ROYAL AIR FORCE MILDENHALL

FIRE & EMERGENCY SERVICES

2021 ANNUAL REPORT

RAF MILDENHALL, UNITED KINGDOM

AIRMEN - READINESS - CULTURE

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Message from the Fire Chief

The mission of Royal Air Force Mildenhall Fire & Emergency Services (RAFM F&ES) is to provide the highest level of professional service to the public by protecting lives, property, and the environment. As the islands only accredited fire department, we remain committed to community service through leadership, vision, and integrity by providing quality fire prevention and emergency services, promoting community involvement, providing an emphasis on partnerships for training, education, service delivery, and strategic planning for the installations future emergency service needs. Our vision is a guiding force, and through the dedicated effort of each and every member, uniformed and civilian, we live by our motto, “Our Family, Protecting Your Family.”

We are an "All Risk" department who respond with a solution-oriented team of trained professionals equipped to meet a wide variety of challenges. Our crews are technically proficient in firefighting, emergency medical services, confined space, hazardous materials, rescue, and more. We are organizationally and individually committed to serving the community and because we know that our people are our most valuable asset, we actively mentor and develop our personnel.

Emergency response is only a portion of our service. We do the best for our community when we prevent emergencies from occurring. We endeavor to reduce risk and increase the resiliency of the community through proactive efforts, which include forecasting, planning, mitigation, and response. RAFM F&ES stands ready to respond day or night, with efficient and effective service delivered in a compassionate, respectful, and professional manner.

I am honored to present this year’s annual report, which illustrates our commitment to the citizens of our community. As we look to the future, we aim to exceed your expectations. We will strive to build on our accomplishments and exemplify the honor, pride, and long-standing history of providing quality and caring fire and emergency service.

ROBINSON.DANIEL.A.1180692327

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DANIEL A. ROBINSON, CMSgt, USAF, CFO
Installation Fire Chief

Achievements

- USAFE-AFAFRICA Medium Fire Dept of the Year '21 (Runner Up)
- USAFE-AFAFRICA Fire Prevention Prgm of the Year '21 (Runner Up)
- Mitigated 1.4k gallon foam dump emergency
- Extinguished mutual aid factory fire
- Awarded 1x Training Officer/1x Fire Officer Credentials
- Awarded 1x International Fire Engineer Credential
- Chief's Group Vice President, Wing Top III President, AFSA Division Trustee, AFSA Chapter of the Year, 2x Top III NCO of the Month, 2x 5/6 Mentorship Award, 2x 5/6 Leadership Award
- Amassed 112 college credits/7 AA/2 BA/1 MA degrees
- Headed 3, 3E7X1 working groups

Recognition

Annual Firefighter Awards

- USAFE-AFAFRICA Medium Fire Dept of the Year '21 (Runner Up)
  - RAFM FES
- USAFE-AFAFRICA Fire Prevention Prgm of the Year '21 (Runner Up)
  - RAFM FES
- USAFE-AFAFRICA Civilian Fire Officer of the Year '21
  - Mr. Martin Lash
- USAFE-AFAFRICA Civilian Firefighter of the Year '21 (Runner-Up)
  - Mr. Mark Matless
- USAFE-AFAFRICA Runner-Up Military Firefighter of the Year 2021
  - SrA Joseph Jenkins
- RAFM F&ES Military Fire Officer of the Year 2021
  - TSgt Xavier Clark
- RAFM F&ES Fire Instructor of the Year 2021
  - TSgt Blaine West

Wing Awards

- Team Mildenhall SNCO of the Quarter
  - MSgt Jon Wilson (3rd Quarter)
- Team Mildenhall Honor Guard (4th Quarter
  - A1C Blake Wallace
- 100 ARW Lance P. Sijan Award
  - MSgt Jeremy Gates

Group Awards

- 100 MSG Airman of the Quarter
  - SrA Joseph Jenkins (1st Quarter)
- 100 MSG Civilian Category I of the Quarter
  - Mr. Paul Oaks (2nd Quarter)
- 100 MSG Airman of the Year
  - SrA Joseph Jenkins
- 100 MSG Civilian Category II of the Year
  - Mr. Matthew Thorpe

Squadron Awards

- 100 CES Airman of the Year
  - SrA Joseph Jenkins
- 100 CES Civilian Category I of the Year
  - Mr. Mark Matless
- 100 CES Civilian Category II of the Year
  - Mr. Matthew Thorpe
- 100th CES Volunteer of the Year
  - TSgt Cody Freel
- 100 CES Airman of the Quarter
  - SrA Joseph Jenkins (1st Quarter)
- 100 CES Civilian Category I of the Quarter
  - Mr. Mark Matless (1st Quarter)
- 100 CES Civilian Category II of the Quarter
  - Mr. Daniel Manning (1st Quarter)

Recognition (Cont.)

- 100 CES Civilian Category I of the Quarter)
  - Mr. Paul Oaks (2nd Quarter)
- 100 CES Civilian Category II of the Quarter
  - Mr. Simon Evans (2nd Quarter)
- 100 CES SNCO of the Quarter
  - MSgt Jon Wilson (3rd Quarter)
- 100 CES Civilian Category I of the Quarter
  - Mr. Mark Matless (3rd Quarter)
- 100 CES Civilian Category II of the Quarter
  - Mr. Matthew Thorpe (3rd Quarter)
- 100CES Civilian Category I of the Quarter
  - Mr. Andy Lister (4th Quarter)
- NAACP Roy Wilkins Award
  - TSgt Xavier Clark
- GEEICO Fire Prevention/Safety Award Nominee
  - MSgt Jon Wilson
- Major General Lupia (Amn) Award Nominee
  - SrA Joseph Jenkins
- CE Outstanding CE Manager of the Year
  - Mr. David Bootman (100th ARW)
- CE Outstanding CE Supervisor of the Year
  - Mr. Matthew Thorpe (USAFE-AFAFRICA)
- CE Technician of the Year
  - Mr. Daniel Manning
- NCOA Vanguard Award
  - SSgt Coulter Sheets

Coins

- 3AF/CC Coin f/9-11 Ceremony
  - TSgt Matthew Wright
- USAFE A4/CC Coin
  - Mr. David Ives
- Wing/CC & Wing/CCC Coins
  - MSgt Jeremiah Gates
- Wing/CC & Wing/CCC Coins
  - TSgt Blaine West
- Wing/CC & Wing/CCC Coins
  - TSgt Gabriel Bazell

