

## Applicant Information

**Special Note:** Section 401.111, Florida Statutes, requires the state to assist private nonprofit youth athletic organizations that work in conjunction with local EMS with costs for automated external defibrillators. We intend to fund grant requests of this type.

**Optional:** In your application package cover letter you may request to be, or recommend a person to be, a reviewer of matching grant applications during this grant cycle.

**Request for Grant Fund Distribution Page:** This page is the last page of the grant application. You must complete the top part of the form and state EMS staff will complete the bottom portion, as indicated on the form.

Ask a staff member of your organization who does cash transactions with the state for the organization name to use on the Distribution Form and the exact corresponding address of its 9-digit federal tax ID plus its 3-digit sequence code.

**Number of Pages:** Each application must be no more than 15 one-sided pages, including the form and all content. However, you may submit a one-page cover letter and letters of recommendation. These pages will not count against the total page limit. Please note, reviewers are not required to read anything over 15 one-sided pages.

**Fastening.** If you send a paper application, do not use a booklet cover. Simply staple it in the upper left corner, with the first page of the application form the first of the stapled pages.

While preparing the application, you may contact state EMS staff for assistance.



**EMS MATCHING GRANT APPLICATION**

**FLORIDA DEPARTMENT OF HEALTH  
Emergency Medical Services Section**

*(Complete all items unless instructed differently within the application)*

Type of Grant Requested:  Rural  Matching

ID Code (The State EMS Section will assign the ID Code – (leave this blank) \_\_\_\_\_)

1. <u>Organization Name:</u> Alachua County Fire Rescue	
2. <u>Grant Signer:</u> (The applicant signatory who has authority to sign contracts, grants, and other legal documents. This individual must also sign this application.)	
Name: Ken Cornell	
Position Title: Alachua Board of County Commissioners Chair	
Address: 12 SE 1 <sup>st</sup> Street	
City: Gainesville	County: Alachua
State: Florida	Zip Code: 32601
Telephone: (352)264-6900	Fax Number: unavailable
Email Address: KCornell@alachuacounty.us	

3. <u>Contact Person:</u> (The individual with direct knowledge of the project on a day-to-day basis and responsibility for the implementation of the grant activities. This person may sign project reports and may request project changes. The signer and the contact person may be the same.)	
Name: Michael Cowart	
Position Title: Assistant Chief Alachua County Fire Rescue	
Address: 911 SE 5 <sup>th</sup> Street	
City: Gainesville	County: Alachua
State: Florida	Zip Code: 32601
Telephone: (352)562-6550	Fax Number: (352)337-6138
Email Address: mcowart@alachuacounty.us	

4. Legal Status of Applicant Organization (Check only one response):

- (1)  Private Not for Profit [Attach documentation-501 (3) ©]
- (2)  Private for Profit
- (3)  City/Municipality/Town/Village
- (4)  County
- (5)  State
- (6)  Other (specify): \_\_\_\_\_

5. Federal Tax ID Number (Nine Digit Number): VE 59-6000501

6. EMS License Number: 101 Type: Transport Non-transport Both

7. Number of Permitted Vehicles by Type: BLS 0 ALS Transport 31 ALS non-transport 16

8. Type of Service (check one):  Rescue  Fire  Third Service (County or City Government, non-fire)  Air Ambulance  Fixed Wing  Rotor Wing  Both  Other (specify) \_\_\_\_\_

9. Medical Director of Licensed EMS Provider: If this project is approved, I agree by signing below that I will affirm my authority and responsibility for the use of all medical equipment and/or the provision of all continuing EMS education in this project. **[No signature is needed if medical equipment and professional EMS education are not in this project.]**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Print/Type: Name of Director Jason Jones

Florida License Number ME 115097

Note: All organizations that are not licensed EMS providers must obtain the signature of the medical director of the licensed EMS provider responsible for EMS services in their area of operation for projects that involve medical equipment and/or continuing EMS education.

10. Justification Summary: Provide on no more than three one-sided, double-spaced pages, a summary addressing this project covering each topic listed below.

