Development of a Standard Operating Procedure; Rapid Intervention Team Operations

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Leading Community Risk Reduction

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Abstract

The problem is Grand Forks Air Force Base Fire Department (GF AFBFD) did not have specific written procedures addressing operational deployment of a Rapid Intervention Team (RIT). The purpose of this project was to develop a Standard Operating Procedure (SOP) that provides specific deployment guidance to the Incident Commander (IC), operating procedures to the RIT, and informative guidance to other emergency responders if they find themselves in a “Mayday” situation themselves requiring the need of RIT team assistance.

This project explored guidelines, regulations, instructions, and national consensus standards for RIT establishment at the federal (to include military guidance (if any)), state, and local levels in an effort to address the following research questions; a) What if any, are the federal regulations, national consensus standards, DOD and Air Force Instructions, and for RIT establishment? b) What are the components required to develop a SOP? c) What if any, are the minimum requirements personnel must meet in order to be a RIT member? d) What if any, are the expected benefits of developing and adopting a RIT SOP verses current departmental policy?

Active research method was used in pursuing this project resulting in a developed RIT SOP for structural fire incidents. Procedures included research from the Occupational Safety and Health Administration (OSHA), the Department of Defense (DOD) Fire and Emergency Services (DODFES), the National Fire Academy (NFA), and the National Fire Protection Association (NFPA). In addition, numerous SOP’s from individual fire service organizations with established RIT’s were reviewed.

Recommendations include adoption of the completed proposed draft RIT SOP resulting from this research project. Mandatory compliance with all operational aspects following SOP adoption and RIT education, training and certifications requirements. Additional
recommendations include development of additional SOP’s specific to rapid intervention during military unique emergency incidents; i.e., aircraft and aircraft with special hazards and complexities, and special weapons.
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Development of a Standard Operating Procedure; Rapid Intervention Team Operations

Introduction

The problem is Grand Forks Air Force Base Fire Department (GF AFBFD) does not have specific written procedures addressing operational deployment of a Rapid Intervention Team (RIT).

The purpose of this project is to develop a Standard Operating Procedure (SOP) that will provide specific deployment guidance to the Incident Commander (IC), operating procedures to the RIT, and informative guidance to other emergency responders if they find themselves in a “Mayday” situation themselves requiring the need of RIT team assistance. The following questions are presented to address the issue associated with the “Development of a Standard Operating Procedure; Rapid Intervention Team Operations.”

a) What if any, are the federal regulations, national and state guidelines, Air Force Instructions, and national consensus standards for RIT establishment?

b) What are the components required to develop a SOP?

c) What if any, are the minimum requirements personnel must meet in order to be a RIT member?

d) What if any, are the expected benefits of developing and adopting a RIT SOP verses current departmental policy?

Active research that describes a current situation best depicts research method used to obtain data and developing and producing an SOP for RIT at GF AFBFD. Data collected during project preparation provided a comparison based evaluation resulting in a strong background as basis in developing an SOP suitable to facilitate the needs of GF AFBFD rapid intervention operations. Research and data collected assisted establishing incident command guidelines for
activating a RIT, procedures for RIT operations, in identifying qualifications, training, certification, operating procedures for the departments RIT to follow, and lastly to answer questions relating to AF firefighters’ training, education, and certification required for a department member to be considered a RIT member.
Background and Significance

AF Fire Protection came into existence shortly after the Army Air Corps separated in 1947 into two separate services to become the United States Army and United States Air Force, (USAF). Like the civilian fire service; over the years AF Fire Protection experienced many changes and evolved to a first-class organization. According to D’Andrea (2005) there is four-thousand, two hundred seven active duty military AF firefighters\(^1\). That figure equates to the one of the largest single fire protection organizations in the world!

During the early 1990’s AF fire protection led the way for all Department of Defense (DoD), Department of Veterans Affairs (VA), Defense Logistics Agency (DLA), and the United States Coast Guard (USCG) firefighters to possibly the greatest change in military fire service history with the implementation of the DoD Fire Fighter Certification Program (FFCP).

Through the FFCP military/federal firefighters have the opportunity to earn and be awarded nationally recognized certifications upon completing knowledge and performance tasks in-accordance-with (IAW) National Fire Protection Association, (NFPA), and International Fire Service Accreditation Congress (IFSAC) standards. These certifications along with additional educational, training benefits and experience have proven to be quite popular with new military firefighters.

Like any new or different formal program that results in a change of policy or procedures, success is greatly dependant upon program administration and participation at all levels according to the rules which the program is governed Rapid intervention and the way GF AFBFD addresses rapid intervention is no different.

Currently, GF AFBFD has a written policy on rapid intervention. The policy however is problematic as it provides only general guidance, such as; “the incident commander will consider
rapid intervention once on scene,” “rapid intervention team shall immediately respond to a
“Mayday” request,” etc. Although valid, these statements contained in GF AFBFD’s
departmental policy letter on rapid intervention provides no specific guidance to the incident
commander other than he/she will consider the issue once on scene. The policy neither provides
guidance for the incident commander or specific procedures for the RIT to follow when they
respond to a “Mayday.” A SOP developed from this ARP project specifies incident commander
guidance and procedures for a RIT if and when needed. The ultimate purpose of this ARP and
desire of this department is analogous to any other fire service organization; that is, to ensure that
“every firefighter goes home.”

“In 2006, a total of 89 on-duty firefighter deaths occurred in the U.S. This is a slight
increase over the 87 firefighter fatalities that occurred in 2005. It was the second consecutive
year, and the fifth out of 10 years, that the total number of deaths has been below 100. Of the 89
firefighter deaths four were killed in structural collapses in two fires in commercial properties –
trapped during a wall collapse and the other two following a floor collapse,” (Fahy, R., LeBlanc
and Molis, 2006). The intent of this ARP is an attempt to possibly prevent future firefighter
fatalities as just described.

Firefighter fatalities occur all too often. There are many reasons firefighters die in the
line-of-duty. Most are health and driving related. Still there are others that are the result of
structural integrity or the lack of resulting in a collapse of the roof, a wall, or floor entrapping
firefighters and blocking egress routes. Let’s face it, by virtue of the occupation firefighting is
dangerous and fatalities should be expected and a given from one of the most dangerous
occupations there is; true or false?
Many people probably have different answers to that question. However the correct answer should always be false as we should continuously seek new methods, procedures, or whatever is necessary to make the fire service as safe as possible and prevent or eliminate firefighter fatalities altogether. The best way to do so is through training, education, policies and developing and following standard operating procedures.

Every year firefighters are injured or die by becoming disoriented, lost, or trapped in atmospheres that are dangerous; otherwise known as Immediately Dangerous to Life and Health (IDLH) situations. Throughout history of the fire service there are numerous examples and data as support to the fact. The 1997 Lp-gas tank explosion that killed two firefighters in Carthage, IL, the infamous 1999 cold storage warehouse fire Worcester, MA that killed six firefighters. Although these incidents were several years ago we should not let our guard down in believing that in this day and age these types of firefighter deaths can not occur. A prime example of that fact is the 2007 furniture store fire in Charleston, SC that killed nine firefighters.

In 1998, Federal law addresses this to a very short extent; Title 29 Code of Federal Regulations (CFR) 1910.134 section G3, titled, *Respiratory protection*, indicates that a team of two firefighters will standby outside and prepared to perform or initiate a firefighter rescue if necessary while firefighters are within an IDLH atmosphere. This ruling is directed toward the first (or) initial response crew to a structural fire incident typically consisting of four firefighters. The ruling indicates that two firefighters can begin firefighting, search and rescue operations while the remaining two firefighters remain outside. The ruling also indicates that one of the two firefighters outside can be engaged in other support activities. This ruling is commonly known as the “2 in / 2 out” rule. Firefighters performing this function are commonly referred to as the Initial Rapid Intervention Crew (IRIC).
National consensus and nationally recognized standard; in 2001 the NFPA established a committee to develop a standard for fire departments titled *Organization and development of fire suppression operations by career fire departments*. This standard designated NFPA 1710 provides specific guidance to fire department administrators and command staff for conducting fire suppression operations to include rapid intervention. Like the CFR, NFPA 1710 also addresses the need for the IRIC with the initial response unit. However once the incident has escalated to an actual fire suppression operation the standard states that the incident commander shall establish a full Rapid Intervention Crew (RIC) consisting of no less that four fully equipped and trained firefighters that will not be engaged in any other activities and are present solely for the purpose of firefighter rescue. Until this standard was developed and approved all fire departments simply operated under the guidance of 29 CFR 1910.134 resulting in basically only one firefighter being physically prepared to perform firefighter rescue without any delay.