Other Recognition

- Team Mildenhall Top III NCO of the Month
  - TSgt Matthew Wright
- Team Mildenhall Top III NCO of the Month
  - SSgt Nicholas Metz
- Team Mildenhall 5/6 Mentor Award
  - MSgt Jon Wilson
- Team Mildenhall 5/6 Mentor Award
  - TSgt Cody Freel
- 100 CES Game Ball Winner
  - TSgt Blaine West
- 100 CES Game Ball Winner
  - TSgt Gabriel Bazell

Decorations Presented/Awarded

- TSgt Matthew Wright – AFAM
- TSgt Jacob Interrante – AFAM
- TSgt Derek Hansen - AFAM
- SSgt Coulter Sheets – 2x AFAM
- SrA Joseph Jenkins – AFAM
- Mr. Daniel Manning – AFAM
- Mr. Mark Matless - AFAM

Executive Summary

This report meets the requirements outlined in NFPA Standard 1201, Standard for Providing Emergency Services to the Public, and is submitted to 100th Civil Engineer Squadron Commander annually for review. The RAFM F&ES Flight continued to evolve and improve in 2021. We have consistently maintained delivery of 24-hour emergency response coverage of our core competency requirements as identified in the RAFM F&ES Standard of Cover (SOC) and the USAF Fire Prevention and Consequence Management Concept of Operations (CONOPS) in the face of a national pandemic which has posed staffing challenges, and different population dynamics as base residents oscillate between 'working from home' and 'normal activity'.

Emergency Communications Center Data – Executive Summary

RAF Mildenhall call data for 2021 has been impacted, to a greater or lesser extent by the COVID pandemic, and the consequent (partial & full) lockdowns in Jan – April, and phased return to normality thereafter. Overall calls have increased by 22 (c9%) to 322, and emergency calls have increased from 243 to 265, due in part to a phased return to work, increasing numbers of staff on base, the aging condition of the base fire detection system and frailties of facility elevators (technical rescues increased from 4 to 11). Fitness testing has also been suspended, reducing EMS calls for fitness related injuries. This has kept EMS calls relatively stable.

In 2021, we experienced 24 instances of cooking related fumes calls and 9 events resulting from steam generated by showering. Fire Prevention continues to work diligently on their 'base education communication plan' for all site residents (especially those residing in dormitories) and facility staff, to warn of the hazards associated from cooking within facilities, the practical issue of unattended cooking, or fumes caused by cooking proximate to smoke detectors, as well as warning about creating excessive steam whilst showering. However, it may be beneficial to review the location of smoke detectors, especially within older rooms, which may be adversely effected by steam generated when proximate to shower facilities.

Additionally, we have experienced a high number (53) of 'Unascertained Cause' fire alarm activations. Many of these activations are being attributed to the age of our base infrastructure, in particular, the approaching 'end of life' of heat and smoke detectors, especially those located within Dorm 111. Conversely, ADT, or contracted fire alarm maintenance operatives have replaced 260 detectors this year so far, and further replacements are anticipated moving forward. ADT remain fully and actively engaged in attending such incidents, to troubleshoot or problem-solve activations, with replacement of old or faulty detectors where necessary. With this more intrusive maintenance and testing program now in place, it is anticipated that 'Unascertained Cause' events can be reduced in 2022. Fire Prevention and Fire Department Dispatch Center continue to work diligently to articulate these issues and shortfalls, through regular meetings with contracted staff, in effort to ensure compliance and standards, and to hold support staff to account, in terms of outstanding work orders and future plans. Weekly meetings with maintenance stakeholders from

both fire alarm and suppression systems, allows the Fire Department Dispatch Center to specify issues and areas of concern resulting in more timely interventions and resolutions. We will continue to closely monitor to validate our response metrics and solidify our commitment to reducing inadvertent alarm activations to reduce and/or eliminate the inconvenience to stakeholders, and mission interruption.

Our historical response data from the previous 3-year period remains relatively consistent. As illustrated in the graph below, our peak response times are Monday through Friday between the hours of 0800-1900. This mirrors the Air Force average and the high volume of calls which, can be directly attributed to the times when the majority of the workforce are in their work centers. Because of this, we are able are to provide premium work schedules for our personnel while maintaining Optimum Levels of Service (OLS) during peak response times.

The response information contained in this report provides a detailed account of RAF Mildenhall F&ES Flight accomplishments for 2021. We expect 2022 to be no less demanding on our workforce, as we continue to strive towards improving our fire prevention activities, developing further our operational capabilities, diligently meeting our customer's needs, improving our training methods and regimes, refining and adapting our communication processes, and seeking to achieve our goals and objectives listed in our Strategic Master Plan.

Emergency Communication Center

Our department responded to 322 service calls in 2021, of which 265 were emergencies. In 2021, our baseline performance for alarm handling for all emergency services was 39 seconds. In doing so, the department consistently met the requirements for alarm handling set by DoDI 6055. We also exceed the DoDI 6055 required aggregate response time (ART) of 90%, achieving an ART of 90.6% (25 incidents out of 265 breaching times)

A summary of the annual response data is provided below:
Structural and medical emergencies comprised 80% of our emergency responses (66% of overall incidents)

- December was our busiest month with 40 calls (increased from 24 calls in 2020)
- Wednesday continued to be our busiest day with 69 calls (up from 67 calls in 2020)
- Busiest hours were 1500-1700 (48 calls),1100-1200 (23 calls) & 1800-1900 (22 calls)
- Main call causes were 'no cause apparent' (53) and 'cooking related fumes' (24)

Table 1 through table 5 below illustrates and explains the 2020 response data compilation.

Table 1 - Response by Type

Incident categorization is provided by the use of the Fire Emergency Services-Information Management System (FES-IMS) in conjunction with the National Fire Incident Reporting System (NFIRS) which breaks information into emergency and service call related events.