- A) Problem description (Provide a narrative of the problem or need);
- B) Present situation (Describe how the situation is being handled now);
- C) The proposed solution (Present your proposed solution);
- D) Consequences if not funded (Explain what will happen if this project is not funded);
- E) The geographic area to be addressed (Provide a narrative description of the geographic area);
- F) The proposed time frames (Provide a list of the time frame(s) for completing this project);
- G) Data sources (Provide a complete description of data source(s) you cite);
- H) Statement attesting that the proposal is not a duplication of a previous effort (State that this project doesn't duplicate what you've done on other grant projects under this grant program).

**Next, only complete one of the following: Items 11, 12, 13 or 14. Read all four and then select and complete the one that pertains the most to the preceding Justification Summary. Note that on all, that credible before-after differences for emergency victim data are the highest scoring items on the Matching Grants Evaluation Worksheet used by reviewers to evaluate your application form.**

11. Outcome for Projects that Provide or Effect Direct Services to Emergency Victims: This may include vehicles, medical and rescue equipment, communications, navigation, dispatch, and all other things that impact upon on-site treatment, rescue, and benefit of emergency victims at the emergency scene. Use no more than two additional one-sided, double-spaced pages for your response. Include the following.

- A) Quantify what the situation has been in the most recent 12 months for which you have data (include the dates). The strongest data will include numbers of deaths and injuries during this time.
- B) In the 12 months after this project's resources are on-line, estimate what the numbers you provided under the preceding "(A)" should become.
- C) Justify and explain how you derived the numbers in (A) and (B), above.
- D) What other outcome of this project do you expect? Be quantitative and explain the derivation of your figures.
- E) How does this integrate into your agency's five-year plan?

12. Outcome for Training Projects: This includes training of all types for the public, first responders, law enforcement personnel, EMS and other healthcare staff. Use no more than two additional one-sided, double-spaced pages for your response. Include the following:

- A) How many people received the training this project proposes in the most recent 12-month time period for which you have data (include the dates)?
- B) How many people do you estimate will successfully complete this training in the 12 months after training begins?
- C) If this training is designed to have an impact on injuries, deaths, or other emergency victim data, provide the impact data for the 12 months before the training and project what the data should be in the 12 months after the training.
- D) Explain the derivation of all figures.
- E) How does this integrate into your agency's five-year plan?

13. Outcome for Other Projects: This includes quality assurance, management, administrative, and other. Provide numeric data in your responses, if possible, that bear directly upon the project and emergency victim deaths, injuries, and/or other data. Use no more than two additional one-sided, double-spaced pages for your response. Include the following.

- A) What has the situation been in the most recent 12 months for which you have data (include the dates)?
- B) What will the situation be in the 12 months after the project services are on-line?
- C) If this project is designed to have an impact on injuries, deaths, or other emergency victim data, provide the impact data for the 12 months before the project and what the data should be in the 12 months after the project.
- D) Explain the derivation of all numbers.
- E) How does this integrate into your agency's five-year plan?

**Skip Item 14 and go to Item 15, unless your project is research and evaluation and you have not completed the preceding Justification Summary and one outcome item.**

14. Research and Evaluation Justification Summary and Outcome: You may use no more than three additional one-sided, double-spaced pages for this item.

- A) Justify the need for this project as it relates to EMS.
- B) Identify (1) location and (2) population to which this research pertains.
- C) Among population identified in 14(B) above, specify a past time frame, and provide the number of deaths, injuries, or other adverse conditions during this time that you estimate the practical application of this research will reduce (or positive effect that it will increase).
- D) (1) Provide the expected numeric change when the anticipated findings of this project are placed into practical use.  
(2) Explain the basis for your estimates.
- E) State your hypothesis.
- F) Provide the method and design for this project.
- G) Attach any questionnaires or involved documents that will be used.
- H) If human or other living subjects are involved in this research, provide documentation that you will comply with all applicable federal and state laws regarding research subjects.
- I) Describe how you will collect and analyze the data.