The USAF fire protection has always utilized national consensus and recognized standards, (the NFPA), as “general” guidance to develop policy and procedures for conducting fire protection operations, technical services (fire prevention), firefighter training, and public education. In 1995 Public Law (PL) 104-113 implemented the National Technology Transfer Act of 1995 and directed federal agencies to use technical standards developed by voluntary, private sector, or industry lead standards organizations.

Subsequent to PL 104-113, the USAF fire protection command staff located at Headquarters Air Force Civil Engineering Support (HQ AFCESA), Tyndall, AFB, FL convened to discuss the adoption of NFPA standards resulting in AF Policy Directive 32-20, (Fire Protection), establishing policy for the adoption of the NFPA standards and requires AF fire departments to meet the criteria specified within these standards. The final result being the AF
would adopt NFPA standards with allowed variances called Technical Implementation Guides (TIG’s). TIG’s represent applicability variances from (or) to NFPA standards facilitating unique missions of USAF Fire Protection without degrading original intent of the NFPA standard.

This applied research project was completed as required by the NFA’s Operational Policies and Procedures Applied Research Guidelines manual (Academy, 2003, September-b).
Literature Review

Literature review for this applied research project (ARP) initially began at the Learning Resource Center (LRC) located at the NFA in Emmitsburg, MD, September 2006. The author and LRC staff collected several previous ARP’s that related to SOP development and/or rapid intervention. In addition, the author retrieved several USFA Technical Reports regarding firefighter deaths resulting from firefighters becoming disoriented, lost, or trapped within IDLH atmospheres. Although not military specific, materials collected and researched from the NFA were fire service specific and proved very valuable in completing this project. Some of the material retrieved from the NFA’s LRC is referenced within this project.

Additional literature review specific to RIT’s consisted of researching federal regulations, nationally recognized standards, DOD and AF Instructions (AFI), SOP’s of individual fire service organizations that have active RIT’s. Since the goal of this project was to develop a SOP for GF AFBFD. Literature review also consisted of publications specific to SOP guidance and development.

Literature review at both the federal and national level addresses rapid intervention during the initial response. Primarily as Initial Rapid Intervention Crew (IRIC) consisting of two firefighters prepared to perform firefighter rescue in which one of those could be engaged in other activities. More commonly known as the “2 in / 2 out” rule or the IRIC, the ruling facilitates for two firefighters to standby outside an IDLH atmosphere while two firefighters are engaged in operations to perform a firefighter rescue if necessary; however there are fallacies in this ruling as these firefighters are not totally or solely dedicated specifically to a firefighter “Mayday” rescue. Per the ruling, one of the firefighters performing this function may be engaged in other duties at the emergency scene as long the function does not “jeopardize” the safety and
health of any other firefighter working the incident. That statement means many different things to different people and may result in delays of getting firefighters engaged in rescue activities.

Although the CFR provided little assistance in completing this project it should be noted the importance of firefighter safety cannot be overemphasized. Recognizing this, the CFR ruling, the first real reference to rapid intervention with the “2 in / 2 out” provision addressing the IRIC, by law, at least provides for a minimum level of rapid intervention and may be one of the most important safety advancements for the fire service. A copy of Title 29 CFR1910.134, section g 3 is included in Appendix C.

By far, the NFPA provided most literature guidance for research needed to complete this project; NFPA 1500, titled, *Fire department occupational safety and health program* and NFPA 1710, titled *Organization and development of fire suppression operations by career fire departments* proved to be invaluable assets. In 2001 a NFPA technical committee produced NFPA 1710. This was the first organized approach for fire departments to define levels of service, deployment capabilities, and staffing levels for career fire departments. Additionally the standard physically dedicates four firefighters following the initial response who are solely responsible for the search and rescue of fallen firefighters\(^2\). This standard, NFPA 1710, revised in 2004 states; “When an incident escalates beyond an initial full alarm assignment or when significant risk is present to fire fighters due to magnitude of the incident, the incident commander shall upgrade the IRIC to a full rapid intervention crew (RIC) that consists of four fully equipped and trained fire fighters,” (NFPA 1710, 2004, August).

DOD and AF fire protection specific instructions, publications, manuals, policies and procedures were researched to determine if the military had addressed rapid intervention from a higher command standpoint. Military fire protection references included; DOD Instruction (I)
Additional literature review conducted through Internet such as the National Institute for Occupational Safety and Health website provided a great deal of background prevalence to firefighter deaths and rapid intervention. Literature review of monthly fire service journals provided some subject-specific background leading towards completion of this project. Data obtained from SOP submissions concluded literature review for this ARP.

Although there were many variations to procedures and operational concepts; an inquiry to compare RIT SOP’s from other fire service organizations, i.e., local and federal provided a solid basis in development of an SOP for GF AFBFD. A copy of the sample SOP request letter and a complete listing of individual organizations that supplied sample SOP’s is located in Appendices D and F respectively. In reviewing literature specifically for general “SOP” development, Cook, (1998), presented an array of valid fire protection operations and services examples that any fire service organization would envy. In addition, FEMA produced a guide titled; *Guide to developing effective standard operating procedures for fire and ems departments* was extremely helpful in completing this ARP and the developing a SOP.
Definitions

1. Apprentice Firefighter – 3 skill level: (3E731 AF Fire Protection Apprentice); a trained and certified AF Firefighter to IFSAC Firefighter I & II, HazMat Operations, and Airport Firefighter levels. Typically fulfills operational firefighter duties. Responsible for continuation training leading towards journeyman skill level award.

2. Craftsman Firefighter – 7 skill level: (3E571 AF Fire Protection Craftsman); a trained and certified AF Firefighter to IFSAC Firefighter I, II, HazMat Operations, and Airport Firefighter, D/O ARFF, Pumper, MWS, Fire Officer I, Fire Inspector I, and Fire Service Instructor I levels. Typically fulfills company officer, inspector, training, or station captain duties, and assistant chief duties. Responsible for continuation training leading towards superintendent skill level award.

3. Fire Protection Manager – (3E700 AF Fire Protection Manager); a command level management position typically responsible for operational procedures of organizational fire departments within a specific command. Fire Protection Manager is not a position or title that requires “upgrade training” period.

4. Initial Rapid Intervention Crew (IRIC) – Two members of the initial attack crew who are assigned for rapid deployment to rescue lost or trapped members.

5. Journeyman Firefighter – 5 skill level: (3E751 AF Fire Protection Journeyman); a trained and certified AF Firefighter to IFSAC Firefighter I, II, HazMat Operations, and Airport Firefighter, D/O ARFF, Pumper, and MWS levels. Typically fulfills apparatus engineer duties. Responsible for continuation training leading towards craftsman skill level award.
6. Rapid Intervention Crew (RIC) – A dedicated crew of fire fighters who are assigned for rapid deployment to rescue lost or trapped firefighters.

7. Skill level – a measurement of qualification of associated tasks.

8. Superintendent Firefighter – 9 skill level: (3E791 AF Fire Protection Superintendent); a trained and certified AF Firefighter to IFSAC Firefighter I, II, HazMat Operations, Incident Commander, and Airport Firefighter, D/O ARFF, Pumper, MWS, Fire Officer III, Fire Inspector II, and Fire Service Instructor II levels. Typically fulfills deputy chief, or fire chief duties.

9. Upgrade training – a period when a military AF firefighter is in transition from one skill level to another. Transition occurs in four stages, (apprentice, journeyman, craftsman, and superintendent), throughout an AF firefighter’s career.

**Acronyms**

A listing of acronyms listed in Appendix A.

**Research Method**

Active form of research describing the current situation to answer and address questions presented referring to necessity of development of a SOP for RIT. It is recognized that this research could cross over additionally to evaluative research methods to facilitate additional statistical data if such data was required; primarily the study of firefighter deaths as a whole. However, in so doing would not have resulted in any additional or relevant information that is not readily accessible from organizations that regularly collect and track subject matter statistics and data, i.e., the USFA, NFPA, and OSHA. DOD fire service and DOD FFCP policies and procedures, AFI’s, polices and procedures, were researched in order to determine if any military
related fire service components had addressed rapid intervention beyond the 29 CFR 1910.134, and if so, to what extent (procedures, training, qualifications), etc.