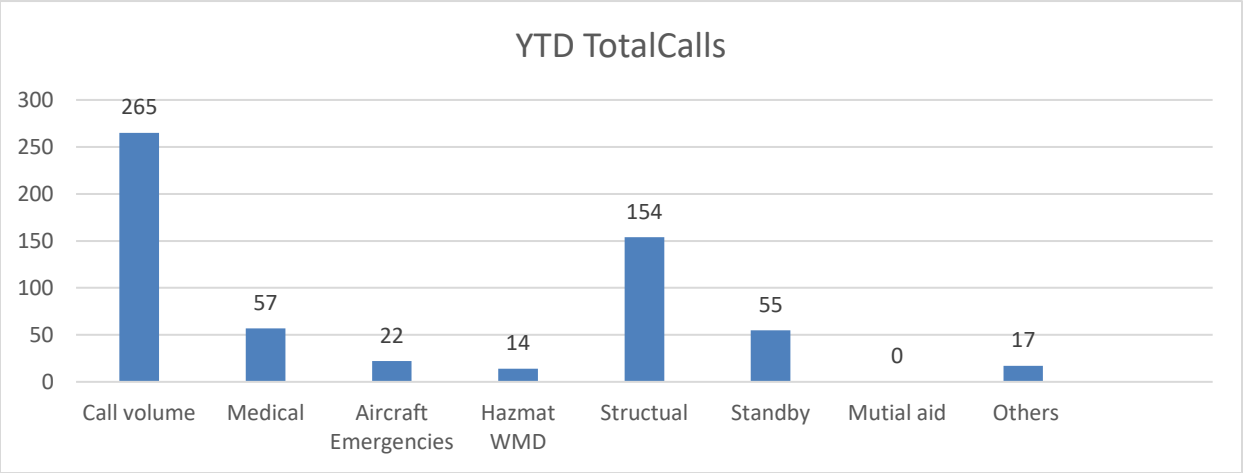


Table 2 - Aggregate Response Time (ART) compliance break-down

This table illustrates the type of responses that exceeded ART requirements, most of which were Structural emergencies.

2a.

Type	Total	Compliant	Non-Compliant	ART Met
Structural	154 (131)	142 (125)	12 (6)	92.2% (95.4)
EMS	57 (63)	47 (61)	11 (2)	81% (96.8)
Crash (Announced)	22 (32)	22 (32)	0 (0)	100% (100)
HAZMAT	14 (11)	13 (11)	1 (0)	92.8% (100)
Technical Rescue	11 (4)	10 (4)	1 (0)	91% (100)
Other	6 (2)	6 (2)	0	100%
Standby	57 (54)	57	0	100%
Mutual Aid	0 (1)	0	0	100%

2b. ART by average times:

All	Structural	EMS	Hazmat	Crash	Other
3.40	5.36	3.41	3.29	3.40	3.36

Table 3 - Responses by Year:

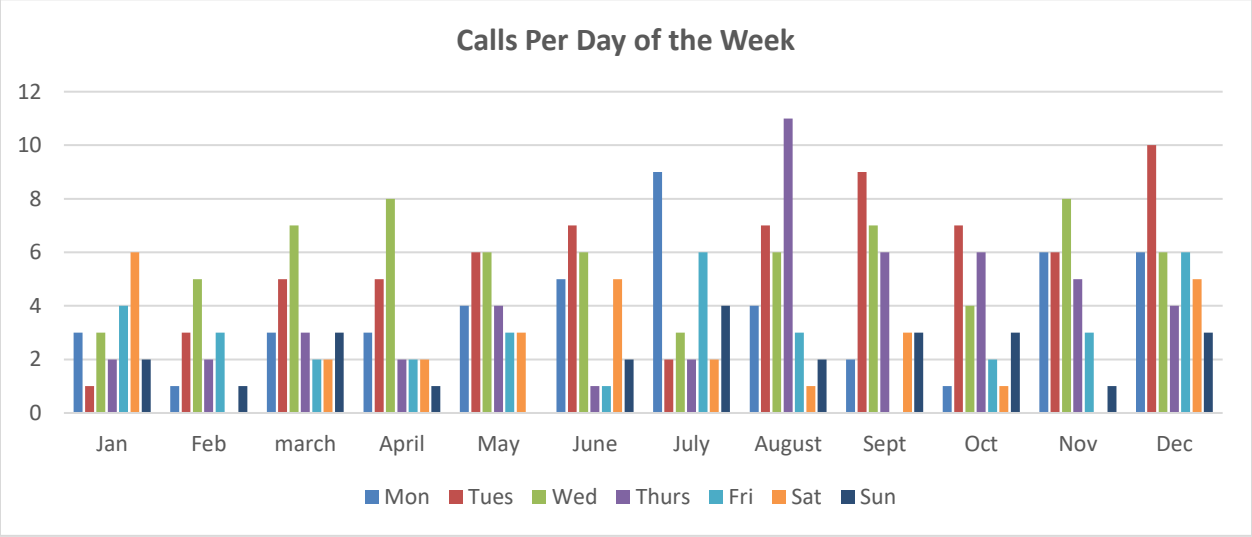
This table quantifies emergency response call volumes over 3 years to illustrate the periodic average and hazard trends. We can attribute a significant portion of the structural emergency response increase to the 'end of life' detector issue mentioned earlier. There is also a continued 'base education' training effort provided by Fire Prevention to counter/address the following:

- Poor cooking practices (which lead to false alarms initiating)
- Improved, more robust and intrusive maintenance and repair programs (involving repair by replacement of alarms, detectors, sensors and panels)
- A better understanding and operation of the Monaco Alarm System

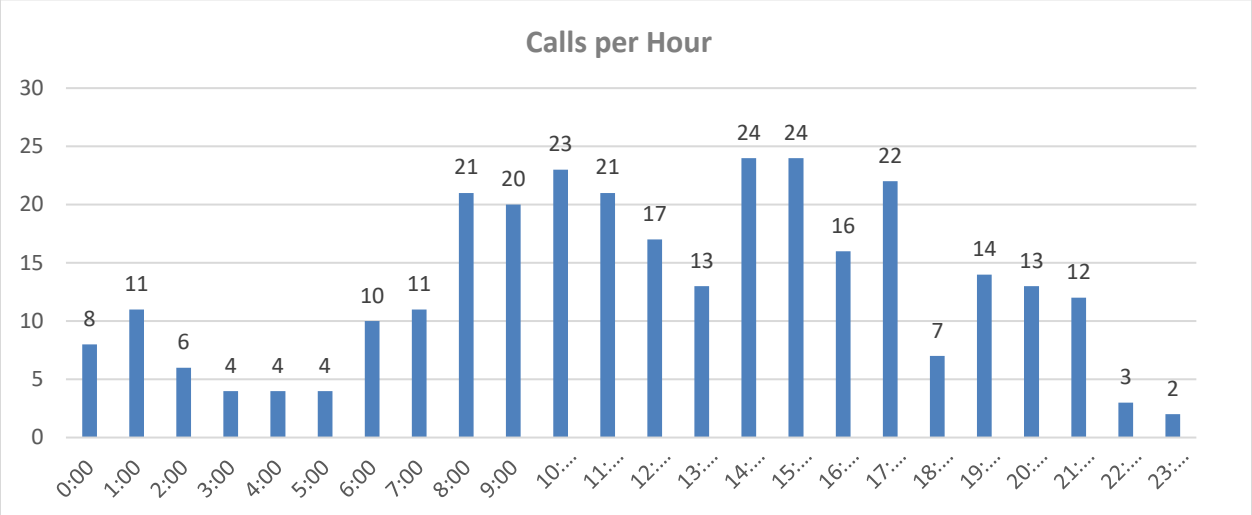
Prior to mid-2015, most trouble signals were tolerated and not reported to fire alarm maintenance for correction. Now, all alarm maintenance issues continue to be immediately reported by Fire Department Dispatch Center and are dealt with in a timely fashion by alarm maintenance (ADT). The EMS calls remain stable, but technical rescue issues have risen, due to aging and fragile elevators.