**ALL APPLICANTS MUST COMPLETE ITEM 15.**

15. Statutory Considerations and Criteria: The following are based on s. 401.113(2)(b) and 401.117, F.S. Use no more than one additional double-spaced page to complete this item. Write N/A for those things in this section that do not pertain to this project. Respond to all others.

Justify that this project will:

- A) Serve the requirements of the population upon which it will impact.
- B) Enable emergency vehicles and their staff to conform to state standards established by law or rule of the department.
- C) Enable the vehicles of your organization to contain at least the minimum equipment and supplies as required by law, rule or regulation of the department.
- D) Enable the vehicles of your organization to have, at a minimum, a direct communications linkup with the operating base and hospital designated as the primary receiving facility.
- E) Enable your organization to improve or expand the provision of:
  - 1) EMS services on a county, multi county, or area wide basis.
  - 2) Single EMS provider or coordinated methods of delivering services.
  - 3) Coordination of all EMS communication links with police, fire, emergency vehicles, and other related services.

16. Work Activities and Time Frames: Indicate the major activities for completing the project (use only the space provided). Be reasonable, most projects cannot be completed in less than six months and if it is a communications project, it will take about a year. Also, if you are purchasing certain makes of ambulances, it takes at least nine months for them to be delivered after the bid is let.

<i><b>Work Activity</b></i>	<i><b>Number of Months After Grant Starts</b></i>	
	<u>Begin</u>	<u>End</u>
Purchase Equipment and Accessories	Immediately	60 days
Training	Immediately	90 days
Implementation into service	90 days	120 days

17. County Governments: If this application is being submitted by a county agency, describe in the space below why this request cannot be paid for out of funds awarded under the state EMS county grant program. Include in the explanation why any unspent county grant funds, which are now in your county accounts, cannot be allocated in whole or part for the costs herein.

There are not enough funds from the County Awards Grant to fund such a project. This year's County Awards Grant is being used for training.

18. Budget:		
<b>Salaries and Benefits:</b> For each position title, provide the amount of salary per hour, FICA per hour, fringe benefits, and the total number of hours.	<b>Costs</b>	<b>Justification:</b> Provide a brief justification why each of the positions and the numbers of hours are necessary for this project.
TOTAL:	<b><u>\$ 0.00</u></b>	Right click on 0.00 then left click on "Update Field" to calculate Total

<b>Expenses:</b> These are travel costs and the usual, ordinary, and incidental expenditures by an agency, such as, commodities and supplies of a consumable nature, <u>excluding</u> expenditures classified as operating capital outlay (see next category).	<b>Costs:</b> List the price and source(s) of the price identified.	<b>Justification:</b> Justify why each of the expense items and quantities are necessary to this project.
TOTAL:	<b><u>\$ 0.00</u></b>	Right click on 0.00 then left click on "Update Field" to calculate Total

<b>Vehicles, Equipment, and Other:</b> Operating capital outlay means equipment, fixtures, and other tangible personal property of a non-consumable and non-expendable nature, <u>and</u> the normal expected life of, which is 1 year or more.	<b>Costs:</b> List the price of the item and the source(s) used to identify the price.	<b>Justification:</b> State why each of the items and quantities listed is a necessary component of this project.
Mechanical CPR Devices	\$83,259.00	Key component of project
Batteries/Chargers/Accessories	11,944.20	Necessary to operate the devices
Service Agreement	30,326.40	For proper maintenance and repair
<b>TOTAL:</b>	<b><u>\$125,529.60</u></b>	Right click on 0.00 then left click on "Update Field" to calculate Total

<b>State Amount</b> (Check applicable program) <input checked="" type="checkbox"/> Matching: 75 Percent	<b><u>\$94,147.20</u></b>	Right click on 0.00 then left click on "Update Field" to calculate Total
<input type="checkbox"/> Rural: 90 Percent	<b><u>\$0.00</u></b>	Right click on 0.00 then left click on "Update Field" to calculate Total
<b>Local Match Amount</b> (Check applicable program) <input checked="" type="checkbox"/> Matching: 25 Percent	<b><u>\$31,382.40</u></b>	Right click on 0.00 then left click on "Update Field" to calculate Total
<input type="checkbox"/> Rural: 10 Percent	<b><u>\$ 0.00</u></b>	Right click on 0.00 then left click on "Update Field" to calculate Total
<b>Grand Total</b>	<b><u>\$125,529.60</u></b>	Right click on 0.00 then left click on "Update Field" to calculate Total



