive at the hospital about eight (8) minutes later.

During this time when patients were being treated, WFD was checking for extension to other units and putting out hotspots.

WFD continues to conduct overhaul operations and put out hotspots. Confirmation of primary and secondary searches of Building 300, 200, and 400 units and six Building 200 units were also confirmed as clear in this timeframe.

At approximately 5:15 a.m., Medical Command is terminated, and the medic units are made available for other calls.

The WFD fire investigators spoke with the WPD investigative counterparts as well as went to St. Francis Hospital to interview patients during this time and returned to the scene. Fire investigators also began to photograph the scene during this time. At about 7:12 a.m., Command was transferred from B3 to Engine 15. The last WPD unit left the scene at around 7:52am. The WFD fire investigators left the scene at about 10:10 a.m. for the final time that day. Engine 15, the last WFD unit on scene, cleared the call at approximately 11:05 a.m.

WFD was called back to the scene twice in the following couple of hours after Engine 15 left the scene for a possible rekindling of the fire.



Figure 8: Post-fire photo of Building 300. (Credit: Jaime Green/The Wichita Eagle; annotations by Jensen Hughes)



Figure 9: Post-fire damage to the exterior of Building 300. Left: Units 305 (top) 303 (middle) 301 (bottom) and east facing side of exit stairway enclosure. Right: North-facing side of exit stairway enclosure. (Credit: WFD FIU)



Figure 10: Post-fire damage to the exterior of Building 300. Living room windows seen for Units 306 (top) 304 (bottom). (Credit: WFD FIU)

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3.1 SEDGWICK COUNTY EMERGENCY COMMUNICATIONS

This portion of the Post Incident Analysis will focus on components of the Sedgwick County Emergency Communications (SCEC) strategic and tactical decisions made during the structure fire at the Brookhollow Apartment Complex located at 8165 East Central Avenue on October 13, 2023 [SCEC Call for Service Number 7944 (2023)].

In our analysis, we utilized the following Standards:

- + APCO American National Standard 1.113.2-2024: Public Safety Communications Incident Handling Process (2024 Ed).
- + NENA-STA-020.1-2020: NENA Standard for 9-1-1 Call Processing (2020 Ed).

3.1.1 Policy Review

A comprehensive review was conducted of the Sedgwick County 911 Standard Operating Procedures (SOP) dated November 2018 with edits through January 2024, and Standard Operating Guidelines (SOG) for dispatching WFD (December 2023 with edits through April 2024), SCEMS (updated with edits through January 2024), and WPD (dated September 2014 with edits through April 2024), and Emergency Medical Dispatch (EMD) (dated September 2015 with edits through April 2021). Interviews with multiple SCEC staff members were conducted to discuss these documents and training materials.

In our review, we compared these policies and guidelines to APCO and NENA Standards and the team's experiences with the operations and design of other PSAPs and dispatch centers. This review found the SCEC SOGs, SOPs, and training materials to be thorough, well-organized, and up-to-date. Where we believe improvements to these policies and procedures can be made, we discuss those recommendations later in this report.

Regarding a dispatcher's role on TAC channels, the SCEC SOG Fire Dispatching Policy at the time of the incident states that a dispatcher is only to provide certain messages simulcast on the TAC radio, simulcast on Ops (Section IV Tactical Channel Procedures). Per the policy, each TAC channel "Should be monitored by dispatch, but the transmissions do not need to be tracked or acknowledged by the dispatcher." If a larger response event were to occur (i.e. a multiple fire alarm), there may be a sequential requirement to "Have an additional dispatcher to monitor a specific event assigned to a TAC channel."

Through interviews with SCEC administration, we understand that prior to this incident and at the request of WFD, SCEC dispatchers were not monitoring TAC channels unless specifically requested by WFD, despite this going against SCEC policy.

In the WFD OM (Pg. 91) it states "...TAC channels normally will not be monitored by a dispatcher..." but the manual goes on to say that circumstances (major incident) may require an additional dispatcher to monitor the assigned TAC channel. The WFD policy does not align with the SCEC policy on this topic. There are a number of benefits to assigning a dispatcher to monitor the TAC channel from the beginning of the call, including the dispatcher serving as scribe to Command and potentially anticipating needing to upgrade or downgrade the alarm based on information communicated on the TAC channel.

3.1.1 Policy Review Findings and Recommendations						
1. Finding: The policy of SCEC monitoring TAC channels is inconsistent with WFD's policy. This inconsistency leads to confusion regarding the dispatcher's role on the TAC channel. At the time of the incident, until requested by on scene command, there was no dedicated dispatcher monitoring the TAC channels.	Recommendation: We recommend that WFD and SCEC resolve the inconsistency between policies. We further recommend that any time that TAC channels are in use, there should be a dedicated dispatcher actively monitoring that radio channel. SCEC SOG and WFD OMs should be revised accordingly.					

3.1.2 Dispatch Technology

The systems employed by Sedgwick County Emergency Communications are considered best-of-breed by industry standards from vendors such as Motorola, Tyler Technologies, and NICE Systems. The systems are functionally defined in three distinct areas: 911 Phone, mission-critical Radio communications, and Computer-Aided Dispatch (CAD).

3.1.2.1 911 Phone System

The 911 Phone system hardware includes a businessgrade computer (PC) and a proprietary Motorola Sound Arbitration Module (SAM) that is connected to inbound and outbound audio sources including speakers, headsets, recording, and optional 3rd party radio systems (see image). There is a dedicated jackbox for headset connectivity. The Motorola VESTA 911 Emergency Call Handling Software runs on commercial versions of Microsoft Windows clients.

The 911 core services, also known as ESInet (Emergency Services IP Network), connect the hardware and software. These services are a set of advanced technologies designed to improve the efficiency and effectiveness of emergency response systems. They include the integration of various communication tools such as 911 phone systems, computer-aided dispatch (CAD), and mission-critical radio communications. The ESInet supports the transport of 911 calls and additional data to public safety answering points (PSAPs), ensuring that emergency calls are routed accurately and efficiently.





3.1.2.2 Caller Location Technologies

ANI/ALI

In a typical 911 call, the location data generally comes in first as WRLS (or wireless phase 1). The location data originates from the cellular tower that received the initial handset. After several seconds, a rebid (automatic or manual) is completed on the call, where triangulation between two or more towers is made to get a better estimate of the callers' handset. This is called WPH2 (or wireless phase 2). This data can be integrated into CAD and SCEC does integrate ANI/ALI data into CAD.

RapidSOS

RapidSOS is an advanced 911 caller location software integrated into the emergency dispatch systems. It provides emergency dispatchers with critical location data and additional information from connected devices, apps, and profiles directly to first responders during emergencies. This integration helps improve the accuracy and efficiency of emergency response by providing real-time data to dispatchers. SCEC has RapidSOS was integrated into the CAD system via the phone system.

3.1.2.3 Recording and Instant Recall

Recording

There are several ways to record phone and radio data on a 911 console. In the case of Sedgwick County, the official recording is accomplished by utilizing NICE logging recorders. These redundant recorders are positioned to pick up the audio from the "backend" of the phone and radio systems.

The figure below shows the IP connectivity of the recorder in relation to the phone system. The Telephone Interconnect Gateway is connected to VLAN100 (same as recorder), indicating that these two systems are on the same IP address.



Figure 12: IP connectivity of recorder in relation to the phone system. (Credit: SCEM)

Instant Recall

Instant Recall, or Instant Playback, is a feature available on the 911 phone, CAD, and radio systems that allows call takers to listen to recent communications through their headsets or external speakers. This feature is essential for ensuring that dispatchers can accurately relay information to first responders and make informed decisions based on the most recent data

911 phone instant recall from VESTA-Instant Recall Recorder (IRR) is a telephony, radio, and microphonebased message recording and recorded message handling device (see figure). The IRR button allows call takers to open the IRR from their 911 phone console and listen to playback through headsets and/or external speakers.



Figure 13: Vesta 4.0/Sentinel 4.0 Instant Recall feature on 911 phone system. (Credit: VESTA 4.0 Sentinel 4.0 Product Guide)

Instant recall was available from CAD. Access to instant recall and call recording software for official "voice recording" NICE CXone Call Recording Software is used in call centers to capture and store voice and screen interactions. This software helps ensure compliance with industry regulations and improve the quality of customer service.

3.1.2.4 Radio Communication System

The Radio communications system includes a business-grade computer (PC), an Avtech Media Workstation Plus that is connected to inbound and outbound audio sources including speakers, headsets, recording, and footswitches, and an Avtech USB NENA Jackbox to connect the headset.



Figure 14: Avtech Media Workstation Plus. (Credit: Avtech USB NENA Jackbox Configuration Guide)



Figure 15: Avtech USB NENA Jack Box. (Credit: Avtech USB NENA Jackbox Configuration Guide)

3.1.2.5 Headsets

The non-standard use of dual headsets for 911 dispatchers can make it harder to hear all traffic because each system (phone and radio) has its own jackbox, requiring separate headsets for each system. This setup can be cumbersome and may lead to discomfort, making it challenging for dispatchers to manage multiple communication channels efficiently. The dual-headset configuration is a workaround to ensure that dispatchers can handle both phone and radio communications, but it is not an ideal solution and may lead to fatigue and decreased efficiency over time.





3.1.2.6 CAD System

The Next-Gen, Enterprise Computer Aided Dispatch (CAD) system from Tyler Technologies includes features such as Geo-address verification, updating estimated time of arrival (ETA), automatic vehicle location (AVL) and proximity dispatching capabilities. The shared system integrates call taking and dispatching functions to provide updated information to first responders in the field.

The CAD software is operated on business-grade computers (PC) using commercial Microsoft Windows clients. These computers are used for a variety of other public safety functions including instant recall, additional location and caller data from RapidSOS, office productivity tools including email, spreadsheets and documents. The systems are connected to secure public safety IP networks and have routing capabilities and interfaces to integrate with 911 phone and radio systems.

At the time of this incident, the CAD system had just finished being updated. The following was the CAD Implementation timeline at SCEC:

- + July 2017 CAD stakeholder meetings began.
- May 2019 RFP issued; RFP evaluation team selected. Representation from WPD, WFD, EMS, the Sheriff's
 office, IT and four from the 911 center.
- + April 2020 Contract awarded to Tyler Technologies.
- + October 2020 Contract signed.
- + January 31-February 16th, 2023, RMS train the trainer sessions.
- + February 21st, 2023, Fire CAD Mobile Train the Trainer sessions.
- + February 28th, 2023 March 2nd, 2023, Law Enforcement CAD Mobile Train the Trainer sessions.
- + March 21st, 2023 April 13th, 2023, Dispatch CAD Training.
- + April 2nd, 2023, Dispatch was relocated to the backup site.
- + April 18th, 2023, The Dispatch center went live with TYLER CAD
- + August 14th, 2023, Dispatch moved back to main dispatch site.

3.1.3 Analysis and Recommendations

3.1.3.1 Training

In general, we found that SCEC has an organized system of SOPs and SOGs provided to new employees during their training process, along with a well-planned training and quality improvement program.

Training for new SCEC Dispatchers is organized, administered, and evaluated by the Training Division of Support Services. New employees begin their career as a Call Taker and work their way through paid training, which includes classroom and on-the-job training. Approximately three to six months later, a Call Taker may be promoted to Dispatcher I, which dispatches fire and EMS. Training for another approximately six months, they will show that they can successfully operate all dispatch positions in the communications center and be promoted to Dispatcher II, which dispatches Police. A fully trained Dispatcher II takes approximately nine to twelve months of training.

Call Takers attend a four-week classroom academy. This academy consists of observation, lectures, discussion, simulation, and hands-on experience. The following topics are included in the training curriculum:

- + Policies and Procedures
- + Call Types
- + Interview Skills and Call Entry
- + CAD Call Entry and Basic Commands
- + Phone System and TTY
- + CPR Certification
- + Medical Call Taking
- + EMS Overview
- + Fire Overview

- + Law Enforcement Overview
- + NCIC Certification/Awareness Training
- + Geography, Mapping and AVL
- + Customer Service
- + Stress Management and Wellness
- + Ergonomics
- + Liability
- + Peer Support

After the four-week academy, Call Takers will start their on-the-job training (OJT) with a Communications Training Officer (CTO). Evaluations during training are reported to the Support Services Major on a Daily Observation Report (DOR). Call takers are released from OJT at the discretion of the CTO and Operations Lieutenant based on a proficiency rating on their DOR. Once released from training, the Call Takers progress is tracked by the Operations Lieutenant and Quality Improvement (QI) Lieutenant. If there are concerns about performance during training, the Operations Lieutenant or QI Lieutenant may suggest remedial training at their discretion. Through interviews with key staff members, there is a strong awareness of these procedures, along with adherence to established protocols. The organization regularly updates procedures to reflect the best practices and changes in operational procedures. Review of calls through the Employee Development Team demonstrates commitment to adherence and continued training on policy and procedures.

During the Brookhollow fire, there had been an issue with upgrading the structure fire to a second alarm in the CAD system. In the training academy, it is noted that this topic is covered on the two-week fire dispatching agenda. The agenda shows that they do review all CAD commands including the following:

+ Upgrading

+ Mayday

Broadcasting on two channels

- + Balancing
- + Double Dispatching

3.1.3.2 Dispatch Human Factors

In our analysis of this incident related to SCEC dispatch human factors, we found that the SCEC actions had some impact on the timing in which the victim may have been able to be removed from her apartment. Our analysis noted some deviations from policy and areas which should be reviewed to improve operational outcomes.

Based on our assessment, overall SCEC Dispatch has done an excellent job with building an effective organization structure and has focused on employee development through their training program, call reviews and quality assurance programs. More recently, Sedgwick County has been aggressive in setting higher pay rates for employees. This has been effective in the recruitment and retention of employees.

During the Brookhollow Apartment fire, the 911 call from Ms. Bedeski was answered and processed correctly according to APCO Standard 1.113.2-2024. Ms. Bedeski's call time was three (3) minutes and thirty-six (36) seconds long from the time the call came into SCEC Dispatch to the time the call disconnected.

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Call 00401525	Arrives on	SedBMICKALLED	0000/15/25	03:30:04 CD1	SedBMICKAIILIO	GOES OFF HOOK		000/15/25 05:58:04 001
Call 66461525	Cellular Call		Oct/13/23	03:58:04 CDI	Call 66461525	CPN: 6199/11924		Oct/13/23 03:58:04 CDT
Sedgwick911L10	Queue In	Sedgwick_I3_911	Oct/13/23	03:58:04 CDT	Sedgwick_I3_911	Queue Out (Overflow)	SEDGWICK_911_OV	Oct/13/23 03:58:09 CDT
F_ALL		Sedgwick_I3_911 Q	ueue In		SEDGWICK_911_OV	Oct/13/23 03:58:09 CDT		
F_ALL		Sedgwick POS 10 I	s Ringing			Oct/13/23 03:58:09 CDT	SEDGWICK_911_OV Q	ueue Out (Answered)
Sedgwick role 2	Oct/13/23 03:58:16 CDT	F_ALL					Sedgwick POS 10 A	inswers
Oct/13/23 03:58	:16 CDT Sedgwick911L10	Is Released			Oct/13/23 04:02	:40 CDT Sedgwick POS 10	Hangs Up	Call 66461525
Oct/13/23 04:02	:40 CDT Sedgwick POS 10	Releases	Cal	11 66461525	Oct/13/23 04:02	:40 CDT Call 66461525	Finishes	
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ALI Information								
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7887				E	CENTRAL - NE SEC	TOR		
WICHITA	KS				VERIZON WIRELES	S		
316-511-0427	WRLS				ALT#=	TELCO=VZW		
X=-97.243445	CNE=000				Y=37.692761	UNC=8		
WICHITA POLICE					WICHITA FIRE			
SEDGWICK COUNTY	FMS							
STP Call TDc	215							
1110HSking4L7kicg		-dl R+100						
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urn:nena:uid:in	cidentid:16971874822114	0953060313525637:e	srp.west.co	m				

Figure 17: Raw data for Ms. Bedeski's cellular call to SCEC with call processing times.

Metric	75% of the Time	90% of the Time	Actual Performance	Result
Call Answer Time 4.6.3	10 Seconds or less	20 Seconds or less	12 Seconds 03:58:04 AM – 03:58:16 AM	Achieved
Call Answer to Entry Time 4.6.4.3	NA	60 Seconds or less	3 Seconds 03:58:16 AM – 03:58:19 AM	Achieved
Call Entry to Dispatch 5.7.1.3	NA	90 Seconds or less	65 Seconds 03:58:19 AM – 03:59:24 AM	Achieved

Table 1: SCEC Dispatch performance on Ms. Bedeski's 911 call vs APCO 1.113.2 benchmarks for Fire/EMS calls.

The team also reviewed the performance of SCEC Dispatch relative to answering the calls from residents inside Unit 304 and for the person calling on behalf of the resident in Unit 302. As with Ms. Bedeski's 911 call, these other calls were also answered within the standard benchmarks in APCO 1.113.2. The total call time for Unit 304's call was one (1) minute and fifty-seven (57) seconds and the total call time for the friend calling on behalf of the resident in Unit 302 was eleven (11) minutes and thirty-one (31) seconds.

Table 2: SCEC Dispatch performance on Unit 304's 911 call vs APCO 1.113.2 benchmarks for Fire/EMS calls.

Metric	75% of the Time	90% of the Time	Actual Performance	Result
Call Answer Time 4.6.3	10 Seconds or less	20 Seconds or less	15 Seconds 04:00:26 AM – 04:00:41 AM	Achieved
Call Answer to Entry Time 4.6.4.3	NA	60 Seconds or less	4 Seconds 04:00:41 AM – 04:00:45 AM	Achieved

Metric	75% of the Time	90% of the Time	Actual Performance	Result
Call Answer Time 4.6.3	10 Seconds or less	20 Seconds or less	15 Seconds 04:06:00 AM – 04:06:03 AM	Achieved
Call Answer to Entry Time 4.6.4.3	NA	60 Seconds or less	4 Seconds 04:06:03 AM – 04:06:15 AM	Achieved

	5 6 4 4 H L L K	CIL 11 000 A DOO 4 440 A	
Table 3: SCEC Dispatch performant	ce of 911 call on benalt of	f Unit 302 vs APCO 1.113.2	2 benchmarks for Fire/EMS calls.

Jensen Hughes conducted interviews with nearly every SCEC call taker/dispatcher on duty the night of this incident. In speaking with the call taker/dispatcher who spoke with Ms. Bedeski, he indicated that he was not able to understand the apartment unit number given by her.

The human's ability to hear and understand speech is different for everyone and can be affected by a number of factors, including but not limited to age, genetics, environment, cognitive factors, and language. Given an assessment of what can be "heard" is subjective, members of our team listened to the call numerous times to try to determine what we could hear. In listening to the 911 call audio recording released in the media and provided to this team, our team can understand what Ms. Bedeski is saying when she provides her apartment unit number at least twice during the call. The first time she says the unit number, our team can understand her say it, but it is distorted. This seems to prompt the call taker/dispatcher to ask for the apartment unit number again. The second time she repeats the unit number, we can more clearly hear it. The apartment unit number was not recorded by the call taker/dispatcher in CAD notes associated with the call.

In addition to the human factors associated with understanding speech, the quality of the audio and quality of the playback device (speaker, headset, etc.) are also factors. Through our assessment, we reviewed the technology and hardware associated with where a 911 call audio is recorded and subsequently provided for SCEC Dispatch quality control review or provided as part of a public inquiry.

Through our research, we determined that the quality of the recording provided for review (internal or to the public) is pure unmolested audio. A caller's audio is recorded prior to the audio signal being processed through hardware and connected to the dispatcher's headset. Members of our team, through listening to live calls and live radio dispatching then listening to the recorded playback, we can confirm that the recorded audio released of 911 calls from SCEC Dispatch is of higher quality than what a call taker or dispatcher hears in their headset.

