

## Project Narrative

### Club Name: Old Barney Amateur Radio Club

Your project may be simple or complex. Please use the questions below to describe the details of the project and how the grant would be utilized to make it possible.

## Transformative Impact

1. Describe the goals that you hope to achieve as part of your grant program. Be sure to emphasize how the achievement of your goals will have a transformative impact on your group, Amateur Radio operators around you, and your community. Please indicate the Grant Category or Categories that your program will address and be sure to outline your goals in each Grant Category. Also please note, in the questions which follow, the number of people outside your club that you expect to serve for each Grant Category.

Answer: The grant is aid in the development of the Southern Regional High School Amateur Radio Club in conjunction with The Old Barney Amateur Radio Club. The Old Barney Amateur Radio Club has established an affiliation with the Southern Regional High School and it might be characterized that the Southern Regional High School Club is a "Club" within the Old Barney Club. There are members of Old Barney ARC who attend the all the meetings at the school. They have begun teaching students and getting them interested in Amateur Radio and Electronics. The Target Categories are to create a program to get students on the air and active. The grant will aid in developing amateur radio skills and will include training projects. The projects will provide STEM learning by using Amateur Radio. There will also be an inclusion of Emergency Communications Training. The school is also used for a shelter during disasters. The area where radio equipment would be located, would allow the students along with the equipment to assist in the shelter operations. Students that would be trained in the use of the equipment would also be able to assist in these situations.

The goal: The main goal is to introduce amateur radio to high school students. This would be accomplished by:

- a) Teaching students the basics in operating amateur radio equipment – Members of the Old Barney Radio Club will assist students with the learning material required to pass Amateur Radio exams. They will also demonstrate some basic electrical theory and use kit building to demonstrate this.
- b) Students will learn the importance of serving the community should the need arise to provide communications in the event local communications fail – Students will be exposed to the local Amateur Radio Emergency Service groups in the County and the Section. They will be encouraged to participate in community events using Amateur Radio. There are events like walks for non-profit groups. They will also be invited to join in community activities with The Old Barney Club and ARES Teams.

- c) Students will learn to follow the FCC rules and regulations when operating on the amateur radio frequencies – Club members will teach the students about the FCC Rules and regulations and require them to follow them when operating the radios.
- d) The project will prepare the students, with ARRL learning material, to pass the FCC tests. -The intention is to use ARRL material to train the students. Then Volunteer Examiners from Old Barney will test them.
- e) Old Barny ARC members will teach the students safety in operating ham related equipment. – A key point that will be stressed to the students through out the interactions is safety. Electrical Safety will be stressed, when working on kits and radios, and personal safety when participating in community events.
- f) The project will expose the students to the various aspects of amateur radio like Morse code, single side band voice, digital modes like FT8. The Old Barney Club will bring in people who are proficient in different modes of operating radios. They will teach students about how the modes work and what to do when you make a contact in any of the modes. They will be exposed to Morse code with the hope of sending it on the air. They will do voice communication and learn proper procedures. Lastly, they will learn about digital modes and get a chance to use them.
- g) The program will strive to get the students involved with Field Day and other various activities like the Lighthouse weekends. The Old Barney Club has Field Day every year. Students would be encouraged to participate in that event. Also, Old Barney activates two Lighthouse Special Event Stations in the summer. Students would be encouraged to come out help set up and participate in these events.
- h) The program will teach the students the very basics of electronics with kit building: mounting resistors, capacitors, transistors, integrated circuits and soldering. The students would get hands on experience with kit building and soldering along with basic instruction in some electronic theory.
- i) The program will emphasize the responsibility of representing the school club, the community, the state, and our country when communicating over the amateur radio frequencies. The students would be instructed as to what it means to have a Amateur Radio License. We will talk about the importance of being an ambassador when communicating on the radio.
- j) The students will be exposed to how Amateur Radio can be used in Emergency Communications. The Southern Regional High School was a large shelter during Hurricane Sandy. Incorporation of Amateur Radio into the school would aid the shelter operations if future emergencies occurred. Students would also be instructed in how to use amateur Radio to aid the shelter operations.

2. Describe your plans to provide training and skills development for hams and the public beyond the membership of your club. Explain how your project will enable and be coupled with your training and mentoring plans. Include an estimate of the number of people you plan to train within the first 2 years of your project.

Answer: The main focus of this project is to provide training and skills development to the High School students. The goal is train younger people to be amateur radio operators. It is hoped that they will take the skills they learn out in the community once they graduate. The training and mentoring given by the members of the Old Barney Amateur Radio Club will aid and encourage the students to continue on with Amateur Radio and other areas of electronics. The Old Barney Club has been involved with the students over the last year and a half. There has been an increase in interest by the students to become more involved. Two students have obtained their licenses and a few more are interested in getting theirs. Another goal is that when the students graduate, they will become members of the Old Barney Club or remain active with Amateur Radio. The project hopes to train 20 to 25 students in 2 years. The goal is to continue and grow the school club and have a continued interest in Amateur Radio. This project also encourages the members of the Old Barney club to be become more involved and more active. This would be a great opportunity for the students as well as for members of the Old Barney Club.

