

# Mission Area Analysis and Statement of Need for UAF-CTC Emergency Services Training, Education, and Emergency Management Programs

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**May 2013**

## **Executive Summary**

The CTC emergency services academies, degree programs, and occupational endorsements along with the UAF Bachelor of Emergency management program are essential to fulfilling UAF's mission as it relates to integrating teaching and public service, educating students for active citizenship, and preparing them for lifelong learning and careers. They effectively support key UAF strategic planning goals and UA strategic direction. Combined, these CTC and UAF programs have established Interior Alaska as a nationally known emergency services training and education destination, attracting successful students from throughout Alaska and the United States. Offering the CTC law enforcement, paramedic, and fire science programs in one modern public safety training, education, and fire/police station facility would enable these programs to meet current demand and future growth, to the benefit of the University, the local community, and those employers who rely on our highly trained, educated, and experienced graduates. Data to support the enrollment growth, increased demand and other metrics is found in appendix "A".

## **Scope of This Document**

This document contains two components: a) mission area analysis (MAA) and; b) statement of need (SON) for UAF and CTC emergency services programs. These programs include UAF's police and fire departments, and CTC's law enforcement with occupational endorsement, paramedic academy and degree program, and fire academy and degree programs. In addition, the UAF School of Management's Bachelor of Emergency Management degree program shares several commonalities as well as many of the same students. The MAA explains these programs as they relate to UA's draft Strategic Direction Themes and UAF's Strategic Plan. The SON summarizes the collective needs of these programs derived from the MAA. Once approved by the Board of Regents, the next step would be the development of a business and financing plan, including a thorough review of associated building areas required to meet projected demand.

## **Mission Area Analysis: Introduction**

The CTC emergency services academies and degree programs along with the UAF bachelor of emergency management program effectively support key UAF strategic planning goals and UA strategic direction. The CTC provides intensive year-round classroom, manipulative, and field/clinical instruction in law enforcement, emergency medical services, and firefighting.

Classroom and laboratory instruction is primarily provided at the Old University Park School facility near the UAF campus. The UAF police and fire departments augment these degree and certificate programs by providing important experiential opportunities as students deliver emergency services to UAF and the surrounding community from the Whitaker Building on the UAF campus. Supporting these programs is essential to fulfilling UAF's mission as it relates to integrating teaching and public service, educating students for active citizenship, and preparing them for lifelong learning and careers. These programs directly support UAF's core themes of *educating undergraduate and graduate students and lifelong learners* and *preparing Alaska's career, technical and professional workforce*, in addition to these planning documents: UAF Master Plan 2012 (draft), the UAF Strategic Vision 2017 Plan, and the UAF Academic Plan for 2007-2012.

UA's Shaping Alaska's Future (SAF) is a strategic organizational change effort created and led by President Gamble. SAF engages people from many different levels, both inside and outside the University system, looking for ideas and innovations to change UA for the better. The SAF themes are:

- Student Achievement and Attainment
- Productive Partnerships with Alaska's Schools
- Productive Partnerships with Alaska's Public and Private Industries
- Research and Development to Help Build and Sustain Alaska's Communities and Economic Growth
- Accountability to the People of Alaska

SAF themes are supported directly and indirectly by the emergency services programs. Examples of accomplishments and activities that directly support these themes include:

- *A successful record of producing certified, educated, and experienced candidates for future employment.*
- *A partnership with Hutchison High School firefighting curriculum in which UAF staff provide instructional support, and Hutchison "Fire Hawks" students get real hands-on experience with UAF firefighters.*
- *Direct support for Camp Kickash in which rural high school students from nine Western Alaska villages who are exploring careers in emergency services get two days of hands-on rescue training, twice annually.*
- *Guaranteed placement in the law enforcement academy for Alaska industrial employers.*

The UA SAF provides an overarching goal structure for the university as a whole. The draft UAF Strategic Plan maps out goals for achieving success in both the long and short term. Increased emphasis on pursuing these directions and attaining these goals is being accompanied by growth in the emergency services programs and increased significance in the role of the

facilities through which they are provided. Data to support increased demand and enrollment may be found in appendix “A”.