...we can confirm that the recorded audio released of 911 calls from SCEC Dispatch is of higher quality than what a call taker or dispatcher hears in their headset...

We believe it is entirely possible and likely that the call taker/dispatcher handling Ms. Bedeski's call did not understand the apartment unit number she was providing, despite what can be "heard" in the recording released. This may also explain why the call taker/dispatcher did not record the unit number, because he did not understand what she was saying. However, the call taker/dispatcher did not use the instant recall features to replay the audio from Ms. Bedeski nor did he communicate to WFD that he lost voice contact with the caller. Without knowing her apartment unit number, we believe there is limited benefit to informing Incident Command that he lost voice contact with a person in an unknown location in a multi-unit complex.

Timeline

- 3:58:16 Initial time of Ms. Bedeski's phone call, 48 seconds into the phone call voice communication is lost and never regained, however the phone line remains open with the call taker/dispatcher trying to speak with Ms. Bedeski.
- + 3:59:24 First fire companies were dispatched to the call.
- + 4:02:04 SQ15 asks the Ops dispatcher if there is an apartment number, to which Ops dispatch indicates possibly apartment 304.
- + 4:02:37 Before arrival on scene, E15 calls for a second alarm on the Ops channel.
- + 4:07:39 Dispatch reports on the Ops channel a man is trapped in apartment 302.
- + 4:10:19 Battalion 4 asks about the status of the second alarm, he is told to stand by.
- + 4:10:25 Mayday is called on TAC1 by E15.
- + 4:11:02 Central Incident Command asks Ops dispatch for alert tones because they are going defensive.
- + 4:11:39 Alert tones on TAC1 and Ops, aired the information "going defensive".
- + 4:12:07 F196 requests a dedicated dispatcher on TAC1 due to the Mayday called.
- + 4:12:54 Battalion 4 asks what units were dispatched on the second alarm. The dispatcher responded that the new CAD did not define a second alarm, he would check with his resource. Battalion 4 advised "we have an active fire, with a Mayday. You need to step up asking a supervisor...".
- + 4:20:16 The second alarm is dispatched over the Resource channel.

Between Ms. Bedeski's call at 3:58am and 4:06am, there were a total of seven different callers reporting the fire to SCEC Dispatch. Several additional calls followed as well.

The initial alarm was dispatched over the Fire Resource channel, giving the name "Brookhollow Apartments" and the address "8165 East Central". At the time of dispatch, responding fire units were advised to use TAC1 per SCEC and WFD policy. All communications on TAC1 would then go through the Incident Command on scene, and per policy there is no dedicated dispatcher to monitor the TAC channel unless requested by Incident Command.

On the night of the Brookhollow incident, SCEC operated with minimum staffing levels. The team included one (1) supervisor and ten (10) telecommunicators, who managed the following radio channels: Resource, Ops, EMS, North, South, West, Sheriff, and two relief positions. No additional call taker positions were filled that night. Phone calls were distributed through the Automatic Call Distribution (ACD) system. Incoming calls are directed to available positions. Telecommunicators who are up, busy or not available to accept a phone call have the ability to put themselves as such in the system. Despite the minimum staffing during the Brookhollow incident, all critical positions were fully covered, ensuring there was no downgrade in service.

Through interviews, the team asked dispatchers about dispatching a second alarm when it was requested at least twice. According to two dispatchers involved in this incident, the difficulty was getting the CAD to refresh to provide unit recommendations so additional units could be dispatched. Unit recommendations are built into the system as a predefined response plan and related to the location of units to the incident and the type of unit.

SCEC staff interviewed indicated there were several dispatchers trying to help the fire dispatcher dispatch a second alarm. A supervisor was also not able to get CAD recommended units for the second alarm. Eventually another dispatcher across the dispatch room overheard the conversation, and they were able to show the fire dispatcher how to get the unit recommendations for the second alarm.

This issue regarding the delay in dispatching a second alarm was brought to the attention of the SCEC administration later in the morning of the incident. Through investigation by SCEC administration the morning after the incident, it was found that multiple dispatchers on multiple shifts were not exactly able to recall how to dispatch a second alarm. Within days, the administration arranged retraining on this issue so that all staff were fully retrained on how to refresh the unit recommendations in CAD.

3.1	3.1.3.2 Dispatch Human Factors Findings and Recommendations					
2.	Finding: Through interviews it was found that the call taker/dispatcher was unable to clearly hear the apartment number given by Ms. Bedeski. Repetitive playback of caller audio could potentially aid in determining additional call details.	Recommendation: Call takers and dispatchers need to utilize existing instant recall features in the 911 phone system to replay audio when information is not heard or comprehended. Ensure staff is aware of and trained on all instant recall software, including 911 (VESTA) phone recall, Motorola radio recall, and NICE recorder for all audio.				
3.	Finding: The call taker/dispatcher was also assigned as the EMS dispatcher and not specifically dedicated to one of those tasks. Although SCEC met their minimum staffing requirements during this incident because dispatchers can also serve as call takers, providing some dedicated call takers minimizing the workload of a call taker/dispatcher.	Recommendation: SCEC's definition of minimum staffing should include dedicated call takers.				
4.	Finding: The second alarm was delayed by almost eighteen (18) minutes due to dispatchers not understanding how to make the CAD system provide the needed response. Dispatching units manually (identifying nearby fire equipment and manually assigning them to the incident) was a possibility rather than waiting for CAD to recommend units. However, manually dispatching is not frequently practiced.	Recommendation: All dispatchers should retrain on how to upgrade CAD recommendations for a second alarm, through automatic CAD recommendation and through manual dispatching methods. Although this procedure was practiced by SCEC administration after the Brookhollow fire and shared with all dispatchers, less routine dispatch scenarios should be practiced in simulations, including manually dispatching apparatus when CAD is not responding appropriately.				

3.1.3.2 Dispatch Human Factors Findings and Recommendations

5.	Finding: The Ops Dispatcher did not repeat the	Recommendation: Review operations manual with
	message of "All units be advised, there's a man	all Dispatchers and ensure all understand this
	trapped in apartment 302, man trapped in 302"	communication's importance to WFD and other
	on TAC1 as required in the Fire OM.	agencies responding to incidents.

3.1.3.3 Technical Contributing Factors

In our analysis of this incident relative to SCEC technology contributing factors, we found that the SCEC technology and its use had some impact on the timing in which the victim may have been able to be removed from her apartment. Our analysis noted some deviations from policy and areas which should be reviewed to improve operational outcomes.

Dual headsets

Currently, SCEC dispatchers are wearing two independently operated headsets. One headset provides radio audio and a microphone to speak over the radio channels. The other headset provides phone audio and a microphone to speak to a caller on the phone. From interviews with SCEC Dispatch, the use of dual headsets has been their practice for as long as anyone can remember. In our experience, the use of dual headsets in a dispatch center is rare and not observed elsewhere by this team.

Utilizing two headsets with two microphones where different sounds are coming into each ear (dichotic listening) was thought to be one area that may have created confusion for dispatchers in this incident. Members of the project team sat at dispatch consoles with SCEC call taker/dispatcher while they were performing their normal duties. Through our time observing and listening to phone calls and radio traffic in different ears, we found that the presentation of sounds directly in the ear at the same time makes it very difficult and almost impossible to completely comprehend both, preference to one ear seemed to always need to be given. Additionally, we listened to recordings of actual call taker/dispatcher audio on one audio recording (simulating sitting at the dispatch console). We found the results were similar as with live listening – comprehending both discussions (phone and radio) was very difficult. Regardless, SCEC Dispatch has operated with dual headsets for many years, and undoubtedly call taker/dispatcher there have become better at dichotic listening through practice.

Using a dual headset configuration in a 911 call center may reduce room noise and ease configuration, however in practice it can lead to some serious drawbacks:

- Distraction Overload: Managing two headsets simultaneously means juggling audio inputs from two separate lines or sources. This could lead to auditory confusion and split attention, where a dispatcher might miss critical information or mix up callers' needs.
- + Physical Discomfort: Wearing two headsets is just impractical and uncomfortable. Dispatchers work long shifts, and the added weight and bulk of dual headsets would only increase fatigue and strain, leading to headaches or neck pain.
- + Operational Complexity: The need to manage separate audio channels would add complexity to an already intense job. Instead of focusing on triaging calls and dispatching help, a dispatcher could get bogged down in handling which line is live, which headset to listen to, and which button to press.

- Technical Issues: More equipment means more potential points of failure. Introducing dual headsets adds another layer of technical issues, from compatibility problems to sound quality concerns.
- Miscommunication Risk: There's a higher risk of mixing up what's being said on each line, which can lead to
 mistakes in dispatching resources or transferring critical caller details.

Instant Recall

Instant recall, or instant playback, is a feature available on the 911 phone, CAD, and radio systems that allows call takers/dispatchers to listen to recent communications through their headsets or external speakers. This feature is essential for ensuring that dispatchers can accurately relay information to first responders and make informed decisions based on the most recent data.

During the Brookhollow Apartment fire incident on October 13, 2023, it was noted that the instant recall feature was not utilized despite its availability on the 911 phone, CAD, and radio systems. This oversight may have contributed to the challenges faced in managing the emergency response effectively. Use of instant recall may have allowed the call taker/dispatcher to understand Ms. Bedeski's unit number and relay that information to WFD.

CAD

Six months prior to the Brookhollow Apartment fire, the new Tyler CAD system CAD system had just finished being implemented, and it went live in the backup dispatch center on April 18, 2023. One factor in this incident was the lack of knowledge regarding some features of the newly implemented CAD system. Familiarization with a new system is imperative to the mission. Although trained on the features used in the new system, both line level dispatchers and the supervisor on duty were unfamiliar with the feature that would refresh and recommend additional units for the second alarm.

Caller Location Technologies – Phone System

Automatic Number Identification (ANI) and Automatic Location Identification (ALI) data have been essential in 911 systems for caller identification and location tracking. By all accounts, the caller location technologies from the 911 phone system at SCEC were utilized as trained and configured. Wireless Phase I (WRLS) data was provided on Ms. Bedeski's and all other 911 calls for this incident. There was no WPH2 call data identified during our analysis.



Figure 18: Raw data for Ms. Bedeski's cellular call to SCEC with location information.



Although the WPH2 location was not received on Ms. Bedeski's call, the location of the WRLS call was accurate to the apartment complex.

Overall, WPH2 ANI/ALI data provides significant advancements over previous phases by offering a caller's approximate location, but it is far from perfect. PSAPs need to be aware of these limitations, invest in enhanced training, and continue evolving Next-Gen 911 (NG911) solutions that promise improved accuracy, integration, and data-sharing capabilities for more reliable emergency response.

The implementation of RapidSOS into the Computer-Aided Dispatch (CAD) system showed considerable potential for enhancing caller location accuracy. This integration, while promising, also introduced new challenges by limiting or restricting the focus on caller location. Despite RapidSOS offering real-time data and more precise location information, the system's complexity necessitated additional training and familiarization among dispatch personnel.

In the case of the Brookhollow Apartment fire, RapidSOS was integrated into the CAD system via the phone system. However, during the incident, RapidSOS was not available for the caller's phone and the call taker was only provided with a wireless position from the phone.

Overreliance on technology can lead to unintended consequences. Regular training should include not only the effective use of available technology but also proficiency in manual dispatching to ensure preparedness in all scenarios.

3.1	3.1.3.3 Technical Contributing Factors Findings and Recommendations				
6.	Finding: Audio from the 911 phone system and radio system is transmitted through two headsets worn by the operator, one in each hear. This can present challenges for dispatchers comprehending simultaneous messages.	Recommendation: Integrate 911 phone and radio systems into a single headset for each operator.			
7.	Finding: ANI/ALI WRLS call data was received on initial call. There was no WPH2 location data provided.	Recommendation: Work with carriers and 911 service providers to get automatic rebidding of ANI/ALI to provide WPH2 location data.			
8.	Finding: Caller Location via RapidSOS is available to SCEC dispatchers and is integrated into CAD. However, the information can be lost visually for dispatches amongst other data in the CAD map.	Recommendation: Consider enhancing visibility of this location technology by running stand-alone versions of RapidSOS or integrating this information directly into the 911 phone map.			

3.2 WICHITA FIRE DEPARTMENT

This portion of the Post-Incident Analysis will focus on components of the Wichita Fire Department's strategic and tactical decisions made during the structure fire at the Brookhollow Apartment Complex [WFD Incident Number: 230046971]. Additionally, analysis is provided regarding the WFD's Fire Investigation Unit (FIU) who led the fire origin and cause investigation.

The following references were used in the development of this section of the report:

- + NFPA 1407: Standard for Training Fire Service Rapid Intervention Crews (2020 Ed).
- + NFPA 1521: Standard for Fire Department Safety Officer Professional Qualifications (2020 Ed).
- + NFPA 1561: Standard on Emergency Services Incident Management System and Command Safety (2020 Ed).
- + NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments (2020 Ed).
- + NFPA 921: Guide for Fire and Explosion Investigations (2021 Ed).
- + NFPA 1033: Standard for Professional Qualifications for Fire Investigators (2022 Ed).
- + Fire Investigators Health and Safety Best Practices (IAAI 2nd Ed. May 2020).

Although reviewed and considered as part of the study, all apparatus that responded to this incident are not necessarily mentioned or discussed in the report. It was necessary to narrow the focus to only the companies we found relevant and poignant to the activities needing review so that the reader would not become distracted by nonessential information.

3.2.1 Policies and Procedures

This Post-Incident Analysis included a comprehensive review of applicable sections from the Wichita Fire Department Operations Manual (Revised – August 2019), the Fire Investigation Unit (FIU) Manual (2017), and the administrative Manual (Revised August 2019), which were the basis for comparing fireground operations and subsequent fire investigations.

Our review evaluated these policies and guidelines against NFPA Standards, other policies and guidelines, and industry best practices. Through this review, we found the WFD's Operations Manual (OM) thorough, wellorganized, and up-to-date relative to most current practices in today's fire service. Where we believe improvements to these documents can be made, we discuss those recommendations later in this section of the report.



3.2.2 Deployment

NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, is the internationally recognized standard for career fire department response and deployment. Fire department deployment (response to an incident) can be evaluated by:

- + Total Response Time (TRT) time interval from the Receipt of the alarm at the primary PSAP to when the first emergency response unit is initiating action or intervening to control the incident.
- + Total Effective Response Force (ERF) total minimum number of personnel considered to be effective in response to a fire based on the hazard type (i.e. garden-style apartment).



Figure 20: Total Response Time (TRT) diagram from NFPA 1710 (2020 Ed).

Table 4 below outlines <u>approximate</u> times of arrival for WFD Engines, Trucks, Rescue, Squads, etc., the number of personnel onboard (i.e. (**#**)), and emphasizes important timestamps (i.e. Time of Dispatch and Time of Total ERF assembled).

	Engine Arrival		Truck/Rescue Arrival		Squad Arrival		BC/Other Arrival	
			1st a	alarm dispatcl	hed (03:59:24)			
1	E15 (3)	04:02:58						
2					SQ15 (2)	04:03:07		
3					SQ14 (2)	04:03:23		
4	E9 (3)	04:04:14						
5			T3 (4)	04:04:33				
6	E14 (3)	04:05:02						
7							B3 (1)	04:05:21
			B3 establis	shes <i>Central</i> (Command (04	4:05:21)		
8	E18 (3)	04:06:02						
9			T5 (4)	04:06:38				
10			RQ2 (3)	04:08:03				
	28 \	WFD person	nel on-scene	per NFPA 171	0 minimum r	ecommenda	tion (04:08:0	3)
11			RQ1 (3)	04:08:43				
12							B2 (1)	04:08:45
13							B1 (1)	04:11:14
14	E10 (3)	04:11:16						
15	E4 (3)	04:12:09						
16							MA1 (1)	04:16:03
17							F160 (1)	04:18:44
		41 WFD pe	ersonnel on-so	ene when 2n	d alarm was	dispatched (04:20:16)	
18			T2 (4)	4:22:09				
19					SQ5 (2)	04:25:34		
20	E5 (3)	04:25:36						
21	E20 (4)	04:28:43						
22							F132 (1)	04:29:26
23							F171/ F172 (2)	04:36:38
24							F196 (1)	4:43:01
			58	WFD person	nel on-scene			

Table 4: Unit arrival order and approximate times with staffing (#) to the incident.

According to NFPA 1710, the minimum total ERF for a garden-style apartment is 27 personnel, or 28 if an aerial device is used. Note that an aerial device was deployed at this scene.

WFD deployed more than the minimum number of personnel to this incident necessary to conduct critical task assignments for a minimum ERF of 28 personnel, thus *exceeding* the NFPA 1710 standard. Before the second alarm was dispatched, WFD had assembled approximately 41 fire personnel on the scene.

Table 5 below compares the NFPA 1710 response time benchmarks to the WFD's performance during the incident. Note that times are recorded based on when the first alarm was dispatched, which was 03:59:24 (HH:MM:SS).



Metric	Benchmark Turnout Time	Benchmark Travel Time	Benchmark (Turnout + Travel)	Actual Performance (Time from Turnout to Arrival)	Result
First Engine Arrival	80 Seconds	240 Seconds	320 Seconds	214 Seconds	Achieved
Second Engine Arrival	80 Seconds	360 Seconds	440 Seconds	290 Seconds	Achieved
Full Alarm Assignment Arrival	80 Seconds	480 Seconds	560 Seconds	519 Seconds	Achieved

Our analysis shows that WFD's response time and arrival to this incident outperformed the minimum requirements for the Phase Two portion of the TRT, meeting the NFPA 1710 requirement. First due fire companies responded quickly to this call.

3.2.3 Fireground Operations

3.2.3.1 Water Supply and Fire Attack

A reliable water supply and an effective fire attack strategy are essential to successful structure fire suppression outcomes. A continuous water supply ensures that firefighters can consistently apply water to control/extinguish a fire and prevent spread, while a well-organized fire attack enables crews to focus on priority areas to protect victims and stabilize the incident. Together, these elements are foundational to the overall effectiveness of the response, minimize risk to both residents and firefighters, and ultimately save lives and property.

In our analysis of WFD's approach to water supply and fire attack for this incident, the WFD's approach to water supply and fire attack had some impact on the timing in which the victim may have been able to be removed from her apartment. Our analysis noted some deviations from policy and areas which should be reviewed to improve operational outcomes.

3.2.3.1.1 Background

Primary Units Involved²: E15, SQ15, SQ14, E9, E14, E18

E15 was the first WFD unit on the scene. They gave a brief initial size-up of the incident, parked adjacent to Building 300, and initiated the "*fire attack mode*" to engage fire visible on the exterior stair tower of the second and third floors. Within seconds, SQ15 arrived and assisted E15 in deploying a 2 ½-inch attack line and began extinguishing the exterior fire from E15's 600-gallon booster tank. In the following seconds, SQ14 arrived and

advised over TAC that they were stretching an additional attack line $(1 \frac{3}{4}-inch)$ from E15 to assist with fire suppression.

E9 arrived in the area moments later, and according to their Incident Report, they staged at a hydrant (Central Avenue). Approximately one (1) minute after E9 reported on scene, E14 arrived in the area and selfassigned by indicating that they were "laying in" a supply line. Approximately one (1) minute later, E18 arrived and was directed by Command to deploy a third attack line from E15. E18 chose to stretch a second 2 1/2inch attack line. In approximately three (3) minutes following E15's arrival, three (3) attack lines were deployed, charged, and operated



Figure 21: Locations of closest fire hydrants. (Credit: Google Maps 2024)

from a single engine using only booster tank water. As a result, E15 ran out of tank water before a continuous water supply was secured.