19. <u>Certification:</u>	
My signature below certifies the following:	
I am aware that any omissions, falsifications, misstatements, or misrepresentations in this application may disqualify me for this grant and, if funded, may be grounds for termination later. I understand that any information I give may be investigated as allowed by law. I certify that to the best of my knowledge and belief all the statements contained herein and, on any attachments, are true, correct, complete, and made in good faith.	
I agree that all information submitted in this application will become a public document pursuant to Section 119.07, F.S., when received by the Florida Bureau of Emergency Medical Oversight. This includes material that the applicant might consider to be confidential or a trade secret. Any claim of confidentiality is waived by the applicant upon submission of this application pursuant to section 119.07, F.S., effective after opening by the Florida Bureau of Emergency Medical Oversight.	
I accept that in the best interests of the state, the Florida Bureau of Emergency Medical Oversight reserves the right to reject or revise any and all grant proposals or waive any minor irregularity or technicality in proposals received and can exercise that right.	
I, the undersigned, understand and accept that the Notice of Matching Grant Awards will be advertised in the <i>Florida Administrative Weekly</i> , and that 21 days after this advertisement is published I waive any right to challenge or protest the awards pursuant to Chapter 120, F.S.	
I certify that the cash match will be expended between the beginning and ending dates of the grant and will be used in strict accordance with the content of the application and approved budget for the activities identified. In addition, the budget shall not exceed the department approved funds for those activities identified in the notification letter. No funds count toward satisfying this grant if the funds were also used to satisfy a matching requirement of another state grant. All cash, salaries, fringe benefits, expenses, equipment, and other expenses as listed in this application shall be committed and used for the activities approved as a part of this grant.	
Acceptance of Terms and Conditions: If awarded a grant, I certify that I will comply with all the above and also accept any attached grant terms and conditions and acknowledge this by signing below.	
<hr style="width: 50%; margin: 0 auto;"/> Signature of Authorized Grant Signer (Individual Identified in Item 2)	<hr style="width: 50%; margin: 0 auto;"/> / / MM / DD / YY

DH FORM 1767 [2013]

**THE TOP PART OF THE FOLLOWING PAGE MUST ALSO BE COMPLETED AND SIGNED**

FLORIDA DEPARTMENT OF HEALTH  
EMERGENCY MEDICAL SERVICES (EMS) GRANT UNIT

REQUEST FOR GRANT FUND DISTRIBUTION

In accordance with the provisions of section 401.113(2) (a), *Florida Statutes*, the undersigned hereby requests an EMS grant fund distribution for the improvement and expansion of pre-hospital EMS.

**DOH Remit Payment To:**

Ask a finance person in your organization who does business with the state to provide the information to complete the top part of this form, but it should be signed by the person identified in Item 2, 1<sup>st</sup> application page.

Name of Agency: Alachua County Fire Rescue

Mailing Address: 911 SE 5<sup>th</sup> Street

Gainesville, Florida 32601

Federal 9-digit Identification Number: VE 59 6000501 3-digit Seq. Code \_\_\_\_\_

Authorized County Official: \_\_\_\_\_

**Signature**

**Date**

Michele Lieberman County Manager

Type or Print Name and Title

*Sign and return this page with your application to:*

*Florida Department of Health  
Emergency Medical Services Unit, Grants  
4052 Bald Cypress Way, Bin A-22  
Tallahassee, Florida 32399-1722*