## Aligned With UAF Mission & Planning for the Future

Directly supporting the SAF theme *student achievement and attainment*, UAF's strategic goals include:

- **Educate Students** to be informed, responsible, active citizens by incorporating real-world experiences and applications into the undergraduate curriculum.
- **Enhance UAF's competitive advantage** by attracting and keeping the best and brightest students and faculty.

The CTC's long-term goal is to be Alaska’s first choice for career and technical education, academic preparation, and lifelong learning. Combined, the suite of emergency related opportunities at the CTC and UAF have established Interior Alaska as a nationally known emergency services training and education destination, attracting successful students from throughout Alaska and the United States.

## Enrollment

A student aspiring to a career in emergency services can achieve state and/or national certification in law enforcement, firefighting, or paramedicine following intensive field and classroom training in an academy setting.<sup>1</sup> These students can then gain valuable, relevant work experience as student employees of the UAF police or fire and ambulance services while completing general education requirements. The Associates of Applied Science degrees in Emergency Services and Paramedicine articulate directly to the Bachelor of Emergency Management degree. Within a few years, a student can develop a very impressive résumé including one or more associates degrees in emergency services, a bachelor of emergency management degree, and several years of real world field experience.

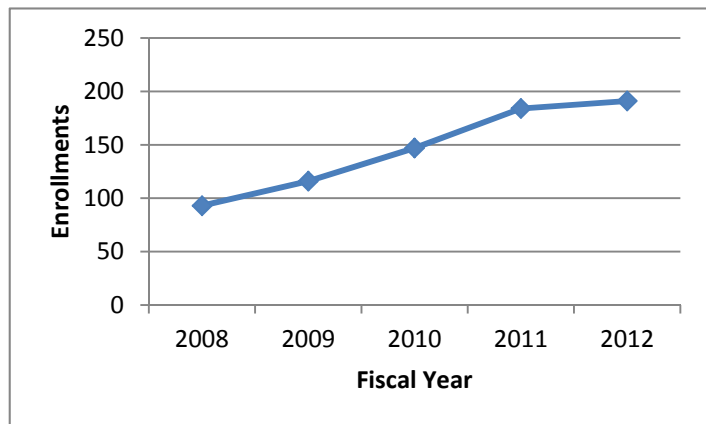


Figure 1: Unduplicated Emergency Services Enrollments 2008-2012

<sup>1</sup> The paramedic academy leads to State of Alaska licensure and certification by the National Registry of Emergency Medical Technicians. The firefighting academy leads to State of Alaska certification, which is nationally accredited by the International Fire Service Accreditation Congress and Proboard. The law enforcement academy leads to Alaska Police Standards Council certification and an occupational endorsement.