E14 abandoned its initial water supply strategy of a forward lay after determining that their access was blocked by a wooden privacy fence located on the northwest corner of the apartment complex. Instead, E14 entered the complex from Central Avenue and connected to the fire hydrant located within the complex, located northeast of the swimming pool. After securing the hydrant, they manually pulled (hand jacked) 300-feet of 4-inch supply line (reverse lay) to E15. Per the E14 Incident Report, E14 relay-pumped to E15 but was delayed in opening the hydrant, so they initially sent their booster tank water followed by hydrant water.

E14 and its supply to E15 and E15's handlines are understood to be the only water supply and handlines deployed during the incident's initial suppression actions.

The OM (Pg. 13, 14, 34, 35) provides definitions for operational modes for first arriving companies.

² E-Engine, SQ-Squad, TK-Truck, RQ-Heavy Rescue, B-Battalion Chief

Fast Attack/Rescue mode: When a fast interior attack is critical because of a confirmed life hazard, the officer can announce on the radio the entire crew's involvement as a fire attack without an Initial Rapid Intervention Crew (iRIC) established.

Fire Attack mode: When a working fire is encountered and there is no confirmed life hazard, the officer will announce the crew's function as Fire Attack and will prepare for fire attack. Offensive interior fire attack can begin when an initial RIC is established.

After E15's arrival on scene, SQ15 declared a *Fire Attack* mode of operation. However, throughout most of the incident, fire companies operated in a *Fast Attack/Rescue* mode. This is somewhat understandable given there was a life safety hazard in a multifamily occupancy, however this mode should be brief, only long enough to stabilize the situation because this mode presents a risk to first responders. In Fast Attack/Rescue mode, firefighter safety requirements are relaxed in order to make time-critical civilian rescues. This difference between operational modes and what command and control is required for each will be discussed throughout this report.

3.2.3.1.2 Analysis and Recommendations

Overall, in this incident, continuous water supply was provided by a fire hydrant within the Brookhollow Apartment Complex to the lead engine, but doing so was not without challenges. E15's choice not to drop a supply line (forward or split lay) required the second engine arriving to be solely responsible for getting a water supply to the first engine. Policy states that they should not stage nor wait for an assignment, the second engine must bring a water supply to the first engine (Pg. 78).

The second arriving engine (E9) reported arriving ahead of the third engine (E14) but indicated they staged at the hydrant (on Central) while E14 initiated a water supply plan. Both engines arrived at similar times, so the second and third engine switching roles was not detrimental to delaying water supply to the lead engine (E15). The fact that the Brookhollow Complex has limited vehicle and pedestrian access was a more significant factor in the delay in providing water to E15.

The Brookhollow Apartment Complex has one point of vehicle access. This presented E14 with a choice of laying in hundreds of feet of supply from a fire hydrant on Central or a reverse lay by bringing a supply to the lead engine then backing out to a hydrant. Once E14 identified a hydrant within the Brookhollow Complex, they found TK5 had parked directly in front of it. TK5 was in the process of deploying their outriggers and moving saws into the bucket when they were directed by E14 to reposition, causing some additional delay in connecting to the hydrant and establishing a continuous water supply. A water supply was eventually secured about eight (8) minutes after the first WFD unit arrived on the scene.

The delay in achieving a continuous water supply became a factor in E15 running out of tank water. Whether knowingly or unintentionally, WFD deployed and used three fire attack lines simultaneously without a water supply to the engine. This put E15 at risk of running out of water and put the fire attack and search crews at risk using these lines for attack advancing up the stairs. E15 did run out of water, and through interviews we discovered that the fire attack crew advanced as far as the intermediate landing between the 2nd and 3rd floor when the hoseline lost pressure.

E15 officer stated in interviews he was aware that they were low on water and was in the process of backing the E15 nozzle firefighter from the intermediate landing between the 2nd and 3rd floor when the stairway roof

collapsed on them. Based on radio traffic and interviews, the fire attack and search crews were likely without water for about one (1) minute before the stairway roof partially collapsed, and the Mayday call was transmitted.

The rapid advancement up the stairway and search activities in apartment units suggests a Fast attack/Rescue mode of operation despite a Fire Attack mode being declared. A Rapid Intervention Crew (RIC) had yet to be established as required in Fire Attack mode before crews can enter a structure for search. This aggressive operational approach put these crews in a situation with more risk than Fire Attack mode, and it is not known if Incident Command was aware that they were operating in this Fast attack/Rescue mode.

3.2.3.1 Water Supply and Fire Attack Findings and Recommendations				
 Finding: Three (3) attack lines (two 2 ½ inch and one 1 ¾ inch) were put in service from E15's booster tank without a continuous water supply being established. 	Recommendation: While current industry practice and WFD policy support operating without a water supply established, caution should be taken when deploying multiple hose lines, specifically large diameters from one single engine. Consider reviewing WFD policy and limiting the number and size of handlines permitted to flow water from a booster tank before a water supply is established.			
10. Finding: The Fast Attack/Rescue mode was initiated by practice in the incident, while the Fire Attack mode was verbalized.	Recommendation: Review whether this is standard practice (i.e. Fast attack/Rescue is used on most structure fires with fire showing by default) and whether fire crews and officers understand that this mode comes with enhanced risk to firefighters. Consider refining policy to better define the risk/reward of this approach. (OM Pg. 13, 14, 34, 35)			

3.2.3.2 Search and Rescue

Assertive search and rescue operations during an apartment fire are essential for protecting lives and minimizing injury. An intentional and coordinated search allows firefighters to locate and evacuate individuals, including those who may be unconscious or unable to escape on their own. Successful search and rescue must include coordination with fire attack and ventilation activities and concentrate on areas that are immediately dangerous to life and health (IDLH) atmospheres.

A victim's survivability potential decreases as the time of (fire) exposure increases.

In our analysis of the WFD's approach to search and rescue for this incident, we found that the WFD's actions had some impact on the timing in which the victim may have been able to be removed from her apartment. Our analysis noted some deviations from policy and areas that should be reviewed to improve operational outcomes.

3.2.3.2.1 Background

Primary Units Involved: SQ14, SQ15, TK3, TK5, E9, RQ1, RQ2, B1

SQ15 joined the fire attack (E15) following the hoseline to conduct searches of the second-floor units. While searching Unit 303, the stairway roof partially collapsed, preventing them from completing a search of Unit 304 or units above the second floor.

SQ14 initially searched Building 400 before returning to support search activities on the first floor (garden level) of Building 300 (Units 301 and 302). They found a resident needing assistance evacuating Unit 302 when the stairway roof collapsed above. After retreating into the unit and allowing things to stabilize, two firefighters from TK3 joined SQ14 to complete the evacuation of Unit 302.

Based on interviews with the WFD, it was reported that the fire may have been already active in the living rooms of Units 305 and 306 when they arrived on scene, as evidenced by visibly broken windows.

TK3, crew of four, arrived on scene and self-assigned by advising over TAC that they were splitting their crew; two members would start search and rescue while the other two began deploying ground ladders for a Vent, Enter, Search (VES) and/or outside ventilation (OV). TK3's Incident Report states that since a visible fire was cutting off the stairs and entrances in Building 300, two firefighters went to Building 200. The report states they began clearing the building in apartments 201 and 202, followed by 203, 204, 205, and 206. During this time, the other two crew members threw ground ladders on Building 300 second and third floors. After clearing Building 200, the two-person crew returned to Building 300 to conduct searches when the stairway collapsed.

TK3 stated they went to Unit 302 to assist SQ14 with evacuating the resident and assisted the resident to the parking lot. When collapse occurred, a Mayday was called, and Command announced that all fireground operations were *"going defensive"* and ordered everyone out of the building. TK3 advises that after the Mayday was cleared and after assisting SQ14, fireground activities switched back from defensive to offensive; they assisted RQ2 with searching apartment 303 from a ladder.

Approximately two (2) minutes after TK3's arrival, TK5 arrived and self-assigned by advising that they were setting up on the Bravo side. TK5 advised Command that the apartments were "piggy-backed," and they had units on the Charlie side that needed to be searched. TK5's incident report states that they forced open most of the doors on the "backside" of the structure and assisted sleeping occupants out of their apartments. TK5's report doesn't indicate specific apartments; however, it is believed that TK5 evacuated occupants from Building 1100 and/or 1200.

E9 arrived on the scene as the second engine company and initially staged at the hydrant on Central; however, Command diverted them from the water supply to assist TK3 with the search. E9's Incident Report indicates that they completed the primary search of the Delta side apartments adjacent to the fire apartments, Building 400.

RQ1 arrived on the scene and, according to their Incident Report, was assigned to assist crews with the Mayday situation. Following the Mayday, RQ1 and Engine 4 completed the primary search of Unit 305.

RQ2 arrived on the scene and was assigned to conduct a "*secondary search when able*" by Command. However the Mayday was transmitted moments thereafter, and RQ2, in front of Building 300, assisted with the Mayday. Following the Mayday, and according to the RQ2 incident report, they redeployed a ground ladder to the "Alpha/Delta corner to search a unit that had not been searched" (Unit 306). All three crew members entered the apartment through the bedroom window. A firefighter from RQ2 discovered a female victim located in the bathroom bathtub at the back of the apartment. RQ2 moved the victim to the window, where they transferred her to an E10 firefighter waiting atop a ground ladder. RQ2 then completed the remaining search of Unit 306.

3.2.3.2.2 Analysis and Recommendations

Interviews with WFD confirmed that firefighters knew there was a high life safety hazard on floors above the first floor (garden level) when they arrived, given the time of day, they assumed every apartment was occupied until it was confirmed not to be by searchers. With only one way in and out of each apartment via a single stairway that was blocked by fire, Vent, Enter, Search (VES) is an effective method to conduct quick searches (when there is a confirmed life hazard) from other than a doorway and is outlined the WFD OM (Pg. 52, 79).

VES – A form of primary search in which a member can enter through openings other than main doors to isolate and search a room for victims trapped or cut off by fire; then remove them through the same opening.

Search and rescue efforts were a primary focus of SQ15, which joined

E15 in a fast attack/search operational mode (instead of the fire attack mode declared upon arrival). Presumably, SQ15 and E15 were aware that the safety officer had not established a RIC crew as SQ15 searched inside Unit 303. When TK3 arrived, they placed ground ladders on the upper floors of Building 300 to allow themselves or others to conduct VES operations.

The first 911 caller was Ms. Bedeski in Unit 306, who reported needing help but did not indicate that she was *trapped*. Only one person was reported as "trapped" by the fire dispatcher (Unit 302's friend reported him as needing assistance to evacuate), which was announced by SCEC on the Ops radio channel about three (3) minutes after the first WFD units arrived on scene and about two (2) minutes after Incident Command was established. The SCEC fire dispatcher was required to simulcast this type of information on TAC as well as Ops, but only broadcast this on Ops.

It is unclear why some other fire companies were either directed to or chose to search buildings adjacent to or behind Building 300 (that were not directly involved with the fire) before crews completed a search of Building 300 via VES. Fire crews noted through interviews that some searched adjacent buildings concerned there was not adequate fire separation between buildings, and some indicated they believed they could create an opening from a neighboring building into Building 300 to conduct searches (if necessary). Crews noted that with the wind-driven fire in the stairway, conducting VES on the east side of the stairway (to search Units 303 and 305) would have been difficult until the fire was nearly extinguished in the stairway. Other crews stated they thought other crews were searching Building 300.

The other fire crews searching adjacent buildings did dilute the number of potential resources searching Building 300. This is where utilizing the WPD outside the area of an IDLH atmosphere could be useful to clear uninvolved units and allow the WFD to focus on IDLH search and rescue.

However, the major event that disrupted the search and rescue efforts on this incident was the stairway roof collapse and subsequent Mayday, occurring only eight (8) minutes after the WDF arrived on scene. When a Mayday was called, Incident Command declared a defensive operational mode and directed all crews to leave the structure. All search activities in Building 300 paused until the situation was resolved. WFD Policy states that "...During a mayday, no fire ground assignment should be abandoned. The Incident Commander will direct and/or redirect all operations..." (Pg. 96). It's reasonable to assume that Incident Command needed some time to gain control of the situation and start to work through the Mayday checklist (assigning a RIC Group Leader, conducted a PAR, etc.).

In this incident, search and rescue of Building 300 was not reprioritized and reinitiated for over eleven (11) minutes after the Mayday was called, despite the Mayday being under control within a few minutes of its occurrence.

Once search and rescue was reprioritized and a primary search was conducted for the remaining Building 300 units (Unit 305 and 306), Ms. Bedeski was found unresponsive in Unit 306 by RQ2 within about three and one-half (3-1/2) minutes, and brought down a ladder by E10 where triage and treatment began. Secondary searches of Building 300 were conducted while crews were extinguishing hot spots. The ability to safely conduct secondary searches was limited due to the partially collapsed stairway and access to the upper units being only via ground ladders and these secondary searchers were not complete until about sixty (60) minutes after the WFD was on scene.

With regard to search and rescue: the WFD must assume there may be victims found during search, and in this incident there were several even before Ms. Bedeski was found. However, the WFD does not have a written policy on how to triage victims once they are found during search and rescue operations.

Without SCEMS currently assigned to structure fire response unless someone is "reported trapped", WFD takes on the role of triage and treatment of victims until the responsibility can be handed off to SCEMS. WFD OM does not mention this role as triage and treating patients despite WFD having a requirement that all firefighters are trained as EMT's. The OM only addresses triage with regard to triage for firefighter rehabilitation (Pg. 301) and for hazardous material incidents (Pg. 174). Patient treatment is only discussed for specific types of technical rescue incidents, structural collapse, and water rescue, never in relation to structure fire responses (Pg. 253, 254, 256, 259, 287). WFD did not formally set up a triage, treatment, or transport area once it was known there were victims from the incident, nor did it call for SCEMS paramedics to be dispatched for four (4) minutes after the Mayday was called.

From interviews with the WFD, the triage, treatment or transport area was located near Incident Command, however this was not formally communicated to SCEMS. WPD asked SCEMS where they should send victims and SCEMS did not know, primarily because they were not yet on scene but also because it was not communicated to anyone. The WPD chose to send at least one patient to Incident Command not knowing where they were supposed to send them.

3.2.3.2 Search and Rescue Findings and Recommendations			
11. Finding: Search and rescue was not well coordinated with crews searching adjacent buildings prior to anyone other than E15, SQ15 focusing on the fire involved building.	Recommendation: Searches should generally begin closest to the fire area and work back from there. When searching the floor above, start the search upon entry to the area; recognizing victims could be found anywhere. (Pg. 123, 124)		
	Recommendation: Upon the immediate arrival of truck companies to a residential structure fire, employ "VES" (Vent Enter Search) as an immediate action of opportunity that targets a known (or high probability) area of a trapped subject. VES must be communicated over the fireground channel due to the chances of increased fire spread (venting for life), possible need for additional resources (victim removal), and overall accountability. (Pg. 79)		
	Recommendation: Develop policies with WPD regarding responding to structure fires in conjunction with training on appropriate response to include roles and responsibilities, scene safety, "size-up", communicating critical information, and helping evacuate areas outside of IDLH atmospheres.		
12. Finding: The WFD OM does not address its primary triage and treatment responsibilities for civilians until SCEMS arrives.	Recommendation: Develop a policy for WFD's role in emergency incidents that address the setup of triage and treatment of civilians until SCEMS arrives. Solicit input from and coordinate with SCEMS in the development of the policy.		

3.2.3.3 Command and Control

Command and control of an apartment fire involves the organized management and coordination of firefighting efforts through the Incident Command System (ICS), which defines a clear hierarchy and chain of command. It begins with a size-up, where the Incident Commander conducts an initial assessment of the situation to gauge the fire's extent, identify potential hazards, and understand the building layout. Effective resource management is critical, as personnel and equipment must be allocated appropriately, with roles assigned to firefighters and coordination with additional emergency services as needed. Safety protocols are implemented to protect both firefighters and civilians.

Evacuation procedures are organized to prioritize the safety of residents, ensuring that those in immediate danger are evacuated first and that all occupants are accounted for. The Incident Commander also decides on fire suppression tactics, determining the best strategies for extinguishing the fire, which may involve ventilation, fire attack, and search and rescue operations. Finally, clear and continuous communication among all units is essential to keep personnel updated on the status of the fire and any changes in tactics.

In our analysis of the WFD's approach to command and control for this incident, the WFD's actions had some impact on the timing in which the victim may have been able to be removed from her apartment. Our analysis noted some deviations from policy and areas which should be reviewed to improve operational outcomes.

3.2.3.4 Background

Primary Units Involved: E15, SQ15, SQ14, T3, E9, B3

Crews were dispatched to the Brookhollow apartments for a reported structure fire. While in route, E15 reported smoke and fire, declared a working structure fire, and immediately requested a second alarm. Upon arrival, E15 gave a brief scene size up; "*E15 on the scene, heavy fire showing; make this a second alarm*". Seconds later, SQ15 arrived on scene and provided a more thorough size up; "*SQ15 on scene, heavy fire showing from the 2nd story of a 2-story apartment*," and then assigned themselves as *Fire Attack*. Within one (1) minute SQ 14 and T3 both arrive on scene. E9 arrived on the scene less than two (2) minutes after E15 and reported they were staged at a hydrant but did not connect, and they did not take Command. Approximately one (1) minute later, B3 arrives on scene and establishes Central Command.



Fire Units Unknown Location: E10 (14), MA1 (16), F160 (17), SQ5 (19), E20 (21), F132 (22), F171/F172 (23) Medic Units Unknown Location on Central: M34 (2), M22 (3), M32 (4), M27 (6) Medic District Chief Unknown Location: M2 (1), M1 (5)

Figure 22: Approximate locations of WFD and SCEMS equipment. (Credit: Google Maps 2024)

3.2.3.5 Analysis and Recommendations

The impact of Incident Command, either action or inaction, can have a significant impact on strategic outcomes in any incident. In this incident, it appeared that Incident Command was more reactive than proactive at times.

In this incident, the first arriving units E15 and SQ15 did not assume Initial Command (Pg. 34) because they were operating in a fast attack/search mode (despite declaring a fire attack mode) and E15 married with SQ15 to accomplish this goal (Pg. 14). As subsequent fire companies arrived, no unit took Initial Command, which is suggested as being the 2nd arriving Engine officer by the OM (Pg. 14, 35). There were ultimately six units (E15, SQ15, SQ14, T3, E9, and E14) all on scene before Command was established by seventh arriving unit, which was B3. While the timeframe from E15 arriving on scene and B3 establishing Incident Command was short, about two and one-half (2-1/2) minutes, critical information such as the fire department access to the Brookhollow Complex being limited and indication that a fire hydrant was not yet identified to supply E15 was not passed along to the quickly arriving apparatus.

Although *Fire Attack* mode was declared, the fireground was operating in a *Fast attack/Search mode*. This mode was not changed by Incident Command until the Mayday occurred, at which time they declared *defensive* operations. Although interior searches were underway, neither an Initial Rapid Intervention Crew (IRIC) nor a Rapid Intervention Crew (RIC) had been established by Incident Command or the Safety Officer.(Pg. 21).

Other decisions were being made by Incident Command that could have had significant consequences on this incident and showed lack of command and control over the fireground operations. Examples of lack of command and control include: allowing three attack lines in use from a single booster tank without a continuous water supply, reassigning an engine away from water supply to search the adjacent Building 200, and allowing truck companies to search backside/adjacent buildings uninvolved with fire before Building 300 had been searched. Additionally, Incident Command did not ask SCEC Dispatch for SCEMS paramedics for approximately seven (7) minutes after the report of persons trapped on the Ops channel and over three (3) minutes into the Mayday.

Although the first few arriving engines and trucks immediately go to work without assignment per department policy, in this case, a significant number of additional units arrived and freelanced without clear coordination. The behavior of freelancing by fire companies on this incident may be an accepted cultural norm in the WFD. Other incidents would have to be observed to understand if freelancing is a systemic issue or if this was a limited case of it.

