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LRN: 0000761
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Project number WVJ-DAR1 -4b

AN ANALYSIS OF LISTENER PREFERENCES FOR AFN-EUROPE

An Interactive Qualifying Project Report

submitted to the faculty

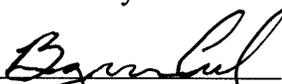
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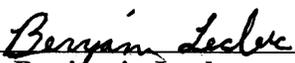
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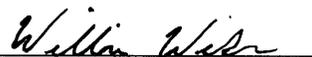
Degree of Bachelor of Science

by


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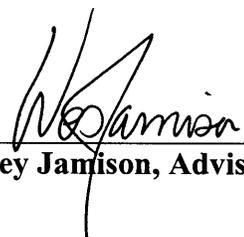

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Date: May 5, 2000

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Abstract

This is a marketing analysis to determine listening preferences of American armed forces in Germany, specifically the military bases of Darmstadt, Hanau, Heidelberg, and Ramstein, in reference to "Rock of Ages" and "A Touch of Grace." These programs air on American Forces Network-Europe. Focus groups, interviews, and a survey were used to determine who does and does not listen to these shows, and why. From the results, we formulated a proposal on how AFN-Europe can improve the quality of programming.

Acknowledgements

The authors would like to thank the following people for their assistance in this project:

Lt. Col. David McWilliams: Thank you for your complete and total support of the project.

Chaplain Alan Hendrickson: Thank you for your help in setting up our focus groups and interviews, as well as organizing our surveying of the Darmstadt base.

Chaplain Joel Cocklin: Thank you for your help in setting up the focus groups and the surveying at the Heidelberg base.

Chaplain Richard Evans: Thank you for your help in setting up the surveying at the Hanau base.

Mr. Dan Combes: Thank you for your help in setting up the focus group at Ramstein Air Force Base.

Sgt. Michael Ruess: Thank you for your help in obtaining the sample for our mail survey.

Dr. Wesley Jamison: Thank you for all of your help throughout every stage of this project.

Chaplain David Deppmeier: Thank you for all your support through out this project. The project would not have been possible without your help.

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Section 1 – Introduction

American Forces Network (AFN) – Europe is part of the Army Broadcasting Service (ABS). AFN-Europe provides command information, news, and entertainment to American armed forces personnel stationed in Europe. It serves this purpose through TV and radio. Our project dealt with the analysis of two specific radio programs, “A Touch of Grace” and “Rock of Ages.”

AFN-Europe is concerned with the listener base of these two shows. It does not believe that its religious programming has reached full potential for listenership. It is seeking a method for increasing the size of the audience. As with any radio station, determining the listener base for specific programming is difficult. This is due to the broadcast nature of its programming and the lack of an ability to count an audience.

A common method of obtaining listener preferences is to survey a percentage of the broadcast population. This method is sufficient for obtaining quantitative data as to who listens to certain shows and who does not, but lacks the ability to answer the question of why people listen. Surveying allowed us to determine the size of the listener base for “A Touch of Grace” and “Rock of Ages.”

Once a statistical basis was established by the survey, interviews were needed in order to uncover the opinions and attitudes that gave meaning to the statistical data. Interviews provided in-depth explanations of the listeners’ preferences and answered the question of why people listen. This technique was very effective because it provided a personal, one-on-one atmosphere for the interviewee to share information.

Focus groups are another method used to get the in-depth responses to the questions of why people do or do not listen to the shows. This method is similar to an

interview, except that it involves an entire group rather than an individual. The dynamics of a focus group allow participants to introduce new ideas to each other, which would not have been possible if they were in an individual interview. However, the individual interview allows for expression of opinions that are unchanged by others.

We performed a marketing analysis using the above methods to determine whether or not there was a need for programming improvements and what improvements were necessary. This study was for the benefit of AFN-Europe and its listeners. If feasible, the results of this research will be implemented over the next three years.

Chapter 2 is the literature review, which is comprised of the background information that was needed to conduct our study. This research involves information concerning radio broadcasting techniques, technology, and programming. There is also research on the background of the American Forces Network. Our literature review also covers the different methods we will be using during our study, including research on surveys, interviews, and focus groups.

The next chapter of our project is the methodology. This chapter explains the methods we used in our project to collect data. It also discusses how we implemented these methods in our study. It explains that we used a combination of face-to-face and mail surveys. Also discussed are the five focus groups and six interviews that we conducted.

Chapter 4 contains the results obtained from the research. This chapter includes all of the pertinent data we collected during our study. The chapter discusses the qualitative data we received from our focus groups and interviews. Content analysis is

given for the focus groups and interviews as well. Then, quantitative data from our survey is presented.

The conclusions and recommendations are included in Chapter 5. From the research it was concluded that adults and youths differ in their listening preferences, and it is difficult to appeal to both groups. It has become apparent that the advertising of the two shows is insufficient, and we have also found that Christian music is not adequately represented on the AFN-Europe schedule. Our data also shows that FM reaches a larger audience, and we have concluded that the timing of “Rock of Ages” is inconvenient. Both the quantitative and qualitative data are discussed in order to help support these conclusions. From our conclusions we have formulated a series of recommendations. We recommend that the target audience be determined, and the frequency and effectiveness of advertising be increased. We also recommend that more Christian music be added to the AFN-Europe schedule, and that it be played on the FM band. Lastly, we recommend that “Rock of Ages” be changed to an afternoon time slot. These recommendations may help to improve AFN-Europe as well as the two programs, “A Touch of Grace” and “Rock of Ages.”

Section 2 - Literature Review

2.1 Introduction

Our literature review covers aspects of radio broadcasting technology and techniques, as well as the American Forces Network-Europe (AFN-Europe) and religious radio programming. We summarize the history of radio broadcasting, specifically the transition from AM to FM and the advantages of each. We also researched the recent growth in Christian radio. The literature review also covers business aspects of radio broadcasting with respect to structure and organization.

2.2 History of Radio

Commercial broadcasting was founded in 1919, when Charles Conrad began transmitting voice and music from his amateur AM station near Pittsburgh, Pennsylvania. His programming included presidential election returns, and was the first to provide news and entertainment. Eventually his programming found a faithful audience, and this pioneering broadcast station, owned by Westinghouse Electric Company, became known as KDKA. Due to AM physics and lack of competition, KDKA could be heard throughout the United States during ideal conditions (Coe, 1999). AFN-Europe is in a similar situation in that they are the only station that is broadcasting specifically to United States military personnel in Europe.

2.2.1 Transition from AM to FM

FM radio did not become popular until the 1970's. This lack of early popularity can be attributed to the high cost of early FM radios. These high costs were lowered with advances in broadcast technology. Another factor that contributed to the lack of early

popularity for FM was the limits that the Federal Communications Commission (FCC) imposed on the growth of AM during the 1970's (Sterling and Kitross, 1990).

In the early 1960's, radio broadcasting stations and receivers were still based on 1920's technology. With the improved technology of transistor manufacturing in the late 1960's, radios and radio station equipment could be manufactured at a lower cost. With this new transistor technology, devices would also run cooler, last longer, and use less energy. The decreased cost and increased performance appealed to consumers who wanted to buy FM receivers, but found the costs previously too prohibitive (Sterling and Kitross, 1990).

New technology in FM broadcasting appeared during the 1970's. Instead of the mono-channel broadcasting of earlier years, there were now stations broadcasting on two channels (stereo) and four channels (quadraphonic). Receivers for this new technology were more expensive, but they did find a market for music enthusiasts who wanted high quality sound (Sterling and Kitross, 1990).

Regulations imposed by the FCC also led to an increase in the FM radio base in the 1970's. Because there were many stations broadcasting on AM, there were few places where a new AM station could be placed that would not interfere with the broadcast of an already existing station. Consequently, the FCC used many techniques to limit growth on the AM band. One of these techniques was to withhold new licenses for AM stations if there was room on the FM band for a new station (Sterling and Kitross, 1990).

2.2.2 Sound Quality

FM technology gives much higher fidelity than AM. This increase in sound quality is due to many factors, one of which is AM's susceptibility to natural interference due to its most basic properties. AM is an acronym for Amplitude Modulation, which means that the amplitude of the broadcast signal is varied in accordance to the strength of the audio signal being transmitted. An unfortunate side effect is that everyday electronic items can modify the amplitude of a signal, causing interference. To overcome this, broadcast stations would use more energy to overpower the interference. In contrast to AM, FM changes the carrier frequency in relation to the audio signal being transmitted, and as a result the natural interference only effects the strength of the signal and not the quality (Kiver, 1960).

Another advantage of FM is its allocated domain in the electromagnetic spectrum. Since band allocations are licensed in ranges so as not to have overlapping broadcasts, stations can only broadcast within a given bandwidth. AM channels, or band ranges, were allocated according to the needs of the time and the technology. FM technology did not arise until 1948. At that time, technology had advanced in broadcasting and the FCC allotted more bandwidth for the FM band than they had for AM. This increased bandwidth allowed for multiple signals, i.e. stereo, to be transmitted within an allotted range (Kiver, 1960). The fact that the two shows we studied are broadcast on AM may have proven to effect the listener base of these shows.

Whereas high fidelity is important to music shows, talk radio broadcasts do not suffer as a result of the lower sound quality of AM because voices can be understood through AM. Some of the more loyal audiences on the AM band listen to conservative

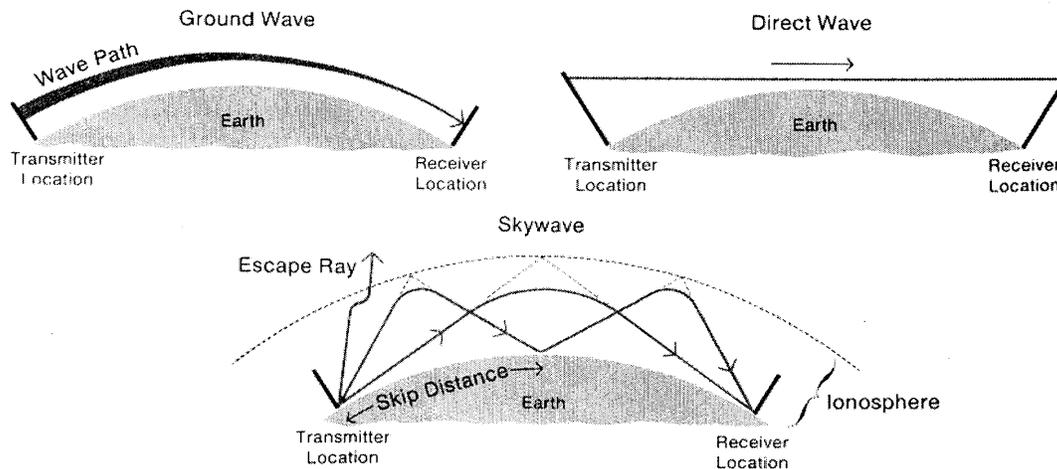
talk programs along with religious music and sermons (Sterling and Kitross, 1990). The presence of religious music on AM is a divergence from the typical expectations for music broadcasts, which promote the clarity of FM. We took this factor into account when performing our research. AM radio may be an adequate medium for religious programming, even if it includes musical broadcasts at a lower sound quality.