## Academy Certificate Programs

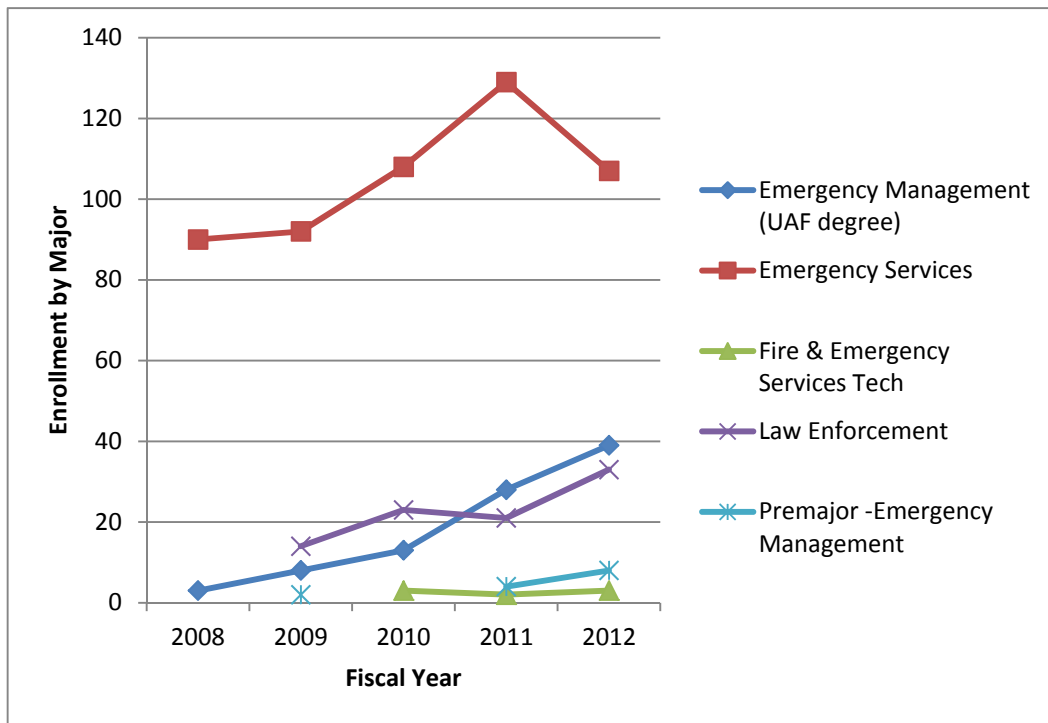


Figure 2: Enrollments by Major

Note: In 2011 numerous Emergency Services students enrolled in Emergency Management; these data reflect unduplicated students only.

### Law Enforcement Academy

The Law Enforcement academy is a rigorous 13-week (640 hours) training program that provides basic police training for Interior and rural municipalities in preparation for the Alaska Police Standards Certification. Students who successfully complete the program will be eligible for employment with any of the approximately 21 state enforcement agencies or 43 municipal police departments within the State of Alaska. In addition to these agencies, many private security companies give special consideration to hiring candidates who possess the training certificate.

### Paramedic Academy

The Paramedic Academy is an intensive 3-semester course that includes 500 hours of classroom and laboratory instruction, 250 hours of clinical experience, and 480 hours of field internship training on an ambulance, for a total of 1230 hours of instruction and 36 lower division credits. Successful students are certified as a National Registry Emergency Medical Technician-Paramedic and are eligible to apply for state licensure. This course is accredited by the Commission on Accreditation of Allied Health Education Programs.

### Firefighter Academy

The Firefighter Academy is held over six weeks each summer, and Firefighter I instruction is also offered during each spring and fall semester. This curriculum is 12 lower division credits

toward the AAS or BEM degree and includes 240 hours of extensive manipulative and classroom instruction. Successful completion results in State of Alaska certification in Firefighter I and Hazardous Materials Operations. This course is accredited by Proboard and the International Fire Service Accreditation Congress, and is recognized by the Department of Defense and by state fire agencies across the United States.

## **Student Experience**

### ***UAF Police Department***

The UAF Police Department employs a cadre of students as Community Service Officers (CSO). The program has a proud tradition on the UAF campus dating back to the early 1970s. The goal of the CSO program, in basic terms, is to protect UAF property, help secure a safe environment for those that live and work on the UAF campus, and to provide service to the campus community. The CSOs work extremely close with the professional staff of the police department. As a direct result of this interaction, the CSO program serves as a training ground for students who are pursuing a career in law enforcement or other justice related fields. The CSO program is open to students of all educational backgrounds, and as a result it serves as a valuable training ground for students going into other occupations as well.

### ***UAF Fire Department***

The UAF fire department hires student firefighters and paramedics to provide essential fire protection and ambulance service to UAF and the surrounding communities. Student employees gain valuable field experience under the tutelage and supervision of experienced career fire officers and emergency medical technicians (who also serve as regular adjunct instructors in the CTC programs), responding to 1,600 emergency calls each year. Students live and work in the fire station while pursuing their academic degrees, and attend classes while on duty. This combination of academic knowledge and real world on-the-job training and experience is what sets this program apart from all other opportunities – full-time student employees protecting and serving other students.