We note the lack of discipline by the WFD extended to fireground communication. On numerous occasions throughout the incident basic radio discipline such as "hey you, it's me", failure to "close the loop" on transmissions, or talking over other units is observed. Slang and jargon on the radio from the incident command and units appear undisciplined and create confusion on the fireground. (Pg. 29, 91). Incident Command did not report fire scene benchmarks (i.e. water supply established, primary search, secondary search, fire under control, etc.) in a timely fashion or at all on the Ops Channel as required by the OM (Pg. 92).

Several fire officers indicated that their MCT's were not working the morning of the incident due to a software upgrade overnight. This led to some challenges because map routing and CAD notes about the fire were unavailable to fire officers as they were responding. According to these officers, it is a common occurrence that the MCT's are unreliable and officers are not always made aware of scheduled software updates that impact the MCT's.

Through post incident interviews with fire company officers involved in the incident, officers were often unsure of the department policies related to communication via Ops and TAC radio frequencies (which channel to use and when) and when to use the MCT for arriving on scene (as examples). Some officers were aware of the policies related to communications, but acknowledged they were not following them constantly.

We also note that Incident Command did not produce a diagram as part of their tactical worksheet illustrating locations of where vehicles were placed (Pg. 15, 34). Through interviews and review of radio traffic, a diagram (Figure 22) was created by this team with the best of our ability through this analysis and is shown above.

3.2.3.3 Command and Control Findings and Recommendations	
13. Finding: Incident Command did not establish effective command and control over the incident.	Recommendation: Establishing a strong command presence and organizing an incident early is crucial to a successful outcome. WFD should examine a sample of recent fire incidents and consider whether Incident Command exercised effective command and control, and managing resources adequately. Also during review of incidents, the WFD should consider whether the culture of freelancing and self- dispatching is normal practice. Findings from these reviews should lead to additional training for chief officers, front line officers, and acting officers and/or policy updates.
14. Finding: Command did not consistently or adequately relay the required "fire scene benchmarks" to Dispatch over the OPS channel.	Recommendation: Failure to communicate fire scene benchmarks not only results in a lack of adequate fireground record keeping but also creates a situation in which the incident commander can lose track of incident priorities. Follow WFD policy to ensure that the fire scene benchmarks are announced to the dispatcher via the OPS channel. (Pg. 92)

3.2.3.3 Command and Control Findings and Recommendations

15. Finding: WFD's OM provides directions on communication (Chapter 3, Pgs. 87-107) which includes requirements for communication via radio (on Ops and TAC channels), and communication via the Mobile Computer Terminal (MCT) for the fire companies and SCEC dispatchers. In this incident, these policies were not followed consistently, which led to miscommunication between the WFD and SCEC dispatchers, between Incident Command and its own fire companies and with SCEMS.

Recommendation: WFD's OM adequately describes the use of radios and MCT's in multiple situations. WFD officers, acting officers, and Command staff need to review, drill, and implement on the policy.

Recommendation: The WFD must maintain radio discipline at all times as a standard of good practice so that during emergencies. (Pg. 31, 92, 94, 101)

Recommendation: Updates to WFD MCT's should be scheduled at times when WFD personnel are awake and aware, and communicated to fire officers before they occur.

3.2.3.6 Mayday Incident

A Mayday situation is an emergency incident occurring within the larger context of an emergency incident, such as an apartment fire. It represents a critical moment when a firefighter is in distress and requires immediate assistance due to life-threatening circumstances.

In such scenarios, it's essential for the incident command to quickly shift focus to manage both the ongoing incident and the Mayday situation. Because a Mayday elevates the urgency of the situation, it must be treated with the same level of priority and structured response as the initial incident. This includes swiftly activating emergency protocols, ensuring clear communication among all teams, and reallocating resources to focus on the rescue. A Mayday requires a dual focus: addressing the immediate emergency while maintaining situational awareness of the ongoing incident, ensuring a comprehensive response to both challenges.

In our analysis of WFD's handling of the Mayday for this incident, the WFD's actions had some impact on the timing in which the victim may have been able to be removed from her apartment. Our analysis noted some deviations from policy and areas which should be reviewed to improve operational outcomes.

3.2.3.7 Background

Primary Units Involved: E15, E18, BC3, B2

E15 was the first unit to arrive on the scene of the Brookhollow Apartment fire. Within minutes of their arrival, multiple hand lines were stretched, and crews were performing a fire attack on the exterior stairwell of building 300. E15's written Incident Report indicates that they initially extinguished fire from the exterior and then from inside the open-air stairwell enclosure. E15 reports that after knocking down the fire above the second floor, they advanced the 2 ½-inch attack line to the intermediate landing, just below the third floor. E15 officer remained at the second-floor landing to assist with advancing the hose line. The E15 officer indicated that as he was attempting to contact the nozzle firefighter, part of the roof in the stairway landing collapsed onto the third-floor landing, which then collapsed directly onto the E15 officer on the second-floor landing.

E15's report indicates that the E15 officer's helmet was knocked off, and his SCBA was damaged and leaking air. The E15 officer noticed that the attack line was buried, and he could not make voice contact with the E15 nozzle firefighter. E15 officer transmitted a Mayday "MAYDAY, MAYDAY, MAYDAY, we've had a collapse". SQ14 then transmits additional information, advising they've had a stair collapse on the exterior of the building. E15's report indicates that the E15 officer self-rescued by bailing out of the west-facing, second-story stairwell window. The remaining members of the fire attack crew (E15 and SQ14) were assisted to safety via ground ladders, including the E15 nozzle firefighter.

When the Mayday was activated, Command directed all firefighters to exit the structure, and transition to a defensive fire attack operations while a Personal Accountability Report (PAR) was completed. It is undetermined the exact time alignment, but E15's report states: "A PAR report was conducted and defensive operations began. Engine 15 officer obtained another air pack from Engine 15 and then rejoined defensive fire attack operations. E15 then entered the third floor via ladder to conduct fire attack operations on the third-floor east apartment".



Figure 23: Collapse debris inside exit stairway. Stair (left) up to second floor landing. (Credit: WFD FIU).



Figure 24: Second floor exit stairway landing with fire debris outside Units 303 and 304 (Credit: WFD FIU).

3.2.3.8 Analysis and Recommendations

Understanding that a Mayday event is an "incident within an incident," one must realize that a Mayday should interrupt the primary incident operations as little as possible, especially actions related to the immediate life safety of civilians. However, a Mayday is never anticipated, causes initial chaos with command and control, and will understandably distract firefighters from their assignments. Training on Mayday scenarios helps with operational discipline, keeping the firefighters focused on their assignments, and allowing Incident Command to delegate some of their responsibilities associated with the Mayday to the Safety Officer (Pg. 96).

When the Mayday occurred, there was no established IRIC or RIC in place. This may have contributed to numerous crews turning their attention away from their assigned task to focus solely on the Mayday. Since RIC was not established, there was no RIC equipment staged in the immediate area. Thankfully, those involved with the Mayday were mostly able to self-rescue, with some help from crews standing nearby, within a few minutes without the need for rescue RIC equipment.

Although the Mayday was quickly resolved, there was evidence that managing a Mayday was not well practiced by WFD Incident Command or firefighters. As examples of where policy was not followed:

IRIC – Initial RIC. A temporary team of at least two firefighters on standby outside the structure to provide assistance or rapid rescue, if needed.

RIC – Rapid Intervention Crew. A team of three or more members under the direction of a team leader/officer positioned outside a hazardous atmosphere with full protective clothing and SCBA whose mission is to rescue interior firefighting crews.

- +There was no clear direction from Command regarding whether the Mayday incident was to remain on the TAC channel and other units change channels (Pg. 96). As a result, there were numerous times that other non-critical traffic walked on the Mayday incident.
- + Command assigned B1 as the RIC Group Leader rather than the Incident Safety Officer (B2). Per the WFD Policy (Pg. 96), the Safety Officer should be assigned to the RIC Group Leader.
- + Command did not provide brief progress reports as the incident progressed on the Ops radio channel nor did Command announce when the Mayday was complete per WFD policy (Pg. 96).
- + An engine officer (E18) reported to Command that they were "going to take over the Mayday". Incident Command did not acknowledge this radio traffic from E18 and assigned a RIC Group Leader (B1) and a RIC Crew Location – Indicate your location in the (Team) (R1).
- + Incident Command did not upgrade the alarm as required by WFD policy (Pg. 96).
- + The firefighter who called the Mayday did not provide detailed information to Command about their situation using the L.U.N.A.R. acronym in accordance with WFD policy (Pg 95). In an interview with this firefighter, he noted that he was focused on self-rescue and condition the other crew with him after the initial Mayday was called and did not use the L.U.N.A.R. acronym.

structure and what happened.

Unit – Indicate your assigned unit and other units involved.

Name – Indicate your name and names of others involved.

Assignment – Indicate what your assignment was.

Resources – Indicate what resources you will need; are you injured, and how much air is left in your SCBA.

Through interviews with numerous WFD firefighters associated with this incident, most, if any could recall the last time multicompany Mayday training was completed. Beyond some tabletop discussions or single company exercises, most cited their time in the fire academy as the last time they recall this training being formally conducted.

3.2.3.6 Mayday Incident Findings and Recommendations		
16. Finding: The WFD was not well practiced on Mayday training maintaining primary tactical objectives and handling rescue of a downed firefighter.	Recommendation: As required by OSHA, conduct Mayday training. Design training scenarios that include multi-company operations where search and rescue is already being conducted when a Mayday occurs. The goals of this training include: firefighters and Incident Command to remain focused on other primary objectives (fire attack and search and rescue) while a Mayday is called, downed firefighters practicing L.U.N.A.R. and self-rescue, and RIC crews practicing rescue of a downed firefighter.	
17. Finding: E15 officer had his helmet knocked off, his SCBA was damaged and leaking air. However, there were no reports that he was made to go to Rehab (which was not present or established) or check-in with anyone on scene to confirm he was okay to continue firefighting.	Recommendation: The OM should address the handling of a firefighter post Mayday.	

3.2.4 Fire Origin and Cause Investigation

Fire investigations are complex endeavors. The data collected needs to be timely, sufficient and as clear as possible to properly determine the origin and cause of a fire on a more probable than not basis. NFPA (National Fire Protection Association) 921, *Guide for Fire and Explosion Investigations*, is a consensus-based, industry-accepted document that establishes guidelines and recommendations for the safe and systematic investigation and analysis of fire incidents (NFPA 921-2021, Sec. 1.2.1).

NFPA 921 directs the investigator to follow the basic scientific method during their fire origin and cause investigations, which includes the following steps (NFPA 921-2021, Chapters 4 and 19):

- and there is a need to determine the cause.
- 2. Define the problem conduct a methodical fire investigation.
- 3. Collect Data Observations, witness statements, electronic data, empirical testing, etc.
- 4. *Analyze Data* Analyze collected data for meaning in relation to the fire event.
- 1. **Recognize the need** a fire occurred 5. **Develop Hypotheses** Use the results of the data analysis to develop fire origin and cause hypotheses through inductive reasoning based on the investigators knowledge, training, experience, and expertise.
 - 6. Test Hypotheses Using deductive reasoning, the hypotheses are tested against the collected data in an attempt to disprove the hypotheses. Physical testing and/or the application of known scientific principles and research may be done to further test the hypotheses.
 - 7. Select Final Hypothesis A final fire origin and cause hypothesis is selected. This can only be done if all other reasonable hypotheses can be excluded on a more probable than not basis.

Per NFPA 921-2021, the final opinion of any investigator is only as good as the quality of data received and used in reaching any opinion. If the level of certainty of that opinion is only "possible," "suspected," or then the fire cause determination is undetermined (NFPA 921-2021, Sec. 19.7.4). In circumstances where all hypotheses have been rejected, or if two or more hypotheses cannot be rejected, the only choice for the investigator is to conclude that the cause of the fire is also undetermined (NFPA 921-2021, Sec. 19.6.5.1).

It should be noted that if the cause of the fire is undetermined, that is not necessarily a failing of the investigation or of the skills of the investigator to find "the cause." An undetermined fire cause opinion can be the correct result of an investigation that rigorously follows the scientific method. In those cases, external factors mean that there is not enough, or conflicting, data that prevents the investigator from determining the ultimate cause of the fire on a more probable than not basis. For example, there may be conflicting witness statements that cannot be reconciled with other evidence, or the damage from the fire and/or the fire-fighting operations may prevent the identification of significant fire patterns or potential ignition sources.

A fire investigation is often broader than simply determining the origin and cause of the fire. There are other factors to consider, depending on the need, such as the cause of damage to property, the cause of injury or death, and the degree that human factors contributed to the loss of life and property (NFPA 921-2021, Chapter 20). These additional factors further the mission of improving firefighting and emergency response operations, and preventing future fires through community education and advocating change.

Therefore, the origin and cause of a fire is only one component of a fire investigation, and other components of an investigation may be of more or less importance to a particular investigator or the community at large. A complete analysis of the fire incident is a needed component particularly when severe injury or loss of life is involved. Fire investigation can expand to cover many other aspects (NFPA 921-2021, Chapter 20), such as:

- + Adequacy and effectiveness of fire suppression systems
- Sufficiency of building construction +
- +Contribution of products and materials to flame spread and smoke production
- Adequacy of alarm and signaling systems and devices +

- + Adequacy and effectiveness of fire protection and suppression systems and devices
- + Reason for fire-fighter injuries
- + Acts or omissions that caused or contributed to the fire ignition and fire spread

Examining these aspects of a fire incident can help provide a clearer, overall picture of significant fire incidents involving loss of life or large property losses. This comprehensive analysis can be very effective in helping fire fighters, government agencies, and the general public understand what happened and why, and importantly, what changes can or should be made to prevent future fires.

3.2.4.1 Background

On the morning of Friday, October 13, 2024, two fire investigators from the WFD Fire Investigation Unit (FIU) self-dispatched to Brookhollow Apartments. They arrived on scene at approximately 4:36 a.m., a little over thirty (30) minutes after the first WFD units arrived on site. The victim, Ms. Bedeski, had already been rescued from Unit 306, and was on the ground being attended to by the WFD and SCEMS when the investigators arrived.

The scene was still active, with searches, smoke control, crowd control, etc. activities going on when the investigators arrived. According to investigators, they spoke with Incident Command first, then they split up and spent the following several hours conducting their investigation, which included some of the following activities:

- + Exterior site photographs
- + Interview tenants and witnesses on site
- + Interviewed the building manager
- + Collected tenant list

The investigators eventually left the site to go the hospital and interview some of the other victims. They later returned to Brookhollow Apartments to continue photographing the site. At some point, they accessed Unit 306 using a ground ladder, entered through a window, and documented the apartment.

During their investigation, they received Ms. Bedeski's cell phone from a Battalion Chief (F196), and they turned it over to the Wichita Police Department (WPD) for analysis. According to FIU investigators, WPD could not access the phone.

The FIU investigators followed up with additional witness interviews and site examinations. This included attending a site examination with investigators representing the insurance company(s) approximately two weeks later. Units 305 and 306 were examined, along with the building electrical system. During the course of their investigation, they searched the apartment building, neighboring buildings, and spoke with witnesses looking for video of the incident, but didn't find any pertinent to the origin and cause of the fire.

During our interviews with the FIU investigators, they indicated it was their opinion that the fire originated in the exterior stairwell of Building 300, in and around the landing for Units 303 and 304, and the cause of the fire was *Undetermined*. Further, the investigators indicated that their fire origin and cause investigation was still Under Investigation. They stated they were waiting for additional information from other parties to complete their investigation. Further, because their investigation was still ongoing, they had not produced a final fire origin and cause investigation report and could not give us any additional details regarding the investigation.

Documents received during our investigation reflected the statements from the FIU fire investigators that the fire originated in the exterior stairwell of Building 300 (Wichita Fire Department Fire House Report, "Undetermined" is a recognized term used in the field of fire investigation. It refers to situations where multiple possible fire cause hypotheses exist, but none of them can be elevated above the others on a more probable than not basis. This determination is based on the quality of the available data and the certainty of the investigator. See NFPA 921, Chapter 19: Fire Cause Determination, for further details.

November 2, 2023, WFD FIU BATS (Bomb Arson Tracking System) Report (no date provided). No cause hypotheses were provided in the referenced documents or reports. The following was noted by the lead fire investigator in the October 13, 2023 WFD Incident Report (WPD F171 incident report dated October 13, 2023).

From the FIU Narrative:

"...A pattern of fire effects was identified and included: smoke deposition to the vertical wall surfaces, discoloration and deformation to the metal components of appliances and furniture within the upper-level units #305 and #306; and mass loss to the wood furniture, trim, structural members and decking, most notably within the exterior stairwell. The observed pattern of fire effects is consistent with and indicative of a fire originating at the northwest corner of the structure, within the exterior stairwell.

Investigators are still working to contact all occupants; and therefore, this fire cause remains under investigation. At the time of the incident wind conditions were out of the WNW at 25mph. Evidence was collected and will be submitted for testing and examination. The Wichita Police Department responded, and patrol officers assisted the FIU with scene security and interviews of some occupants...".

During our interviews, the FIU investigators reported that they collected material samples from the stairwell for laboratory analysis for ignitable liquids. The Kansas Bureau of Investigation Forensic Laboratory tested the samples and their report indicated that no ignitable liquids were present in the samples (Kansas Bureau of Investigation Forensic Lab Report dated October 30, 2023). The FIU investigators also provided samples of the construction materials of the exterior stairwell to the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE) and asked for their support with analysis and/or testing of the materials for fire ignition and propagation. According to the FIU investigators, this testing by the BATFE had not been completed at the time of our interviews in August 2024, and no documentation was provided to our team regarding this aspect of the

investigation. It is unclear if the BATFE has agreed to conduct testing or provide other assistance to the WFD FIU, or if this additional testing has taken place at the time this report is being issued.

FIU investigators noted in July and August 2024 interviews that the information provided to Jensen Hughes was as much as they could provide given the investigation was still ongoing. The FIU investigators acknowledged that they have additional information regarding their fire investigation. Therefore, our findings and recommendations in this Post-Incident Analysis should be considered as complete as possible given the FIU has additional information unavailable to our team.

3.2.4.2 Qualifications of FIU Investigators

Through interviews with the WFD Fire Marshal and FIU investigators, they noted that their initial fire investigation training included approximately 80 hours of formal origin and cause training through the U.S. National Fire Academy (or equivalent delivered by the State of Kansas) and 200+ hours of police training through the WPD, including weapons training. This training appears consistent with the training required today to be a Certified Fire Investigator I or II by the Kansas State Fire Marshal (Kan. Admin. Regs. § 22-19-2). Investigators also noted that WFD budgets for outside training are limited and most additional training was handled in house. It was noted that there were sixteen (16) State Certified Fire Investigators in the FIU.

The FIU Manual, with the exception of WPD Policy and Procedure supplements, does not provide any detail on minimum qualifications for FIU investigators, if they are to have or maintain Certification by the Kansas State Fire Marshal, or continuing education and training requirements.

Many of our findings and recommendations in the following sections lead us to believe that some FIU investigators may not have adequate training to perform Fire Origin and Cause investigations in accordance with Internationally accepted practices and procedures.

3.2.4.3 Analysis of FIU Policies and Procedures

Our analysis of the requirements in the FIU Manual with the actions of the FIU in relation to the Brookhollow Apartment fire revealed some deficiencies and areas for improvement. This analysis is based on the information provided to us to date. Even though some information was not provided, our analysis is as complete as possible and covers the main aspects of the fire investigation during the initial phase of the investigation.

3.2.4 Fire Origin and Cause Investigation Findings and Recommendations

 Finding: The FIU Manual is outdated and provides insufficient detail on conducting fire 	Recommendation: Update the FIU Manual to follow the guidelines and recommendations for the safe and
origin and cause investigations in accordance	systematic investigation and analysis of fire incidents
with internally recognized standards.	outlined in NFPA 921. Also update the Manual as
	recommended in the remainder of this report.