2.2.3 Stereo Broadcasting

Until very recently, there has been no standard for AM stereo broadcasting (FCC, 1997). The industry has had many competing technologies for AM stereo broadcasting for several years but has had limited popularity due to the success of FM stereo. When a standard came out for AM stereo in 1992, there were less than 600 stations nationwide with the equipment capable of AM stereo broadcasting (FCC, 2000). Even with this new standard, radios built without this technology would still not be able to receive the stereo broadcast. Due to AM's low sound quality and lack of stereo capabilities, AM is destined to remain mainly talk and news oriented and cannot compete with FM for musical broadcasts (Valvo, 1989). Importantly, it is easier to broadcast music on FM where the broadcasting and receiving technology is already in place, rather than advance the AM standard.

2.2.4 AM signals versus FM signals

Daytime AM signals travel by means of conduction over the surface of the earth, or groundwave propagation (Figure 1). AM broadcasting during the day has an average radius of about 100 miles. After sunset, shifts in the ionosphere layers cause AM radio broadcasts to be reflected back towards earth.



Source: Adapted from President's Communications Policy Board, *Telecommunications: A Program for Progress* (Washington: Government Printing Office, 1951), page 22.

Figure 1 – Propagation effects (Sterling and Kitross, 1990, p. 628)

These reflected radio waves, called skywaves, greatly increase the broadcast range by as much as hundreds of miles (Kiver, 1960).

Skyway propagation causes problems because different stations are broadcasting to the same area as a result of the increase in broadcasting range. A station that would normally only be heard in one metropolitan region during the day may be heard during the night hundreds of miles away where another station is trying to broadcast to its local audience. Due to this effect, the FCC limits local stations to broadcasting only during daylight hours. Regional stations must lower their broadcasting power to get the same effective broadcasting radius and not interfere with other stations (Kiver, 1960).

Only a few broadcasting stations are allowed to broadcast at full power during nighttime hours since there can be no overlap of signals. WCBS in New York, WGN in Chicago, WHO in Des Moines and KFI in Los Angeles are examples of clear channel stations which are allowed to broadcast at night and have a broadcast radius of about 750 miles (Kiver, 1960).

FM signals do not have this skyway propagation effect, and very minimal groundwave propagation. FM transmissions are virtually line of sight transmissions, and do not broadcast past the horizon. There is a short distance past the horizon that a FM signal can be received before the signal leaves the atmosphere (Kiver, 1960). This form of transmission gives a much more consistent broadcast range, and may affect a listener's preference for FM over AM. Consequently, the listener may choose to listen to an FM station more faithfully because the reception is not dependent on the time of day.

Due to line of sight problems FM broadcasting is limited. Solutions to this limitation involve booster stations and translator stations. Booster stations rebroadcast transmissions over the same channel, while translator stations rebroadcast transmissions over different channels. The inherent problem of skywaves, or AM reflection, is only a problem where there are overlapping broadcast stations (Kiver, 1960).

Similarly, when taking advantage of conduction and increased power, an AM signal can broadcast past the horizon. Conduction is a term used to describe the effect of radio waves propagating over the surface of the earth by means of the earth's electromagnetic field. Therefore, AM waves are not line of sight broadcasts like FM, but instead arc around the earth, allowing them to broadcast farther than the horizon. FM broadcast distances are limited because they broadcast in straight lines, like rays of light. The only way to increase broadcast distance on an FM station (only one antenna) is to increase the height of the antenna. This phenomenon was something that was known even in the early days of radio. "Prior to World War I the formula for bridging long distances by radio was low frequency, high power, and a big antenna," (Coe, 1996).

These differences in broadcast ranges will affect who can listen to a radio station depending on whether the station broadcasts on AM or FM.

AM does have a disadvantage in sound quality and reception as compared to FM, but AM also has a much farther broadcast range. Since the shows that we studied were broadcast on AM, this may have affected the listener preferences of those people in remote locations where FM signals cannot reach. Increasing the broadcast range will also increase the potential audience size.

2.3 Information on the American Forces Network

The goal of this project is to analyze the listener base of two radio programs that air on AFN-Europe. These programs are “A Touch of Grace,” a 3-minute devotional program, and “Rock of Ages,” a contemporary Christian rock music show.

During World War II, AFN-Europe had its headquarters in London. After the war the headquarters moved to Frankfurt, and now there are AFN-Europe studios in Belgium and Italy as well. AFN-Europe reaches approximately 350,000 Americans throughout Europe, and also reaches a large number of European listeners, particularly in Germany. In the half-century since World War II, AFN-Europe has introduced the German youth to various types of American music, such as Country, Soul, R&B, and Jazz, which were all strictly banned under Nazi and then communist rule (Rothfels, 1995).

AFN-Europe also provides its listeners with religious programming. Both “A Touch of Grace” and “Rock of Ages” fall under this category. AFN-Europe has special guidelines that religious programs must follow. These guidelines are derived from the 1st Amendment to the Constitution, which states, “Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof” (United States

Constitution, Amendment 1). This Amendment has been expanded to include the doctrine that the government must remain vigorously neutral on issues concerning religion (Reynolds, May 1998). These programs must be neither prejudicial nor derogatory toward any group, free of solicitations, inclusive in appeal, not specific to one denomination, relevant to the audience, creative, of network broadcast quality, and free of charge. All programs offered for distribution by AFN-Europe may be edited to conform to these guidelines. Additionally, all religious programs must be selected and approved by the Armed Forces Chaplain Board (AFRTS, 1999).

The Armed Forces Chaplain Board must approve all religious programming on AFN-Europe, however, it was stated by the radio network manager of AFN-Europe that there is no limit to the amount of Christian programming that can be aired. Currently, AFN-Europe airs three hours of Religious programming on Sundays from 7:00am to 10:00am, the last two hours of which is “Rock of Ages.” During the week “A Touch of Grace” is aired twice a day, which totals thirty minutes per week. In all, AFN-Europe airs three and one half hours of Religious programming per week.

2.4 Reemergence of AM radio in recent years

In order to analyze the listener base of the two AM programs we studied, it was necessary to look at the listener base of AM radio in the United States as a whole. Looking at the AM radio listener base in the United States was important because the armed forces are comprised of American citizens, and might follow the same trends in radio listenership as their age group in the United States. The total radio listener base is aging (Merli, 1998). The average age of listeners across the United States has increased to 33.8 years. This manifests itself most clearly on the AM side of radio where the

elderly make up the largest portion of listeners at 24% (Klein, 1998). The fact that elderly do not serve in the military was particularly important when studying the listener preferences of AFN-Europe. As the average age of listeners in the US increases, the age group represented in the military remains the same. This means that the largest listener age group of AM radio is not represented in AFN-Europe's listener base. This might account for a decreased AM listener base for AFN-Europe, as compared to AM radio in general in the U.S.

2.4.1 Recent Gains in Religious Radio in the U.S.

The presence of Christian radio programs is important and does command a large audience, because 84% of the people living in the United States of America consider themselves to be Christian (CIA Factbook, 1999). Radio stations that offer religious programming constitute one of the fastest growing and most successful formats in broadcasting across the United States. Nationwide, the Christian radio format has the third largest listener base, behind country music and talk radio. Indeed, the national listener base for religious radio is estimated to be approximately 28 million people (Freedman, 1999). Contemporary Christian Music (CCM) Magazine states that the recent gains in religious radio can be attributed to the improvements in production, management, marketing, lyrics, and overall sound of Christian music. It is believed that, in the past, Christian music has lagged behind the trends of mainstream music, but now it has begun to mirror these mainstream trends (CCM, 2000). In some areas of the country, surveys have shown that as many as 2 out of 5 adults listen to Christian radio on a weekly basis (Rathbun, 1999). However, this phenomenon may not have spread yet to AFN-Europe listener base in Europe, perhaps because of the exclusion of the elderly from the military

audience. Also, there is a possibility that differences in programming techniques may account for the suspected reduction in listenership.

2.4.2 A Successful Christian Radio Format

One company that has flourished under the recent gains in religious radio is Salem Communications Corporation (SCC). It is the largest religious broadcaster and owns 57 radio stations, with stations in 19 of the top 25 radio markets in this country. Altogether, SCC has a total listener base estimated at around 5 million people. The value of the company is estimated at \$514 million (Freedman, 1999). However, unlike most radio stations, SCC does not generate the majority of its revenue through advertising. More than 50% of their revenue comes from selling blocks of time on their network to local and national religious groups (Rathbun, 1999). Thus, the presence of commercials in their programs is greatly diminished, improving the quality of the shows for listeners. This method of generating revenue is quite a departure from the normal operating procedure of radio stations, in which as much as 95% of a station's revenue is generated through local and national advertising (Freedman, 1999). AFN-Europe has public service announcements in place of commercials. These service announcements could have been a factor in our study, effecting the listener preferences in the same way that commercials effect listener preferences in the U.S.

SCC offers talk programs, such as "Focus on the Family" and "Insight for Living," as well as religiously geared music shows and family, national, and international news shows. The success of SCC shows the potential for success of religious radio programming (Rathbun, 1999). It is evident that AFN-Europe could capitalize on the success of religious programming, but it is not a religious network as a whole.

2.5 Business Aspects of a Radio Broadcasting Station

When analyzing radio success it is important to understand how a radio station should be run. Efficiently managed radio stations will produce higher quality programs, which will appeal to listeners. Radio broadcasting involves many different aspects ranging from measuring listener base to choosing appropriate time slots for certain programs.

2.5.1 Programming Techniques

Programming techniques are an important aspect of radio broadcasting. Some factors included in program output on radio stations are program length, placement and juxtaposing, and the format and appeal of the shows (Hilliard, 1971). Marketing is also an important factor for the success of a radio station (Broadcasting, 1991). All of these aspects should be fully understood when attempting to evaluate radio broadcasting.

The length of programming output of a station is used to classify the programs (Hilliard, 1971). Any programming output that lasts about three minutes or less is often called an announcement or spot. Units of greater length are referred to as programs. The schedule for programs and announcements is called the program log. The program log conforms to certain regulations and is signed by announcers, engineers or production technicians in order to vouch for the accuracy of the log. When analyzing a radio station's programming technique, it is important that we understand the structure of the programming outputs throughout the daily schedule. This understanding will help to eliminate unnecessary confusion and help to produce a product of higher quality.

Juxtaposition, e.g., the placing of programs before and after other programs on the daily schedule, is a common technique used in radio broadcasting (see Figure 2). It is

is beneficial for programmers to juxtapose two or more similar programs. This technique is used because it is thought that listeners prefer variations of the same content over an outright change to different content. However, programmers will also schedule marker programs, which mark changes in content from the previous programs (Hilliard, 1971). These programs are used when significant changes in the audience are expected, and break the flow of related material (Hilliard, 1971).