Two publications, one by FEMA titled, Developing effective standard operating procedures for fire and emergency departments, and the other by Cook, J.L, titled, Standard operating procedures and guidelines, provided sound step-by-step guidance in the requirements for developing an SOP.

Lastly, a combination of literature review, personal correspondence, personal observations, interviews of members within GF AFBFD, and responses by several individual fire departments that provided sample SOP’s for review for this ARP and to develop an SOP addressing rapid intervention operations for GF AFBFD.

Limitations

It is recognized that there are limitations that should be identified and applied as necessary to this research project. First, just because an organization has an active SOP for rapid intervention does not mean that firefighters are at less risk or that firefighters of an organization with rapid intervention capability(s) should disregard common safety practices.

Second, the belief that all will follow instructions, policies, directives or standard operating procedures is false. Thus, just because an organization has these written policy(s), directives, or SOP’s in place does not necessarily mean that they are followed as written all the time by all personnel. In addition, situational factors may also force variations to policy(s), directive(s), and SOP’s.

Third, 21 sample SOP’s were received in which all had variations to an extent regarding their specific course of emergency operations and specialized functions. As evident through
review of sample SOP’s addressing rapid intervention; it is noted that different organizations have varied verbiage describing specific operations.

Lastly, because of vast amount of sample SOP’s received and reviewed; it is not logistically or logically feasible to incorporate all received and perceived ideas accumulated from received SOP’s.

Survey

No surveys were initiated to complete this project. However, a request to 51 individual fire departments was sent in order to get an idea of how other fire service organizations addressed the RIT issue. Majority (40) of requests were sent to departments at the local level. The remaining 11 were sent to federal military departments. All requests made were to fire service organizations located geographically within the continental United States. No specific requirements were made in soliciting organizations for their sample SOPS other than the organization had to be a full-time career fire department. Out of the 51 requests a total of 21 departments responded with a copy of their SOP addressing rapid intervention. The SOP request cover letter and listing of fire departments which provided sample SOP’s is located in Appendices D and F respectively.

Interview

Personal interviews were conducted in a casual setting, on duty, but after normal duty day hours with several active firefighters assigned to the operations section of GF AFBFD. A total of four questions were asked to ten firefighters ranging in ranks from basic firefighter to assistant chief. The interview did not intend to compare operational policy and procedure knowledge between various levels interviewed. Simply, the intent was to determine level of knowledge of
rapid intervention verses current written policy on rapid intervention. All interviewee’s desired not to have their names published. The following questions were presented GF AFB firefighters:

- a) What is your primary safety concern with this department?

- b) What is your primary safety concern at the scene of a structural incident where suppression operations are in progress?

- c) Explain what Rapid Intervention means to you.

- d) Are you familiar with policy and procedures regarding rapid intervention in this department? If so, please describe.

Procedural processes to complete this ARP were obtained from *Executive development student manual* (Academy, 2003, September-a) and *Executive fire officer program; Operational policies and procedures applied research guidelines*, (Academy, 2003, September-b).
Results

Results from this ARP are positive at least from GF AFBFD standpoint. This department now has an inter-departmental approved draft SOP for rapid intervention during structural fire suppression operations. As of this the completion of this ARP, the draft SOP is awaiting final approval and signature through 319th Air Refueling Wing (ARW) leadership. GF AFBFD is expected to receive that approval without question. When 319 ARW approves and signs the SOP the “draft” designation will be removed and the SOP will be a permanent document for GF AFBFD.

The final product resulting from this ARP is a SOP addressing rapid intervention for the personnel employed by GF AFBFD. In order to determine the how, what, when, where, and why research at various levels of government and the fire service occurred to answer the following ARP research questions, answers follow;

a) What if any, are the federal regulations, national consensus standards, DOD and Air Force Instructions, and for RIT establishment?

Federal regulations, currently there are no federal regulations (excluding DOD and AF) that specifically address the requirements for establishing a RIT. However, the federal government did address a program in 1998 that was the precursor of the RIT concept fire departments operate from in today’s fire service. Title 29 CFR 1910.134, Respiratory Protection, first addressed the issue of the need for firefighter rescue in 1998 called the “2 in / 2 out” rule. The rule predominantly addressed actions for an initial response crew of four firefighters also referred as the IRIC. The intent of this ruling is for two firefighters remained poised for an emergency rescue of the other two firefighters engaged in normal
firefighting activities within an IDLH atmosphere if a rescue were needed. This “2 in / 2 out” ruling remains in effect today and fire service organizations are still by-law required to perform this function. However, there are factors within the ruling that preclude the ruling from adequately meeting the intent of a RIT or RIC. Those factors are discussed in the discussion section of the ARP.

National consensus standards; better known within the fire service as the NFPA standards, are standards researched and developed by technical committees consisting of several leading experts within the specified field and associated industry. Committees meet, discuss, and develop standards that represent a “consensus” of the committee. Once complete this newly proposed standard flows through several processes that include acceptance voting from the development committee, a review and commit process by public and potential users called Report on Proposals (ROP), a process for committee to respond to public commit, another committee voting session, and then Report on Commit (ROC) produced by committee to public for public review. Following is another voting by the NFPA membership to act upon ROP’s and ROC’s which typically are in the form of amendments. The Committee again votes on any amendments. From this point the document goes to Standards Council on Association for appeals to the standard (usually from public interest) that must be filed within 20 days. The Standards Council then decides to adopt or not adopt the proposed standard.

Mentioned in literature review section; the NFPA provided most of the literary research needed to complete this project; NFPA 1500, titled, *Fire department occupational safety and health program* reemphasized 29 CFR
1910.134 and NFPA 1710, specifically addressed rapid intervention by answering the how, what, when, where, and why’s. This publication proved to be an invaluable asset in final result of this ARP, “the RIT SOP.”

In 2001 a NFPA technical committee produced NFPA 1710. This was the first organized approach for fire departments to define levels of service, deployment capabilities, and staffing levels for career fire departments. Additionally the standard physically dedicates four firefighters following the initial response who are solely responsible for the search and rescue of fallen firefighters². NFPA 1710, revised in 2004 states; “When an incident escalates beyond an initial full alarm assignment or when significant risk is present to firefighters due to magnitude of the incident, the incident commander shall upgrade the IRIC to a full rapid intervention crew (RIC) that consists of four fully equipped and trained fire fighters,” (NFPA 1710, 2004, August).

Local guidelines; like most any other fire department GF AFBFD had the capability and would perform rapid intervention if and when needed, “we just do it,” stated one firefighter during an interview. However, local policy at GF AFBFD consisted of much generalized guidance for the incident commander to consider following the initial response in relation to rapid intervention. There were no concrete procedures for firefighters to follow. There was no guidance as to who could perform rapid intervention, what qualifications a member had to have or experience levels identified.

The draft SOP located in Appendix F identifies guidance sought by incident commanders, procedures for RIC(s) and identifies training,
qualifications, and/or other variables for a member of GF AFBFD to be on the RIT. All inclusive, all contents originated locally following a brainstorming session among members resulting in a draft proposal to management. Once management approved the proposal that included requirements for a RIT member the SOP began the development phase.

DOD and AF Instructions; as mentioned in Literature Review section, there were several military fire service publications researched. Of the military related fire protection publications listed; none specifically addressed rapid intervention. However, HQ AFCESA had issued notification and mandatory implementation guidance of the “2 in / 2 out” rule, (Hall, 1998, July).

After receiving information that rapid intervention had been addressed at the headquarters level, additional research lead to a single document in the form of a memorandum addressed to all twelve AF command level³ staff. The letter from Lieutenant Colonel John M. Robertson, Director of Contingency Support, HQ AFCESA and dated 14 Jul 98 did address rapid intervention beyond the initial response in the following statement;

“Full Response. This is a response beyond the incipient stages. When a second team is assigned inside the IDLH, as a minimum, one dedicated rapid intervention team (two person teams) shall be assigned outside the IDLH. All teams will consist of at least two firefighters dedicated to their assignment,” (Robertson, 1998, July).
b) What are the components required to develop a SOP?