Additional specific improvements to FIU Manual are recommended later in this section of the report.

3.2.4.4 Analysis of the Fire Scene Exam

Fire scene examinations should follow a systemic approach, as noted in NFPA 921. This approach is based on the Scientific Method (NFPA 921, Chapter 4). One of the critical steps in the scientific method is to gather all available data and to document the scene through drawings and photographs. Data is analyzed to develop fire origin and cause hypotheses, which includes an analysis of potential fire origin locations, the component fuel package, component ignition source, sequence of ignition, fire spread and fire causes. This analysis further provides the basis for explaining the actions (or lack thereof) of occupants, and sometimes explains the causes of injuries and/or loss of life.

Based on all of the documentation provided, it is our opinion that there are significant opportunities for areas of improvement related to fire origin and cause investigation. Investigators did not follow significant parts of their FIU Manual nor did they follow the basic scientific method during their investigation as outlined in NFPA 921, including not following a systematic approach to documentation of the scene.

3.2.4 Fire Origin and Cause Investigation Findings and Recommendations		
19. Finding: A systematic approach to fire scene examination and documentation was not followed in accordance with NFPA 921.	 Recommendation: Training should be provided to all fire investigators on NFPA 921, the scientific method, fire scene examination and documentation. FIU should strongly consider having some or all investigators attend continuing education training hosted by the National Association of Fire Investigators (NAFI) and/or the International Association of Arson Investigators (IAAI) and become certified by one or both organizations. 	
	Recommendation: The FIU Manual should be updated to indicate initial training requirements, certifications required to be maintained, and ongoing training requirements for FIU investigators.	

Scene Photography

A set of one-hundred and two (102) images were provided to our team in June 2024. Of these, eighty-six (86) images were photographs from the fire scene that were taken on October 13, 2023, the day of the incident. The other images provided were screenshots taken from the internet and news media. The photographer of the FIU images was not clear. An additional 18 undated photographs were received and reviewed in August 2024. Some of these photographs were taken at the fire scene at different times/days. The second photograph set also included images of paint containers and building materials presumably used on the Brookhollow Apartment building. Again, the photographer was unclear.

We provide the following deficiencies regarding the approach and context of the photographs:

+ Photographs of the fire scene were not systematically taken. It was difficult to follow the course of the investigation, as the photographs were out of order, some were missing, and/or the investigator took ad-hoc photographs while examining the site in a nonsequential manner.

- + Even the detailed / zoomed-in photographs provided were difficult to follow in that they did not first provide reference as to where or why they were taken.
- + Image numbering was not consecutive. It is unclear how many photographs were taken.
- + No documentation or clear photographs were provided to show the location where the victim, Ms. Bedeski, was found.
- + There was no documentation (photographic or narrative) of the fire protection equipment in the building (i.e.: smoke alarm location, condition, operation in any apartment), especially in Unit 306, where Ms. Bedeski was found. No photographic documentation of the electrical or mechanical utilities from other than in one unit were provided. Limited photographs of the exterior of the building were provided.
- No photographs of the additional site examinations attended by the FIU were provided. It is unclear if the FIU documented and photographed these activities.

3.2.4 Fire Origin and Cause Investigation Findings and Recommendations		
20. Finding: Systematic documentation (photographs and diagrams) of the fire scene was not completed in accordance with FIU Manual Section 9.02.	Recommendation: Investigators should review NFPA 921 Section 16 on scene documentation and follow a systematic approach. Attend additional scene photography and documentation training if needed. Documentation using photographs needs to be clear, in context, and concise. All fire protection systems (such as smoke alarms, sprinklers systems, etc.), electrical equipment, and mechanical equipment and their condition must be documented.	

Interviews

When conducting interviews, the investigator in charge of the interview is responsible for noting the date, time, and location of the interview, meter reading and brand name of the recording device at the beginning of the taping (FIU Manual, Section 15.02). Case heading and case number must also be recorded plus a brief synopsis of the crime.

In this some basic interviewing techniques were not followed, including:

- + No reference to date, time or location of the interviews.
- + Interview notes are vague and do not provide a clear picture of the interviewee's background and their relation to the incident, for example, how long they resided at the apartment.
- + There were no records provided of interviews conducted by the FIU at the hospital on the day of the fire and afterwards.

3.2.4 Fire Origin and Cause Investigation Findings and Recommendations		
 Finding: Basic interviewing techniques were not followed, outlined in FIU Manual Section 15 and NFPA 921 Section 14.5. 	Recommendation: Review the FIU Manual on conducting interviews. Recommendation: Review NFPA 921 Section 14.5 regarding interview techniques and best practices. Attend additional interview training if needed.	

Evidence

Per FIU Manual Section 4.11 for all incendiary fires and fires involving seriously injured victims or fatalities, a computer-generated sketch of the scene will be made. All germane items, including areas where samples and/or evidence were collected, will be documented on the sketch.

Regarding the evidence that was taken at this scene, it does not appear that a systematic approach to evidence collection was used and we noted the following deficiencies:

+ Two samples of wood decking evidence were collected from the stairway for testing. Although photographs of the sample locations were taken, the photographs were not taken in context and there was no diagram of the location where evidence was collected. Per NFPA 921, Section 17.5.2, physical evidence should be thoroughly documented before it is moved.



Figure 25: Wood decking taken as evidence. (Credit: WFD FIU).

- No control sample (sample from another area not suspected to be involved) collected / tested. Per NFPA 921, Section 17.5.4.6, this is an important step if the evidence items are to be tested for ignitable liquids.
- + The fire investigation report and/or supplements do not include the reasoning or rational for identification of where to collect samples and why.
- + The Request for Laboratory Services (for the debris samples) indicates the Offense as "Arson" and collection date of October 13, 2023.

- + The Chain of Custody form dated 10/13/2024 Cell Phone Indicates phone in FIU Evidence Room then moved on 10/13/2023 for Pending WPD Digital. Then on 10/17/2023 it was moved to the lead FIU investigator then Pending WPD Digital. On 3/1/2024 the phone was moved back to custody of the lead FIU investigator. There was no documentation regarding the examination of the phone and if the phone was ever returned to the FIU Evidence Room. None of the information provided to the team indicates who owned the cell phone and reasoning for the cell phone being collected.
- + The request for laboratory testing form states that the offense is Arson, but the investigation reports provided indicated the cause of the fire was Undetermined. If that is the case, the "Offense" section of the form should not state Arson.
- Photographs of the material and coating samples given to the AFT were provided, and neither were any photographs of Ms. Bedeski's cell phone.

3.2.4 Fire Origin and Cause Investigation Findings and Recommendations		
22. Finding: Standard evidence collection procedures were not followed per NFPA 921, Section 17.5.	Recommendation: NFPA 921 should be reviewed with all investigators as it relates to evidence collection practices and procedures, and additional training provided to all investigators.	
23. Finding: There is an indication of "Expectation Bias" as the cause of the fire was listed as undetermined; however, the laboratory services request form indicates a crime or arson.	Recommendation: Sample testing for ignitable liquids should be used as an evaluation tool in regard to fire investigation. The Offense section should be left blank or filled in with "Undetermined."	

3.2.4.5 Analysis of the Fire Investigation Reports

According to the FIU Manual, Section 5.06, the following paperwork and reporting is to be completed on all incendiary, code red/blue and fatality fires:

- 1. FIREHOUSE (a Fire and EMS records management software system) Responding unit notes only
- 2. BATS (Bomb Arson Tracking System, BATFE) Report with narrative
- 3. Police incident report (WPD)
- 4. Computer Generated Diagram
- + The narratives listed above require completion within 30 days of the fire (FIU Manual, Section 5.11). In this case, the initial investigation narratives and crew reports were in FIREHOUSE, BATS and Police Incident System were completed within the timeframe required and were very similar. Based on our experience, the narrative information in these initial reports was of the detail expected, given the scope of the incident, and the status of the investigation as "ongoing".
+ The FIU Manual describes that supplemental narrative reports must also be entered into BATS for case activities that are not captured in the initial scene narrative reports (FIU Manual, Section 5.12, 6.08). Supplemental reports may include but are not limited to interviews and follow-up investigator notes. Investigators acknowledged visiting the Brookhollow Apartment building after the fire for subsequent follow up and attendance at site exams conducted by property insurance investigators, however none of these subsequent visits are noted in reports we were provided.

It is not known if these reports have been updated in BATS report or any supplements to the FIU or WPD Incident Report. Updated reports were not provided for review. It is assumed that the additional material is contained, or will be incorporated into, the yet unpublished Fire Origin and Cause Report.

- + Per the FIU Manual, all reports where an origin and cause investigation has been undertaken must be also completed within thirty (30) days of the date of the fire and forwarded to the FIU supervisor for review (FIU Manual, Section 5.11). The FIU Manual does not indicate a procedure for maintaining an investigation as "open" or "ongoing" past these thirty (30) days. As noted previously, a brief narrative was provided the same day of the incident (October 13, 2023), providing some detail on the incident and the investigation's status by the end of the FIU shift on that day. These narrative reports note a general statement regarding "a pattern of fire effects" but nothing related to narrowing the potential area of fire origin within the exterior stairwell. No reference or analysis of potential fire origin and cause hypothesis and supporting findings was provided in the initial reports. These initial reports would not be considered a Fire Origin and Cause Report and were not completed within the thirty (30) days of the date of the fire.
- An important part of scene documentation is a computer-generated diagram which must be completed for all incendiary fires, undetermined fires, fires with a code red/blue, and fatality fires (FIU Manual, Section 5.13). No detailed sketch was provided of the building and the apartments, specifically the apartment where the fatality occurred. During interviews with the FIU investigators, they reported having drawings of the scene, however no drawings were provided for our review with investigators citing the case being still under investigation.
- + Coordination with multiple agencies is critical to the successful outcome of any incident. In a case such as the Brookhollow Apartment fire, several agencies were involved and rendered much needed assistance. In this incident the FIU attempted to utilize the BATFE and the Kansas State Fire Marshal's Office for assistance. In both cases, as noted in email correspondence, the respective agencies could not, or did not, respond to the incident. None of this information was noted in any of the reports or supplements to reports provided for review and only ascertained through interviews as part of this Post-Incident Analysis.

When these critical assets are unavailable, the WFD should be able to call on neighboring jurisdictions to provide additional assistance. When asked in interviews if there was a regional task force, FIU investigators indicated there was not, but they did know the local jurisdictions investigators.

3.2.4 Fire Origin and Cause Investigation Findings and Recommendations		
24. Finding: Neither a computer aided dra any drawing or sketches of the scene w provided, but they reportedly exist with	wing, nor ere the FIU.	
	When the investigation report is made, this sketch should be converted to a computerized drawing. These sketches need to provide an overall view of the incident as well as specific details of both the area of origin and where injury and death occurred.	
25. Finding: Supplemental investigation renotes were not completed (or not provide review) per the FIU Manual Section 6.0	Recommendation: Anytime follow-up investigation activities, such as interviews or testing, are completed, the findings need to be properly documented and made part of, or added to, the initial report.	
26. Finding: The FIU Manual Section 5.11 narrative reports are to be completed w days". In this case, an email was sub day of the fire, however a complete rep not been completed.	states "All thin 30 nitted the ort has Recommendation: Investigation reports should be completed with a specified time frame and if follow-up work is needed, then a supplement report shall be added to the investigation. Reports should not remain indefinitely open, so that information and answers can be provided to the department and community leadership in a timely fashion.	
27. Finding: Improvements can be made in coordination, training and working relat external partners.	Recommendation: Develop a regional Fire Investigation Task Force using neighboring fire department resources and partner agencies. This could provide the necessary staffing and resources to tackle major and complex incidents. This would also provide the hands-on experience needed for all who are involved.	
	Recommendation: Develop interagency fire investigation training for partner agencies.	

3.2.4.6 After-Action Reviews

Coordination within an organization is critical for information flow and helps eliminate confusion and incorrect information being disseminated within the various divisions of the department. In the case of this incident, it was noted the FIU did not actively participate in the department's After-Action Review of the incident. It was unclear from interviews if they were not invited to an After-Action Review or they chose not to participate.

Without participation in an After-Action Review or other formal briefing, the FIU did not have an opportunity to provide WFD Operations with a clear understanding of the fire behavior, fire spread, and timeline of events ascertained through there fire investigation. It is understood that fire investigations take time, and immediate answers are not always possible; however, initial information should be provided comprehensively for significant incidents to inform the public and provide the department with accurate information to improve their response in future incidents.

3.2.4 Fire Origin and Cause Investigation Findings and Recommendations		
28. Finding: The FIU is part of the WFD, but does not appear fully integrated into and/or connected to the entire WFD. They did not participate in the After-Action-Reviews on this incident.	Recommendation: Fire Investigations should not only review the origin and cause of the fire but also provide a complete analysis of the incident and all contributing factors to help the department, as well as the community as a whole, understand what happened and possibly help prevent future incidents. The FIU should participate in all After-Action Reviews of major incidents, and where needed, they should help determine important factors to clarify the incident and its outcome.	

3.3 SEDGWICK COUNTY EMS

3.3.1 Background

SCEMS provided triage, treatment and transport of four (4) patients from this incident. They did so not due on the initial WFD incident dispatch. Per policy, a District Chief was listening to fire radio communications and had SCEC dispatch himself and two ambulances to the scene when he heard there were possible people trapped before WFD Incident Command requests medics to the fire scene.

We reviewed the following documents and standards in association with this incident:

- + SCEMS System Medical Protocols (2014 Ed).
- + Wichita Fire Department Operations Manual (OM) [Revised August 2019].
- NFPA 1561 Standard on Emergency Services Incident Management System and Command Safety (2020 Ed.).
- + NFPA 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments (2020 Ed).

In our analysis of SCEMS triage and transport for this incident, the SCEMS' actions did not have a material negative impact on the outcome of this incident. However, our analysis did note some deviations from standards and areas which should be reviewed to improve operational outcomes.

3.3.2 Analysis and Recommendations

SCEMS provides patient treatment and transport services for the entire City of Wichita and outline Sedgwick County areas. Its organizational structure and leadership are typical of county-wide systems serving populations of this size. A review of the SCEMS response, fireground actions, and transport of patients was conducted for this incident.

Review of EMS radio traffic (EMS Ops and TAC channels) identified some potential challenges with radio communications. Interviews with SCEMS indicated that when notified of a fire but not yet dispatched to it, an EMS District Chief begins to monitor the Fire Ops and Fire TAC channels in addition to their own EMS Ops and EMS TAC channels. The purpose of monitoring Fire Ops and Fire TAC in this instance is to determine if the District Chief believes they should preemptively dispatch paramedics to the fire prior to being automatically dispatched. This is great in concept, however monitoring four different radio channels presents challenges especially if the District Chief is actively listening to or engaged with another EMS incident. In this incident, the EMS District Chief appeared to have issues with one of his radios.

WFD personnel, as EMS technicians, are responsible for patient care on a fire scene until others more qualified to provide medical services arrive on scene, such as an SCEMS paramedic.

There was no evidence that any WFD crews were assigned by incident command to collect, triage, or treat the victims at the Brookhollow fire. SCEMS was challenged to find patients. The WFD OM and SCEMS System Medical Protocols do not clearly address whose responsibility it is to determine a patient triage area or initiate a Medical Branch on a fire scene.

A total of four ambulances, each staffed with two paramedics, and an additional District Chief (M1) responded to the Brookhollow incident with District Chief Medic 2 (M2). Due to the lack of access to the Brookhollow Apartments, the first arriving SCEMS units had a difficult time identifying an area to access and stage their vehicles. Ultimately, the Medical Branch Chief (M2), directed incoming ambulances to stage together on Central and bring equipment to the scene. M2, in accordance with SCEMS procedures and per NFPA 1561 *Standard on Emergency Services Incident Management System and Command Safety*, assigned units to triage, treatment, and patient transport. As M2 was notified of additional patients, they requested additional ambulances from SCEC dispatchers, keeping one transport unit ahead of the number of known patients.

Interviews with SCEMS confirmed information gathered from radio traffic that EMS was challenged to find patients when arriving on the scene. The limited vehicular access to the Brookhollow Apartment Complex contributed to this challenge, but not more so than SCEMS not being dispatched to fires unless reports of someone trapped. In discussions with SCEMS, their staffing currently would not support dispatching a paramedic unit on every reported structure fire. However in accordance with NFPA 1710 (Section 5.2.4.3 Apartment Initial Full Alarm Assignment Capability), an initial full alarm assignment for apartment fires should include "...The establishment of an initial medical care component consisting of at least two members capable of providing immediate on-scene emergency medical support, and transport that provides rapid access to civilians or members potentially needing medical treatment...". The current WFD and SCEMS apartment fire full alarm assignment does not meet this requirement.

Medical Command directed all ambulances to transport the four adult burn patients (red and yellow) to closest burn center, Via Christi St. Francis, per SCEMS policy (Hospital Destination Protocol A-5). Additional trauma

patients, regardless of whether they were burned, would have been required to be transported to another Trauma Center. Our team noted that the time when Ms. Bedeski was reported as being removed from her apartment to the time medics transported her was about twenty-five (25) minutes. When asked through interviews what was transpiring in this time window between rescue and transport, SCEMS indicated that originally the patient was being triaged and treated in front of Building 300 but was then moved farther away from the hazardous area to continue treatment prior to transport.

3.3 Sedgwick County EMS Findings and Recommendations		
29. Finding: SCEMS was challenged to find, triage, and treat patients upon arriving on scene because they were not dispatched with the initial reported fire.	Recommendation: Dispatch a paramedic unit on all reported structure fires at apartment and high-rise buildings in accordance with NFPA 1710. Recommendation: Update SCEMS and WFD SOP/SOG's to address responsibility to initiate a patient triage area and establishment of a Medical Branch.	

3.4 WICHITA POLICE DEPARTMENT

3.4.1 Background

The WPD's role in this incident was minimal - having been called to handle a belligerent individual and called to be notified of the fire facility by WFD FIU. Otherwise, their additional involvement was understood to be traffic control.

All WPD administrative and operational actions are governed by policies set forth in the Wichita Police Department Policy Manual. Although WPD was not tasked with primary response to this incident, the following WPD policies were reviewed for potential relevance to this Post-Incident Analysis:

- + Policy 510 Crime Scene Procedure and Death Investigations
- + Policy 701 Calls for Service (Dispatch SOG)
- + Policy 708 Physical Evidence Found and Personal Property
- + Policy 709 Radio Communications
- + Policy 710 Radio Signals and Codes
- + Policy 711 Reporting
- + Policy 716 Body-Worn Cameras

In our analysis of WPD's involvement in this incident, the WPD's actions did not have a material negative impact on the outcome of this incident. However, our analysis did note areas which should be reviewed to improve operational outcomes.

3.4.2 Analysis and Recommendations

According to various sources (Police East Audio, CAD Time Stamp), WPD units 136C and 137C were dispatched to the scene to assist with a belligerent individual. The time of the dispatch request to WPD was approximately seven (7) to eight (8) minutes after the first report of the fire and approximately three (3) minutes after the arrival of the first fire companies on scene. The first WPD unit (132C) arrived on scene within five (5) minutes of receiving the request from dispatch. WPD Unit 203 arrived on scene approximately nine (9) minutes after the first arriving WPD unit. WPD units cleared the scene at approximately 0753 hrs. It is unclear, based on CAD information or radio traffic, what additional assistance was provided by WPD during the incident.