**Do not write below this line. For use by State Emergency Medical Services Section**

Grant Amount for State to Pay: \$ \_\_\_\_\_ Grant ID: Code: \_\_\_\_\_

Approved By: \_\_\_\_\_  
Signature of State EMS Unit Supervisor Date

Approved By: \_\_\_\_\_  
Signature of Contract Manager Date

State Fiscal Year: 2019 - 2020

<u>Organization Code</u>	<u>EO</u>	<u>OCA</u>	<u>Object Code</u>	<u>Category</u>
64-61-70-30-000	03	SF003	751000	059999

Federal Tax ID: VF \_\_\_\_\_ Seq. Code: \_\_\_\_\_

Grant Beginning Date: \_\_\_\_\_ Grant Ending Date: \_\_\_\_\_

## 10. Justification Summary

**A) Problem Description.** Alachua County Fire Rescue (ACFR) currently has nineteen (19) front line advanced life support (ALS) transport units of which six (6) of them serve in a rural part of the county. Due to the large service area, 965 square miles, these rural transports can have up to a 45 minute response time to deliver patients to definitive care at one of our three hospitals. Additionally, in some cases, our transports respond with basic life support (BLS) fire units from the local Municipal Fire Department.

Performing chest compressions for an extended period of time causes fatigue and can have a negative impact on the quality of CPR. Additional complications with manual CPR include; interruptions in compressions while moving the patient, physical limitations of the medical providers, and also tying up an additional rescuers which are limited in the rural areas. Medical providers who are transporting from rural locations on busy highways are also put at an unnecessary risk when not able to be seat belted while doing chest compressions.

Automatic chest compression devices (ACCD) have recently become the standard for rural emergency medical service (EMS) agencies. A 2012 Journal of Emergency Medical Services (JEMS) stated "Manual chest compressions are often done incorrectly, especially in the back of a moving ambulance, and incorrect chest compression can negatively impact survival studies showed interruptions of chest compressions were common, averaging 24% to 57% of the total arrest time".

Alachua County continues to recover from the financial devastation of the economic crisis from over a decade ago. Alachua County has not experienced adequate growth in improved property values which has a direct effect on Fire Assessment fees. Additionally, the General Ad Valorem funds that is used to support expenditures not covered by medical billing has decreased from \$3.3 M in FY2010 to \$503,313 in FY2019. These impacts have prevented ACFR from being able to purchase the needed ACCDs for our transports.

**B) Present Situation.** Currently, none of ACFR's transports are stocked with ACCDs. With transport distances as much as 45 minutes to the hospital for our rural units, extended times of doing chest compressions leads to fatigue, is not safe for the medical providers and is not as efficient as using an ACCD. The use of ACCDs provides a continuous high quality chest compressions that is uninterrupted while moving the patient, during ventilations and while defibrillating. Consistent chest compressions profoundly increases the chance of return of spontaneous circulation (ROSC) and is a lifesaving intervention and the cornerstone of

resuscitation from cardiac arrest according to American Heart Association (AHA). Additionally, clinical studies demonstrate that quality of CPR during resuscitation has a significant impact on survival and contributes to the wide variability of survival.

ACFR conducted a trial using ACCDs on three apparatus for three months. The use of the ACCDs in cardiac arrest in these controlled groups increased their ROSC rates from 24% when not using to 57% when in use. Alachua County Fire Rescue responded to 283 cardiac arrests from January 1<sup>st</sup> to December 31<sup>st</sup> 2020. If all of the transports were provided with ACCDs, the amount of patients delivered to the emergency room with a pulse would increase for 68 to 161. In addition to the 93 lives that will potentially be saved, the use of ACCD's has been shown to increase the time allotted for organ procurement in the event that the patient does not obtain ROSC.

ACFR relies on rural contract fire department providers, which oftentimes have limited staff, training and capabilities, to provide personnel to perform mechanical CPR in our rural areas. This creates a situation where no first responders are left in that response area to provide fire or medical coverage due to long transport times and limited personnel. The use of ACCDs on the rural transports will free up at least two additional personnel needed to alternate manual chest compressions.