Both FEMA and Cook provided similar components needed to complete a practical SOP once a Needs Assessment is identified and accomplished. Since USFA is headed by FEMA guidance from that publication was used to prepare the GF AFBFD RIT SOP. The SOP development process as presented / suggested in FEMA’s *Guide to developing effective standard operating procedures for fire and ems departments* are as follows with brief summarization following each bulleted process.

- **Build the development team:**

  Development team should have representation across the department and from others that may be susceptible to respond with the department. For example; Management, Suppression, Technical Services, Training, Labor Relations, Safety, local community leadership, and Mutual-aid participants should be represented. FEMA notes that the primary function responsible for carrying out the procedures within the SOP should have the greatest representation.

- **Provide organizational support:**

  Depending on the nature of an SOP, the SOP Development Team may require additional resources in order to accomplish the SOP. Participants may need on duty time to discus and prepare SOP, and participants may need authorization for overtime to complete tasks that cannot be accomplished while on duty. Organizational support is utmost importance.
• Establish team procedures:

  SOP Development Team mission must be clear to all participants. A team leader position should be established to track tasks and timelines for task accomplishment(s). Timelines established for completing specific tasks. Budget requirements should be identified as soon as feasibly possible in order to gain necessary organizational support early in process.

• Gather information and identify alternatives:

  This process should be relatively simple as the needs Assessment should predominantly have basic/most information already. If alternative ideas arise, then additional assessment may be necessary.

• Analyze and select alternatives:

  This is the step where information gathered during research is applied to practical or procedural use. There are four factors requiring consideration in applying the research to practical and procedural use in this step, they are; feasibility, implementation factors, compliance with regulations and standards, and political viability.

• Write the SOP:

  The next step is physically writing the SOP. Both FEMA and Cook format SOP’s in a similar fashion. Both suggest a numbering system, effective date, an expiration/review date, title, description or purpose, scope, procedures and references.
• Review and test the SOP:

Review should be accomplished by development team and then forwarded to approving official for review prior to approval. Once review complete the SOP should be presented to department and tested.

• Ratify and approve the SOP:

If test results are positive the SOP should be presented as such to approving official for adoption. If test results are negative the development team should reevaluate content and procedural applications to practicality. Once issues are ratified, the SOP should be retested. If retesting results are positive the SOP should be routed to approval official for adoption.

c) What if any, are the minimum requirements personnel must meet in order to be a RIT member?

This question was on the edge of disaster in terms of locating definitive qualification criteria required to be a RIT member. End result being that the department collectively determined criteria locally.

e) What if any, are the expected benefits of developing and adopting a RIT SOP verses current departmental policy?

Expected benefits include incident commander guidance for rapid intervention deployment. Procedures a RIT and a RIC can follow when a rapid intervention is needed. Identified training and qualifications required to be a member of the RIT.
Interview

Personal interviews were conducted in a casual setting, on duty, but after normal duty day hours with several active firefighters assigned to the operations section of GF AFBFD. A total of four questions were asked to ten firefighters ranging in ranks from basic firefighter to assistant chief. The interview did not intend to compare operational policy and procedure knowledge between various levels interviewed. Simply, the intent was to determine level of knowledge of rapid intervention verses current written policy on rapid intervention. All interviewee’s desired not to have their names published. The following bulleted statements summarizing answers of those interviewed; some actual quotes from the interview are included.

a) What is your primary safety concern with this department?

- Not knowing the exact intent of conversation in relation to rapid intervention or firefighter safety; all personnel interviewed indicated that their overall primary concerns were for the safety of occupants of our community.

b) What is your primary safety concern at the scene of a structural incident where suppression operations are in progress?

- As in question (a), interviewees again had no knowledge of intent of conversation being specifically the subject relating to rapid intervention and firefighter safety. All but one firefighter answered firefighter safety with follow-on concerns of command and control (qualifications of the incident commander), structural stability and the IC’s capability to recognize warning signs of structural components in time to prevent a collapse. The one firefighter that presented a variance stated; “he simply was concerned about the occupants (if any), fighting fire and preserving property!”
c) Explain what Rapid Intervention means to you.

- To no surprise, (especially after the recent incident in Charleston, SC), all interviewees had a through grasp of rapid intervention and rapid intervention concepts. All indicated that a RIT was responsible for performing firefighter rescue if needed.

d) Are you familiar with policy and procedures regarding rapid intervention in this department? If so, please describe.

- Answering this question with accuracy seemed problematic. Only two personnel answered the question as presented and intended. One was the Assistant Chief of Operations. The other had performed that function as a fill-in numerous occasions. In respect of the remaining personnel interviewed; answers ranged from “I don’t know,” to “there are no rapid intervention procedures after our first-run arrives, we just do it,” to “we use the “2 in / 2 out” process to rescue firefighters,” to “we sound all sirens on fire ground to make sure everyone knows to get out.” There were additional answers to the question, however the remaining predominately mirrored intent of aforementioned.
Discussion

Within this section the author will discuss several points of interest associated with this ARP and rapid intervention. Discussion will include; local policy issues at GF AFBFD, initial rapid intervention, RIT and RIC, SOP’s and SOP’s verses SOG’s, federal regulations and national consensus standards, and military fire protection instructions, policies and directives.

Like most any other fire department GF AFBFD has the capability and would perform rapid intervention if and when needed, “we just do it,” stated one firefighter during an interview. However, local policy at GF AFBFD consisted of much generalized guidance for the incident commander to consider following the initial response in relation to rapid intervention. There were no concrete procedures for firefighters to follow. There was no guidance as to who would or could perform rapid intervention, what qualifications a member had to have or experience levels identified.

Current policy at GF AFBFD dictates that the initial response unit will initiate an IRIC upon determining that a fire suppression operation is required at an incident. AT GF AFBFD, our initial response unit is an engine company manned with a crew of five fire fighters allowing the driver to explicitly man the apparatus, two-crew members to perform initial suppression duties and two crew members to perform IRIC duties. Note: IAW with 29 CFR 1910.134, one of the two members assigned as IRIC can perform additional firefighter duties while remaining outside an IDLH atmosphere as long as those duties do not further impede safety concerns of those in the IDLH. For example; this member could assist the driver in establishing a water supply, but should not be in the position such as the driver position because if an initial rapid intervention were needed he would be required to leave the operators pump panel to facilitate IRIC duties resulting in engine and pump being unmanned.
Current GF AFBFD policy suggests that the IC only is required to consider rapid intervention needs upon arriving from a second alarm. Although there is no doubt that if needed the tasks associated with rescuing trapped firefighters at GF AFBFD would occur and occur immediately following a “Mayday” notification with the only delay of gathering personnel to conduct the rapid intervention tasks. However, the author suggests that current guidance is neither clear nor precise as a young IC may or may not direct a RIC to standby while other crews are engaged in suppressions duties resulting in a delay of gathering personnel to perform rapid intervention. The draft SOP specifies that a RIC be established immediately upon arrival to a second alarm when other crews are engaged in suppressions duties.

Initial rapid intervention is summarized as two members of an initial response unit of four that allow for two members to engage in fire suppression within an IDLH atmosphere while two crew members (the IRIC) remain outside the IDLH readied for an immediate firefighter rescue if needed. One of the two members outside the IDLH may perform other fire ground duties as well. Initial rapid intervention is synonymous with “2 in / 2 out” concept.

GF AFBFD firefighters performs IRIC functions on every initial response requiring a charged handline and crew entering any structure regardless whether active fire suppression is required or not. Current SOP and policy address the function as automatic by the initial response unit.

Rapid intervention is summarized as the process or tasks associated with the rescue of trapped firefighters. Throughout the process of completing this ARP the author researched DOD and AF fire protection instructions, policies, directives, and procedures and found no specific reference to rapid intervention from the command level. The author did however locate a memorandum written by Lt Col Robertson, dated 14 Jul 98 that briefly states that a dedicated
rapid intervention team shall be assigned outside the IDLH during a “full response.” The actual intent of the memo was to address the new “2 in / 2 out” ruling. Although the author believes that AF fire protection is fortunate that Robertson actually addressed rapid intervention in his memo the author doubts that many copies of this memo remain today and since DOD nor AF have addressed rapid intervention at the command levels resulting of the inclusion in DOD and AFI’s, policies, directives, etc., that many AF fire departments are not properly addressing rapid intervention; like GF AFBFD.

Rapid intervention team or (RIT) is a group of firefighters dedicated to the sole purpose of rescuing trapped firefighters. The authors’ version of RIT as described in the draft SOP, located in Appendix F, introduces the RIT similarly with the RIT serving both operational shifts with Rapid intervention crews.