- + Per WPD Policy 701 Calls For Service, Sec. I. A.1, states, "Incoming calls for service are received by Sedgwick County Emergency Communications and may be dispatched to field units or referred to other locations, according to the current the call prioritization system." The policy leaves room for discretion on whether or not WPD field units should be dispatched to respond to a call for service. SCEC protocols currently do not require dispatching WPD assets to a working fire.
- + Sec. 1.A.1.a of Policy 701 offers further guidance by stating, "If Emergency Communications receives a call, which requires a police presence on the scene, officers sufficient in number to handle the call will be dispatched in accordance with Emergency Communications Standard Operating Procedures". For a working fire, it is generally unknown if police presence is required when the initial call comes into dispatch and request for WPD assets are made by on-scene fire personnel.
- + Sec. I.A.1.b of Policy 701 prioritizes calls for service into five (5) tiers. Priority "E" calls are defined as "Emergency calls where a life-threatening situation exists or a serious felony crime is in progress." A fire within a structure with known occupancy certainly constitutes a "life-threatening situation" and would fall into the category of a Priority "E" call. While current SCEC and WPD policies do not require police response to fires, it is reasonable to immediately dispatch police personnel to fires that fall into the Priority "E" category to render any assistance possible.

Since WPD assets actively patrol 24 hours a day and have specific geographic areas of responsibility, they could potentially offer initial size-up and traffic control/scene safety for responding fire personnel and assist in alerting occupants of the structure of the danger. Additionally, not responding to an initial fire call removes the opportunity for WPD to identify potential witnesses or make other critical observations that would greatly assist the investigative process if it were later discovered that site of a fire is actually a crime scene, or as in this case, resulted in the loss of life.

WPD should consider establishing a Law Enforcement Fire Response Policy that provides officers with direction on law enforcement responsibilities at the scene of structure fires. The IACP Model Policy offers excellent guidance on specific ways police personnel can assist responding fire companies in mitigating hazardous situations and communicating potentially life-saving information. Equally important, the policy outlines specific actions police officers should not take when at the scene of a working structure fire. For example, the IACP Model Policy "…discourages officers from entering structure fires for the purposes of rescue or evacuation due to the lack of SCBA and protective clothing, the risks of toxic fumes, flashovers, super-heated air, and unanticipated structural collapse or unknown structural weaknesses."

3.4 Wichita Police Department Findings and Recommendations		
30. Finding: WPD is underutilized relative to assisting WFD on structure fire and possibly other fire department calls for service.	 Recommendation: SCEC, WFD, and WPD should work collaboratively to explore the feasibility of dispatching WPD personnel simultaneously with fire personnel to fires, especially when there is known building occupancy or buildings of a specific occupancy. Recommendation: WPD should consider developing a policy³ on responding to structure fires in conjunction with training on appropriate response to include roles and responsibilities, scene safety, "size-up", communicating critical information, and helping evacuate areas outside of IDLH atmospheres. 	

³ See IACP Model Policy – Law Enforcement Fire Response, <u>www.theiacp.org/sites/default/files/2018-08/FireResponsePolicy.pdf</u>

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Sedgwick County and the City of Wichita commissioned this independent, third-party Post-Incident Analysis of the Brookhollow Apartment Fire to obtain a clear understanding of the Brookhollow Fire incident and how the public safety system contributed, positively or negatively, to the outcome. Additionally, the Post-Incident Analysis was to review policies and procedures of agencies involved and compare them with industry standards and best practices. Through this Post-Incident Analysis, the County and City ultimately is looking to identify strategies for improvement and move forward together providing trust and confidence in the public safety system serving residents.

Through our work, we've identified the significant contributing factors that could have improved outcomes for this incident and for future incidents. Detailed findings and recommendations can be found in Report Section 3.0.

Additionally, we've identified a path forward whereas the public safety system agencies need to put prior differences aside and work together to develop strong working relationships and rebuild trust to better serve Sedgwick County and the City of Wichita.

4.1 UNDERLING CHALLENGES

We identified several longstanding challenges affecting the public safety system.



Trust and Collaboration

Tensions and animosity between the Sedgwick County Emergency Communications and some of the agencies it serves have persisted for years, undermining trust and respect. To foster strong working relationships and better serve both the County and the City, it is crucial to move past previous grievances—whether real or perceived and focus on building a foundation of mutual understanding, trust, and cooperation.



Enhanced Public Safety Systems

Public safety services thrive when collaboration exists between neighboring agencies, driving improvement and innovation. However, in the case of the Wichita Fire and Police, as well as Sedgwick County Emergency Communications and EMS, the lack of nearby comparable advancing agencies fosters complacency. Due to this geographic isolation, agencies must intentionally seek out professional relationships that will contribute to improved service delivery. The public safety system should seek out benchmarking and accreditation as methods to continuously evaluate itself against similar systems.



Fire Department Culture and Accountability

The fire department appears to lack an emphasis on self-reflection and accountability within its culture. By fostering a culture rooted in humility, collaboration, and continuous improvement, the department can enhance its services and strengthen its ability to meet the City's needs effectively.

4.2 INCIDENT FINDINGS

After conducting a comprehensive review of policies, procedures, training records, radio transmissions, and a series of interviews, we found no single point of failure from any of the agencies involved that could be solely attributed to the fatality of Ms. Paoly Bedeski.

Instead, we did identify a number of systemic shortcomings that, when combined, contributed to an unorganized rescue effort. Had these significant shortcomings not occurred, it would have provided Ms. Bedeski with a better chance of early rescue and subsequent increased potential for survival. The last known time Ms. Bedeski was alive was when she stopped speaking on the 911 call, which was prior to the Wichita Fire Department being dispatched. Her call disconnected prior to the Wichita Fire Department arriving on scene.

Therefore, Jensen Hughes cannot conclude that the shortcomings identified would have absolutely changed the ultimate fatal outcome of the incident.

Sedgwick County Emergency Communications

The Sedgwick County Emergency Communications call taker/dispatcher dispatched fire units to the incident quickly and within the timeframe for industry standards.

Despite the public narrative, we believe that the Sedgwick County Emergency Communications call taker/dispatcher could not understand what Ms. Bedeski was saying when she stated her apartment unit number. However, the dispatcher did not use the instant recall feature to replay the audio. This may have allowed him to better understand her and relay the information to the Wichita Fire Department. There was also significant delay by Sedgwick County Emergency Communications in dispatching the requested second alarm. This was due to several dispatchers and a supervisor on duty that morning not recalling how to have the CAD system recommended additional fire units.

Sedgwick County Emergency Communications dispatch technology is top-tier, but there is room for improvement. Specifically, the use of dual headsets should be phased out as this can hinder the ability of a call taker/dispatcher to understand and prioritize communications. Additionally, more accurate location data via WPH2 should be available from local carriers, which only requires coordination with them to have access to that on the existing CAD technology. RapidSOS is provided as another location technology but needs to be more visible on dispatchers' monitors.

However, overreliance on technology can lead to unintended consequences. Regular training should include not only the effective use of available technology but also proficiency in manual dispatching to ensure preparedness in all scenarios.

Wichita Fire Department



We found the fire department's decisions associated with the initial fire attack, an uncoordinated search and rescue effort, ineffective command and control, in addition to the partial collapse of the stairway and subsequent Mayday delayed search and rescue efforts.

The fire department responded quickly and with sufficient staffing for fires at garden-style apartment buildings according to industry standards. Using a fast attack and rescue mode of operation was appropriate, allowing for a quick attack on the fire while searching for residents. This choice, along with attacking the fire from the stairway enclosure, put the first fire crews in a dangerous situation later when the engine ran out of tank water and the roof of the stairway collapsed.

The overall search and rescue operation was uncoordinated. A quick search of the second and third floors was either not prioritized or was delayed due to the stairway roof collapse and subsequent Mayday. Fire companies searched for occupants in other buildings before completing primary searches of Building 300. By fire

department accounts the Mayday was, thankfully, resolved quickly with no firefighter injuries. However, incident command did not resume the search and rescue operation for a significant time after the Mayday was resolved.

Incident command did not establish, implement, and effectively communicate strategies and tactics during the incident. Incident command allowed some fire companies to freelance (i.e., do their own thing) without reporting for assignments, causing confusion. This contributed to an uncoordinated search and rescue effort and distracted from incident priorities when the Mayday was declared. Additional incident command training, as well as multi-company training that includes search and rescue with Mayday drills, is warranted.

The fire origin and cause investigation documentation provided by the FIU was critically insufficient. The FIU indicates they have more documentation on the incident, but they could not share it due to the ongoing status of their investigation. Our ability to reconstruct the overall fire scene and analyze the fire development, fire behavior, and actions of the fire department and civilians was hampered. The fire scene exam documentation (photographs and lack of a scene diagram), interviews, and overall investigation approach did not appear to follow the scientific method or NFPA 921, which is the industry guideline on conducting origin and cause investigations. We believe certification and training, at the national level, beyond minimum state and local requirements is necessary.

Sedgwick County EMS



Sedgwick County EMS is not initially dispatched to structure fires unless a person is reported as trapped. This decision can delay the delivery of essential emergency medical care by complicating the identification, triage, and treatment of patients upon arrival. In accordance with NFPA 1710, an EMS transport unit should be automatically dispatched to all apartment fires. We recommend

implementing this requirement to enable EMS to quickly assess and treat patients, while also enhancing the fire department's ability to efficiently carry out fireground operations.

Wichita Police Department



The police department had limited involvement in this incident. However, with proper training and coordination, it's not uncommon for police officers to support occupant notification and evacuations in areas that are not immediately involved with fire, thus freeing up fire department resources to focus on immediate fireground priorities.

Other Factors

We found that significant factors outside the control of any of the agencies involved contributed to the fatal outcome of the incident. These factors include:

- + Past evidence of building residents inappropriately discarding smoking materials on and around Building 300's exit stairway.
- + Exit stairway combustible construction and geometry.
- + Wind conditions the morning of the fire.
- + Evidence found on Ms. Bedeski's social media in the weeks leading up to the fire indicated that a smoke alarm in her apartment had a low battery. It is unknown if the detector was working properly at the time of the incident.

- + In reviewing the available fire scene photographs provided by the Wichita Fire Department, patterns of fire impingement on the exterior doors and subsequent heat/smoke damage to the interior walls suggest the exterior door of Unit 306 may have been open during a portion of the incident while other apartment unit doors remained closed.
- + Ms. Bedeski's decision to retreat to her (windowless) bathroom, for unknown reasons, is a contributing factor that resulted in her fatality. Despite the fire exposure to the adjacent apartment, Unit 305, being more severe, those residents survived by going to the front bedroom and jumping from the window prior to the arrival of the Wichita Fire Department.

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Appendix A – Timelines

Where times of day or times of events are noted in this report, they are done so attempting to align timestamps on 911 calls with audio on six radio channels and CAD timestamps, starting with the victims call to 911. All times in this report should be considered approximations. The events are paraphrased summaries of dispatch recordings as heard by Jensen Hughes. They are not verbatim transcriptions and not all communication in the recordings is included.

Table 6: Overall key events timeline.

Approximate Time of Day (AM)	Time from First Call (HH:MM:SS)	Time from Fire Department On Scene (HH:MM:SS)	Event
3:58:16	0:00:00	-	Ms. Paoly Bedeski calls 911 and indicates she is at the Brookhollow Apartments, Unit 306, and her apartment is on fire. She requests help.
3:59:04	0:00:48	-	48 seconds after first speaking with the call taker/dispatcher, Ms. Bedeski has no more voice contact, but the phone line remains open.
3:59:24	0:01:08	-	Fire units dispatched for a fire at 8165 E Central, Brookhollow Apartments - E15, E14, E9, E18, Rehab7, TK5, TK3, SQ14, SQ15, RQ1, MA1, B3, B2, B1.
4:00:01	0:01:45	-	EMS Dispatcher (still on the line with Ms. Bedeski) notifies medic units on EMS Ops radio that WFD responding to a fire.
4:00:21	0:02:05	-	1st fire apparatus reports Enroute (SQ14).
4:00:21	0:02:05	-	M2 notified of fire on MCT and acknowledged on MCT.
4:00:41	0:02:25	-	Unit 304 calls 911 and reports fire.
4:00:49	0:02:33		E14 Enroute.
4:00:53	0:02:37	-	E15 Enroute.
4:01:20	0:03:04	-	The last button press on Ms. Bedeski phone is heard approximately 184 seconds after first speaking with dispatcher.
4:02:01	0:03:45	-	Approximate time when Unit 304 occupants self- evacuate through window.

Approximate Time of Day (AM)	Time from First Call (HH:MM:SS)	Time from Fire Department On Scene (HH:MM:SS)	Event
4:02:04	0:03:48	-	SQ15 asks "which apartment number" and fire dispatch reports "possible 304".
4:02:37	0:04:21	-	E15 while in-route reports "heavy fire showing off Rock Road, make this a 2nd alarm".
4:02:40	0:04:24	-	The call from Ms. Bedeski disconnects from the dispatcher.
4:02:58	0:04:42	0:00:00	E15 ONS; requests 2nd alarm.
4:03:07	0:04:51	0:00:09	SQ15 ONS with size up an announces "Fire Attack".
4:04:38	0:06:22	0:01:40	TK3 ONS.
4:05:21	0:07:05	0:02:23	B3 ONS - takes command.
4:06:00	0:07:44	0:03:02	Friend of Unit 302 resident calls on his behalf- he is not able to self-evacuate.
4:06:05	0:07:49	0:03:07	Police dispatched to scene (136C and 137C) to go to assist the FD with belligerent individual.
4:07:39	0:09:23	0:04:41	Fire Ops Dispatcher "All units be advised, there's a man trapped in apartment 302, man trapped in 302".
4:07:44	0:09:28	0:04:46	M2 reports responding and asks for two more ambulances.
4:08:08	0:09:52	0:05:10	E15 reports about out of tank water.
4:08:14	0:09:58	0:05:16	EMS Call Type Changed from APT (apartment fire) to APTT (apartment fire, person trapped).
4:08:59	0:10:43	0:06:01	M22 and M34 dispatched.
4:10:25	0:12:09	0:07:27	Mayday - stairs collapsed.
4:10:38	0:12:22	0:07:40	Command going Defensive mode.
4:10:55	0:12:39	0:07:57	Report that Search evacuating one from bottom floor.
4:10:54	0:12:38	0:07:56	First Police ONS (132C).
4:11:04	0:12:48	0:08:06	Approximate time water supply established.

Approximate Time of Day (AM)	Time from First Call (HH:MM:SS)	Time from Fire Department On Scene (HH:MM:SS)	Event
4:13:04	0:14:48	0:10:06	PAR Requested by Command.
4:13:20	0:15:04	0:10:22	E14 reports they have two yellow patients.
4:13:25	0:15:09	0:10:27	M2 asks for a third ambulance.
4:13:35	0:15:19	0:10:37	Command asks for two EMS units and a supervisor.
4:14:50	0:16:34	0:11:52	M32 self-dispatches in place of M27.
4:16:48	0:18:32	0:13:50	PAR Completed
4:18:16	0:20:00	0:15:18	M2 (EMS Medical Branch) reports themselves and another medic (M34) ONS and two more coming.
4:18:59	0:20:43	0:16:01	M22 ONS.
4:20:00	0:21:44	0:17:02	Second Alarm dispatched - B4, E5, SQ5, TK2.
4:20:16	0:22:00	0:17:18	Alert Tones, then Second Alarm - B4, E5, SQ5, TK2.
4:20:19	0:22:03	0:17:21	Police Unit 203 ONS.
4:20:30	0:22:14	0:17:32	M32 ONS.
4:21:18	0:23:02	0:18:20	Search group up to 3rd floor (not able to search before stair collapse).
4:23:31	0:25:15	0:20:33	Fire Investigator Enroute (F171, F175).
4:23:59	0:25:43	0:21:01	Command is told (after asking) that persons trapped calls came from Units 304 and 302.
4:24:55	0:26:39	0:21:57	M1 Enroute.
4:24:49	0:26:33	0:21:51	Victim reported found in Unit 306.
4:26:14	0:27:58	0:23:16	Ms. Bedeski is removed from Unit 306.
4:29:56	0:31:40	0:26:58	M2 (Medical Branch) asks for fourth ambulance.
4:30:25	0:32:09	0:27:27	M1 ONS.
4:30:14	0:31:58	0:27:16	M27 dispatched.
4:32:19	0:34:03	0:29:21	M22 is with Pt. Unit 306.
4:33:27	0:35:11	0:30:29	M27 ONS.

Approximate Time of Day (AM)	Time from First Call (HH:MM:SS)	Time from Fire Department On Scene (HH:MM:SS)	Event
4:34:17	0:36:01	0:31:19	M32 Transporting to St. Francis Hospital with Pt. Unit 303.
4:36:49	0:38:33	0:33:51	Fire Investigator ONS (F171, F175).
4:37:00	0:38:44	0:34:02	Building is reported as still having power
4:38:58	0:40:42	0:36:00	TK2 is setup on the delta (south side) of the complex.
4:42:45	0:44:29	0:39:47	M32 at St. Francis Hospital.
4:54:29	0:56:13	0:51:31	M22 transporting Unit 306 patient (Ms. Bedeski).
4:58:03	0:59:47	0:55:05	M27 Transporting to St. Francis Hospital with Pt. Unit 305.
4:58:57	1:00:41	0:55:59	Search group reports 301 through 306 secondary clear.
5:02:28	1:04:12	0:59:30	Command requests any companies not working to report to rehab on D side.
5:02:58	1:04:42	1:00:00	Hand lines reported in Units 305 and 306 putting out hotspots.
5:04:23	1:06:07	1:01:25	Interior asked if fire as under control by command; interior says it's under control.
5:04:51	1:06:35	1:01:53	M22 at St. Francis Hospital.
5:07:34	1:09:18	1:04:36	M27 at St. Francis Hospital.
7:53:12	3:54:56	3:50:14	Police closed call (136C last on scene).
10:10:17	6:12:01	6:07:19	Fire Investigator cleared call (F171, F175).
11:05:39	7:07:23	7:02:41	E15, last fire apparatus, left scene.

Table 7: Select radio traffic associated with water supply and fire attack.

Approximate Time of Day (AM)	Water Supply and Fire Attack Radio Traffic with Narrative
4:02:58	E15 ONS; heavy fire showing; make this a 2nd alarm (This is 2nd request for a second alarm, but Dispatch does not monitor TAC)
4:03:07	SQ15 ONS; heavy fire showing from 2nd story of a 2-story apt; SQ15 to Fire Attack (First Handline: 2 ½-inch in service from tank)
4:04:49	E9 (2 nd engine to arrive) E9 on scene . According to the E9 Incident Report, they were staged by a hydrant, presumably on Central Ave.
4:05:02	E14 (3 rd engine to arrive) E14 on scene, we are going to be laying in; we are going to need someone to hump it from the hydrant.
4:05:18	E9, I'll take the hydrant
4:05:45	Unknown – B3 is that you up there by that fence? Do we have direct access can we lay in can we go through there? Or do we need to go to the East (unintelligible)?
4:06:08	Command, SQ14 we are pulling a second line with Station 15 (Second Handline: 1 ³ / ₄ -inch in service from the tank)
4:06:26	Command directs E18 pull a 3rd line (Third Handline: 2 ¹ / ₂ -inch in service from tank)
4:07:02	E14 going to reverse out now we have another hydrant to the east; hand jacking it; reversing now
4:07:12	Command – Okay, so I've got E14 on water, reversing out, to pump to E15 is that 10- 4? (No reply)
4:07:44	Command directs E9 away from water supply and to E9 from command get with TK3(unintelligible)TK3 search group Captain E9 confirms at 04:08:02
4:08:08	E15 driver to Command we're about out of water (booster tank water)
4:08:15	Command – 10-4, Fire Attack from Command, we're almost out of water. How we comin' E14 on that water supply?
4:08:33	E14 – The 4-inch is about to E15 it is not hooked up yet
4:10:03	E14 – Turning the water
4:10:25 Mayday Oc	curs
4:11:04	Unknown – Send the Water
4:11:27 Estimated ti	me that water supply established
4:12:27	Unknown – Water supply was established about a minute ago

Table 8: Select radio traffic associated with search and rescue.