## **Forecast of Program Demands**

Department of Labor estimates Alaska's major career fire departments - Anchorage, Fairbanks, Soldotna, and Juneau - will hire between 98 and 109 firefighters and paramedics into existing jobs over the next five years. Historically, many career fire departments in Alaska and throughout the United States tended to hire untrained candidates and provide all basic training internally. Economic pressures have caused fire chiefs to find ways to reduce their personnel costs, including hiring previously trained and certified firefighters. Paramedic training, in particular, is too specialized and costly for most fire departments to provide internally. Demand for ready trained firefighters, especially those with paramedic certification, is expected to increase steadily. According to Alaska Department of Labor and Bureau of Labor Statistics, paramedic and emergency medical technician jobs in Alaska are forecasted to increase 23.4%, or 103 *new* jobs, through 2020. New firefighting jobs are predicted to increase by 76, or 8.7%,

during the same period. Considering the forecast for new jobs together with normal attrition in existing jobs, the market for trained firefighters, paramedics, and emergency medical technicians easily outpaces the university's ability to provide qualified candidates.

In addition, the public safety industry has begun to recognize the value of higher education within their work forces. Whereas fire departments once required just a high school diploma, many now give preferential treatment to those with higher education degrees. The Anchorage Fire Department presently pays a 4% premium for any employee with an associate's degree, and 8% for a bachelor's degree. Other fire departments require a degree to be eligible for promotion.

Even among those fire departments that do not yet recruit previously trained candidates or require or reward higher education, applicants that do possess prior training, certification, and higher education degrees are more competitive. Thus, combined with recruiting efforts in Alaska, the Pacific Northwest, and elsewhere, interest in CTC and UAF as an emergency service training and education destination has been increasing. Enrollments in the fire sciences courses increased 60% in four years, while enrollment in emergency medical services courses increased 55%, straining existing classroom and training facilities. The waiting list for the 2013 Fire Academy's 12 available slots is presently over 40 and growing; some will choose not to attend UAF CTC due to the lack of capacity. Additionally, the campus fire department hires between 12 and 15 student firefighters and turns away another six or more qualified applicants each year.

Similarly, police departments are changing. The officers that were hired during and toward the end of the Alaska pipeline construction are now eligible to retire. Each semester brings another wave of retiring/hiring from agencies around Alaska. The academy is seeing more and more returning military attending the academy and entering into the police force. The Bureau of Labor Statistics predicts that 277 new security jobs and 88 new police officer jobs will be created through 2020. The academy currently averages 18 graduates per semester but can train as many as 24 per semester, which reflects a growth rate of 24% over four years.

Combined, enrollments in all emergency services courses including law enforcement, emergency medical services, and fire science increased 50% between 2008 and 2012.

## **Outputs, Outcomes, and Impact**

Approximately 75% of student firefighters and paramedics who have completed their degree and/or certificate are now employed in public safety in Alaska and numerous other states. Over 70 alumni have been hired by the Anchorage Fire Department alone, with several now holding top management jobs. Dozens of others have been hired in the Fairbanks, Soldotna, and Juneau fire departments. Altogether, student employees in the University Fire Department complete approximately 1,200 credit hours per year and bring nearly \$350,000 in in-state and out-of-state tuition to the institution. Specific metrics are available in appendix "A".

Approximately 82% of the graduates from the UAF CTC fire science program either move on to attaining the Bachelor of Emergency Management degree or are employed within one year of

graduation. These students represent the firefighters serving in all parts of Alaska and many large metropolitan departments across the U.S. and Canada.

The Law Enforcement Academy has successfully graduated more than 400 graduates in the past 12 years. Those graduates include police officers, supervisors, pipeline security, private security, corrections officers, probations officers (both adult and juvenile probations), Alaska State Troopers, Village police officers, and others. Graduates are spread throughout the state from Unalaska to Petersburg, and from Kodiak Island to the North Slope Borough. There are a number of graduates who have moved to agencies in the continental U.S. and Hawaii. Specific metrics are available in appendix “A”.

## **Existing Capacity to Support Mission**

Old University Park School, where CTC emergency services classes are primarily held, has insufficient space to meet realized and anticipated growth in enrollments. Collectively, enrollments in the emergency services and emergency management majors have increased 105% since 2008. (See Figure 1) The building lacks adequate indoor or outdoor space for manipulative law enforcement and firefighting skills training. Additionally, the continued future use of the building cannot be assured due to known mechanical problems.