Beneficial Juxtaposing	Sporadic Juxtaposing
ROCK	RAP
ROCK	COUNTRY
ROCK	JAZZ
COUNTRY	ROCK
COUNTRY	OLDIES
COUNTRY	TECHNO

Figure 2: Juxtaposing as a Broadcasting Technique

The patterns of audience activity are generally taken into consideration when determining the time schedule of programs (Hilliard, 1971). First, programmers determine the most probable group of listeners during a certain time segment. Next, they identify what type of programming will most likely be suited towards the group's activity pattern at that time.

The programmer must also consider the competitors' programming when assigning time slots to certain programs. Stations will often cross program their competitors (Hilliard, 1971). Cross programming involves determining the time slot of a

program based on the time schedule of the competition . For example, if Station A selects a highly attractive one-hour program for 2:30pm and a routine program for 2:00pm, then station B will cross program station A by putting a highly attractive one-hour special on at 2:00pm (see Figure 3). This cross programming is expected to keep people tuned into station B even when station A’s attractive program begins, because people won’t be willing to switch stations in the middle of a popular program.

	2:00pm	2:30pm	3:00pm	3:30pm
Station A	Routine Show	Popular Show		Routine Show
Station B	Popular Show		Routine Show	Routine Show

Figure 3: Cross Programming as a Broadcasting Technique

All of these techniques for program evaluation play a vital role in determining the value of a program. Properly evaluating the allocation of a time slot to a program is necessary. Understanding these tools helps to improve the evaluation.

A successful radio station must attempt to create programming that appeals strongly to a desired audience. The techniques used to make programs more attractive are referred to collectively as showmanship (Hilliard, 1971). Understanding showmanship improved our ability to evaluate the information we obtained during our study.

The understanding of proper techniques in radio broadcasting was invaluable in the analysis of the potential for a radio station’s success. In order to properly evaluate “A Touch of Grace” and “Rock of Ages,” as well as AFN-Europe as a whole, we had to have a firm grasp of the efficient management of a radio station’s programming.

2.6 Why People Listen

Many things must be considered when determining why people listen to a particular program on a particular radio station. If a program is on at a time when a prospective listener cannot listen to the radio, or would prefer to listen to another program, then this listener will not listen to the program. The person's attitudes and behaviors must also be taken into account. It may be found that the person does not feel like listening to the radio at the time that the program is broadcasting or that they would prefer to be engaged in another activity.

We can determine what a program means to its listeners by studying the content of the program, as well as the characteristics of the listeners, such as age, race, and gender. It was also necessary to obtain their exact thoughts on the show (Lazarfeld, 1971, p. 55). On the one hand, if a certain radio show is heard by a group of people fitting the characteristics of the target audience, and is thought to be a good show in comparison to other shows on at the same time, then these people will probably listen. On the other hand, if the show contains content that the group of people is looking for but of substandard quality, people may not listen.

"A Touch of Grace" runs every morning at 6:13 and 8:05am, while "Rock of Ages" runs from 8:05 to 10am on Sundays. "Probably the most critical aspect of accessibility is the fact that radio programs come at fixed hours," (Lazarfeld, 1971). The time slots for these programs may not be convenient for the intended audience. In order for a show to reach its listening potential, it must air at a time when the largest amount of people in the target audience is listening to the radio.

2.7 Research Methods

There are three different types of research methods that have been implemented for the purpose of data collection. In this section, we discuss the basic concepts of each, and where each one applies in a typical study.

2.7.1 Interviews

An interview is a conversation with the directed purpose of obtaining information. Interviewing is an important method used in obtaining qualitative data, which give insight into experiences that cannot be expressed by numbers (Berg, 1998, p. 3).

According to Berg, an interview can be classified as standardized, unstandardized, or semistandardized. The standardized interview is an interview that is conducted from a previously formulated set of questions. Standardized interviews offer the same stimulus for responses in each interview, making it easy to compare responses between interviews. However, the researcher is not allowed to deviate from this set list of questions, and must be sure that they are complete enough to obtain all necessary information from the interview. Since there can be no rewording of the questions, the facilitator must know that the questions are not confusing and the meaning is identical for each interviewee. Therefore the researcher must possess enough knowledge of the frame being questioned to ensure his questions elicit useable responses. In contrast, the unstandardized interview is an interview in which there is no previously formulated set of questions, but the interviewer asks questions appropriate to the situation in order to obtain the desired information. The researcher does not have to know a set list of questions before going into the interview or focus group. However, it is important that he can formulate, change and create questions, as well as probe into responses that do not reveal enough of the

desired information. The semistandardized interview is a combination of the latter two. In this form the interviewer has a questionnaire to work from, but may also ask follow up questions in order to dig deeper and obtain more information.

For our interviews, the semistandardized interview was the best choice. It was important to have a predetermined list of questions to ask since we were not professional interviewers. At the same time, we felt the need to probe deeper on certain questions in order to obtain the desired information.

There are four types of questions that are asked during an interview. The first type of question is the essential question. Essential questions reveal information that is pertinent to the study and relates directly to the purpose of the interview. The second type of question, or the extra question, is an essential question that is reworded. By asking the same question with different wording, it is possible to check for consistencies in responses. These extra questions are used to double-check the truthfulness of the interviewee. The third type of question is the throwaway question. Throwaway questions, such as demographic questions, may not be directly important for the study, but serve to develop trust between the interviewer and the interviewee. These throwaway questions may also be used to break up the intensity of an interview. The fourth type of question is the probing question. The probing question is used to explore deeper into a topic when it is felt that more information is needed (Berg, 1998).

2.7.2 Focus Groups

A focus group is an interview style that is designed for small groups (Berg, 1998). The goal of a focus group is to learn, through discussion, the social characteristics and

attitudes of the group participants. In essence, a focus group is a small group discussion about a chosen topic, which is relevant or interesting to the group and the researcher.

The group consists of participants and a facilitator. The suggested size for a focus group is five to seven participants (Berg, 1998). The discussion of the group should appear to be informal in order to help encourage open discussion on behaviors, attitudes, and opinions that the participants possess.

A focus group is used to collect qualitative data from a group at one time (Berg, 1998). When intending to interview a large number of people, the group can be broken up into many focus groups and then spread out over a period of time. Interviewing a group of people is faster than interviewing each individual, and it is still possible to collect the necessary research information.

A properly run focus group is very dynamic. The participants cue each other, therefore permitting many more ideas, issues, topics and possibly solutions to be generated and discussed (Berg, 1998). Cueing occurs when the response from one participant will elicit a response from another participant. According to Berg, there is a formulated list of procedures that should be followed for a successful focus group. The focus group must be conducted with the objective in mind at all times. In addition, the nature of the group must be taken into account. It is important to have a group that will give insight into your problem. The facilitator of the focus group must be well organized, prepared, and add structure and direction to the conversation. A research assistant is also helpful when conducting a focus group. This person allows the interviewer to maintain focus on getting the needed information, while the assistant watches and listens for

physical changes that may indicate an opinion or emphasis that the words alone will not reveal. Finally, the data analysis technique used must be systematic and replicable.

One advantage of focus groups is that they allow the researcher to observe the participants interacting and sharing specific attitudes and experiences. Because the interactions between the group members replace the interviewer and participant interactions, greater emphasis is given to the participants' viewpoints. Time is also an important benefit of focus groups. It takes much less time to do a focus group than it does to interview each person in the group separately.

A disadvantage to the focus group process is that it is not a truly natural conversation. The facilitator is involved, which does not happen in a natural environment. The participants are also forced together to talk about a topic they may have strong opinions on, which may result in conflict (Berg, 1998).

The focus group is a group interview directed by a facilitator. It is a useful method for collecting information on peoples' attitudes and beliefs. It is also a good method to use because the participants can work off of each other and topics and beliefs may be spoken about that would not have arose in a one-on-one interview.

Focus groups may also contain some biases. Normative response bias is one problem that can occur in focus groups. This is a result of the suppression of dissention, where one participant will withhold their opinion to avoid conflict and potential retribution with others. Other errors and biases that can be present in interviews and focus groups include event bias, measurement error and non-response error.

Event bias is caused by the activities of the participants directly before, during or after the interview or focus group. Asking a person questions about a topic that is related

to the activity may result in the slanting of a participant's opinions towards the ideas presented to them during these activities. Therefore, the interviewer may not receive answers that truthfully and accurately reflect the participant's attitudes and beliefs. Activities that may have influenced our study could include things such as prayer, Bible school, choir practice, and church services. For instance, if a participant in one of our focus groups or interviews attended choir practice directly before or after our questioning them, then the information he gave us in regards to his taste in music may have been biased towards the music he was singing in choir. Event bias may be eliminated by conducting a longitudinal study. A longitudinal study is one in which the interviewer returns to interview the same people repeatedly over time, thus making it possible to evaluate whether attitudes were impacted by activities surrounding any one of the interviews.

Biases or ambiguities in the questions that are asked during the interviews and focus groups cause measurement error. Measurement error can be minimized by the use of extra questions, or rewording of questions, to clarify the meaning of the question to the participant.

Non-response error is caused by the reluctance of a participant to answer a question, or provide an adequate explanation of their opinion. The facilitator or interviewer can minimize this error by using probing questions and encouraging everyone's participation.

2.7.3 Surveys

A survey is an important method of collecting quantitative data for a social science research study. According to Salant and Dillman, "The purpose of a sample

survey is to obtain information from a few respondents in order to describe the characteristics, behaviors, or opinions of hundreds, thousands, or even millions.” (1994, p. 4). There are three basic types of surveys: Mail, Telephone, and Face-to-face. Each of these survey types has its strengths and weaknesses. When doing a study it is important to know which survey is best suited for your research.

Mail surveys are mailed out to the sample population, which is asked to fill them out and send them back. This type of survey takes the least amount of resources, so it is most useful for a small group that must conduct a survey (Salant and Dillman, 1994, p. 35). This type of survey also allows for minimizing non-response error without the need for a large budget. For example, after the initial mailing only 20 percent of the sample responded, a reminder can be sent out to the rest of the sample. This process can be repeated until the desired sample size is obtained.

There are also some disadvantages to conducting a mail survey. One of these is that a complete list of the target population is needed in order to be sure that a fair sample is drawn. Also, there is no control over whether the right person fills out the survey, or even if it is filled out at all. These two disadvantages result in coverage error and non-response error.

Telephone surveys are surveys in which an interviewer calls the respondent and directly asks the questions. This is a useful survey to conduct if results are needed immediately. The answers are relayed over the telephone directly to the interviewer, and immediately following the interview they can be tabulated. In addition, if any clarification on a question is needed it can be given instantly, thus reducing response time (Salant and Dillman, 1994, p. 39). Three weaknesses in this form of surveying are that

complete telephone lists may not exist for the target population, the interviewer may have inflections in his or her voice that could encourage a particular answer, and respondents are likely to give the last choice stated in a complex question (Salant and Dillman, 1994, p. 40).