Type	2019	2020	2021
Structural	156	131	154
EMS	90	63	57
Crash (Announced)	25	32	22
HAZMAT	18	11	14
Standby	59	53	55
Technical Rescue	3	4	15
Other* (from 2020)			6
Mutual Aid Response	0	1	0

Table 4 - Responses by day of week and month of year:



Call distribution by the day of the week indicates a slightly higher distribution of emergency responses on Wednesdays (69), with weekends resulting in the least demand (30 & 25) for emergency services. Days of the week data is examined to determine the identification of patterns that could benefit the department to identify times where peak staffing may be required to achieve OLS. Typical duty hours/days on the installation are from 0730 - 1630, Monday through Friday, with weekends and holidays off except for mission essential functions. (Note: Previous year's data in brackets.)



Days of the week (Previous year in brackets):

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
47 (30)	68 (57)	69 (67)	48 (45)	35 (40)	30 (31)	25 (27)

Months of the year (Previous year in brackets):

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
21 (24)	15 (21)	25 (20)	23 (19)	26 (19)	27 (33)	28 (22)	34 (33)	30 (34)	24 (35)	29 (16)	40 (24)

Table 5 – Emergency Notification:

In 2021, a deliberate approach to monitoring and tracking of incident notifications was continued from the previous year. It highlighted areas where call processing improvements could be achieved and identified the need for the base population to be better educated in the use of the 911 emergency reporting system. Particularly viewing the 57 EMS calls, 33 were by 911 call, and 23 were by admin line or direct SFS report means. Given the fact the Monaco fire alarm system initiated 58% of our call volume, only 6 (3.9%) of those alarms were followed up by a 911 call, and 5 structural emergencies were called direct via 911. Specifically, this issue will be addressed by the Fire Prevention through formalized Facility Manager and Base In-Processing training and communication (instances where no 911 call is received are reported to Fire Prevention for documenting, recording, and future action).

911	Monaco	Monaco/911	SFS	Primary	Admin	Email/etc.
16.1% (10.4)	42.2% (42)	0.019% (0.13)	5% (6.4)	6.5% (10.8)	10.2% (11.4)	18% (18.5)

Fire Department Dispatch Center - Future Challenges & Aspirations:

Looking forward to 2022, and accepting the continuing constraints of the COVID pandemic, these remain optimistic and exciting times for the Fire Department Dispatch Center, and we look forward with renewed drive, hope, and a desire to further enhance the professionalism of our area of responsibility.

We have completed the implementation of the long awaited Monaco D-21 Emergency Management upgrade. This system assists in securing and consolidating our communication links and will widen the hosting network by incorporating the Command Post into the call receipt group, and enhance our close working relationship with RAF Lakenheath Fire and Emergency Services, and Emergency Room. We have also implemented additional modifications and upgrades to the current Monaco D21 system to further modernize Fire Department Dispatch Center processes and practices, in tandem with the Monaco D-21 EM package (above) that assist operators in enabling use of the Monaco D21 system as a CAD 'computer aided dispatch' tool, providing enhanced mapping and an E911 spill capability of the D21 system. These developments seek to further reduce call handling times with automation of information reception and processing by introducing a 'one click' process. This satisfies the accreditation team 'area for improvement' (AFI) which was to better record and independently verify response data collected. Full implementation of the E911 system is projected for February 2022.

Moreover, we have nearly completed the implementation of our evolving alternate Fire Department Dispatch Center by enabling full Monaco fire alarm and emergency management capabilities, bolstering our 'disaster management business continuity' regime. The final key jigsaw pieces will be provision and installation of a primary crash link that allows communication with Tower for in-flight and ground emergencies and an additional E911 answering point. Once this project is complete the alternate Dispatch Center will be fully functional. This will ultimately allow the main Dispatch Center a location to relocate while the current Dispatch Center is refurbished. The new setup will be more user friendly, state of the art, and better meets the needs of a 21st century alarm center, enabling faster call handling, more ergonomic working practices, and quicker incident resolution.

Lastly, we continue to embrace and build upon the ongoing challenge of upgrading the current Dispatch Center by co-locating with BDOC to establish a joint installation Emergency Dispatch Center. Plans are being advanced to co-locate BDOC within the Fire Department premises, increasing opportunities for interoperability toward future base emergency response and management, especially within the key areas where Fire and Security Forces work so closely together, and where real time dialogue is key to incident progression.

Fire Prevention Section

Community Risk Reduction (CRR)/Fire Prevention Program Appraisal:

In 2021, the Fire Prevention Team conducted 251 facility inspections. The most common deficiencies noted were emergency exit signs not illuminated, emergency lighting not properly inspected. These problems have been identified to commanders and facility managers utilizing the AF Form 1487, Fire Prevention Visit Report, and are briefed during facility manager training and facility inspections.

As we strive to continually improve the CRR program, our processes and streamline our products, we realized the need to realign our Fire Inspection schedule. We did so by grouping squadron facilities together into monthly blocks thus allowing a more straightforward process for the Facility Managers and Squadron Commanders. Squadron Commanders are now provided with an executive summary in addition to the Fire Prevention Visit Report to identify problem areas within their fire safety program quickly. We now schedule a briefing with Commanders and facility managers to close the loop on outstanding deficiencies for their unit. Notably, Commanders will now only be required to provide one signature, thus allowing a faster return of the AF Form 1487 saving time, money and resources.

Corrective Action Plan Playbook (CAP):

Fire Prevention Office took on an Air Force issue to solve the ambiguous nature of what constitutes a properly formatted Corrective Action plan to meet the intent of AFI 32-10141, *Planning and Programming Fire Safety Deficiency Correction Projects*. In doing so, we created the RAF Mildenhall Fire Safety Deficiency (FSD) CAP Playbook and Adobe Acrobat F&ES CAP Form to educate AF Fire Emergency Services (F&ES) community and Installation stakeholders on the process required by AFI.