Approximate Time of Day (AM)	Search and Rescue Radio Traffic with Narrative	
4:04:33	TK3 ONS; (2 FFs) will go interior for search; (FF) will be out	
4:06:38	TK5 ONS setting up on the Bravo side	
4:07:27	Command – TK3 I heard you went 2 and 2 (unintelligible)	
4:07:44	Command – E9 from Command get with TK3 (unintelligible) TK3 search group Captain	
4:08:02	E9 – 10-4. E9 under TK3 of search	
4:08:48	Command from Search. Command: Go Ahead. Search: 201, 2, 3, and 4 are all clear; they are adjacent to the fire they just knocked down then unintelligible. Command replies and verifies units 201, 202, 203, and 204. Search confirms, and Command replies Copy	
4:08:48	Command: B2 Safety. Go ahead Search	
4:09:00	Unknown – Command from Search	
4:09:03	Command – Go ahead Search	
4:09:05	Unknown – 201, 2, 3, and 4 all clear, adjacent to the fire that they just knocked down, we are going to the fire side	
4:09:18	Command – That was 201, 202, 203, 204, is that 10-4	
4:09:22	Unknown – Yep	
4:09:27	Command – Copy	
4:09:35	RQ2 – Command from RQ2 is here with TK3	
4:09:40	Command – 10-4 RQ2 I will put you under TK3	
4:09:50	TK3 – Command TK3 OV	
4:09:55	Command – Stand by OV, RQ2 I want you to get ready to do secondary	
4:10:09	TK5 – Command from TK5 these apartments are piggybacked we got a whole set of apartments on the Charlie side have not been searched yet	
4:10:22	Command – 10-4 on that TK5(unintelligible)	
NOTE: Mayday is Called (4:10:22)		
4:10:55	Unknown – (unintelligible)from Search we are evacuating one from the bottom floor, right under the collapse	
4:13:04	Command to all units, I want all units out of the structure, we are going to do a PAR	
4:13:14	Unknown – Command from E14, Go 14, We have two (2) yellow patients here, 10-4	
4:15:31	Command – 10-4, E9 are you PAR?	
4:15:34	E9 – 10-4 E9 is PAR, and we got a primary search on your piggybacking apartment	
4:15:44	Command – Understand primary done on the backside	
4:16:48	PAR Completed	
4:16:58	TK5 – Chief, we are still here on the charlie side. All three sets of buildings connect on the charlie side; we are still getting multiple people out of the top floors, we could use a couple more crews	

Approximate Time of Day (AM)	Search and Rescue Radio Traffic with Narrative
4:17:14	Command directs E18 to assist TK5 with Charlie Side. E18 calls TK5 to confirm they are on the back, and TK 5 confirms.
4:18:18	TK3 – Command from TK3 just an update on the search prior to the Mayday we called the bottom two of the tower of six of them were searched but first we got one person out of bottom right; and then on both sides of the apartment have all been cleared, all six
4:21:18	Command from B1 (Search Group) – I've got RQ1, RQ2, E4 they are going to check 3rd floor where Mayday was; that we did not get searched
4:24:49	RQ2 – Command RQ2 Search we got a victim; we are coming out the 2nd floor Alpha side, second floor Alpha side; please help with ladder
4:25:01	Command – 2nd floor alpha side, I am copying you are bringing out a victim. B1 can you give them some help?
4:25:22	Command asks Medical Branch – Are you 10-4 on that traffic? They are bringing a victim out from the second floor on the alpha side, which is the Central side. Bringing a victim out.
4:25:30	Medical Command – 10-4, I've got a fourth ambulance started this way as well as another supervisor, information only
4:26:00	Command to B1 – Apts 302 and 304 earlier Ops said people were reported trapped; I'm guessing 304 is where the victims come out? B1, Yeah, I'm not sure of numbers
4:26:55	Command last unit repeat Yeah, I was letting you know that 6 would be the top right
4:27:14	Command did not copy, response indicated that was just letting you know the victim came out of 306. Report that the victim was in Unit 306 Command replied, I got you, victim was in 306
4:27:28	Command RQ2 we got a primary on this involved unit 306, we are exiting the structure
4:28:24	Command: E5 can you get me a primary on 302 and 304
4:28:54	B1 – Chief those numbers you are asking about 304, 305 those are the apartment numbers that I've got RQ1, RQ2, E4, and TK3 searching.
4:29:18	Command – B1 Command I was getting 304 and 306 were reported, 304, 302 excuse me as where people were supposed to be, 304, 302
4:29:31	B1 – 302 is the ground floor and it has been cleared
4:29:40	B1 – They brought the one victim out of 302 early on
4:35:58	196 to B1 are we clear on that apartment?
4:36:04	B1 that's 10-4, 303 Primary all-clear
4:36:20	B1 – Apartments 302, 304, 306 are all clear . You got victims out of 302, 306. Apartments 301, 303, 305 are all clear .
4:36:45	Command – That's a secondary on all or primary?
4:43:24	E5 – Getting you a secondary in 302 and 301, we got secondary all clear. We got primary all clear on the apartment right below the fire apartment.
4:57:48	Search group reports 401 through 406 secondary clear

Approximate Time of Day (AM)	Search and Rescue Radio Traffic with Narrative
4:58:28	RQ1 reports 305 secondary clear
4:58:57	Search group reports 301 through 306 secondary clear
4:59:28	Search group reports 201 through 206 secondary clear

Table 9: Select radio traffic associated with incident command and control.

Approximate Time of Day (AM)	Command and Control Radio Traffic with Narrative	
4:05:21	B3 has Central Command	
4:05:45	Unknown – Asks B3 if they can access a hydrant B3 replies that there is no access for supply through the fence by him	
4:06:17	Command – SQ14, what was your traffic, pulling a second line with who?	
4:06:26	Command – E18 pull a 3rd line	
4:06:44	Command – TK5 we've got a pretty good vent going through the roof but assess ventilation needs	
4:07:12	Command – Ok so I got E14 on water reversing out to pump to E15, is that 10-4? (NO REPLY)	
4:07:27	Command – TK3 I heard you went 2 and 2(unintelligible)	
4:08:15	Command – 10-4, Fire Attack from Command, we're almost out of water. How we comin' E14 on that water supply? - E14 replies the 4-inch is just about to E15	
4:08:38	Command to E14: 10-4, advise when you're ready	
4:08:48	Command assigns B2 (just arrived) as Safety	
4:09:05	Command from Search. Command: Go Ahead. Search: 201, 2, 3, and 4 are all clear; they are adjacent to the fire they just knocked down then unintelligible. Command replies to verify units 201, 202, 203, and 204. Search group confirms, and Command replies Copy	
4:09:55	Command to RQ2: I want you to get ready to do secondary	
4:10:09	TK5 – Command from TK5 these apartments are piggybacked we got a whole set of apartments on the Charlie side have not been searched yet Command replied 10-4	
NOTE: Mayday Occurs		
4:10:25	Unknown – MAYDAY, MAYDAY, MAYDAY, we've had a collapse	
4:10:33	SQ14 – Command from Fire Attack SQ14 we've had stairs collapse from the exterior	
4:10:38	Command – Copy that, all crews exit the structure, we're going defensive, all crews exit the structure	
4:10:48	E18 to, I'm going to take over this Mayday	
4:10:55	Unknown – Search (Group) evacuating one from the bottom floor; unintelligible	

Approximate Time of Day (AM)	Command and Control Radio Traffic with Narrative	
4:11:04	Unknown – Send the Water	
4:11:20	Command – B1 you gonna be RIT Group Leader; RQ2 changing you to RIT, you're gonna be RIT Crew	
4:11:46	Command to RQ1, RQ2 assigned RIT (RIC), B1 is RIT Group Leader, are you Code 4 on that?	
4:12:47	Command to Fire Attack/E15 What is the status of our Mayday - Capt ? Is out, ? is coming out right now; reported PAR with 3?	
4:13:04	Command to all units, I want all units out of the structure, we are going to do a PAR	
4:13:35	Command asks for two EMS units and a supervisor	
4:16:48	PAR Completed	
4:24:49	Command from RQ2 Search reports a victim; coming out 2nd floor Alpha side; need help with ladder. Command confirms and notifies Medical Sup, who responds and states there is 4 th ambulance in route.	
4:26:00	Command to B1 – Apts 302 and 304 earlier Ops said people were reported trapped; I'm guessing 304 is where the victims come out? B1, Yeah, I'm not sure of numbers	
4:27:14	Command did not copy, response indicated that was just letting you know the victim came out of 306. Report that the victim was in Unit 306 Command replied, I got you, victim was in 306	
4:27:28	Command RQ2 we got a primary on this involved unit 306, we are exiting the structure	
4:28:24	Command requested that E5 complete a primary search on Units 302 and 304	
4:28:54	B1 to Command B1 reports that he already has Units 304 305 being searched by RQ1, RQ2, E4, TK3. Command responds Okay	
4:29:18	Command to B1, Units 304 and 302 is the location where victims were located. B1 responded that 302 is a ground floor and was cleared early on.	
Still missing search confirmation of Units 301, and 303 at this time.		
4:32:35	Command announces that 196 will be interior - E15 Fire Attack coordinate with him	
4:36:20	B1 reports Command – Units 302, 304, 306 are clear. We got victims out of 302 and 306. Apt 301, 303, 305 are all clear. Command states, that's a secondary on all, okay.	

Table 10: Select radio traffic associated with the Mayday.

Approximate Time of Day (AM)	Mayday Radio Traffic with Narrative
4:08:48	B2 arrived on the scene, assigned to Safety Officer (ie. RIT Group Leader per WFD Policy)
4:10:25	Unknown – MAYDAY, MAYDAY, MAYDAY, we've had a collapse
4:10:33	SQ14 – Command from Fire Attack SQ14 we've had stairs collapse from the exterior
4:10:38	Command – Copy that, all crews exit the structure, we're going defensive, all crews exit the structure
4:10:48	E18 to… I'm going to take over this Mayday
4:10:55	Unknown – Search (Group) evacuating one from the bottom floor; unintelligible
4:11:04	Unknown – Send the Water
4:11:06	E18 – Fire attack from E18, what's your location (re: the Mayday)
4:11:20	Command – B1 you gonna be RIT Group Leader; RQ2 changing you to RIT. You're gonna be RIT crew (Note: B1 never called on scene)
4:11:31	Alert tones sent over TAC1, someone on TAC says we're clear and then someone announces TAC 1 Alert, Going Defensive
4:11:46	Command to RQ1, RQ2 assigned RIT (RIC), B1 is RIT Group Leader, are you Code 4 on that? No Reply.
4:12:05	E10 reports ONS
4:12:09	E4 reports ONS
4:12:27	Water supply was established about a minute ago
4:12:43	Fire Attack/E15 from Command What is the status of our Mayday- Capt ? Is out, ? is coming out right now; reported PAR with 3?
4:13:04	Command to all units, I want all units out of the structure, we are going to do a PAR (All units accounted for, and E9 interrupts with a Primary Search of the piggy-back apartments)
4:13:48	Command – Officers to command we are going to do a Maydaycancel that, we are going to do a PAR, SQ15 are you PAR?
-	Command conducts a PAR of all units on the fireground
4:16:48	PAR Completed
4:16:58	Following the PAR, TK5 requested additional support on the Charlie side for rescues. There was no additional radio traffic regarding the Mayday.

Appendix B – Sedgwick/Wichita PSAP History from RFP

In January of 1977 the Board of City Commissioners of the City of Wichita and the Board of County Commissioners of Sedgwick County agreed by joint resolution (5-1977) and ordinance (34-795) to consolidate their Emergency Communications and establish a Wichita-Sedgwick County Emergency Communications Department, and to establish the Wichita-Sedgwick County Emergency Communications Advisory Board for a period of ten years. Advisory Board membership was restricted to specific City of Wichita and Sedgwick County Public Safety officials. The responsibilities of the Emergency Communications Advisory Board, "*shall be* (*responsible*) for determining operational policies and procedures of the Emergency Communications Department and making recommendations on same to the City Manager for implementation." Annually, the Advisory Board, "*shall develop, along with the Director of Emergency Communications, an operation budget and recommend same to the City Manager who will submit it for approval to the Board of County Commissioners and the Board of City Commissioners.*"

The physical location of Emergency Communications was the basement of the Sedgwick County Courthouse to serve, "all County Emergency Communications as well as City Police and Fire." The physical relocation of Emergency Communications, "to the consolidated center will be as soon as practical and financially feasible." "The administrative responsibilities of the operation and employment of consolidated operating personnel of the Department of Emergency Communications is assigned to the City Manager of the City of Wichita." The cost was split between the City Commission and the County Commission 73% - 27% respectively.

In May of 1987 the City Council of the City of Wichita and the Board of County Commissioners agreed by joint resolution (192-1987) and ordinance (39-875) to continue consolidation of their Emergency Communications and continue the Emergency Communications Advisory Board. Advisory Board membership was restricted to specific City of Wichita and Sedgwick County Public Safety officials. The agreement continued on the same general terms as the original 1977 agreement. The Emergency Communications Advisory Board, *"shall be responsible for determining operational policies and procedures of the Emergency Communications Department and making recommendations on the same to the City Manager and the Board of County Commissioners for implementation. Annually, the Advisory Board, <i>"shall develop, along with the Director of Emergency Communications and the City Council." The term of the 1987 agreement was for one year commencing on January 1, 1987, but, "On December 31, 1987, and on each December 31 thereafter, this agreement shall automatically renew for another yearly term unless either the Board of Sedgwick County Commissioners or City Council of the City of Wichita, Kansas, shall terminate the agreement."*

In December of 1993 and January of 1994, the City Council of the City of Wichita and the Board of County Commissioners agreed by joint resolution (228-1993) and ordinance (42-252), "to modify and amend their agreement regarding the joint operation of the communications facilities." The two governing bodies agreed to continue consolidation of their Emergency Communications and continue the Emergency Communications Advisory Board. This joint resolution transferred all management, personnel, equipment and facilities and budget responsibilities and authority to Sedgwick County. "The administrative responsibilities of the operation and employment of consolidated operating personnel of the Department of Emergency Communications is assigned to the County Manager of Sedgwick County." Advisory Board membership was still restricted to specific City of Wichita and Sedgwick County Public Safety officials, but included a new provision so that, "the County and City Managers may each name a representative to this board." Board "Responsibilities General – Budget" was also modified to state the Board, "shall be responsible for determining operational policies and

procedures of the Emergency Communications Department and making recommendations on the same to the Sedgwick County Manager for implementation." And, the Board, "shall develop, along with the Director of Emergency Communications, an operation budget and recommend same to the County Manager who will submit it for approval to the Board of County Commissioners." And, "...all equipment, personal property and real property acquired or purchased for said Department on or after January 1, 1994 will become and remain the sole property of Sedgwick County." The 1994 joint resolution was effective for one year commencing January 1, 1994, but, "On December 31, 1994, and on each December 31 thereafter, this agreement shall automatically renew for another yearly term unless either the Board of Sedgwick County Commissioners or City Council of the City of Wichita, Kansas, shall terminate the agreement."

Since 1994, the consolidated Sedgwick County Emergency Communications Department became the primary Public Safety Answer Point (PSAP) for all Fire, EMS and Police departments in Sedgwick County. The Wichita-Sedgwick County Emergency Communications Advisory Board by-laws were modified to include representation from the City of Derby (designated as a city of the first-class November 2020) Fire and Police departments, and one representative each for "suburban" Law Enforcement and Fire to represent the cities of the second and third class which have Police and/or Fire departments. The Advisory Board's members are the Sedgwick County Sheriff, the Wichita Chief of Police, the Derby Chief of Police, the Sedgwick County Fire District 1 Fire Chief, the Wichita Fire Chief, the Derby Fire Chief, the Sedgwick County Emergency Medical Services Director, the Sedgwick County Emergency Management Director, the County Manager's appointee (Sedgwick County ITS Director), the City of Wichita Manager's appointee (Assistant City Manager), a representative of Suburban Police Departments, and a representative of Suburban Fire Departments.

On December 5, 2023 the Wichita-Sedgwick County Emergency Communications Advisory Board held a special meeting regarding a fatal apartment building fire that occurred in Wichita on October 13, 2023. The Advisory Board voted unanimously to recommend to the Sedgwick County Board of County Commissioners and Wichita City Council that an independent third-party entity or consortium initiate and complete a comprehensive review and analysis of Emergency Communications and Fire Department operations, training, policy, procedures, common practices and actual performance regarding the fatal apartment complex fire incident.

The Sedgwick County Emergency Communications Department is a consolidated, primary Public Safety Answer Point (PSAP) and Radio Shop operation with a staffing table of 108 full time equivalent employees serving people in the unincorporated areas and in twenty-one cities with 31 Police, Fire, and EMS departments in Sedgwick County.

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On April 18, 2023, Sedgwick County Emergency Communications "went live" with a new computer-aided dispatching (CAD) software solution, replacing the previous Northrup Grumman CAD software which had been in service since April 22, 2008. Between April 2, 2023 and August 14, 2023, Emergency Communications operated from its back-up location in the Wichita-Sedgwick County Law Enforcement Training Center on the Wichita State University Campus while the Emergency Communications call center underwent demolition, expansion and a full remodel.

The CAD replacement process began in 2018 when Emergency Communications issued a Request for Information (RFI) seeking information on CAD, Records Management and Jail Management solutions, after soliciting input from the membership of the 911 Advisory Board. Sedgwick County Commissioners voiced funding support of \$3 million across fiscal years 2019 through 2021 to facilitate CAD acquisition and implementation, and support of an estimated \$2 million over the same time period in support of the Sheriff's

effort to implement an RMS - JMS solution in concert with the CAD project. The Request for Proposals launched May 8, 2019, with representatives from Law Enforcement, EMS, Fire, Emergency Communications, and the Division of Information Technology being invited to participate in the demonstrations, product evaluations, and selection process. An RFP review committee comprised of Elora Forshee, Deidra Messenger, Ron Zane, and Nathan Johnson - Emergency Communications; David Mattingly, Keith Allen, Bonny Patrick, James Convey, Kelli Wint, Kimberly Kleinsorge, Lanon Thompson, and LaShelle O'Neal -Sheriff's Office; Lane Pearman - Wichita Fire Department (WFD); Teddy Wisely -Wichita Police Department (WPD); Kevin Lanterman - Emergency Medical Services (EMS); Zach Buckingham - Division of Information Technology (DIT); and Josh Lauber - Purchasing reviewed and scored all responses based on criteria set forth in the RFP.

Tyler Technologies, Inc. was unanimously recommended for award. The selection committee's recommendation was approved by the Board of County Commissioners on April 22, 2020.

Appendix C – Additional Considerations

C.1 PUBLIC SAFETY SYSTEM

Through our review of documents and interviews with all parties, we were provided with additional information that was not directly related to the Brookhollow incident. However, we found these are other areas that should be considered for additional study, uncovered as part of this overall analysis.

- + Public safety services thrive when collaboration exists between neighboring agencies, driving improvement and innovation. However, in the case of the Wichita Fire and Police as well as Sedgwick County Emergency Communications and EMS, the lack of nearby comparable advancing agencies fosters complacency. Due to this geographic isolation, agencies must intentionally seek out professional relationships that will contribute to improved service delivery. The public safety system should seek out benchmarking and accreditation as methods to continuously evaluate itself against similar systems.
- Interviews with agencies being served by SCEC revealed that the relationship between most of them and SCEC is not bad but could be improved. Predating this incident, there have been years of tension and animosity leading to a lack of trust and respect between SCEC and some of the agencies they serve.