Rapid intervention crew(s) or (RIC(s)) are firefighters dedicated to the sole purpose of rescuing trapped firefighters within an IDLH atmosphere. The author introduces RIC’s in the draft SOP located in Appendix H, as assigned to an operational shift that immediately response to a fire suppression incident upon receiving a second alarm. A second alarm indicates that fire suppression is needed or in progress by an initial response unit. Each operational shift has there assigned RIC’s which make up the RIT.

The draft SOP also states that the RIT will consist of a total of twelve members, (six per shift) and that no less than four members will be on duty for any shift. The remaining two allocations are to ensure minimum of a four-person RIC is on duty while allow two position for Kelly-days and annual leave.

According to the NFPA, a SOP is an organizational directive that establishes a course of action, FEMA. (1999, December, p. 2). SOP’s can be developed for practically any function an
organization desires that require directive guidance. Most SOP books include some administrative tasks, fire prevention tasks, and procedures for training to name a few, but most will be bountiful of operational procedures for various emergency events common to the jurisdiction.

SOP’s verses Standard operating guidelines; some believe that fire departments should operate under administrative guidelines more commonly known as SOG’s. The author has heard that firefighters would rather have the general guidance verses operating under the directive nature of SOP’s thus allowing more flexibility for those performing tasks addressed by SOP’s and also providing some level of empowerment to those making decisions on the fire ground verses having to strictly follow SOP directives. Some AF fire departments have switched to SOG’s but most still operate via SOP’s.

FEMA addresses SOP’s verses SOG’s to an extent explaining that some experts believe SOG’s are guidelines that imply too much flexibility, loss of control resulting in the likelihood of mistakes or veering from the departments mission. The author suggests if these experts are correct that legal implications are simply waiting to happen. In contrast to the “some experts” reference, FEMA states that “review of legal proceedings indicates that terminology is less important than content and implementation of SOPs/SOGs. Courts tend to assess liability on factors such as; Systems be in place to develop and maintain SOPs/SOGs, Compatibility with regulatory requirements and national standards, consideration of unique departmental needs, Adequacy of training and demonstration of competence, and procedures used to monitor performance and ensure compliance, (FEMA, 1999, December, p. 2)” be the determining legal factors. The author referenced Hogan’s’ Legal aspect of the fire service in an attempt to locate
any case studies of previous legal actions resulting from organizations using SOG’s verses SOP’s; Hogan did not identify any such cases.

Federal regulations, currently there are no federal regulations that specifically address the requirements for establishing a RIT. However, the federal government did address a program in 1998 that was the precursor of the RIT concept fire departments operate from in today’s fire service. Title 29 CFR 1910.134, *Respiratory protection*, first addressed the issue of the need for firefighter rescue in 1998 called the “2 in / 2 out” rule. The rule predominantly addressed actions for an initial response crew of four firefighters also referred as the IRIC. The intent of this ruling is for two firefighters remained poised for an emergency rescue of the other two firefighters engaged in normal firefighting activities within an IDLH atmosphere if a rescue were needed. This “2 in / 2 out” ruling remains in effect today and fire service organizations are still by-law required to perform this function. However, there are factors within the ruling that preclude the ruling from adequately meeting the intent of a RIT or RIC. Those factors are discussed in the discussion section of the ARP.

National consensus standards; better known within the fire service as the NFPA standards, are standards researched and developed by technical committees consisting of several leading experts within the specified field and associated industry. Committees meet, discuss, and develop standards that represent a “consensus” of the committee. Once complete this newly proposed standard flows through several processes that include acceptance voting from the development committee, a review and commit process by public and potential users called Report on Proposals (ROP), a process for committee to respond to public commit, another committee voting session, and then Report on Commit (ROC) produced by committee to public for public review. Following is another voting by the NFPA membership to act upon ROP’s and
ROC’s which typically are in the form of amendments. The Committee again votes on any amendments. From this point the document goes to Standards Council on Association for appeals to the standard (usually from public interest) that must be filed within 20 days. The Standards Council then decides to adopt or not adopt the proposed standard.

Mentioned in literature review section; the NFPA provided most of the literary research needed to complete this project; NFPA 1500, titled, *Fire department occupational safety and health program* reemphasized 29 CFR 1910.134 reiterated verbiage of 29 CFR 1910.134 and NFPA 1710, specifically addressed rapid intervention by answering the how, what, when, where, and why’s. This publication proved to be an invaluable asset in final result of this ARP, “the RIT SOP.”

In 2001 a NFPA technical committee produced NFPA 1710. This was the first organized approach for fire departments to define levels of service, deployment capabilities, and staffing levels for career fire departments. Additionally the standard physically dedicates four firefighters following the initial response who are solely responsible for the search and rescue of fallen firefighters\(^2\). NFPA 1710, revised in 2004 states; “When an incident escalates beyond an initial full alarm assignment or when significant risk is present to fire fighters due to magnitude of the incident, the incident commander shall upgrade the IRIC to a full rapid intervention crew (RIC) that consists of four fully equipped and trained fire fighters,” (NFPA 1710, 2004, August).

There are several military specific publications related to fire protection; these include, (DODI), 6055.6 (2000), titled *DOD fire and emergency services program*, that provides the AF fire protection its authority of fire protection training for the DOD as stated; “The Secretary of the Air Force shall administer and maintain the DOD Fire Fighting Certification Program (FFCP) for all DOD components. Provide structural and aircraft fire suppression, rescue, fire
fighting, and technical training for all DOD Components (except for specialized local training as provided herein) at the DOD Fire Fighter Academy, Goodfellow (Air Force Base) AFB, TX.”

Others include, DOD 6055.6-M, titled; *DOD fire fighting certification program*, this publication addresses mandatory certification required for specific duty positions. AFI 32-2001, titled; *The fire protection operations and fire prevention program*, this instruction is as stated in title the operational guide for AF fire departments. AFI 36-2201, titled; *Air force training program on the job training administration*; volume 3, this instruction specifically identifies core tasks required to be mastered to a competent level for those AF firefighters in upgrade training to the next skill-level. AF Form 623, titled; *Department of the air force; AFSC 3E7X1 fire protection career field education and training plan*, (CFETP). The CFETP is the training record that is maintained for all AF personnel. The CFETP includes upgrade training, progress, awarding, and formal training an AF member receives during their AF career.

Of all these publications that reference DOD and AF fire protection training specifically; none reference rapid intervention at all. The author suggests that DOD and AF firefighters are subject to being trapped in a structure just as is any other fire service organization and that rapid intervention should be specifically addressed in these publications as to the requirements (training, physical requirements, age, experience, etc) for a RIT and its members.

The AF is the lead DOD agency for all fire protection training and certification programs. All DOD firefighters are trained at the Louis F. Garland Fire Academy located at Goodfellow AFB, San Angelo, TX. Most DOD firefighters compete 13 weeks of training consisting of First Responder, Fire Protection Fundamentals (theory), Structural Fire Fighting Principals, Structural Fire Ground Operations, Hazardous Materials, and Airport Fire Fighter training. Upon successful completion of the fire academy graduates are qualified First Responder and awarded their first
IFSAC certifications of Firefighter I/II, Hazard Materials (HazMat) Operations (Ops) Level Responder, and Airport Firefighter which result in the graduate being awarded AFSC 3E731 skill level, titled *AF Apprentice Firefighter*, (synonymous to 3- level, entry-level, and rookie firefighter)

Upon graduation, AF apprentice firefighters are considered fully prepared to be an entry-level member of an AF fire department typically performing as an operational firefighter. As with most entry-level fire service training programs the only hands-on experience AF firefighters attending the DOD Fire Academy receive are limited to controlled training scenarios and judged performance exams of specific tasks. Neither DOD nor AF firefighters receive any training related to rapid intervention from the academy.

AF firefighters, like most other fire academy graduates, do fulfill entry-level positions as operational firefighters following academy graduation and arrival at their first duty assignment. Similarly new AF firefighters participate in department training programs such as daily scheduled training as do other department members just as in any fire department. However, in addition to those daily training sessions AF firefighters are immediately placed in and simultaneously begin their upgrade training to the AFSC 3E751, (AF Journeyman Firefighter), upgrade training leading towards the award of “5-level.” New firefighters must remain in 5-level upgrade training status for a minimum of fifteen months. The entire 15 months is considered an on-the-job (OJT) training period.