The F&ES CAP form was created to:

- Provide a standard format across installations
- Capture data and provide a vehicle to track and close CAPs
- Simplify management reporting to senior leaders and establish a prioritization model allowing programming for the most critical projects
- Increase accuracy and reporting across Commands
- Improve IMSCs ability to prioritize and fund repair projects

The F&ES CAP form is primarily a tool for the Fire Prevention office to aid units in developing a CAP when FSDs exist and cannot be corrected through in-house work. The F&ES CAP form is prescribed for developing CAPs until further guidance is released. Currently, installations are providing data, information, and reports in different formats and varying levels of detail. This variance requires manual standardization of the information upon receipt which is labor intensive and ineffective. The desired end state is a uniform reporting tool facilitated by the use of the simplified FSD CAP form.

Fire Prevention Week Online Virtual Events:

The Fire Prevention Team presented a top-notch fire prevention education program which hosted 113 events, impacted more than 14,066 base and host nation personnel; additionally, it assisted with multiple off-base safety education programs. The apex of 2021 for the Fire Prevention section was during Fire Prevention Week in October Learn the Sounds of Fire Safety. We posted an array of online information this was due to the Covid19 restrictions this included a coloring completion, kitchen safety message, grease fire demonstration, class on smoke detectors also included an early turkey fryer and Christmas tree demo. Our mascot "Sparky" was hard at work during Fire Prevention Week as well, hosting events like reading to children at the base CDC, and promoting fire safety at the BX shopping mall. A synopsis of the Fire Prevention Team's activities is shown below:

Prevention Activity	Number Completed
332 Project Reviews April 2021-Present	205
103 Digging Permits	78
Pre-Design Briefs/Meetings	75
Facility Inspections	251
Welding/Cutting Permits	434
System Acceptance Test	14
Facility Manager Training	12 x Virtual Classes 238 Personnel
Newcomer's Briefings	1476 Personnel Classroom and Virtual Classes
Public Education	113
DRAWS - Dynamic Risk Assessment Work Sheets	12

In 2021, due to the strength of CRR, Public Education programs, and RAF Mildenhall experienced zero fire loss that would warrant the need for formal fire investigation and determination for cause and origin and the Prevention Office was awarded the 2019 Fire Prevention Program of the Year USAFE / AFAFRICA.

Health & Safety Section

Occupational Safety & Health/Wellness Program Appraisal

Over the past year, the health and safety program has undertaken many improvements and updates; reshaping the program's fundamentals while steadily enriching the flight's fitness, well-being, and safety. Our Health and Safety Officer (HSO) continued to strengthen a working relationship with 48th Medical Group Bio-Environmental Flight, Warrior Medicine Clinic, Mental Health, Public Health, Wing Safety, and Alcohol Drug Abuse Prevention and Treatment Program (ADAPT) to enhance firefighter preventative health care, safety training, and resiliency.

In 2021 we maintained a low rate of injuries and illnesses but an increase to the contraction of the Coronavirus Disease (COVID-19) compared to 2020. There were no apparatus accidents in 2021. Changes that were implemented and maintained have been effective to ensure driving safety. The reduction in vehicle backing accidents can be contributed to our vehicle backing training program, the addition of vehicle backing lines, and our crush zones being clearly marked.

Additionally, the department strives to secure funding for the "Illumi-Door" Apparatus Bay Lighting System in the vehicle stalls. The system consists of fourteen (14) side guidance light systems, one (1) at each apparatus bay door. The system is to provide visual indications when it is safe, and not safe, for a vehicle to proceed through the bay door. This is currently with the Engineering Flight for design. The flight has continued to perform weekly morning safety briefings on numerous topics to include driving in adverse weather conditions, holiday decoration safety, and grill safety. Due to coronavirus safety measures, these briefings have been conducted in smaller groups by each respective shift members. The goal of the safety briefings is to reduce the number of on and off duty mishaps as well as educating firefighters on current trends that are contributing to fire loss, fatalities, injuries, and illnesses that are affecting the fire service.

Occupational and Individual Medical Readiness

The HSO managed a thorough preventative health maintenance program covering occupational and physical health examinations, mental health, and infection control; keeping the flight mentally and physically resilient. The department has had continued success with the Public Health Clinic to ensure full compliance with NFPA 1582: *Standard on Comprehensive Occupational Medical Program for Fire Departments*. All medical appointments and Preventive Health Assessment (PHA) and Individual Medical Readiness (IMR) reports were processed through the HSO to ensure all personnel have current health exams and records. In 2021062186, all of medical requirements for Occupational Health Examination process was relocated to the 48th Medical Group. The 48th Medical Group and the 100th Medical Group combined their abilities to combat coronavirus limiting factors. After this new move, the average completion time for each individual member was 30 days. Continuous Process Improvement was conducted and streamlined from 30 days to 1 day completion time. This program has proven itself to be very

successful. The HSO will continue to improve the process as needed and work with 48th Medical Group

NFPA 1500 Program

The NFPA 1500 committee was reestablished and the members have standardized their respective chapters above 90% compliance and are working through minor re-attacks. The goal of the committee for 2022 is to continuously address the new 2020 NFPA edition and increase firefighter safety, while maintaining operability of the department.

Future Needs/Anticipated Challenges

Looking into 2022, the road ahead for the health and safety program will include a more aggressive education initiative such as a monthly newsletter covering statistical data, high-risk safety topics, and general fitness facts. Additionally, the department will look to improve its Health and Wellness program with the addition of a Health and Fitness Resource Center and new equipment for the Tier II fitness stall that was created in 2020. This will not only help prepare the department for the challenges on the fire ground but help ready all military members for the Air Force Tier II Fitness Assessment program upon rollout.

Through the accreditation process in 2019 two areas have been highlighted for improvement in our Health and Safety Section. The addition of a more aggressive vehicle exhaust removal system and the purchase of personal decontamination wipes to use after firefighter have been exposed to carcinogens.

The decontamination wipes have been purchased and implemented in all fire department vehicle cab compartments. Our Clean Cab concept has incorporates sterilization of the inside of all fire apparatus one per week and after an emergency where responders are exposed to toxins. All of these new initiatives are to help protect our flight from the alarming cancer rate found in emergency responders.

Operations Section

RAF Mildenhall Fire Emergency Services provides 61 operational responders that protect 1,149 base facilities totaling 2.9 million square feet and 56 military family housing units. Our support to the “Bloody Hundredth” was crucial to the Wing’s execution of 1,431 Air refueling missions, 622 Priority Level-1 assets, 7,155 flying hours, and delivering 49.3 million pounds of fuel to 4,181 U.S. Air Force and Coalition aircraft. We also provided vital fire protection to our tenant partners in the 352nd Special Operations Wing (SOW) as they were able to achieve 1,264 sorties, 3,167 flying hours along with RAFM F&ES completing 57 remote airfield stand-by operations at RAF Sculthorpe.