The EMS classroom, paramedic lab, and law enforcement classrooms are in use nearly all day every day when the academies are in session. The paramedic academy runs two full semesters plus a summer externship. The law enforcement academy runs for 13 weeks twice each fall and spring semester. The 2012 fire academy was held at Hutchison High School since there was no available space at Old University Park School.

The mechanical problems at Old University Park School threaten to render the building uninhabitable should the heating system fail during winter months. There is sufficient concern about the state of the heating/ventilation system such that all occupied spaces were recently consolidated into its east wing. Should the system fail entirely, there is no medium-term plan to address the specialized needs of the law enforcement and paramedic academies. The UAF 2010 Campus Master Plan identifies this building for future demolition.

Similarly, the Whitaker Building that is headquarters for the University Police and Fire Departments has not kept up with growth of the student programs and has significant infrastructure problems. There is inadequate dormitory, office, and functional space to meet current demands or future growth. Electrical capacity, plumbing, parking and training space are inadequate for the number of students. In addition, there are concerns about the building's ability to withstand a seismic event. A backlog of deferred maintenance items in the current facility will cause renovation costs to exceed replacement costs. The UAF 2010 Campus Master Plan has identified this building for adaptive reuse.

In addition, there is a need for training space for police agencies that require annual refresher training to maintain certifications. Many of these agencies come to the Fairbanks area to conduct

training. The current academy location is used nearly year round by either the academy or various State and local agencies.

## **Statement of Need**

Based on the analysis of the current situation, a new facility is needed to meet current demand and future growth of the emergency services programs if they are to continue to successfully meet the university's mission and goals. A combined, joint-use facility to meet the training, education, and emergency response needs of CTC and UAF would maximize the use of shared space, minimize operating costs, and reinforce the integration of training, education, and emergency response capability. Integrating School of Management emergency management office space would strengthen the connection between emergency response curricula and the emergency management program, and further increase the use of shared space. The ideal site is on or immediately adjacent to the UAF campus in order to reduce utility costs, leverage existing housing, and preserve the student-centric nature of the police and fire departments. The UAF 2010 Campus Master Plan allocates a site on lower campus near the Fairbanks Street Bridge for this purpose.

As an alternative to building dormitories into the police/fire station, the campus needs would be better served by modifying and dedicating a portion of Lathrop hall for resident and visiting emergency services students. This offers the advantage of keeping responders collocated and available for emergencies, builds a campus dormitory community, and leverages existing infrastructure. It also increases the potential for offering seminars, institutes, and training classes for visiting rural students.

The Fairbanks North Star Borough currently contracts with UAF to provide fire and emergency medical services off campus and provides most of the fire trucks and ambulances the department uses. It is estimated that in such a combined joint use facility, approximately 28% of the assignable space would be dedicated to the fire station and emergency management, 18% to the police station, and 49% to the CTC training and education component. The remaining 5% would be shared space. Altogether, 72% of the space would be UAF and CTC space and 28% (the fire station component) might be borne by the FNSB.

Combining the CTC law enforcement, paramedic, and fire science programs into one modern public safety training, education, and fire/police station facility would enable these programs to meet current demand and future growth, to the benefit of the university, the local community, and those employers who rely on our highly trained, educated, and experienced graduates.

## **Annual Operating Budget Impact**

Unless or until Old University Park School is demolished, a new combined use emergency services training, education, and response facility will introduce new utility, maintenance, and operating costs. These costs are difficult to estimate as the facility will certainly utilize current energy and ventilation codes, resulting in decreases in electrical use and thermal envelope heat



loss, and increases in heating more outside air used to ventilate the building. Repurposing the existing Whitaker building will reduce the drain on utilities, maintenance, and repairs as the building transitions from 24-hour usage to part-time daily use. The pressure of deferred maintenance funds would also be lessened as the building converts from residential to other uses. Once Old University Park School is demolished, the overall utility and operation costs could approach a nearly complete offset with the added benefit of a new, modern training and education facility. In addition, utilizing part of Lathrop Hall for resident and visiting emergency services students would increase residential revenue. Nearly all of the 42 student firefighters currently live in the Whitaker building or off campus.