3. Describe your plans to deliver Amateur Radio based STEM education in your community through your project. Please include an estimate of the number of groups you hope to serve with STEM education and the average size of the groups within the first 2 years of your project.

Answer:

In this project the Amateur Radio based STEM education is focused on the students at Southern Regional High School. The school currently does not have a radio-based STEM program. An Amateur Radio based STEM program places its emphasis on hands-on investigation and experimentation and makes it a perfect tool to help students understand complex technical subjects. It also aligns with both state and national learning objectives. Moreover, incorporating Amateur Radio in the classroom is a proven effective way to teach both practical application and theory. The goal is to create this environment for the students.

Most high schools in New Jersey have removed their Industrial Arts classes in favor of sending the students for half day classes at local technical schools. Needless to say, we can't teach the amateur radio club students electronics with their limited after school activities. We want to provide some simple kit building experience that will expose them to some level of electronics so they at least know the difference between a resistor and a capacitor. The kit building concept will give the students some hands-on experience with electronic components. Some examples of the kits they would build are 4-digit digital clocks, Small FM radios, Music Sound Box and an Interactive LED Kit.

As mentioned earlier the main focus will on the students at the Southern Regional Radio Club. This club is open to all students in the school. The average size of the group is 7 to 10 students. Amateur Radio readily lends itself to cross-subject learning, extra-curricular activities and career-oriented learning.

4. Explain the steps that you are planning to involve minorities in your project and how your program will help to improve diversity in Amateur Radio within your group and your community?

Answer: The Southern Regional High School is made up of Students from eight municipalities in Southern Ocean County. There are many minority students in the school. Anyone in the school is able to join or just drop by to see amateur radio activity. The New Jersey schools are proactive of inclusion of everyone to any school activity. When you communicate throughout the world, there are no exclusions in communicating. This includes people of all color, nationalities, sexual orientation, etc. Amateur Radio is a great community of people with the same desire to communicate with other people in the United States and the world. This idea will be passed along to the students.

5. Estimate the potential number of people (hams and non-hams) that would benefit from the proposed grant program within the first 2 years of your project.

Answer: The school club membership can change each year. The club has an active membership of approximately eighteen students. It is hoped that the club will grow to between 20 and 25 students in the next two years. The goal is to have 10 to 12 students obtain their amateur radio license in that time. The Old Barney Amateur Radio Club would have approximately 10 to 15 members that would also participate at different times with the students. The idea of interacting with the students has piqued the interest of many members. The goal is to have the students share their accomplishments with the school and other students. This will stimulate more interest in Amateur Radio and what they are doing. With the students participating in community events with Amateur Radio it may encourage people outside of the school to become interested in Amateur Radio also. The Old Barney club would be able to assist anyone who is interested.

6. Estimate the potential of your program to create growth in the number of licensed and active amateur radio operators within the first 2 years of your project.

Answer: As mentioned earlier the estimate number of new Amateur Radio Operators in the next two years would be 10 to 12 people. We would like to see about half of the all the members become licensed.

7. How will your project benefit members of your community who are not hams? Estimate the scope (numerically if possible) of the benefit to the public.

Answer: We estimate that this project will benefit the community in two ways. The first is that new Amateur Radio operators will be trained and they can participate in Emergency Communications activities. They will be encouraged to become part of the local Emergency Management groups and part of the local Amateur Radio Emergency Service Groups. This would aid the community in emergency situations. The second way they would benefit the community is that they may use the skills that they learn to take part in community activities. They could assist many groups with communications. This could be in the form of providing communication for fundraising events such as walks, or runs. Any Community groups, High School groups, government groups, or Nonprofit groups could benefit from the students trained in this program.

8. Discuss the potential of your project to protect and utilize amateur radio spectrum.

Answer: The students in the project will be trained in many areas of Amateur Radio. This would increase the activity on frequencies and bands allocated to Amateur Radio Operators. The main goal is to get as many students of Southern Regional High School club to become licensed. In today's world of tablets and smartphones, getting students to join in with other Amateur Radio operators is getting very challenging. We have noticed that the 2 meter and 440 bands are not as active as they were before cell phones. Students would be encouraged to use and learn about these and other modes of communication. This grant would provide for actual demonstration and use of the Amateur radio spectrum.

9. What are your plans to create positive public awareness and support for Amateur Radio in your community as part of your project?

Answer: We plan to work with the High School to publicize the activities that the students are doing. We would publicize them in school publications to increase more interest as well as community publications to increase awareness in the community. We will also work with the Public Information Officer from the Southern NJ Section to more widely publicize the activities and accomplishments.