Fire Suppression Program Appraisal

Since 2019 the RAF Mildenhall Fire and Emergency Services has spent hours on end conducting a thorough review of its fire suppression and response programs; earning the 2019 Center for Public Safety Excellence Accredited status. Making it the first United States Air Force Fire Department in the United Kingdom to gain this accomplishment. An appraisal on the effectiveness of our fire suppression program is conducted weekly during our staff meetings, and annually when the end of year data is collected for the annual report. Total call volume, types of responses, and the organization's ability to meet the performance standards outlined in the Community Risk Assessment/Standard of Cover has been analyzed.

To comply with NFPA 1710 standards the RAF Mildenhall Fire and Emergency Service created 10 Fire Demand Zones each requiring different response packages to meet aggregate response times. For 90 percent of all fire suppression incidents in 2021, the total response time for the arrival of the first due unit, staffed with three firefighters and one officer, is **6 minutes and 51 seconds** in the 90th percentile. The first due unit is capable of: providing 500 gallons of water and 1,250 gpm pumping capacity, initiating command, requesting additional resources, establishing and advancing an attack line flowing a minimum of 150 gpm, creating an uninterrupted water supply, containing the fire, rescuing at-risk victims, and performing salvage operations. These operations are completed by departmental standard operating procedures while providing for the safety of responders and the general public.

Emergency Medical Services Program Appraisal

An appraisal on the effectiveness of our emergency medical services (EMS) program is conducted weekly, and annually. Total call volume, types of responses, and the organization's ability to meet the performance standards outlined in the Community Risk Assessment/Standard of Cover has been analyzed. The CFAI peer assessors recommended the department track our assigned ambulance crews as an effective response force (ERF) for second-due in unit for full alarm capabilities. For 90 percent of all EMS responses in 2021, the total response time for the arrival of the first-due unit, staffed with four firefighters is **7 minutes and 39 seconds** in the 90th percentile.

The first-due unit is capable of: assessing scene safety and establishing command; sizing-up the situation; conducting an initial patient assessment; obtaining vitals and patient's medical history; initiating mitigation efforts within one minute of arrival; providing first responder medical aid including AED; and assisting transport personnel with packaging the patient. The total response time for the full alarm of the second-due in unit, staffed with 1 Emergency Medical Technician (EMT) and one paramedic was not tracked as an effective response force (ERF) affecting the data collected. The data reflects all responding units as an initial response force that is required to meet a 7 minute Aggregate Response Time (ART) in the 90th percentile. A full alarm response requires an ERF or second-due in unit to achieve a 12 minute ART 90% of the time.

Hazardous Materials Response Program Appraisal

An appraisal on the effectiveness of our hazardous materials response program is conducted weekly, and annually. Total call volume, types of responses, and the organization's ability to meet the performance standards outlined in the Community Risk Assessment/Standard of Cover has been analyzed. In 2021, RAF Mildenhall Fire and Emergency Services only responded to six Hazardous Materials incidents. The arrival of the first- due unit, staffed with three firefighters and one officer, was **6 minutes and 47 seconds**. The first-due unit is capable of: establishing command; sizing up and assessing the situation to determine the presence of a potentially hazardous material or explosive device; determining the need for additional resources; estimating the potential harm without intervention; and begin establishing a hot, warm, and cold zone.

Technical Rescue Program Appraisal:

An appraisal on the effectiveness of our technical rescue program is conducted weekly, and annually. Total call volume, types of responses, and the organization's ability to meet the performance standards outlined in the Community Risk Assessment/Standard of Cover has been analyzed. For 90 percent of all technical rescue incidents in 2021, the total response time for the arrival of the first-due unit, staffed with three firefighters and one officer, is **5 minutes and 41 seconds** in the 90th percentile. The first-due unit is capable of: establishing command; sizing up to determine if a technical rescue response is required; requesting additional resources; and providing basic life support to any victim without endangering response personnel.

Furthermore, all equipment has been maintained, stored, and inspected (IAW) NFPA standards. As new technical rescue equipment is ordered and delivered to the department, thorough training is conducted to ensure proficiency. The training includes theory based or cognitive training using lesson plans, and PowerPoint slides, and practical hands-on training.

Aircraft Rescue & Firefighting Program Appraisal:

An appraisal on the effectiveness of our aircraft rescue and firefighting program is conducted weekly, and annually. Total call volume, types of responses, and the organization's ability to meet the performance standards outlined in the Community Risk Assessment/Standard of Cover has been analyzed. For 90 percent of all ARFF response incidents in 2021, the total response time for the arrival of the first-due unit, staffed with two firefighters, is **7 minutes and 13 seconds** in the 90th percentile for unannounced airfield emergencies. The first-due unit is capable of: assessing the situation; requesting additional resources; controlling the hazards; and if possible, beginning basic life support of victims and hazard mitigation.

Emergency Response Time Analysis

In 2021, RAFM F&ES made the decision to stop using the active flight line as a means of access to the south side of the air base due to the unreliable nature and ease of access for emergency response.

Looking at our end of year response statistics, we can see that this adjustment resulted in alarming response times which no longer meet the standards set in DoDi 6055.06 nor NFPA 1710. This is concerning due to the high number of personnel working in Fire Demand Zones 1-4 and the aircraft we need to reach in emergencies within the vicinity of Taxiway Bravo. With the future of RAF Mildenhall looking toward expansion rather than closure, we have begun research into the benefits of establishing a second fire station. This would allow for faster response times, higher level of manpower and provide a greater level of strategic positioning of our resources.

Significant Emergencies

Motor Vehicle Accident:

On 7 January 2021, F&ES dispatch received reports of a major motor vehicle accident at the A1101 round-about near the main base gate. Ch-2 requested for fire dispatch to gain approval from the local National Health Service (NHS) to respond. After receiving approval (with the exception of Med-6), Ch-2 and E-13 responded to the scene. Upon arrival on scene, CH-2 established incident command and determined that one vehicle had been involved in the crash with 2 patients, with one of them unconscious and in unstable condition. E-13 begin patient care and extrication, at which time local fire and medical crews arrived on scene and began assisting USAF crews. After the patients were packaged and the incident scene was stabilized, command terminated and handed control of the scene to local authorities. The two patients (both US military personnel) were transported via NHS, where they recovered from their injuries.