Apprentice firefighters typically are assigned to structural suppression crews for a period after they arrive at their first duty station. Thus, they are subjected to fulfilling the operational tasks as defined in 29CFR 1910.134 as an IRIC team member. In addition, as current policy is not specific to who may or may not be assigned to a RIC these apprentice firefighters may fulfill
that duty as well. The author suggests this as inappropriate as a new graduate could find himself/herself as a RIC member the day after they arrive, with no rapid intervention training.

Draft SOP, Appendix F, specifies specific ages, physical condition, and suppression experience required to be assigned to a RIC at GF AFBFD. In relationship to experience, Appendix C, titled; *Average progression of an AF firefighters’ career*, (p. 48), represents the rate of progression of the average AF firefighters’ career. Data obtained from Career field and education training plan (CFETP), (2002, March 22) provides some data, specially rank, that one could expect to be eligible to be a RIT member provided all other criteria was met. According to the draft SOP, a minimum of five years experience in suppression is required before being eligible for the RIT. The AF progression chart indicates that a journeyman firefighter (5-level), Senior Airman (E-4) would be the lowest rank of a RIT member at GF AFBFD. The AF accepts members into the AF up to the age of 29; the draft SOP indicates that the maximum age of a RIT member is 36, thus an enlistee entering AF fire protection at age 29 would most likely not meet eligibility requirements to be a RIT member because of the five-year suppression experience requirement. Ideally, an enlistee entering AF fire protection at 18 years of age would provide the greatest benefit to GF AFBFD in regards to tenure on the team.
Recommendations

There are several recommendations that should be addressed based upon the research of this ARP. Fire service organizations whether municipal or, in this case, federal military should adopt and enforce federal and state regulations directed towards the fire service profession. Also NFPA standards are developed. From opinions of NFPA technical committees that are composed of leading experts in the fire service field and industry. These standards are developed through tests, knowledge and experience for an array of fire protection issues for which firefighters are confronted with daily. Organizations should adopt and make every attempt to facilitate the intent of NFPA standards.

First and foremost the top priority of any fire service organization should be the safety of its personnel. As identified in the limitations section of this ARP; just because an organization has a policy or SOP does not necessarily indicate that the policy or SOP is clear, understandable or even followed as intended. In such circumstances, and once identified, organizations should ratify vagueness and train their personnel to the intent of the policy or SOP; then enforce it.

The author credits the federal government with indirectly bringing the issue of rapid intervention to the forefront through 29 CFR 1910.134. The “2 in/2 out” ruling of 1998 requires fire departments to perform a function solely dedicated to firefighter rescue. Unfortunately, this only addressed firefighter rescue at the initial response level. The federal government should update and incorporate language from NFPA 1710 into 29 CFR 1910.134 requiring fire department to establish a dedicated rapid intervention team (or) crew immediately when fire suppression efforts within an IDLH atmosphere are in progress.

AF command staff should address and incorporate rapid intervention in fire protection instruction, policy(s), and directives. Currently there are no such references specific to rapid
intervention within those publications. The AF is the lead military agency responsible for all DOD fire protection training. The AF command level staff should direct the DOD fire academy to make rapid intervention part of the Firefighter II (FF II) curriculum. In addition, the AF fire protection is the lead agency for the Fire Fighter Certification Program. Through the International Fire Service Accreditation Congress, (IFSAC), the AF issues thousand of firefighter certifications annually to all DOD components fire service personnel. The AF should partner with IFSAC and the NFPA to develop a standard for a Rapid Intervention qualification and certification.

As a result of the ARP, a draft SOP titled, *Development of a standard operating procedure; Rapid intervention team operations* was developed for Grand Forks AFB Fire Department. A copy of this draft SOP is in Appendix H. This SOP was actually approved by local management and is currently awaiting approval at the Wing Commander’s office and is expected to be signed any time. Although the result of this ARP is considered a success story from GF AFBFD management with a concise SOP referencing an area that previously lacked attention; management understands that the ultimate success of this will lye with those that will perform rapid intervention duties and those that may themselves require rapid intervention. The author sincerely recommends that every GF AFB firefighter educate themselves, act responsively and safely so that “every firefighter goes home.”

The author realizes that above and beyond local SOPs’ that many of the recommendation(s) associated with this ARP are beyond the scope of any base level fire chief. Nonetheless at some point in time the possibility will now exist that the recommendations identified may bring the rapid intervention issue to the command level for further evaluation.
towards official inclusion in DOD fire protection publications for the benefit of all DOD fire service personnel.
References


Academy, N.F. (2003, September-b). Executive fire officer program; Operational policies and procedures applied research guidelines. Emmitsburg, MD: Author.


References, continued


References, continued


Appendix A

Lists of Acronyms

1. 1, 3, 5, 7, 9 Skill Level – Air Force
2. AF – Air Force
3. AFB – Air Force Base
4. AFI – Air Force Instruction
5. AMC – Air Mobility Command
6. APR – Applied Research Project
7. ARFF – Aircraft Rescue and Firefighting
8. AFSC – Air Force Specialty Code
9. CDC – Career Development Course
10. CFETP – Career Field Education and Training Plan
11. CFR – Code of Federal Regulation
12. DAF – Department of the Air Force
13. D/O – Driver/Operator
14. DOD – Department of Defense
15. DODFES – Department of Defense Fire and Emergency Services
16. DODI – Department of Defense Instruction
17. DODM – Department of Defense Manual
18. EMT (NR) – Emergency Medical Technician (Nationally Registered)
19. FEMA – Federal Emergency Management Agency
20. FInsp – Fire Inspector
21. FInst – Fire Instructor
Lists of Acronyms, continued

22. FF (ff) - Firefighter

23. FO – Fire Officer

24. GF AFB (FD) – Grand Forks Air Force Base (Fire Department)

25. HazMat (AW, Ops, TECH, IC) – Hazardous materials (awareness, operations, technician, incident command)

26. HQ AFCESA – Headquarters Air Force Civil Engineer Support Agency

27. IFSAC – International Fire Service Accreditation Congress

28. LRC – Learning Resource Center located at the National Fire Academy Emmitsburg, MD

29. NFA – National Fire Academy

30. NFPA – National Fire Protection Association

31. NPQB – National Professional Qualifications Board

32. OJT – On-the-Job Training

33. OSHA – Occupational Safety and Health Administration

34. PL – Public Law

35. PT – Public Telecommunicator

36. RIT – Rapid Intervention Team

37. SOG – Standard Operating Guide

38. SOP – Standard Operating Procedure


40. USAF – United States Air Force

41. USFA – United States Fire Administration
Appendix B

Title 29 Code of Federal Regulations

Title 29 1910.134, Section g 3

For all IDLH atmospheres, the employer shall ensure that: (i) One employee or, when needed, more than one employee is located outside the IDLH atmosphere; (ii) Visual, voice, or signal line communication is maintained between the employee(s) in the IDLH atmosphere and the employee(s) located outside the IDLH atmosphere; (iii) The employee(s) located outside the IDLH atmosphere are trained and equipped to provide effective emergency rescue; (iv) The employer or designee is notified before the employee(s) located outside the IDLH atmosphere enter the IDLH atmosphere to provide emergency rescue; (v) The employer or designee authorized to do so by the employer, once notified, provides necessary assistance appropriate to the situation; (vi) Employee(s) located outside the IDLH atmospheres are equipped with: (A) Pressure demand or other positive pressure SCBAs, or a pressure demand or other positive pressure supplied-air respirator with auxiliary SCBA; and either (B) Appropriate retrieval equipment for removing the employee(s) who enter(s) these hazardous atmospheres where retrieval equipment would contribute to the rescue of the employee(s) and would not increase the overall risk resulting from entry; or (C) Equivalent means for rescue where retrieval equipment is not required under paragraph (g)(3)(vi)(B). (4) Procedures for interior structural firefighting. In addition to the requirements set forth under paragraph (g) (3), in interior structural fires, the employer shall ensure that: (i) At least two employees enter the IDLH atmosphere and remain in visual or voice contact with one another at all times; (ii) At least two employees are located outside the IDLH atmosphere; and
Appendix B

Title 29 Code of Federal Regulations

Title 29 1910.134, Section g 3

continued

(iii) All employees engaged in interior structural firefighting use SCBAs. NOTE 1 TO PARAGRAPH (g): One of the two individuals located outside the IDLH atmosphere may be assigned to an additional role, such as incident commander in charge of the emergency or safety officer, so long as this individual is able to perform assistance or rescue activities without jeopardizing the safety or health of any firefighter working at the incident so long as this individual is able to perform assistance or rescue activities without jeopardizing the safety NOTE 2 TO PARAGRAPH (g): Nothing in this section is meant to preclude firefighters from performing emergency rescue activities before an entire team has assembled, (29 CFR, 2006).