In the face-to-face survey, the respondent converses with the interviewer and answers each question. The biggest drawback to this type of survey is that it takes a lot of time to converse with each respondent. However, if there is no existing list of the people that must be surveyed, then this could be the best type of survey to conduct (Salant and Dillman, 1994, p. 40).

A combination of a mail survey and a face-to-face survey may also be used. In this type of survey, also called a drop-off survey, the questionnaires are physically handed to the sample (face-to face component), and then they are asked to fill them out and send them back (mail component). This is a useful survey to use if exact lists are hard to come by, but there is not enough time to remain in one place long enough to complete face-to-face surveys. The biggest disadvantage to implementing the drop-off survey method is that the researcher has no way of contacting the individuals that are asked to complete the survey in order to ensure that they actually do complete and return it.

Errors can occur in every step of the survey process. Two steps where error can become exceptional involve the picking of a sample and the actual collection of data. Four types of error that must be dealt with are coverage error, sampling error, measurement error, and non-response error. The goal of an excellent survey is to eliminate all types of error.

In order to minimize sampling error the sample must be of sufficient size. A table can be used to determine an appropriate sample size, such as the one in Appendix C.

“Sampling error can also be estimated by the equation: $se(p) = \sqrt{pq/n}$ where $se(p)$ is the standard error of proportion, p and q are the proportions of the sample that do or do not have a particular characteristic, and n is the number of elements in the sample,” (Salant and Dillman, 1994, p. 73).

To reduce coverage error, everyone must have an equal opportunity of being included in the survey. A simple random sample is one in which all names are drawn randomly from a complete list. This method of sampling was implemented with the use of a random number generator. Another way to ensure equal opportunity is to randomly pick a number n , then give the survey to every n th person.

The questions must encourage responses that are accurate and truthful. If this is not the case then problems with measurement error will arise. Questions that encourage respondents not to answer truthfully, or are confusing, make for skewed results. The questions must encourage truthful responses by not being biased, or leading toward a particular answer. Once survey questions are made, they can be tested using focus groups. This pre-testing is used in order to refine the questions and make sure the desired truthful response will be obtained.

The characteristics of the total group selected for the sample must be similar to the characteristics of the respondents (Salant and Dillman, 1994, p. 5). It is particularly important in a mail in survey to make sure that the demographics of the respondents accurately represent the demographics of the whole sample population. If the demographics are not properly represented, then non-response error will arise, meaning that because the people that did not respond are different than those that did their opinions will be different and the results will not be accurate.

Reducing these errors is an important step in the survey process. A survey that is executed with minimal error is an extremely useful tool for obtaining statistical information.

Sampling Error	Occurs when the sample is not large enough to be statistically valid when extrapolated onto the entire population being studied
Coverage Error	Occurs when not everyone in the population being studied has an equal opportunity of being selected for the sample
Measurement Error	Occurs when there are ambiguities or biases in the questions
Non-response Error	Results from the demographics of the survey respondents not accurately representing the demographics of the population being studied

Table 1. Summary of surveying errors and how they arise

2.7.4 Statistical Analysis

Statistical analysis is the process of tabulating and analyzing the information from a survey questionnaire in order to obtain the data needed to formulate conclusions about the study. The steps involved in statistical analysis include designing a coding scheme, tabulating the responses, summarizing the data, and interpreting the results (Salant and Dillman, 1994).

A coding system is a means of assigning a unique numerical value to each possible response for a question. In a survey involving only closed-ended questions, the questions will either be yes or no questions, or contain a scale or list of specific answers. These types of questions are self-coding, because they already have numerical values associated with the responses. This self-coding scheme can either be the number on the scale or the order in which it appears in the answer list. Open-ended questions are more difficult to code, because there is not a finite amount of answers that can be coded before the survey is collected. In order to code open-ended questions it is necessary to read the responses to the questions and establish a meaningful system that allows for some

variation among answers. The researcher should review the surveys, and determine essential ideas that are portrayed in the answers to each question. These ideas should be vague enough to represent a sample of the responses, yet not so broad that they are trivialized. Once this is done, the researcher must look at each survey response and assign it a number from the coding system. Questions that do not receive responses must also be taken into account. These non-responses cannot be assigned a value of zero if zero is a valid response to the question. Assigning non-responses a value of zero would skew the average towards zero when the non-response should not be affecting the average. These coding methods are used in order to facilitate the tabulation of data obtained from the survey (Salant and Dillman, 1994).

Tabulation of the data involves placing the codes for each response into a table from which the values can be counted and summarized. Summarizing the data is the process by which information is extracted from the table. This summarizing can be in the form of averages, percentages, and other statistical equations.

The interpretation of the survey results is based upon the statistical analysis of data from the questions that the survey intended to answer. The interpretation of the results depends on the purpose of the survey. There is a wide range of information that can be obtained from the statistical analysis, but it is important to only evaluate information that is relevant to the purpose.

2.7.5 Content Analysis

Content analysis is a systematic method of analyzing the transcript obtained from an interview or focus group, and extracting meaning with the use of a specific coding scheme. Units such as words, themes, characters, paragraphs, items, concepts, and

semantics are analyzed. The criteria used for the analysis of a text must be so extensive that any researcher analyzing the same text will get similar results (Berg, 1998).

Content analysis combines both quantitative and qualitative analysis methods. The quantitative methods are used in order further demonstrate the ideas obtained from the qualitative analysis. Quantitative methods can be used to count manifest meanings in the transcript, such as the actual words, items, paragraphs, and characters that are directly portrayed in the text. Qualitative methods are applied to count the latent meanings in the transcript, or those ideas that can be inferred from the context of the transcript, such as themes, concepts, and semantics (Berg, 1998).

The units counted using the above methods are placed into categories dependent upon the goal of the research project. In the case of our project, we would separate each unit into either reasons why people listen or reasons they do not listen. This allows for the approach to analyzing the data to be scientific and replicable, in the sense that our own opinions are not reflected in the analysis of the transcripts.

Section 3 - Methodology

3.1 Introduction to methods

The purpose of this project was to determine the listener preferences of “A Touch of Grace” and “Rock of Ages.” This project was conducted at the US military bases at Darmstadt, Heidelberg, Hanau, and Ramstein. Our liaison chose to have the study conducted at these four bases because of their proximity to AFN-Europe headquarters in Frankfurt. In order to accomplish the purpose of this analysis, three data collecting techniques were implemented: interviews, focus groups, and a survey. The use of three methods, also called triangulation, was done in order to account for any errors or biases inherent in each method. This variety of methods also allowed us to obtain in-depth opinions as well as a wide range of statistical data related to our study. Each of these methods and the biases and errors that we are accounting for are explained below.

3.1.1 Confidentiality

Confidentiality was important in order to ensure accurate responses from the participants for our focus groups, interviews, and survey. We maintained confidentiality throughout our study. In addition, we also affirmed the fact that we were not affiliated with AFN-Europe. These two factors helped to promote open and honest responses from the respondents.

Confidentiality was guaranteed among the participants of the focus groups with a letter of confidentiality that was signed by all participants. The letter of confidentiality contained a bottom portion that could be separated from the top portion. The bottom portion restated what was said in the top. The top portion was for our records, and the bottom portion was for the participant to hold for their own records. Confidentiality was

also guaranteed for the interview participants. We ensured them that in no way would their name be connected with this research study and that after the analysis of data the transcriptions and tapings of their interview would be destroyed

Confidentiality was also maintained throughout the survey. The only people with access to the master list of the sample were the four project members. Each survey we sent out had a number corresponding to a name on the master list, and each respondent was referred to as a number. When collection of the survey was completed, the master list was destroyed and there was no record of who participated in the study. All participants were informed of the confidentiality contained in this study through the cover letter and a confidentiality insert signed by all the members of the research team

3.1.2 Interviewing

An interview provides an in-depth analysis of the attitudes and opinions people have towards the topic being studied. The interviewing method was important because it provided us with answers to the question of why people do or do not listen to “A Touch of Grace” and “Rock of Ages.” It also provided us with information about their thoughts on AFN-Europe, AM radio in general, and what they look for in a radio program.

The first step in the interview process was to devise the questionnaire. Our questionnaire followed the same logical progression as the survey, beginning with non-specific, non-personal questions. As the questionnaire proceeded, the questions became more personal, but remained non-specific. Then, we moved to non-personal questions again, while at the same time becoming more specific. The non-specific questions were questions inquiring into things like whether the participant listens to the radio. The most specific questions were questions about “A Touch of Grace” and “Rock of Ages.”

Therefore, at each step the participant was eased into revealing his beliefs and thoughts on the particular topic being discussed. As our questions began to become more specific, they also became non-personal again. An example of a general question is; “do you listen to the radio?” An example of a personal question is; “how do you feel about ‘A Touch of Grace?’” Demographic questions inquired about such things as age and religion.

These questions were arranged using the funnel method. The funnel method begins with non-specific, low risk questions and becomes more specific as the interview proceeds. Beginning the interview with low risk questions allowed the participant to become comfortable with the interviewer and build trust. This comfort level allowed the interviewer to ask more personal questions and obtain honest answers from the participant without appearing too obtrusive. The final questions were designed to answer why people do or do not listen to “A Touch of Grace” and “Rock of Ages,” and what their thoughts on the show and the radio personality were. The same questionnaire was used for the interviews as well as the focus groups. As the interviews and focus groups proceeded, any problems that arose from question wording, position in the interview, or tone of voice were corrected. The basic questionnaire that we used can be seen in Appendix J.

Our interview participants were selected using the reference sampling method. The reference sampling method is a method in which references are obtained from the people that are interviewed, and these references are contacted and asked if they will participate. This technique stops when the ideas presented from each consecutive interview are no longer unique or all references have been exhausted. We obtained our first interviewee name as a referral from the chaplain at the Darmstadt base, and asked

this interviewee for two references. Reference sampling does not deal with the bias present from interviewing a sub-group of one demographic background, but gives in-depth knowledge of the opinions and beliefs shared by that specific demographic.

Interviews were conducted at the Darmstadt base, and everyone over the age of 14 was eligible for these interviews. The age of 14 was chosen for the cut-off, because we felt that people of this age would be mature enough to give educated responses, and would also be old enough to not be intimidated by the interview team.

In The Discovery of Grounded Theory, Glaser and Strauss refer to the situation in which:

...no additional data are being found whereby the (researcher) can develop properties of the category. As he sees similar instances over and over again, the researcher becomes empirically confident that a category is saturated...when one category is saturated, nothing remains but to go on to new groups for data on other categories, and attempt to saturate these categories also.

By using reference sampling, biases were reduced and we were able to establish a basis from which we could evolve our instrument. We were able to build upon this foundation as the sampling process progressed.

In all, four interviews were conducted in this manner. After the fourth interview it was determined that the content analysis of the transcriptions showed consistency in the responses to the central questions of this study, therefore no further interviews were needed from this frame.