Currently, the lack of consistent, effective communication between the agencies is cited as a reason for this perception. The 911 Advisory Board was cited as having meetings but has not proven to be particularly fruitful. Additionally, agencies cited that there are no formal mechanisms or protocols in place to resolve issues that arise from time to time. In separate discussions with SCEC, they felt that the partner agencies were not actively participating in the Advisory Board or committee meetings.

In review of the current 911 Advisory Board bylaws, the purpose and duties of the board do not appear to support a collaborative effort to provide the highest level of service to the community. We provide the following suggestions for a more detailed study to better connect SCEC with the agencies they serve and have the support SCEC needs from its partner agencies.

- The SCEC needs to work with all stakeholders to collectively identify clear expectations of the 911 Advisory Board. The 911 Advisory Board may need to realign their purpose and duties in the current bylaws to support the needs of the SCEC.
- Jurisdictions with board representation should evaluate their appointments based on the purpose and duties of the board.
- The board should maintain committees or subcommittees to address specific tasks, projects, or functions amongst stakeholders and to work through the ongoing challenges and synchronize SOP/SOG as appropriate. These committees or subcommittees should advise the 911 Board.
- To address day-to-day issues that arise, the SCEC should develop a well-defined tracking system to report and follow up with all associated 911/CAD/Radio/MCT issues. This system will need to have accessibility for the correct leadership from all agencies to monitor and to hold one another accountable.

- + Public Safety Messages SCEC, SCEMS, WFD, and WPD should consider using statements to the press (or on social media) as a platform to highlight at least one safety message to the public from significant incidents. As part of WFD's FIU's charge, "when investigators have determined that a fire has been caused accidentally, they should assist in developing preventative messages to educate the public regarding the potential fire hazards." (FIU Manual Pg. 5). These messages should be coordinated between PIO's (Public Information Officer) of each department and a unified message presented.
- + Dispatchers can be a valuable resource to first responders during critical times during an incident. Currently the SCEC dispatchers are not yet being fully utilized in this role. This appears to be through lack of trust, coordination and training of all parties involved (SCEC, WFD, SCEMS, and WPD). This trust needs to be developed to fully capitalize on this resource.

As it relates specifically to this fire incident, in the future SCEC dispatchers could be trained to support WFD Incident Command by asking timely questions. As one example, dispatch (monitoring TAC) could provide Incident Command with timestamps (for example, every ten (10) minutes) over the Ops radio channel. This communication from dispatch can remind Incident Command to provide an update to dispatch about the status of the incident (i.e. the incident is growing, stable, shrinking). The WFD should consider developing a checklist of items for SCEC dispatchers that Incident Command could be reminded of at regular intervals.

- + Through interviews, we learned that WFD and SCEC had a program where new recruits were provided with an orientation of the other agency and how they operate. We understand that this program has stopped, but SCEC may have this program with WPD and SCEMS. A well-developed and managed program like this can provide appreciation and some understanding of each other's critical role as first responders.
 - SCEMS should consider (re)developing an ongoing 911 Dispatch orientation program for all WFD, SCEMS, and WPD recruits to better understand the operational tempo in an 911 dispatch center as it relates to the joint mission for these agencies.
 - WFD, SCEMS, and WPD should consider (re)develop an ongoing orientation program for all new SCEC call taker/dispatchers. Dispatchers need to have a better understanding of the terminology and equipment they are hearing and dispatching at a high frequency rate.
 - Consider encouraging WFD, WPD, and SCEMS chief officers and line officers to informally visit the SCEC Dispatch Center to casually meet with supervisors and dispatchers. The reciprocal should also be considered where SCEC leadership and supervisors informally visit fire stations to meet with station crews.

We strongly believe that formal meetings and informal gestures will build respect and trust amongst all agencies involved.

+ Despite any perceived efficiency gained by allowing partner agencies (WFD, WPD, SCEMS) to make CAD unit recommendations or mapping changes themselves (i.e. allowing agencies administrative access to portions of the CAD program without SCEC oversite), this can have significant unintended negative consequences, including dispatch "anomalies".

Changes to CAD, like unit recommendations, response boundaries, etc. should be proposed by an agency then reviewed by a committee to consider all impacts to the requested change. Changes should not be

allowed by one single agency. Once agreed by the committee, the change should be implemented by SCEMS and disseminated to the appropriate parties. Critical (time sensitive) changes to CAD could go through an expedited process with signoff at the Director level rather than waiting for a committee meeting. Those critical changes should be communicated at the next committee meeting. A process for requesting and making CAD changes should be defined and followed.

C.2 AGENCY SPECIFIC

C.2.1 Sedgwick County Emergency Communications

- + SCEC should enhance public education/communication on their mission and people behind the Sedgwick County 911 center. Continue with current employee recognition and enhance employee recognition with local media outlets. This will help the public to understand the critical role the dispatch center plays in the overall public safety system.
- + Through interviews with some SCEC staff, there is indication that some call takers and dispatchers are afraid to make mistakes for fear of "excessive" disciplinary action for what they feel is commensurate with the mistake made. In this instance, this punitive culture may be driven from external pressures on leadership and/or limited leadership training on managing discipline. A culture where employees are afraid to make simple mistakes that result in both informal and formal discipline can ultimately lead to poor employee morale, employee dissatisfaction and turnover. Consider providing leadership training for all levels of SCEC managers/leaders to provide them with tools to do appropriate coaching/counseling, resulting in a more energized and valued workforce.
- + A critical WPD concern is the difficulty in accessing CAD data from SCEC, especially as WPD moves forward in its efforts to implement a real-time information center. Dispatch protocols and data sharing policies are owned by the SCEC. WPD has the ability to offer input in these areas, but they often experience frustration over their lack of control over the policies and protocols that directly impact WPD operational capabilities. The feeling persists that sometimes SCEC policy decisions and dispatch protocol decisions are being made by SCEC personnel with little or no law enforcement operational experience or exposure. The SCEC should meet with WPD to discuss this challenge and work out a procedure to engage them in this and other law enforcement initiatives.
- + The SCEC should consider a technical workgroup led by the 911 Technology Coordinator and includes IT staff from Sedgwick County involved with public safety and IT staff from the agencies they serve. The workgroup should be informed by operational staff to provide input on technology requirements and/or desires to better fulfill their mission. The workgroup should meet with technology vendors on a frequent basis to develop a strong relationship.

C.2.2 Wichita Fire Department

+ On numerous occasions and at various levels, from firefighters to chief officers, we observed an "adapt and overcome" mentality. This is not unusual behavior among public safety agencies and that can allow an organization to overcome challenging times or circumstances. However in the case of the WFD, our observation is that this behavior of "we'll just do it ourselves" has siloed them from partner agencies. This behavior negatively impacts the working relationship they have with other agencies and may negatively impact the quality of service that the community receives. The WFD should evaluate their "adapt and overcome" culture and review where it may be blind to deeper systemic issues, may be tolerating unsatisfactory conditions, and how it may affect relationships with partner agencies.

+ During our WFD interviews associated with this incident, members were asked for self-reflection and where they could have improved on their response and actions on this incident to possibly improve the outcome (a civilian fatality and firefighter Mayday). An overwhelming response by firefighters indicated that "there was no room for improvement" to their fireground operations. This response was particularly alarming to the assessment team, especially since WFD's internal policies were not followed on numerous occasions throughout the incident. For anyone who has served in public safety, it is a humbling fact that there is, unfortunately, *always room for improvement*.

All other agency members interviewed were also asked for self-reflection about how they could have performed better the morning of the Brookhollow Apartment fire and every other agency was able to identify areas for improvement with their actions that morning.

- In an "Operational Needs Assessment" dated June 27, 2023, the WFD noted they are sending fire apparatus on frequent medical calls, degrading the response reliability for fire related calls. This is a nationwide challenge as the number of medical calls increase and the number of fire calls decrease. The report recommended adopting a program to "Restructure Medical Response Deployment with a 2-Year Pilot Program for Medical-Only Units" where they would send civilian EMT's with a supervisor to all calls within the highest medical call area for some periods each day (10a-10p each day). The approach, or similar, is being adopted by a number of fire departments as a way to better utilize fire apparatus and fire personnel. It was not clear why this model has not been adopted. Revisit this pilot program and work with SCEMS to make it successful.
- + Redistribution of fire equipment and personnel (fire resources) is necessary to provide adequate coverage during times when there are many calls for service including during thunderstorms/tornados, during special events, holidays, or any period of time when multiple incidents require fire department equipment and personnel. Based on conversations with the WFD, the current methods used by the WFD to redistribute resources is manual, cumbersome, and places significant additional responsibility on a small number of Battalion Chief's. We recommend investigation with SCEC Dispatch and their CAD vendors to determine a solution that can more efficiently notify WFD in real time that resources may require redistribution and assist dispatch with unit recommendations for redistribution.
- + Following such an incident that included a civilian fatality, numerous civilian injuries, and a firefighter Mayday, a comprehensive After-Action Review involving all partner agencies should be conducted to identify lessons learned and discuss opportunities for improvement. This exercise shall include a policy review and revisions if warranted. We recommend that all rescues be reported to the Firefighter Rescue Survey. <u>https://www.firefighterrescuesurvey.com</u>
- + Various divisions within the Fire Department need to work together in formulating press releases so coordinated and accurate information is released. When dealing with a fire situation, timelines, fire behavior, fire dynamics and analysis should be used to help explain and educate the public as well as members of the department on conditions and outcomes. Additionally, when FIU investigators have determined that a fire

has been caused accidentally, they should assist in developing preventative messages to educate the public regarding the potential fire hazards, in accordance with the FIU Manual.

C.2.3 Sedgwick County EMS

+ Work with WFD on a plan for restructuring their "Medical Response Deployment with a 2-Year Pilot Program for Medical-Only Units".

C.2.4 Wichita Police Department

+ As the largest consumer of SCEC resources, WPD should consider consolidating and documenting all concerns with SCEC, WFD and Sedgwick County Fire protocols that negatively impact WPD operations. This document is not intended to be critical, but to aid in de-confliction of operational needs and priorities and help clarify expectations for all parties involved. Clarifying expectations, obstacles, and opportunities should assist in creating greater operational efficiency for all parties who rely on effective public safety communications.

Appendix D – About the Jensen Hughes and the Authors

Firm Overview

YOUR GLOBAL PARTNER IN LIFE SAFETY, SECURITY + RISK ENGINEERING, CONSULTING AND TECHNOLOGY

Worldwide, we are recognized most widely for our leadership in fire protection engineering, a legacy of responsibility we've advanced with honor and pride since 1939.

Today, our expertise extends broadly across closely related risk management fields — from accessibility consulting, risk and hazard analysis, process safety and forensic investigations to security risk consulting, emergency management and digital innovation.

Our 1,700⁺ engineers, consultants, analysts and strategists provide a range of services across all markets — from government, healthcare, science and technology to energy, mission critical and transportation.

What Sets Us Apart

Our passion for setting and advancing the world's highest standards in engineering, consulting and technology services that make our world safe, secure and resilient is what sets us apart.

For more than 80 years, our experts developed and refined complex safety, security, and resilience solutions that impact the lives of millions worldwide. These solutions help to ensure safe workplaces, secure facilities and resilient infrastructure, not just for today but for generations.

At Jensen Hughes, we lead with our Purpose + Principles and value our people. We believe that creating and sustaining a culture of trust, integrity and professional growth fundamentally includes a sustained and unwavering commitment to Diversity, Equity and Inclusion (DEI).

As we champion best practices, set industry standards and support communities with innovative solutions, we are making the world a better place.

30⁺ combined firms, 80⁺ years of innovation

- + 330⁺ NFPA Committee Positions Held
- + ENR Top 500 Design Firms
- + ENR Top 100 Pure Designers
- + ENR Top 40 Designers in International Markets

Our Expertise

- + FIRE AND BUILDING SAFETY
- + RISK AND HAZARDS
- + EMERGENCY MANAGEMENT
- + SECURITY RISK CONSULTING
- + FORENSICS

Our Global Reach



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JOHN MAMMOSER PE, CFEI

Senior Director

John is the Sr. Director for the Midwest part of the Jensen Hughes team. John leads a diverse group of engineers and consultants in the Midwest who specialize in fire and building safety, forensics, research and development, and risk-informed services. He is responsible for professional growth, revenue and profit, and orders for his team. His technical expertise includes fire-resistive construction, fire sprinkler and fire alarm retrofit, fire growth, fire, and egress modeling, exit analysis, and smoke control system assessment and commissioning. He also provides code consulting based on the NFPA, ICC, BOCA, UBC, and other model codes.

Before joining the firm, John was with Underwriters Laboratories, Inc. (UL) in the Fire Protection Division. In addition to the standard fire resistance and fire sprinkler testing and certification work, John also managed research and development work in these areas. He was a key member of the UL team which performed fire resistance tests on the floor truss system of the World Trade Center Towers 1 & 2 as part of the NIST Federal Building and Fire Safety Investigation of the World Trade Center Disaster, NIST NCSTAR1-6 and was co-author to the report. He is also a volunteer firefighter in Glen Ellyn, IL, and holds the rank of Lieutenant.

VERNON CHAMPLIN MPA, EFO, FM, MIFireE

Manager + Senior Consultant

Vernon Champlin's (Vern) fire service career spans two decades in various roles in both operational and prevention capacities, ranging from firefighter to chief officer and fire marshal. Vern holds a bachelor's degree in fire protection and safety engineering from Oklahoma State University, a master's in public administration, is credentialed with the Center for Public Safety Excellence, and is a member of the Institute of Fire Engineers. He is also a 2009 graduate of the Executive Fire Officer Program at the U.S. Fire Administration's National Fire Academy.

A committed leader in the emergency services industry, Vern is actively involved in several prominent organizations, including the International Association of Fire Chiefs and the National Association of State Fire Marshals. His experience in emergency response, combined with a strong dedication to enhancing community resilience, drives his approach to implementing industry standards that deliver both practical and impactful solutions. Vern aims to create safer, more secure, and resilient communities. Vern has presented on topics of fire protection, emergency response, and wildland fire at numerous international forums and has been an active technical committee member of the National Fire Protection Association for over a decade. In 2022, he co-authored the Handbook of Cognitive and Autonomous Systems for Fire Resilient Infrastructures.

ERNEST MISEWICZ CFEI, CVFI, CFII, PI

Senior Fire Investigator

Ernest (Ernie) is a Certified Fire and Explosion Investigator (CFEI) based in Alaska. He has broad experience in the public and private sectors conducting fire scene examinations to determine the origin and cause of fires and explosions.

Before joining Jensen Hughes, he worked with several municipal emergency organizations, including the Alaska Fire Marshal's Office and the City of Fairbanks, conducting in-depth fire and arson investigations. In addition, he developed and oversaw the Fire Investigation Task Force in Interior Alaska. Furthermore, Ernie has extensive experience in determining the origin and cause of residential and commercial fires. He has many skills in fire scene processing, documentation, photography, report writing, evidence collection, and maintaining chain of custody, as well as interviewing witnesses.

LEONARD DEONARINE CIT, OHST, CEM, MEMS, ABCP

Senior Director, Security Risk Management

Leonard has extensive experience in the emergency preparedness field, having managed fire and other protection programs for Fortune 200 corporations and other organizations at the executive level. He is specifically adept with hazard analysis, planning, program management, regulatory compliance, business continuity, incident command, curriculum development, and disaster simulation design, planning, and evaluation.

For over a decade, Leonard served as the senior emergency management executive at Tenet Healthcare, a U.S.-based, Fortune 200, publicly traded healthcare corporation, where he oversaw the plans, programs, and incident command responsibilities for 65 hospitals.

ANDREW PARIS PE, CFEI, CVFI

Technical Director, Forensic Electrical Engineering

Andrew (Drew) Paris is a Registered Professional Engineer and Certified Fire and Explosion Investigator with diverse experience in electrical engineering, fire investigation, product design, and failure analysis. He provides litigation support, expert testimony to law firms and insurance companies, and technical support to manufacturers and industrial clients. His investigative casework includes product failure analysis, residential, commercial, and industrial fire and explosion investigations, heavy equipment accidents and failures, personal injuries, electrocution and electric shock investigations, arc-flash analysis, lightning damage, and the examination of water, fire, and/or smoke-damaged electrical equipment.

Mr. Paris has completed over 1,000 failure and fire analysis projects related to residential, commercial, industrial, and utility electrical power systems, as well as to various electrical equipment, including refrigeration and HVAC, household appliances, electronics, batteries, electrical motors, transformers, control equipment, wiring, lighting fixtures/lamps, AC/DC drive systems, and vehicle electrical systems.

EDWARD DENMARK DA

Sr. Consultant, Law Enforcement

With three decades of experience in public safety consulting, Dr. Denmark is a nationally and internationally recognized instructor, trainer, and advisor on numerous public safety and community issues, with a focus on leadership and organizational development. He is one of the few black police chiefs in the history of Massachusetts, having served as the Chief of Police in Harvard, Massachusetts and Sterling, Massachusetts. Dr. Denmark also teaches courses in fair/impartial public safety, procedural justice and de-escalation techniques.

911nurd LLC

BRIAN D. NELSON

Founder and Principal Consultant

Brian is a Public Safety Information Technologist with over 25 years of experience in county and metropolitan 911 environments. As a consultant, he specializes in high-tech solutions to optimize public safety services. He has successfully led a \$1.5 million CAD/RMS/JMS technology upgrade, managing the process from RFP to implementation, impacting 4 PSAPs, 8 metropolitan police departments, 4 career, and 20 volunteer fire departments. As a core committee member part of an E911 to NG911 transition, he played a key role in vendor selection, acquisition, and contract negotiation while also spearheading the migration from analog E911 to a digital NG911 system, enhancing emergency response capabilities for a county of 140,000 citizens.

In response to Illinois state-mandated PSAP consolidations, Brian managed a \$2.5 million project to merge four PSAPs into one. They collaborated with architects, engineers, and contractors to design a state-of-the-art facility that maximized space utilization and technological agility, optimizing public safety dispatching operations. By streamlining vendor support agreements and improving operational procedures, they minimized system failures and enhanced the 911 dispatcher experience, solidifying their reputation as an innovative leader in public safety technology.

SCOTT RYCKEGHEM

Consultant

Scott has over 30 years of 911 communications experience in Rock Island County and is a seasoned professional with a proven track record of leadership, strategic planning, and organizational development. Known for fostering a culture of transparency through open communication, he has successfully aligned operational practices with organizational mission and vision. His expertise includes developing policies, evaluating effective programs, and implementing innovative solutions to address service gaps. He has worked closely with the Boards of Directors to establish long-term goals and represented the organization at meetings, conferences, and public events, securing valuable partnerships.

Scott excels in financial management, including creating and overseeing annual budgets, and has directed all aspects of human resources, from recruitment and onboarding to employee relations and benefits administration. A skilled leader, they have guided teams of professionals, driving organizational growth through strategic initiatives that enhance performance and maximize revenue. His dedication to fostering collaboration, improving operational efficiency, and achieving impactful results has solidified their reputation as a trusted leader in the field of 911 communications.

TERRY MCMASTER

Consultant

Terry McMaster brings over 35 years of fire service experience, including more than three decades at Rock Island Arsenal and over 20 years with his hometown volunteer fire department, where he retired as Fire Chief. Throughout his career, he has obtained extensive fire science training, earning numerous certifications, including the highest-level certifications in the Department of Defense GS 0081 career field. His expertise encompasses fire protection, prevention, emergency medical services, and hazardous material response.

Before entering E911 dispatch consulting, Terry served as the Executive Director for QCOMM 911 and as the Fire Chief for USAG-Rock Island Arsenal, where he oversaw fire department administration, training, and emergency operations. Additionally, he held the role of Director of Emergency Services at Rock Island Arsenal, managing police, guard, and physical security operations. Terry has contributed to regional and state safety initiatives as a voting member of the Illinois Terrorism Task Force and as President of the MABAS 43 executive board, representing Rock Island Arsenal and the Quad Cities area.

End of Report