Fire Fighter Career Path

- **BASIC MILITARY TRAINING**
  - 3-Level Tech School - Mission Ready Trained
  - Students graduate DoD certified at HazMat Operations, Fire Fighter II, and Airport Fire Fighter Levels

- **3 LEVEL APPRENTICE**
  - General Contingency Training
  - CDC/OJT/QTP (24 months OJT)
  - Fire Fighter/Alarm Room Operator/Rescuer, and (if certified) Driver Operator

- **5 LEVEL JOEURNMAN**
  - Fire Fighter/Driver-Operator/Alarm Room Operator/Rescuer
  - Must be DoD certified at Driver Operator Pumper, ARFF, and Mobile Water Supply levels before being awarded the 5-level

- **7 LEVEL CRAFTSMAN**
  - Crew Chief/Station Chief/Fire Inspector
  - Average: 16 yrs

- **9 LEVEL**
  - Asst Chief of Ops & Fire Chief
  - Average: 19.2 yrs

- **MAJCOM/ Air Staff/IG/Other**
  - Average: 21.5 yrs
July 6, 2006

Dear Sir / Ma’am,

I am Howard Beddingfield, the Assistant Fire Chief for Training at Grand Forks Air Force Base, North Dakota. Currently I am completing an Applied Research Project titled, “Development of a Standard Operating Procedure; Rapid Intervention Team Operations.” This is a National Fire Academy Executive Fire Officer Program project.

I desire to develop a comprehensive standard operating procedure (SOP) for my department in an effort to better provide deployment guidance to our incident commanders, procedural to our Rapid Intervention Team, and informative guidance to other emergency response forces to be used if they find themselves in a situation to where they themselves need to initiate a “Mayday” situation requiring RIT intervention.

If your department currently has a sample of a Rapid Intervention Team SOP I would like the opportunity to review it for possible ideas towards the development of our departments SOP. If you have the opportunity and time I would also like to have, if any, feedback since your department began using the RIT SOP.

Please maintain a copy of this request on file as it is also a suitable as a release of liability from all and/or any verbiage that may be used from your SOP in the development of ours.

Please provide a copy of your Rapid Intervention Team SOP using the enclosed self-addressed stamped envelope, or if preferred, send via facsimile to (701) 747-4450. If you have questions or desire to contact me for comment please e-mail at howard.beddingfield@grandforks.af.mil or call me. My office number is (701) 747-4446.

Thank you in advance.

//SIGNED//

Howard V. Beddingfield
Assistant Fire Chief, Training
Grand Forks AFB Fire Department, ND 58205
Appendix E

List of fire departments that provided sample RIT SOP’s for this project

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Rapid Intervention Team (RIT) Operations for Structural Fire Suppression Operations

1. **PURPOSE:** This Standard Operating Procedure (SOP), in conjunction with Code of Federal Regulation (CFR) 29 1910.134, titled *Occupational Safety and Health: Labor; Respiratory Protection*, the National Fire Protection Association (NFPA) Standard 1500, titled *Standard on Fire Department Occupational Safety and Health Program*, NFPA Standard 1710, titled *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*, DODI 6055, DOD 6055-6M, and AFI 32-2001 is to establish a uniform standard for specific deployment guidance to the Incident Commander (IC), operating procedures to the RIT, and informative guidance to other emergency responders if they find themselves in a “May Day” situation themselves requiring the need of RIT team assistance.

2. **SCOPE:** This standard applies to all personnel subject to emergency response on Grand Forks AFB or surrounding local communities through MOA’s shall follow enclose guidance addressed within this SOP.

3. **GUIDELINES:** No member shall commence or perform any firefighting or rescue function or evolution that is not within the established safety criteria of the Grand Forks AFB Fire Department.

   a) **Minimum response:** Response shall consist of no less than one Engine Company manned with five fully trained and equipped personnel which one must be a Nationally Registered Emergency Medical Technician.

      i. An interior firefighting effort at a working structural fire shall not take place without a minimum of five firefighters are present.
      ii. A working fire is defined as any fire that requires the use of a 1 ¾-inch or larger attack line and the use of SCBA.
      iii. When only five firefighters are present, two firefighters shall remain on the exterior and man a charged hose line capable of delivering a minimum of 200 gpm readied to provide rescue of firefighters engaged in rescue or suppression operations IAW 29 CFR 1010.134 Respiratory Protection “2 in / 2 out” rule. This team is referred as the Initial Rapid Intervention Crew (IRIC). The remaining firefighter shall man and perform Driver / Operator duties, Safety Officer, and accountability.
iv. During such an operation, the Incident Commander (IC) will immediately initiate a second alarm summoning follow-on response units and firefighter recall if Senior Fire Officer (SFO) deems necessary.

b) **Second Alarm:** Response shall consist of no less than one Command Officer, one Engine Company manned with four fully trained and equipped RIC personnel which two must be Nationally Registered Emergency Medical Technician certified, one Rescue Company manned with a minimum of three fully trained and equipped personnel which one must be a Nationally Registered Emergency Medical Technician, and one ambulance manned with two Nationally Registered Emergency Medical Technician certified.

4. **RESPONSIBILITIES:** Incident command staff is responsible for ensuring manning is available to facilitate a dedicated Rapid Intervention Crew (RIC) if the need arises. RIT is responsible for team qualifications, proficiency training and certification maintenance. RIC’s are responsible for compliance addressed within this SOP.

5. **EXPLANATION(S):** RIT is the whole team. The team consists of a total twelve; (six each shift) to allow for Kelly-days and leave. No more than two RIT members, same shift shall be absent from duty at any given time unless prearranged for fill-in from opposing shift members. RIC is the individual crew consisting of a minimum of four personnel.

6. **PROCEDURES:** The Command Officer arriving from the initiation of a second alarm is responsible for establishing a RIC following transfer and acceptance as the IC. The following procedures shall be implemented and followed exclusively upon arrival at a fire scene where fire suppression activities are in progress resulting in a second alarm:

   a) The Command Officer will perform size-up, receive update from current IC in preparation of command transfer, assume command, establish a RIC and make follow-on assignment as needed.

   b) RIC will consist of the four crewmembers arriving on the second Engine Company and prepare to perform RIC duties if required utilizing equipment and handlines from the second arriving engine. RIC will immediately focus on rescue of firefighter when a “Mayday” call is made, when evidence of firefighter disorientation, lost, or when verbal communications is lost. Any and ALL other operations become secondary when any of the aforementioned is evident.
Appendix H

Standard Operating Procedure – 32-20-660

Rapid Intervention Team (RIT) Operations for Structural Fire Suppression Operations

Continued

c) A Rapid Intervention Team (RIT) shall be equipped with the appropriate protective clothing, protective equipment, SCBA, search rope, TIC camera, RIT air pack, Light, radio and any additional specialized rescue equipment needed, based on the specifics of the operation underway.

i. A RIC shall not perform functions other than rescue.

ii. Two rescuemen will team up with the IRIC and perform suppression and/or search and rescue operations along with team(s) currently engaged in suppression duties.

d) The third rescueman will man and perform Driver/Operator duties on the second arriving engine allowing for RIC to perform assigned function. This member will also assume the Safety Officer position from previous individual assigned that function.
Rapid Intervention Team (RIT) Operations for Structural Fire Suppression Operations

1. **GUIDELINES FOR LOST OR TRAPPED FIREFIGHTERS**

   a) If a firefighter finds him/herself lost or trapped, taking the appropriate actions can improve their survivability. Their first action is to clearly communicate their situation, condition and location to the best of their ability.

   b) Actions by lost or trapped firefighters

   i. Uses radio to transmit “Mayday”, alerting others to their situation while attempting to find a way to safety.
   
   ii. Transmits their situation as concisely as possible including location (if known), special rescue needs and other pertinent information such as amount of air remaining in SCBA.
   