Two members of the research team conducted each interview. The interviewer asked the questions and conversed with the participant, while the recorder took notes, paying special attention to body language and tone of voice. A tape recorder was used to record each interview. After completing the interview, the researchers did not discuss it.

They transcribed the interview, and content criteria were decided upon and documented, such as words and themes (Berg, 1998, p. 231). Once the two analyzed the data, they came to a consensus on what could be determined from the data.

3.1.3 Focus Groups

The focus groups provided us with the same in-depth information as the interviews, and they had the added benefit of introducing the ideas of more than one person. This sharing of ideas allowed the participants to work with each other and possibly introduce new ideas, which would not have been possible, if they were interviewed alone. The focus groups revealed much of the same information as the interviews, but also allowed people to receive cues from other individuals in the group, which in turn helped to stimulate discussion of ideas and topics. For this reason, the focus group was a necessary method for obtaining attitudinal information about the audience of AFN-Europe. The complete focus group portion of the study consisted of five focus groups.

It was important that the focus group facilitator be very familiar with the research topics and know how the research should proceed. This familiarity and knowledge made the focus groups flow better and helped to avoid awkward moments where the facilitator did not know what to ask next. Also, the facilitator had to be ready to listen to what the group was saying. This helped to prevent the discussion from going off on a different path than was originally planned. Additionally, the facilitator made sure that his comments and views did not enter the discussion, which allowed for all ideas presented to come solely from the participants.

The atmosphere of the focus groups was also important. We tried to make the group feel comfortable by beginning each focus group with a conversation not relevant to the study before introducing the subject matter of the study and asking the first question. This helped to ensure the participants discussed topics openly and fairly. A second researcher was also present during the focus group for the purpose of data collection. This second researcher had a tape recorder in order to record the conversation, and he observed the physical actions and expressions of the participants. These gestures were important to note because they gave added meaning to the verbal words of the participant. Also, during the focus group, we played clips from “A Touch of Grace” and “Rock of Ages.” This made it possible for the participants to make specific comments about the programs even if they had not previously heard the program.

The selection of the participants for the focus groups was done in advance. We obtained these participants through contact by our liaison with the chaplains of each congregation at the bases of Darmstadt, Heidelberg, and Ramstein. They each chose two to three participants from the different Christian congregations on their bases in order to gather the 10 people invited to each focus group. The ideal number of individuals for a focus group is 5-7 participants; however, it was expected that some participants would not be able to fulfil their commitment. By inviting 10 people, we were ensured that we would obtain the 5-7 people needed for a focus group. We would rather turn people away than not have enough participants to run a successful focus group. We chose not to include secular individuals in our focus group frame because it may have caused some awkwardness for the secular persons. We defined a secular person as someone who did not attend chapel and our focus group participants were only people who attend Chapel.

High-ranking officers were also excluded from the focus groups, because suppression of dissention may have arose. Suppression of dissention occurs when individuals are reluctant to express their opinions in fear that there will be consequences for doing so.

Suppression of dissention could also arise between youths and adults. Therefore, two of our focus groups consisted only of youths. We included these two focus groups, because our liaison wanted information on the opinions of youths and they were not included in our survey frame.

The first focus group was held at the Darmstadt base in order to test the questions for the survey. This test was used to discover and clarify any biased questions or discrepancies between our intended meaning and the participants' interpretations of the questions. Ten Christian individuals were invited to this focus group by sending a letter, asking the heads of five Christian congregations on the base to each invite two adult members of their congregation to the focus group.

The additional four focus groups were used to obtain qualitative data for the study. Conversation in these focus groups was directed and facilitated using the same questionnaire that was used for the interviews.

During the third week, two focus groups were held at Heidelberg. One focus group consisted of seven adults from the congregations at the bases, and the other consisted of seven youths. The youths were volunteers from the youth group on base, and in addition to participating in the focus group, two were asked to return the next day for an individual interview. These individual interviews were conducted in order to clarify what was mentioned during the focus group and encourage the youth to reveal more of his or her own opinion while alone and unaffected by the other members of the group.

A focus group was held at the Darmstadt base during the fourth week. This focus group consisted of seven adults, and followed the original format. During the fifth week we went to Ramstein. This focus group was the second youth focus group, and consisted of seven youths aged 17 to 18 from the Ramstein youth group. However, due to time constraints, individual interviews were not conducted following this focus group.

Once each of the focus groups was completed, the session was transcribed. We used the same qualitative methods used to analyze the interviews in analyzing the focus group sessions.

3.1.4 Surveying

Surveying reveals statistical information about a population by studying the behaviors of that population. The best surveying method to use for our study was the mail survey. A mail survey takes five weeks to complete, and is suitable for small research groups. For these reasons we choose to use a mail survey in order to gather the data needed for our survey.

The first step in conducting our survey was to generate the questionnaire. Our questions were close-ended, and provided us with definite, scaled answers. The answers had to be scaled because the attribution of a numerical value to each answer made the quantitative data obtained more valid. The scaling of answers also decreased measurement error, by giving the participants a chance to give a more specific and accurate answer to each question. Our questions were formulated with the intent of obtaining information pertaining to the listening preferences of American forces personnel on the German military bases of Darmstadt, Heidelberg, Hanau, and Ramstein.

From our literature review, we found several variables that may affect the listener base. Aversion to AM radio, demographics, programming techniques of the station, content of the programs, and knowledge of the programs, are all variables that were included in our survey questions. From this survey, we hoped to determine the amount of people that do or do not listen to “A Touch of Grace” and “Rock of Ages.” The questions in our questionnaire ultimately led us to this goal.

After the questions for the survey were prepared, they were tested using the first focus group at Darmstadt. The purpose of this test was to determine any biased or confusing questions and fix them. In addition, the questions were tested in order to discover discrepancies between our intended meaning and the participants’ interpretations of the questions. After testing the questionnaire, revisions were made and the survey was given to an individual of similar background as our sample. This second testing was done in order to further test the questionnaire and discover any ambiguities that were overlooked during the initial testing.

Four days before the survey was sent out, a pre-notice was sent to the entire sample. The pre-notice was intended to notify each person that they had been selected to participate in a study on listener preferences for AFN-Europe in reference with “A Touch of Grace” and “Rock of Ages.” It also informed them that their participation in the study was greatly appreciated, and all information obtained during the survey process was confidential. Also in the pre-notice was a description of how the sample was chosen for the survey.

Following final revisions, the survey was printed up and mailed. Our survey was in the form of a booklet, and contained a cover page, cover letter, instructions, the

questionnaire, a section for comments, and a back cover. A confidentiality statement was also included in the form of an insert. The cover letter and insert described the project, and our sincerity in conducting the survey. They also stated that every answer would be held in complete confidentiality. The mailing consisted of an envelope large enough to hold the survey and a return envelope. The survey and the insert can be seen in Appendices F and G.

One week after the initial mailing a reminder-thank you notice, Appendix H, was sent out, which thanked the people who had already responded, and asked all others if they would please respond. A second copy of the survey was mailed four days after the reminder-thank you notice to all members of the sample who had still not responded. Accompanying the second copy of the survey was a second insert letter, Appendix I, which contained the confidentiality information and served as a last reminder.

The sample was obtained from the complete lists of people possessing mailboxes at the bases of Darmstadt, Hanau, Heidelberg, and Ramstein. Our sponsor obtained these lists, and provided us with random samples, per our instructions. The list were generated by taking the entire population lists, and taking every b person from the list, starting at a random entry between 1 and b . b was determined by taking the sample size determined for each base and dividing by the size of the list for that base. The sample size for each base was determined by the population percentage of each base from the total population at all four bases.

	APO Population	Percentage total APO population	Sample size
Darmstadt	1429	16.1%	103
Hanau	3118	35.2%	225
Heidelberg	2710	30.6%	196
Ramstein	1600	18.1%	116

Figure 2. Base populations, percentages, and sample sizes

Our original estimate for a sample size with a 97% confidence interval was 640, but then we dropped down to a 95% confidence interval. We then took the percentage of APO populations and took the appropriate percentage of the 640 that we originally estimated. We used 640 to account for invalid addresses, undeliverable mail, and non-response to our survey.

These lists that we obtained introduced coverage error. The lists only contained individuals with Army Post Office (APO) addresses, therefore anyone without an APO address did not have the opportunity to participate in our survey. The sampling methods used to obtain the list were documented and any biases that had arisen from these sampling methods were taken into account in our analysis.

The percentage of the population that we surveyed at each base was determined from the number of people on the base with APO addresses. This population was used because we were unable to obtain addresses of off-base personnel. The population at the Darmstadt base with an APO address made up approximately 16 percent of our entire frame. A proportional random sample was selected containing 103 (16 percent of our sample size of 640) names from Darmstadt. We then used this same procedure to find the exact sample at the other three bases. Our study was only representative of the listener

preferences of the inhabitants at these four bases who have an APO address, and cannot be used to project the opinions of inhabitants off of these bases, or other bases throughout Germany and Europe.

We conducted a survey, expecting an 80/20 split with an error of +/- 5%. The 80/20 split means that most people have a certain characteristic and only a few do not. The +/- 5% of error means that the values we obtained from our survey will be within 5 percentage points in either direction of the actual value. This split is used for studies in which the responses are not expected to vary much. We estimated the listener base to be approximately that of the listener base for Christian radio in the United States. In the United States, Christian radio accounts for 14% of the overall listener base in the country. Based on the size of the population obtained, we used the table to determine the needed sample size for an 80/20 split with a 95% confidence level, so that the actual values were within 5 percentage points either way of our experimental results, see Appendix C (Salant and Dillman, 1994, p.55).

Once we knew the sample, we produced a master computer list of all names in our sample, and a second list from which the mailing labels were printed. The pre-notice, first copy of the survey, and reminder/thank you notice were sent to all members of the sample. After obtaining all the materials, we conducted the first mailing. We numbered the surveys sequentially and matched each number with a name from our sample. This numbering system was used to determine who had responded, and at the same time maintained confidentiality. There was only one list showing what number goes with what name, and we were the only ones with access to it. We placed each numbered survey in the envelope labeled with the address of the corresponding person, and mailed them out.

Before the second copy of the survey was mailed, the names of all respondents who had already replied were removed from the mailing list file, and only the members of the sample who had not yet responded received this second copy. This four-mailing method should have yielded a 50 to 60 percent response rate.

We should have received 40% of our surveys prior to sending out our reminder notice (Salant and Dillman, 1994). At this point, we were going to utilize the face-to-face surveying method in order to obtain the needed sample size. We did not match our goal of 40%, but the mail system was not reliable and the proximity of our mailings was close. For these reasons we decided not to utilize our face-to-face surveys at that point. In order to give time for more returns from the mail survey it was decided that everything for the face-to-face survey method would be set up but not utilized unless it was still needed after the fifth week. After the fifth week only 113 out of the needed 239 surveys had been received. At this time we decided to conduct face-to-face surveys at the bases with insufficient response rates in order to compensate for the lack of returns from the mail survey. Our face-to-face surveys were done outside the Post Exchange (PX). We attempted to have individuals coming out of the PX fill out our survey. To determine what the best time to survey at the bases was, we attempted to obtain estimations on the peak hours and traffic flow of the PX at the four bases. Heidelberg was the only base able to provide us with the actual numbers that were asked for. At the other bases where we could not receive any numbers we estimated our number x based on how many surveys we needed from the particular base and the amount of time we would be at that base. This estimation was not very accurate but without proper numbers, it was sufficient.