**C) Proposed Solution.** After conducting a needs assessment, Alachua County is requesting grant funding for the purchase of six (6) Lund University Cardiopulmonary Assist Systems (LUCAS); one for each of the rural transports. The LUCAS device was the preferred ACCD when ACFR evaluated three different units in 2019. The LUCAS device was also the ACCD used in the three month trial that showed a dramatic improvement in ACFR's ROSC rates. The ease of use and quick transfer from mechanical compressions to the ACCD was far superior with the LUCAS device.

Purchasing 6 LUCAS devices for the rural transport units will enable Alachua County to provide more effective CPR for Alachua County residents who reside the greatest distance from hospitals. It would greatly improve their chance of survival, is safer for our crews and prevents physical fatigue. Additionally, the LUCAS device would free up at least two additional first responders that could remain in their first due response area.

**D) Consequences if Not Funded.** Without grant funding, ACFR will not be able to provide a higher level of care for our rural communities with the use of ACCDs. Based on our most recent data, this could prevent

ACFR from saving 21 additional lives. Not having this equipment will also continue to place our responders at a greater safety risk while doing manual compressions on the 355 miles of our busy major highways. If this grant is not approved, more rescuers are needed to ride into hospital leaving large response zones uncovered for an extended period of time for fire and EMS coverage. Should this grant not be awarded, ACFR will continue to search for alternative resources for this necessary live saving equipment.

**E) Geographical Area to be Addressed.** Alachua County has 969 square miles with a total population of 269,043 according to 2019 estimated census. The City of Gainesville which is located in the center of Alachua County comprises 64 of those square miles, has a population of 133,857 and is the location of the 3 hospitals. Of the 19 ALS transports in Alachua County, 6 of them provide primary coverage across a vast land mass of the rural areas and 135,186 citizens. In these rural response areas, transport time can be as long as 45 minutes.

Alachua County also provides mutual aid to Bradford, Columbia, Gilchrest, Marion, Putnam and Union counties. Transport if responding to a mutual aid request from one of these counties would require a travel time greater than one hour.

**F) Proposed Time Frames.** If awarded the EMS grant, purchase of the equipment would begin immediately. While the equipment is being procured, training will be conducted on the ACCD and a maintenance schedule established. The equipment will be placed into service once it is received, tested, tagged for inventory and identified as ready for use.

**G) Data Sources.** Data for this project was obtained from Census Data for 2019, the Journal for Emergency Medical Services, (JEMS), American Heart Association (AHA), and Alachua County report writing software.

**H) Statement.** This proposal is for the purchase of six (6) ACCD for the rural transport units of Alachua County. Because of their increased transportation distance to definitive medical care at the 3 main hospitals, these mechanical CPR devices would dramatically increase the survivability of citizens in cardiac arrest in these areas. Additionally, ACCD have become the standard of care for cardiac arrest response in rural transport agencies due to their increased response times.

**11) Outcome for Projects that Provide or Effect Direct Services to Emergency Victims**

**A)** Alachua County Fire Rescue responded to 283 cardiac arrests from January 1<sup>st</sup> to December 31<sup>st</sup> 2020. There are no ACCD in service on any of the 19 transports. ACFR conducted a 6 month trial with LUCAS ACCDs where three transports were outfitted. In the three month span of using the ACCDs, their control groups ROSC rate was 57%, and on the three months without it was 24% which is close to the department average. If all of the transports were provided with ACCDs, 93 more patients could have been delivered to the emergency room with a pulse. In addition, ACCDs provide a greater chance of organ procurement in patients that do not achieve ROSC.

**B)** If awarded the EMS grant to provide ACCDs on all rural transports, there should be a dramatic increase in the survivability of patients in cardiac arrest based on research from JEMS, AHA and ACFR's own trial study. The six rural transport units responded to 64 of the cardiac arrest calls for calendar year 2020. Based on the increase percentage of ROSC with ACCDs in the 2020 6 month trial, these rural transports would more than double their patients delivered to the ED with ROSC from 15 to 36. That is a potential of 21 more lives saved and returned to their families.