   iii. Manually activates the device if PASS device has not already sounded.
   
   iv. Tries to control emotions, slows breathing avoiding unnecessary physical activity to conserve air supply.
   
   v. Attempts to locate other crew members in the immediate vicinity, assessing their situation and assisting them as possible.
   
   vi. Attempts to locate near a window for possible self-rescue or as a means to signal rescuers.
   
   vii. If a window is not available, tries to reach an exterior wall to aid searchers, or a hallway which usually leads to an exit.
   
   viii. Uses a hoseline and the direction of hose couplings to find the correct direction out of the building.
   
   ix. If power is still available, turns lights on and off to signal searchers.
   
   x. If a way out can't be located finds a safe location that offers protection from the fire and control measures. Example: avoids areas where water may accumulate such as a basement,
   
   xi. Tries to position him/her to allow for maximum volume of the PASS device.
Appendix G

SOP 32-20-660 - Appendix B

Rapid Intervention Team (RIT) Operations for Structural Fire Suppression Operations

1. **GUIDELINES FOR LOST OR TRAPPED FIREFIGHTERS**

   a) Actions by firefighters outside IDLH (may include the IC, drivers, or any other emergency personnel on scene and Dispatch personnel)

   b) Actions by lost or trapped firefighters

      i. Incident Commander

         1. IC will immediately summons the RIC, order an off-duty firefighter recall, and initiate a mutual-aid request if action(s) not already completed.

            a. Activates a rescue team immediately, deploying them to the most appropriate location to begin search and rescue activities.

            b. Assigns a Rescue Group Supervisor and monitors the rescue talk group if one is assigned to the rescue effort.

         2. Transmits a "Firefighter Down" message and communicates an emergency signal.

         3. Move all other fire ground radio traffic to another channel.

         4. Initiates an emergency roll call to determine the number of firefighters accounted for and those missing.

         5. Assigns a Safety Officer to assist with assessing and monitoring the safety of the overall scene and the rescue operation.

         6. IC will establish an Entry Control Point (ECP) and location of On Scene Command.

         7. Requests additional alerts (including Paramedics) as necessary to ensure adequate resources for medical treatment, R.I.T. and relief/rehab of working crews.

         8. Provides for a continuous fire attack, protecting the lost/trapped firefighters from fire conditions.

         9. Is prepared to "write off" other portions of the building if necessary, to concentrate on firefighter rescue.

SOP Recommended Proposal
Appendix G

SOP 32-20-660 - Appendix B

Rapid Intervention Team (RIT) Operations for Structural Fire Suppression Operations

Continued

10. Considers the use of positive pressure ventilation to maintain (or increase) tenability of the structure.
11. Provides additional lighting to assist with rescue efforts as needed.
12. Ensures that a medical area is established based upon potential need.

ii. Rapid Intervention Crew(s) (RIC)(s)

1. RIC will immediately initiate a plan of action to the IC and proceed to execute that action(s).
2. The four-man RIC made divide into two RIC’s if situation is favorable to do so.
3. RIC call signs: RIC – 102, 102, 103, 104

iii. Apparatus operators

1. Will immediately sound sirens and horns to ensure all emergency personnel on scene are aware of a “Mayday” request.
2. Sirens and horns will remain activated until the IC give the order to halt that notification.
3. Operators will prepare additional equipment for recall and mutual-aid personnel arriving.

iv. Dispatch operators

1. Dispatch will dispatch an ALS unit from Altru Hospital.
2. Dispatch will notify Grand Forks 9-11 Center for mutual-aid from Emerado and City of Grand Forks FD.
3. Dispatch will dispatch a second BLS unit from GF AFB Medical Group
4. Dispatch will notify Fire Chief and Deputy
5. Dispatch will notify the Base Fire Marshall
6. Dispatch will notify the Command Post
7. Dispatch will summon the Mobile Command Post and dispatch to emergency scene ECP.
Appendix G

SOP 32-20-660 - Appendix B

Rapid Intervention Team (RIT) Operations for Structural Fire Suppression Operations

Continued

v. Actions by Safety Officer

1. Ensures that the On-Scene (PASSPORT) Accountability system is in place and functioning properly.
2. Continually monitors the building for structural stability.

vi. Actions by Rescue Group Supervisor

1. Evaluates situation to determine risks to additional firefighters and viability of rescue for known circumstances.
2. Focuses on developing and methods for implementing a Rescue Plan. Estimates the amount of air available to the lost/trapped firefighter and provides additional air supply through the rescue team(s).
3. Develops a Rescue Plan for a coordinated search to be performed with no missed areas or unnecessary duplication of efforts.
4. Ensures use of On-Scene (PASSPORT) Accountability System.
5. Requests an aide (through IC) to help monitor radio traffic.
Rapid Intervention Team (RIT) Operations for Structural Fire Suppression Operations

1. QUALIFICATION REQUIREMENTS FOR RIT MEMBERS
   
   a. RIT members must be and remain in top physical condition as lives will depend upon RIC’s abilities to perform rescue tasks in the most hazardous conditions.
   b. RIT members shall be in their prime age, size range and maintain a strict regimental exercise program in order to meet or exceed expected performance levels and have a.
      i. Age range for RIT – 26 to 36 years of age
         1. If RIT member exceeds age range and member has not achieved additional rank from normal testing and promotion opportunities; member will be placed in pre-RIT position.
      ii. Size range for RIT – 150 to 190 lb.
         1. If RIT member exceeds Size range (above or below) and member has not achieved additional rank from normal testing and promotion opportunities; member will be placed in pre-RIT position.
   c. RIT members must have minimum of five years of suppression experience
   d. Candidates must apply for special duty
   e. Candidates must successfully complete special physical fitness RIT performance exam
   f. Candidates shall be IFSAC certified to at least the following prior to applying for RIT.
      i. Fire Officer I
      ii. Fire Inspector I
      iii. Fire Instructor I
      iv. HazMat Technician
      v. Rescue Technician I
      vi. Emergency Medical Technician – Basic

2. TRAINING REQUIREMENTS FOR RIT MEMBERS
   
   a. RIT members shall participate in a rigorous physical conditioning program every shift except Sundays and Federal holidays.
   b. RIT members shall participate in group and team rapid intervention training simulating real-world firefighter rescue scenarios no less than four three–hour sessions per month.
   c. RIT members shall practice select specialized rescue techniques every shift except Sundays and Federal holidays.
Appendix G

**SOP 32-20-660 - Appendix C**

Rapid Intervention Team (RIT) Operations for Structural Fire Suppression Operations

Continued

3. **CERTIFICATION REQUIREMENTS FOR RIT MEMBERS**

   a. RIT members shall obtain minimum IFSAC certifications with in five years from appointment to RIT.
      i. Fire Officer II
      ii. Fire Inspector II
      iii. HazMat Incident Command
      iv. Rescue Technician II
      v. Emergency Medical Technician – Intermediate
Appendix H

Endnotes

1. Airman Magazine: Source; Air Force Personnel Center (AFPC), data current as of September 30, 2004. Data does not include federal civil service civilian, Air National Guard, or Air Force Reserve firefighters, (p. 7).

2. Fallen firefighters refers to a firefighter that is disoriented, lost, trapped or otherwise requires immediate assistance that he/she cannot provide to themselves and those that have requested a “Mayday” summoning that assistance, (p. 13, 22, and 34).

3. AF Command Staff refers to the highest level of command (Headquarters) of the twelve commands in the AF. Each base in the AF is managed under a specific command dependant upon the bases’ primary mission. GF AFB is currently managed under HQ Air Mobility Command (or) HQ AMC, (p. 23).

4. After inquiring about this statement; the author understood the meaning and intent. USAF Fire Departments that employ both military and civilian personnel as firefighters attempt to maintain parity among the ranks with the two groups. For example; if there is on civilian Assistant Chief for Operations for one shift, then the opposing shift will have a military Assistant Chief for Operations. This situation, at times, presents continuity and comfortability problems with members on shift with the military Assistant Chief. Military rotations and transfers result in military person fulfilling Assistant Chief of Operations position changing on somewhat a semi-regular basis; usually every 12 to 15 months and occasionally more often, (p. 27).

5. “…he simply was concerned about the occupants (if any) fighting fire, and preserving property!” This interviewee is our youngest military firefighter that had graduated from DOD Fire Academy two-weeks prior to the interview, (p. 27).