We needed 54 surveys from Heidelberg, and we were told that approximately 50 people per hour visited the PX between the times of 11:30 and 13:00. In the one and one half hours that we were going to be at the base, the estimated traffic was 75 people. We divided the estimated traffic by the number of needed surveys. We obtained the number two for x . This means that we surveyed every second person to take our survey. By doing this we obtained 46 surveys from Heidelberg. At Darmstadt and Hanau we never obtained the estimated numbers from the PX. For this reason we estimated our x number at both based. We went to Darmstadt needing 20 surveys. Knowing that we would be there from 11:30 to 13:30 we estimated x to be 4. Asking every fourth person we obtained all 20 surveys we needed. At Hanau we knew we would be there from 12:00 to 17:00 and needed 46 surveys. Using these numbers we estimated x to be 6. During our time at Hanau we obtained 50 surveys. Using this face-to-face survey method introduced some coverage error because only people who were at the PX at those specific times had an opportunity to take the survey. However, this method also allowed some individuals who didn't have APO addresses access to our survey, which they didn't have previously.

We collected final responses from the mail survey until the beginning of the seventh week, at which time the response rate was summarized. The response rate included information on complete, incomplete, undeliverable, and refusal surveys. In addition, we designed a coding scheme that gives a number to every answer in the questionnaire, and a master list of the codes was created. All of our questions were closed-ended, and therefore the coding system was self-contained in the answer choices.

After we collected all the necessary surveys, the data was entered into the computer. Tabulation and summation of the responses provided us with the raw data for

our analysis. Once all of the survey data had been analyzed there was no longer a need for the master list and it was destroyed. With the master list destroyed, any trace of individual responses in the study was eliminated. This step was taken in order to ensure confidentiality of all respondents. Statistical analysis of this data was conducted in order to determine our findings in relation to the listener base of “A Touch of Grace” and “Rock of Ages.”

3.1.5 Bias and statistical error

Coverage error was only a concern when dealing with the survey. It was present in our study, because our frame was specified as all individuals possessing a mailbox at the four bases that we are studying. Therefore, only the military personnel living on the bases were surveyed. The coverage error changed when face-to-face surveys were conducted. This is because we would only have had contact with the individuals who happened to be at the specific location at the specific time that we were there

We were able to minimize sampling error by using the chart from Salant and Dillman on page 55 (Appendix C). Using this model, we were able to fulfill our sampling needs during this study. This was assuming we had sufficient resources and were given the correct information. This was not the case in many instances, but again we compensated for this with our face-to-face surveys.

Sending out a reminder letter and a second copy of the survey attempted to compensate for non-response error in the survey. We also conducted face-to-face surveys at the four bases, which further compensated for non-response error present in the survey even after the reminder notice and second copy of the survey had been sent out. Non-response error was eliminated from the interviews and focus groups because probing

questions were asked, which encouraged participants to reveal the information asked for in previous questions that they had not yet answered.

Another error we had to deal with was measurement error. We pre-tested the questions for the survey prior to using them in the research, and the questions for the interviews and focus groups were revised when it was found that ambiguities or biases were present. In addition, the scales for our questions were discrete values.

Event bias could only have been eliminated from the focus groups and interviews by conducting a longitudinal study, where the individual ideas of the participants could be separated from the influences of their surroundings and recent activities. A longitudinal study involved repeating an interview or focus group over a period, to check for consistency in opinion. However, due to time constraints it was not possible to conduct a longitudinal study. By running the focus groups and interviews in the chapels and around the times of chapel meetings, the information we obtained may not be completely accurate.

Normative response bias was only present during one of our focus groups. This is a result of suppression of dissent where one participant will withhold their opinion so as not to conflict with opinions of others. This could be caused by differences in rank. For this reason, we eliminated all high-ranking officials from the focus groups. Another way that we accounted for removing normative response bias was by not including secular individuals in our focus groups, thus removing any uneasiness that may have arisen between highly religious individuals and non-religious individuals. The only focus group in which normative response bias was present was in one of the youth focus groups. Due to the social atmosphere in which most youths interact, they very often go

along with the general opinion of the group in an attempt to remain popular with their peers.

3.1.6 Conclusion

The research methods used for this study were interviews, focus groups, and surveys. We accounted for and minimized all forms of error and bias. We also prepared multiple contingency plans for our survey method if the information we needed were not accessible. Our contingency plans may have introduced other forms of error, but were necessary in order to complete our study. The analysis and conclusions resulting from our study are presented in the following section.

Section 4 – Data and Analysis

4.1 Qualitative Data

Focus groups and interviews were conducted to accumulate qualitative data from participants. Qualitative data consists of meanings, concepts, definitions, characteristics, and descriptions of opinions. In other words, it provides us with in-depth information into why a participant has a certain opinion about the topic being discussed. This data cannot be extrapolated to include the views of the entire population, and is only representative of the views of the participant. The data collected in this study is presented in this section.

4.1.1 Focus Groups

Five focus groups were conducted to collect qualitative data for our study. Three of these focus groups were with adults while two were held with youth groups. During these focus groups six major themes developed, which were valuable to our study.

The first theme that developed was the types of music the participants wanted to listen to. Christian music was discussed in every focus group. All the participants agreed that they listen to Christian music in some form. The largest gap of music preference was between the youths and the adults.

The adults mentioned only a few different music styles they enjoyed listening to. Gospel was mentioned the most often. It was brought up in three of the focus groups and mentioned six times by six different people. One person emphasized how they preferred “older” gospel music. Adults also seemed to enjoy “Oldies” music. Three different people mentioned “Oldies” three times during one focus group, however, this type of music was not clearly defined during the focus groups. One person during one focus

group mentioned country music on two different instances. “Contemporary Christian” music was mentioned during two focus groups. However, during one of these focus groups, a discussion arose as to what exactly “Contemporary Christian” music was. It was never clearly defined although the facilitator referred to it as “soft rock.”

The youth focus groups mentioned many different types of music and music artists that they enjoyed. On two separate occasions, during one focus group two people mentioned “Ska” music. One of the participants who claimed to enjoy “Ska” was clearly excited by the music and many of the other participants appeared to agree with her feelings for the music. Some types of music that were mentioned once were rock, classical rock, swing, pop and punk rock.

Several artists were mentioned numerous times by the youths. MxPx and Five Iron Frenzy were each mentioned three times by three different participants during both of the youth focus groups. The Super Tones and All Star United were each mentioned twice. Two individuals during one focus group twice mentioned the Super Tones. All Star United was mentioned twice by one individual.

During one of the focus groups, the youths also expressed a great interest for having their own show on the air. The one participant who initially suggested it was very excited about the possibility of youths running their own show. Most of the participants engaged in a very exciting and animated discussion about how having their own show was a good idea. They were hoping to have a show in which the youths would actually host the program. They wanted to pick out their own music and have other youths guest host. It was also felt that they could easily get the youths to volunteer to run the program. Also mentioned was that the younger middle school kids look up to the high school

youths and would want to listen to the program. They felt that their friends would be more interested in listening if the youths were running the program.

Another theme that developed during the focus groups was how the participants preferred to listen to their music. The choices we presented to them were the radio or other forms of media, such as tapes and CDs. All participants who expressed their views did mention that they owned some CDs or tapes. Here again there seemed to be a slight gap between the youths and adults.

The adults almost exclusively preferred CDs and tapes to radio. Seven times, during all three of the adult focus groups, six different people claimed they preferred to listen to CDs rather than the radio. Two participants, during one focus group, stated that they would not listen to the radio. The main reason they gave for not listening to the radio was that they did not enjoy what was being broadcast on the radio. They did not find the radio in Germany appealing.

The youths expressed less of an aversion to the radio than adults did. Twice, participants stated that they preferred CDs to radio. Also, two participants stated twice that they disliked the radio. A comment was made, however, that one participant would listen to the radio to find music he enjoyed and then buy a CD from what he heard on the radio.

The participants' preference between FM and AM was also a theme which came about during the focus groups. The adults had six different participants mention six times that they preferred FM radio to AM radio. This was stated in all three of the focus groups. Many of those in one focus group didn't answer the question but all nodded in agreement that FM was preferred over AM. Two separate individuals claimed to prefer

AM over FM. One of these participants stated that his car couldn't pick up FM so that was why he listened to AM radio. For the youths focus group, participants mentioned having no preference three times. This was mentioned by three individuals and in both focus groups. One participant claimed to have preferred FM while one claimed to have preferred AM.

There was also a desire for more Christian programming. This theme was present in four of the focus groups. Both youths and adults agreed that AFN-Europe needs more Christian programming. Specifically they all expressed a preference for more Christian music. Three adults and three youths mentioned that they wanted more time. All the others who did not voice this opinion appeared to agree completely. Twice participants mentioned having Christian music on daily. One was a youth and one was an adult.

The timing of "Rock of Ages" appeared to be very inconvenient for most of the participants. Three different adults, one from each of the adult focus groups, felt the timing of the show was not convenient. The participants who didn't express their opinion appeared to agree with the bad timing of "Rock of Ages." The youths mentioned eight times that they disliked the timing of the program. Five separate youths expressed this opinion. The most common reason given for the bad timing was that the time conflicted with religious services. Five participants from both adult and youth focus groups stated that the afternoon would be a better time for the program.

The final theme that emerged was the participant's opinion of the radio personality. Once again, there was a trend that separated the opinions of the youths from the opinion of the adults. Some comments were made concerning the personality's voice and general performance.

The adults all seemed to enjoy the radio personality for both programs. He was mentioned in two of the adult focus groups. Six participants mentioned liking him seven times. He was often referred to as being “comforting” or “easy to listen to.” Twice during one focus group there was a discussion pertaining to whether or not his voice was enjoyable. This was questioning over the quality of the recording played for them.

The youths were less fond of the radio personality. However, in one of the focus groups, event bias was prevalent. One participant had been in a commercial for the previous radio chaplain and was obviously very biased in his opinion. One youth mentioned a dislike for the radio personality. The other youths seemed to feed off this and made a barrage of comments about the radio personality. It appeared that the youths fed off each other’s excitement during this discussion. Five comments were made by four different participants saying that they found the personality’s voice unpleasant. They didn’t enjoy the tone of his voice. Some of these statements were rather harsh toward the radio personality. However, two of the youths at another focus group expressed that they enjoyed the radio personality and the rest of the participants had little to say on this subject.

These six themes appeared throughout the focus groups we conducted. These themes were the most relevant to our study. Some trends developed, which will help us to make accurate recommendations for our project.