**C)** ACFR relies heavily on data driven procurement, especially when it comes to making life and death decisions. When ACFR's EMS Steering Committee met on how to increase ROSC rates, they evaluated research from JEMS, AHA and fire departments that have higher than standard ROSC rates. All research showed that continuous and high quality compressions was the most effective way to improve rates. Additionally, rural departments have determined that the use of ACCDs are the standard of care to deliver chest compressions due to long transport times and limited resources/ responders.

After providing additional education and training to first responders on chest compressions in spring of 2019, ACFR's ROSC rates improved from 19% to 29%. This increase in ROSC shows that high quality compressions make a difference but data derived from ZOLL CPR Feedback Device pads showed that compressions were still inconsistent, especially during rural transports.

ACFR evaluated 3 different ACCD models for a trial to determine ease of use, how quickly it could be deployed, and the perceived effectiveness of the units. The Auto Pulse was too big and cumbersome which made it not user friendly and took too long to implement. Additionally, it was more expensive and tended to slide on the patient. The Defib Tech model was similar to the LUCAS but there was no suction cup and the

piston slipped out of position over the sternum. The LUCAS device was extremely easy to operate and deploy. The suction cup not only kept the unit in place and also added additional recoil which recent studies indicate higher survival rates.

The LUCAS device was the preferred model so it was chosen in a different 6 month trial in 2020 to determine efficiency. During this controlled study, 3 ACFR transport units were issued a LUCAS device loaned by Stryker. For three months, the ROSC rates were tracked for all 3 lead paramedics assigned to each unit for a control group of 9 rescuers. During this trial, the ROSC rates improved to 57% as compared to 24% in the following 3 months for the group.

ACFR is requesting grant funding for 6 LUCAS devices to be issued to our rural units due to length of transport and limited resources/ responders. In calendar year 2020, these 6 transports ran 64 cardiac arrest. Based on the data derived from the 6 month trial above, these units should also see the proposed increases in ROSC rates potentially saving an additional 21 lives.

D) The use of an ACCD eliminates the need for a rescuer assigned to doing chest compressions. In long transports that require chest compressions, a minimum of two rescuers are needed to be able to swap every 2 minutes. Taking 2 rescuers off of a rural fire apparatus would take the unit out of service and unable to respond to fire or medical calls in their response zone. ACFR averaged the total time on call for all cardiac arrest for the 6 rural transports on cardiac arrest calls which was 1 hour and 7 minutes. The average time back to station for the fire unit from the closest hospital back to their station is 23 minutes. This would entail the fire unit to be out of service for a total of 1 hour and 30 minutes.

E) The Vision of ACFR is to a diverse organization, is recognized as an innovative leader in public safety services that is sought out and emulated by others. The department was charged by the new Fire Chief in 2019 to embrace new technologies and techniques to improve viability of patients and increase the quality of life to all of our citizens. ACFR's 5 year plan includes becoming a leader in the state of Florida with data driven projects and protocols that increase our level of care that we provide. This project will combine the latest technology to help our most vulnerable population for cardiac arrest death due to long transport times.

## **15) Statutory Requirements and Criteria**

**A)** The addition of the ACCDs to the 6 rural transports in ACFR will enable those providers to enhance their ability to achieve ROSC in cardiac arrest patients in their response area. They will minimize fatigue of responders which will have a better outcome due to decreased efficiency of chest compressions on long transports. Having the ACCDs will also enable the fire units in these rural areas to remain in service because 2 of their responders are now free to return to service when the transport leaves for the hospital.

**B)** N/A

**C)** N/A

**D)** N/A

**E)** ACFR will improve and expand the provision of:

1. ACCDs will enable ACFR to improve the chance of survival in cardiac arrest patients in Alachua County. Alachua County also provides mutual aid to Bradford, Columbia, Gilchrest, Marion, Putnam and Union counties. Studies have shown that the use of LUCAS devices increases the perfusion to the brain, heart and other vital organs far superior to manual chest compressions. This increased perfusion will improve the chances of survival to Alachua County residents and the contiguous counties.
2. The use of ACCDs would reduce the need for additional multijurisdictional personnel to assist the transport crew to provide life saving techniques. This allows those first responders to remain available inside of their response areas.
3. N/A