Class III Fuel Spill:

On 8 June 2021, F&ES responded to PSI site 9 for a running fuel leak coming from inside building 1310. The call came in through the Fire Department administration line, but a full response was dispatched. Upon arrival, Chief 2 established command, safety, and accountability and directed Engine 13, Crash 5, Crash 6, and Crash 7 to set up outside of the leak and investigate the cause. Chief 2 met with the building occupants and was notified the leak was coming from a flange that was recently repaired. The fuel leak was contained to the facility due to the curbing and elevation of the infrastructure, and Engine 13 began to monitor the air while Chief 2 liaised with the Water, Fuels, System Maintenance team to recapture the lost fuel with vacuums and pumps. The crews were able to reclaim 195 gallons out of the 200 gallon fuel spill. The incident was terminated was passed over to the POL/Fuel shop.

F-15 Aircraft Emergencies:

On 16 September 2021, F&ES responded to an In-Flight Emergency for an F-15 aircraft. The call came in over the Primary Crash Phone for an F-15 aircraft with a hung munition. All response vehicles were staged at their pre-designated points on the runway. Tower informed Chief 2 the IFE aircraft was the first aircraft to land, and the pilot intended to taxi to Alpha West. The first aircraft landed with a good roll-out and came to a complete stop on the runway, and taxied to

Alpha West. However the second aircraft landed immediately after the aircraft with the hung munition and was traveling at an accelerated rate of speed which over worked the brakes, causing hot brakes emergency simultaneously with the hung munition emergency. This aircraft stopped and remained at the end of the runway, and all fire department vehicles were permitted on to the active runway. Chief 2 went to the aircraft with the hung munition along with Crash 5, and directed Crash 14 and Crash 7 to the aircraft with the hot brakes. Once Chief 2 and Crash 14 arrived on scene they established command, safety, and accountability. Engine 13 was assigned investigation of the hung munition, while Crash 5 did a standard AFTO 88 setup. Engine 13 inspected the aircraft with two personnel. Engine 13 confirmed that there was a hung munition and the weapons team from RAF Lakenheath was requested to come to the scene. At the same time, Crash 14 and Crash 7 investigated the hot brakes emergency and reported elevated temperatures coming from the wheel well, however the F-15 maintenance crews were requested from RAF Lakenheath to confirm. Once the maintenance crews arrived they confirmed the hot brakes and shut down the aircraft so it could be towed to a ramp to park and cool off. The weapons team also arrived and were able to pin and safe the munition, allowing the aircraft to taxi to park. The emergencies was terminated and passed over to the Strike Eagle F-15 maintenance crews.

The Health of the Vehicle Fleet:

The RAFM F&ES Vehicle Control Officer (VCO) worked closely with 100th Logistics Readiness Squadron (LRS) Fire Truck Maintenance (FTM) to ensure a healthy fleet of Aircraft Rescue Fire Fighting (ARFF) and structural apparatus to support the 100 ARW and the 352 SOW. During 2020, the RAFM F&ES flight maintenance personnel have created a significant boost in agent/capabilities allowing further crash, fire, and rescue support for the 100 ARW and 352 SOW missions.

Future Needs/Anticipated Challenges:

Keeping vehicles in service to ensure consistent delivery is a unique challenge. Continued aging of the vehicle fleet, coupled with scarcity and availability of parts creates a limiting factor (LIMFAC) for FTM. Crash 6, Crash 5, and Crash 7 are excellent examples of this. The department was able to perform required annual pump testing and bumper turret ECO foam testing, and are ready for emergency response.

To secure timely updates from Vehicle Maintenance, we have incorporated the FTM team who provide a slide presentation into the weekly staff meetings to discuss the health of the fleet. We have also concentrated our efforts into bolstering our driver certification/licensing program to ensure drivers are operating apparatus as safely as possible, servicing apparatus properly, documenting vehicle maintenance cards appropriately. This refocus on proper vehicle inspections and routine maintenance has shown a reduction in our vehicle out of service rates.

Logistics Section

Logistics Program Appraisal:

RAF Mildenhall Fire Department Logistics NCOIC, TSgt Derek Hansen, benchmarked a success during the FY21 period. His insight into the DoD Planning, Programming, and Budgeting Execution (PPBE) model helped execute about $55K more than originally funded. The Government Purchase Card (GPC) Initial Funds awarded totaled $301.2K which was only 40% of what was requested on the FY21 BEAST ExPlan. At the end of the FY21 budget cycle there was an additional $30K spend on items that were on our unfunded list. Some of the major purchases the RAFM F&ES used with the initial and fallout funds were, PPE, gear bags, equipment, new furniture for the Fire Chiefs and Watch Managers office, Active Shooter conference, medical equipment and special PPE for active shooter responses.

The Logistics section worked with the 100 LRS Customer Service section to purchase A2CU OCP Uniforms for all 39 Military RAFM F&ES personnel. Initially each member received four sets of uniforms along with boots, name tapes, and badges in FY20. In FY21 there was $20K loaded into our 908FD supply account to start to create at least a 10% of back stock.

In the Middle of FY21 RAFM F&ES received two new emergency response vehicles. A brand new P-31 that will be used as a mass causality hazmat response, known as HAZMAT 11. It was fitted with a new radio base station, truck numbers, and emergency decals. Our second truck is a new 2021 Dodge Ram pick-up truck that will be used as our Chief 2 vehicle, known as CH 2. This truck was also fitted with a radio base station from our old Chief 2 vehicle, emergency lights/decals, and fitted with a custom built extender bed to help with on scene command and control. Spending a total of just over $17K.

The chart below illustrates funding execution for the Fiscal Year 2021:

Type	Amount
Flight Operation Funds	$301,208
EOY Squadron Fallout Funds	$30,000
US Bank Rebates	$5,795
OCO Funds (OCP's)	$20,000
Innovation Funds	$0
Total Funds Executed	$357,003

Improve Logistics Processes	Timeline
Critical Tasks	
Develop/Revise 5 year sustainment extensive line item budget	Continuous
Maintain 100% accountability of all equipment assets	Continuous
Meet Budget Execution Timeline Benchmarks every fiscal year	Continuous
Acquire New AF FES Structural Firefighting Ensemble	Continuous
Acquire Indoor Structural Apparatus Pump Panel Simulator	Continuous

Future Challenges:

Initial distribution was another major challenge that faced RAFM F&ES Logistics program for FY21. The USAF F&ES Budget Tool was utilized for FY21 Funds Request where O&M projection came out to $739,726 but only $301,208 was authorized for ID. These budgetary constraints continue to create a large UFR list that make EOY spending extremely difficult. We continue to face the challenge of executing Form 9 purchases over $25,000 due to unclear processes and minimal assistance from the 48th Contracting Squadron. Recognizing and planning for these shortfalls will help in years to come, but does not eliminate the need for time, personnel, and funding to equip an Accredited Fire Department.