4.1.2 Interviews

Six interviews were conducted during our study for the purpose of obtaining further qualitative data. Four of the interviews were conducted with adults using the reference sampling technique, and two were conducted as follow-up interviews from the youth focus groups. During these interviews, once again, six major themes were discussed.

The types of music and different artists the participants liked was a theme that arose during the interviews. Country music and “Christian Contemporary” were both mentioned three times during the interviews. Two separate individuals mentioned country music. “Christian contemporary” music was mentioned as well. Two artists that were mentioned twice were Point of Grace and Avalon. The same participant brought both of these up, claiming to like them. The Supertones was mentioned three times. The two youths twice stated that they liked them. However, one of the adults mentioned that he disliked the group.

Preference of radio or other forms of media also arose from the interviews. Only the adults made comments on their preferences. Three different participants claimed to have preferred CDs over listening to the radio. Most of the participants stated that they did not enjoy the music played on the radio.

Another theme that emerged was the comparison of AM vs. FM. This theme had mixed results. Two of the participants preferred FM to AM. One was an adult and one was a youth. The adult mentioned several times that he never listens to AM. Two of the adult participants stated that they preferred AM over FM. One of the youths and one of the adults claimed to not have a preference between AM and FM.

The participants also brought up that they wanted more Christian music on the radio. Three of the individuals mentioned wanting more Christian music on AFN-Europe. One of the participants had his arms waving through the air while he was telling us this. One of them also claimed that he wanted Christian music on everyday.

The timing of “Rock of Ages” was a theme that also emerged during the interviews. Three of the participants mentioned that the time of the program was inconvenient. One of the participants became very loud and excited over the time of the program. One suggested that the afternoon would be a more convenient time to air the program.

The opinions of the radio personality of “A Touch of Grace” and “Rock of Ages” also came up as a theme during the interviews. Five of the six interviews had an opinion on the radio personality. Four of the participants mentioned ten times that they enjoyed listening to the personality and enjoyed the manner in which he ran the programs. The two youths both expressed negative feelings toward him. However, one youth claimed the radio personality was improving. The major complaint of one of the youths was the tone in the personality’s voice. The participant felt the radio personality needed a more personable tone.

These major six themes developed during our interviews. This data led us to several conclusions, which we used to formulate several recommendations. These conclusions and recommendations are presented in section 5.

4.2 Quantitative Data

The survey was conducted to acquire quantitative data. Quantitative data provides us with statistical information, which we can then extrapolate to represent the views of

the entire population. Our sample size was sufficient to represent the entire population at the bases of Darmstadt, Hanau, Heidelberg, and Ramstein. The survey data that we collected is presented in this section.

4.2.1 Surveys

It was found that 78 out of the 240 people surveyed who listen to the radio (32%) listen to Christian music. When extrapolated onto the whole population of approximately 10,000 enlisted personnel with APO boxes at the bases of Darmstadt, Heidelberg, Hanau, and Ramstein, this percentage is equivalent to 3,200 people. When this statistic is added to the information that 66 members of the sample stated that they would consider listening to Christian music, there are 143 people, or 60% of the population, who make up the potential listener base for “Rock of Ages.” In all, the estimated listener base for Christian programming on AFN-Europe could potentially be 6,000 people among the four bases. This information suggests that Christian programming is a needed part of the lineup on AFN-Europe.

According to the radio personality of “A Touch of Grace” and “Rock of Ages,” advertising of these shows is done by airing commercials on AFN-Europe television and radio stations. New commercials are produced every 3 months, and are run 2 to 4 times in a 24-hour period for one and a half months at a time. However, the data from our survey shows that out of the 240 people who listen to the radio, 155 (65%) have never heard of “A Touch of Grace,” and 122 (51%) have never heard of “Rock of Ages.” In addition, 101 people out of the 240 that listen to the radio (42%) have not heard of either one of these shows.

Of the people who have heard of “A Touch of Grace,” 49 of these individuals have actually listened to it. Although these 49 individuals represent only 21% of the total population, they represent 68% of the population who has heard of “A Touch of Grace.”

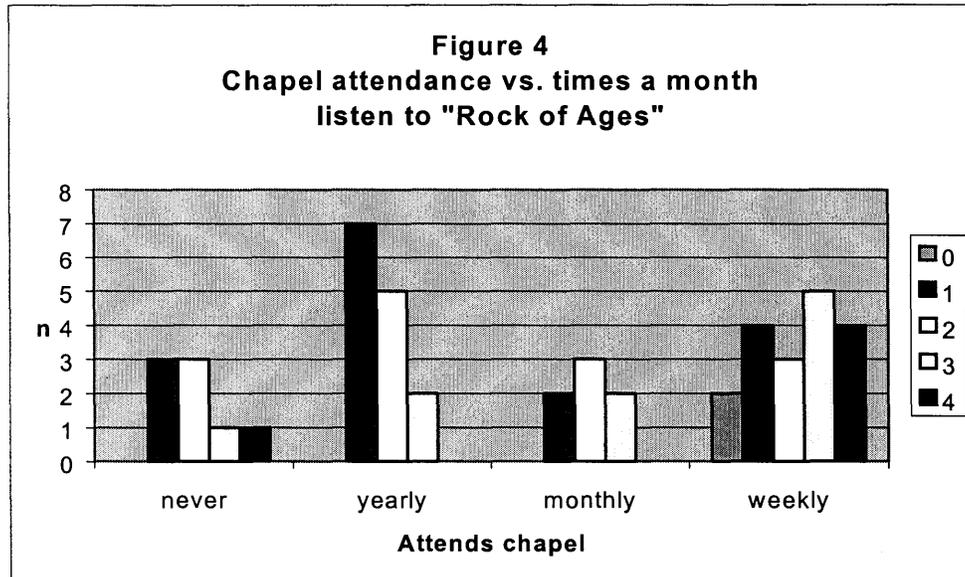
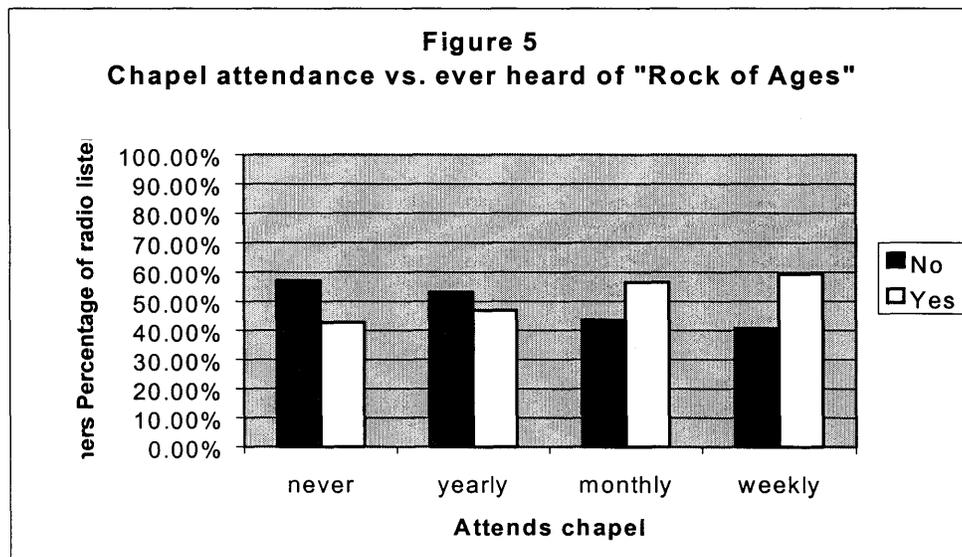
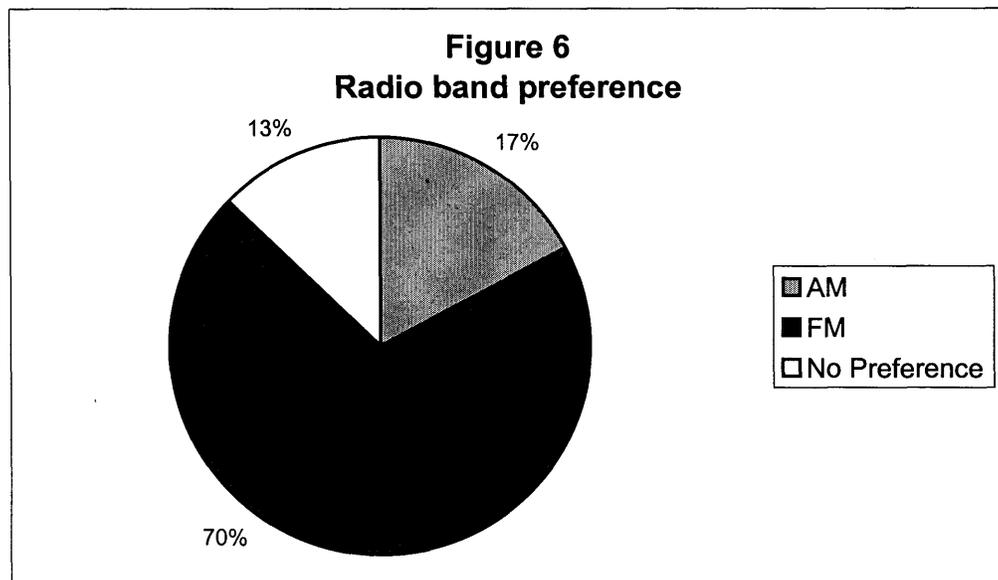


Figure 4 shows the frequency of which individuals attend chapel compared to the frequency with which they listen to “Rock of Ages.” From this graph, it can be seen that the only group containing people who have listened to “Rock of Ages” but do not



currently listen are people who attend chapel on a weekly basis. In addition, from figure 5 it can be seen that as people attend chapel more often, they are more likely to have heard of “Rock of Ages.”

Since “A Touch of Grace” and “Rock of Ages” air on AFN-Europe’s AM band, it is important to look at preferences in relation to listening to AM radio. When asked how many hours per week they listen to AM radio, one half of the people surveyed that listen to the radio stated that they never listen to AM (120 out of 240). Also, 168 of the same population prefers FM over AM (70%), and 31 (13%) have no preference. If the shows were moved to FM they would have the potential to reach 83% of the population as opposed to the 50% that it is able to reach now.



4.2.2 Other Data

From our survey, we acquired additional data which was not related to our conclusions and recommendations. However, we feel this data may still prove useful to AFN-Europe and any future researchers conducting a study with AFN-Europe.