10. Would you be willing to create content to help promote the ARRL club grant program? Please describe plans that you would be willing to commit to in this area. Please outline how you would utilize multiple channels including social media, Video, Print, Television, and other media outlets

Answer: We would be willing to create content to help promote the ARRL Grant Program. We could create social media posts demonstrating how we used the grant program to get the students on the air, and get them licensed as well as what community events they participate in. We could add content to our social media pages like Facebook and Twitter. We could also put information on our webpage. Information including video could be shared throughout the Southern New Jersey Section via Facebook, Twitter and Webpages. The school operates its own TV channel through the local cable company and we could run information on their morning newscast. They may possibly do a feature story on the students and their Amateur Radio activity.

## Execution Capability

1. Explain the number of volunteers that are required to execute your grant program. Please explain the source of the needed volunteer help and the level of committed volunteers that you have in place currently. Also, please explain your plans to secure necessary volunteer help that is not currently in place.

Answer: Currently we have anywhere from one to three volunteers (Old Barney Club Members) show up at weekly high school club meetings. If we know that more are needed, we will solicit volunteers prior to that date through the club. Ira Hosid N2WAA who is the liaison between the school and the Old Barney Club has made a schedule of topics for the fall and has scheduled different people to be at the meetings depending on the topic. Some of these people are the subject matter experts for the topic. We have had someone from Old Barney come in and demonstrate Morse Code. We had a group of Old Barney members come in and assist with a soldering demonstration. The Old Barney Radio Club has committed to helping out in what ever form that is needed.

2. Outline the role of and process used by key members of your club's leadership team in the following areas: 1) Securing volunteer participation in projects, 2) Administering and keeping records pertaining to the use of funds, 3) Developing plans and executing projects and schedules.

Answer: 1) The Old Barney Amatuer Radio Club has committed to volunteering its time to participate in this project. The Executive Board has also backed this up. 2) The Treasurer of the Old Barney Radio club will administer records pertaining to the use of the funds. A separate account will be used to administer the funds. 3) Ira Hosid N2WAA, who is the liaison between the club and the school will develop the lesson plans and will execute projects and schedules.

3. Describe a project or program that you have successfully executed during the previous 5 years of similar scope, financial value, volunteer levels, and complexity. Describe the goals that you achieved, and the scope and makeup of the people served.

Answer: Over the last year and a half the Old Barney Amatuer Radio Club has become involved with the Southern Regional High School and restarted the afterschool Amatuer Radio club. The Old Barney Club been able to assist the High School after-school club with getting two students licensed and stir interest among high school students to get more people involved. Students have had the opportunity to get on the air and experience Amatuer Radio. They were instructed in Morse code and practiced it. They also were able to build small electronics kits. During this time volunteer and financial support was given by the Old Barney Amatuer Radio Club. The people who were served were all High School students.

4. Provide a detailed plan including a schedule with key milestones identified, a budget breakdown for the use of grant funds, and the numbers of and roles for the volunteers required to execute your project. Please use the budget and schedule templates provided.

Answer:

See the Budget Template for the Budget Breakdown.

Milestones 1) Obtain Items listed in the budget. 2) Create a lesson plan that would instruct students on Amateur Radio Licensing and various electronics skills. 3) School radio station Construction. 4) Continue instruction. 5) Get students on the air. 6) Exam sessions for students to get licensed. See the Schedule template for more details.

Volunteers: Weekly we will need one to three volunteers for instruction. Kit building days we would need 3 to 6 volunteers. Station Construction we would need 3 to 6 volunteers depending on the day and what phase we are in.

5. Please identify any dependencies that you have for support by third parties from outside your club for the successful execution of your project. Please secure and attach letters outlining each required third party's commitment to supporting your project.

Answer: Only dependency would be on the vendors supplying equipment. We have had full support from the school's administration.

6. Discuss the risks associated with achieving the goals stated in your proposal. Also discuss the top risks you face in executing your program on schedule and within the planned budget. For each risk, outline your plans to mitigate or limit negative impacts.

Answer: There are no risks associated with this proposal. We have had full support from the school's administration. Only risk is obtaining the equipment from the vendors. The schedule would have to be adjusted to mitigate this.

7. Does your project require funding beyond what is outlined in your grant application? What other funding sources are you pursuing and what is the probability you will receive the additional funds? Have you applied for funds that duplicate or overlap those requested in your grant application? If so, please list the sources and requested amounts.

Answer: This project does not require any additional funding and no other funds have been applied for.

8. Discuss the funds that will be required to operate and sustain the project in your grant after the funds you are requesting have been exhausted. What level of on-going funding do you require and what is your plan for securing the necessary funding to sustain your project? If you are going to charge use fees to use the resources funded by your grant or existing resources directly enhanced by your grant, please explain these fees in detail and specifically relate the fees to ongoing costs directly associated with operating your project. Note that ARRL club grants may not be used for profit activities, commercial activities, or revenue generation beyond covering the direct costs for ongoing sustaining operations of the funded project.

Answer: Any funds that will be need to sustain the project would come from the Old Barney Amatuer Radio Club or from fundraising activities by the high school club and the Old Barney Club.