Another challenge we will face in FY22 is to create and outsource a cleaning contract with a company that is based in the UK. Even though the USAF has a contract with Ricochet, it is not feasible to work with due to time and money.

In summary, the RAFM F&ES Logistics program was able to operate in a smooth and efficient manner even when faced with budgetary constraints. Phenomenal stewardship of government resources is this sections hallmark. We stretched resources to their max life while stressing the importance of replacing and requesting new items when necessary.

Training Section

Training Program Appraisal:

In 2021, the RAFM Fire Department Training Section identified four major goals and objectives we felt would best enhance the service provided to our community. These included the rollout of the new rookie book initiative from the Air Force Civil Engineer Center (AFCEC), initial and proficiency training for rescue task force and active shooter scenarios, operational support in the form of incident commander qualifications for certified personnel, rollout of the virtual reality innovation project.

A new requirement for Air Force Fire and Emergency Services is the utilization of the Rookie Book Program. This program is designed to help new firefighters that graduate from Louis F. Garland Fire Academy to reinforce techniques and skillsets obtained during technical school.

The training section led a rescue task force and active shooter working group and coordinated an event

that incorporated six wings and 530 personnel from 18 emergency response agencies. This eliminated a 3-year Wing discrepancy and provided valuable techniques, tactics, and procedures as well as data-backed information to help create a standard operating procedure for active shooter incidents.

In an effort to boost our department's Assistant Chief of Operations percentage, the training section coordinated ten large scale training exercises which led to seven individuals becoming qualified for large scale incident commander position and the department's first United Kingdom Civilian Incident Commander.

RAF Mildenhall was awarded innovation funds to integrate a $35K virtual reality system to its training repertoire. With this next generation equipment, emergency response crews are able to view fire ground tactics and procedures as well as after action briefing from exercises. Additionally, a team has begun filming the interior and exterior of aircraft to provide a realistic 360 degree view of emergency operations to include initial set-up, how to make entry, and aircraft shutdown procedures.

Firefighter Training and Certification:

Air Force Fire Emergency Services Training Program (F&ESTP) requires each department to achieve 90% completion of critical training, and 80% for non- critical training. Critical training percentages were impacted by the installation's live fire aircraft trainer being inoperable as well as the Covid-19 impact on both manning and training opportunities. Due to these factors outside of our control, our department completed 82% of critical and 80% of non-critical training.

A total of 61 DoD Firefighter certifications were awarded this past year and a total of over 4,600 training hours were conducted, which kept our team sharp and ready to respond at a moment's notice. Table 6 below provides a break-down of all the certifications awarded. The Training Section and personnel navigated through many obstacles presented by a migration of testing and course material to a new website, CDC updates to testing and course material, and many technical issues that currently persist and plague some subject matters.

Table 6 - Certification Level Break-down:

CDC	TOTAL	CDC	TOTAL	CDC	TOTAL
Firefighter I	2	Telecom I/II	9	Fire Instructor I	5
Firefighter II	3	ICS 300/400	2	Fire Instructor II	3
Airport Firefighter	5	Hazmat Awareness	0	Fire Instructor III	8
HazMat IC	2	Hazmat Operations	0	Fire Officer I	2
Driver - ARFF	2	Hazmat Technician	3	Fire Officer II	3
Driver - Pumper	2	Rescue Technician	1	Fire Officer III	4
Driver - MWS	0	AF Aircraft Trainer	0	Fire Inspector I	1
FLSE I/II	0	Incident Safety Officer	2	Fire Inspector II	0
EMT Instructor	0	Health and Safety	1	Fire Inspector III	1
				Total	61

Formal Training:

Due to Covid-19 many formal courses were canceled. To alleviate some of the formal training gaps, seven members attended Fire Instructor III and four members attended Fire Officer III web-enhanced courses through Alabama Fire College. One member also was able to attend a Hazardous Materials Technician course at Charleston AFB, SC between Covid-19 lockdown periods. Before the lock down our firefighters were regularly able to attend formal training classes offered at the Louis F. Garland DoD Fire Academy, Goodfellow AFB Texas, and Mathies Airman Leadership School at RAF Feltwell. Table 7 provides a break-down of these courses.

Table 7 – Formal Training Received:

Course Title	Numbe	Course Title	Nu
HazMat Technician	3	Fire Officer III	4
Fire Inspector II	0	Fire Officer IV	0
Fire Inspector III	1	Monaco D-21	0
Fire Instructor III	7	AFIT	0
Rescue Technician I	1	NIMS 300/400	2
		Total	**1**

Joint Training and Exercises:

In 2021, the training office coordinated nineteen multi-agency exercises that incorporated the 100 Security Forces Squadron, 100 Logistics Readiness Squadron, 100 CES Emergency Management, the Office of Special Investigations, and the 48th Medical Group ambulance services and bioenvironmental sections. These training opportunities have improved insight and interoperability for more than 400 emergency response personnel overall improving response capabilities for the community. Additionally, we have teamed with RAF Lakenheath F&ES to conduct a firefighter exchange program. Individuals are invited and sent to the opposite base and provided aircraft familiarization and emergency response procedures in the event a transient aircraft must make an emergency landing at the others' airfield. This will continue to be an on-going training collaboration given the amount of turn-over with military personnel at the two installations.

Readiness Section

RAFM F&ES continued to provide first-rate support to the on-going war efforts in the Central Command Theater of operations. In 2021, RAFM F&ES had the best Home Station Training (HST) completion percentage in CE, at 82% over a twelve-month period, which in turn enabled the 100th CES to have the best HST completion percentage in all of USAFE for 5 months.

RAFM F&ES hosted a Group Level Ability to Survive and Operate training initiative. This ten hour course instructed five squadrons and 103 personnel covering 120 objectives across CBRN, base

transition points, Self-Aid & Buddy Care, communications, and base defense tactics. This event eliminated an eight year Wing CBRN discrepancy gap and laid the foundation for future training across the Tri-Wing area.

Future Needs / Anticipate Challenges:

- Maintaining availability/readiness of UTC equipment packages during fiscal constraints
- Sustaining 100% staffing of P-1 and P-4 teams during manpower reduction

Summary

The RAFM F&ES continues to provide the highest level of service to the men and women of Royal Air Force Mildenhall and their families. Fire prevention and public education are the cornerstone of our service and are the first line of defense against fires on the installation. This year we maintained a constant level of preparedness through a high tempo training program. These high standards were set for all programs, and our business practice measurements validate the sterling manner in which we attained them.