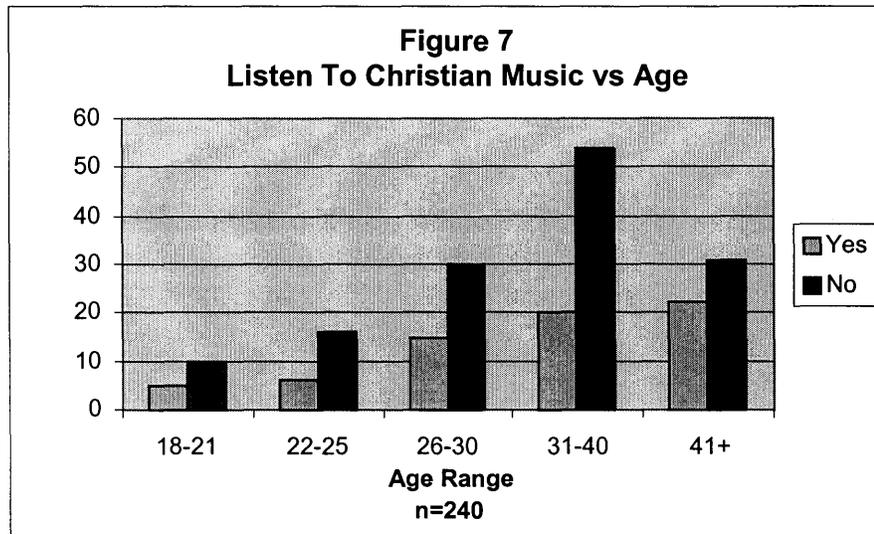


Figure 7 indicates our data concerning who listens to Christian music, by age group. It shows who listens to Christian music and which age group they belong to. From the chart we see that as the age of participants increase so does the amount of participants who listen to Christian music.

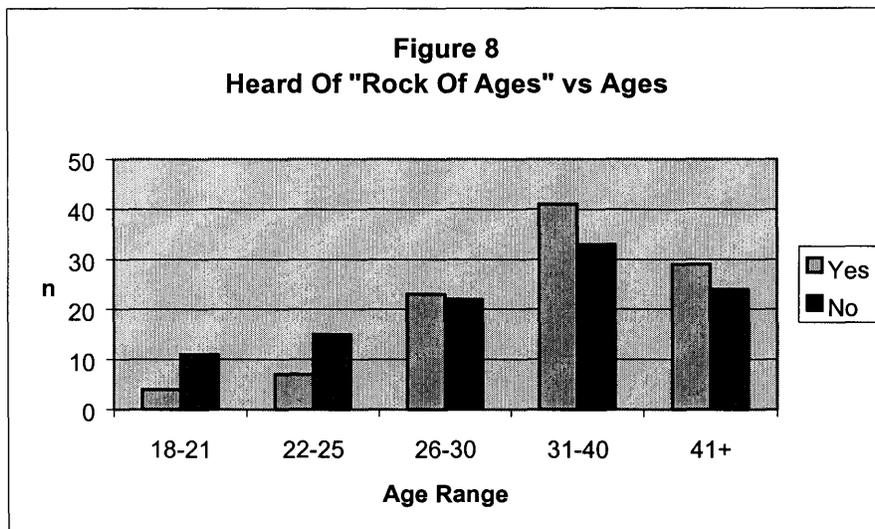


Figure 8 is a comparison between the ages of participants and whether they have heard of "Rock of Ages." This chart shows how many people have heard of the program by age group.

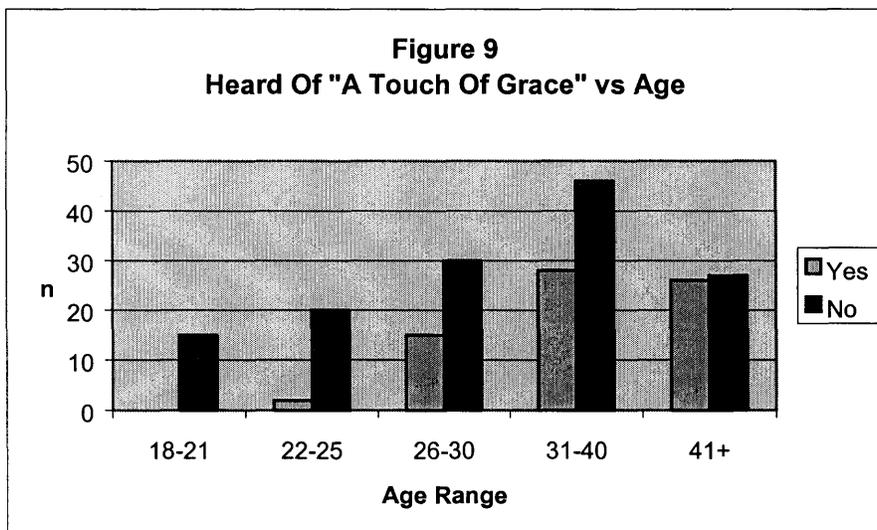


Figure 9 shows who has heard of “A Touch of Grace” by their age group. There is an obvious trend for a greater percentage of older listeners to have heard of this program.

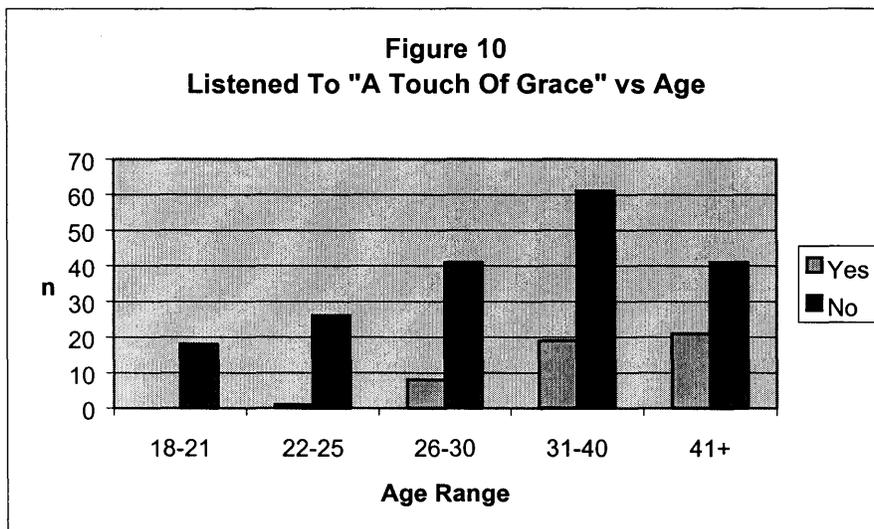


Figure 10 shows a trend of people who listen to “A Touch of Grace” and their age. This chart indicates those who listen to the program and their age group. As age increases so does the amount of people who listen to the program.

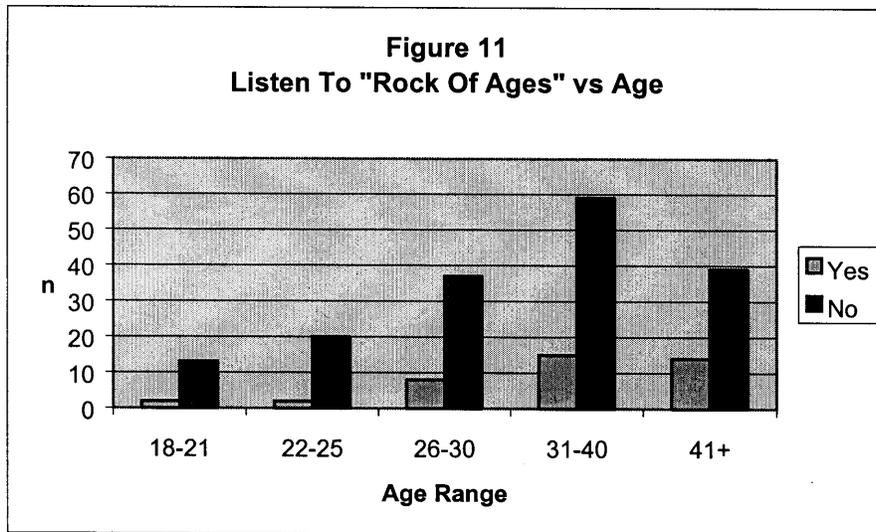


Figure 11 is a comparison of participants age with whether or not they listen to “Rock of Ages.” This chart shows how many participants from each age group listen to the program.

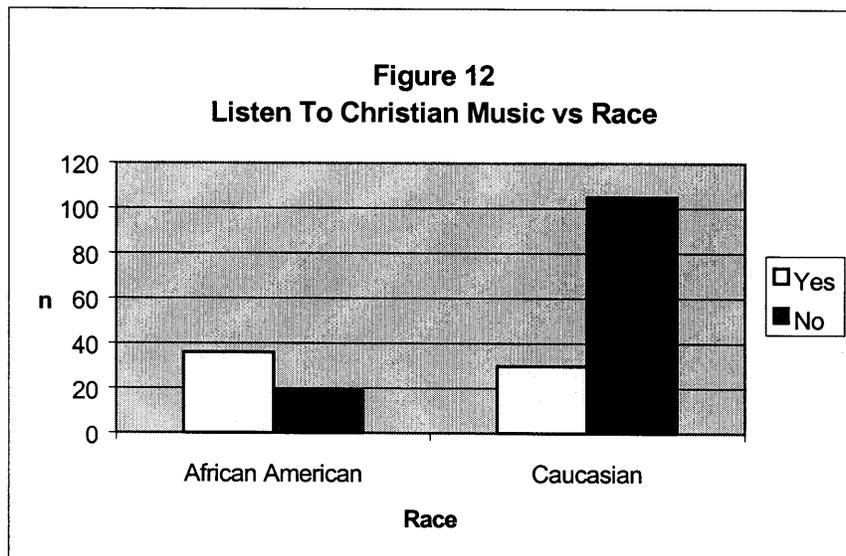


Figure 12 displays a trend concerning who listens to Christian music and race. The data from this chart shows how many participants from the African American and Caucasian groups listen to Christian music.

Table 3 shows the ratings of the two programs that we studied. Programs were rated on a scale of 1 to 4, with 1 being poor and 4 being excellent. Ratings were above average for both programs.

Ratings of "A Touch of Grace"				
Subject	N	Mean	Median	Stddev
Variety of subject	53	3.11	3.00	0.87
Quality of speaker	53	3.30	4.00	0.93
Inspirational value	53	3.11	3.00	0.93
Ratings of "Rock of Ages"				
Subject	N	Mean	Median	Stddev
Variety of music types	46	2.93	3.00	0.77
Variety of songs	46	2.89	3.00	0.74
Quality of the DJ	45	3.02	3.00	0.75
Overall enjoyment	46	2.98	3.00	0.80
Scale of 1 to 4	1 – Poor 2 – Below Average 3 – Above Average 4 – Excellent			

Table 3 – Program Ratings

Section 5 – Conclusions and Recommendations

5.1 Conclusions

The data presented in the previous section was collected and analyzed from our survey, focus groups, and interviews. Through the analysis of this data, we have come to several conclusions for our study.

The first conclusion is that both programs, “A Touch of Grace” and “Rock of Ages,” are not advertised well enough. Of the 240 people who were asked if they ever heard of “A Touch of Grace,” only 85 respondents said they had. This means 65% of the people surveyed had never heard of the program. 240 individuals were asked if they had ever heard of “Rock of Ages.” 118 individuals responded that they had heard of the program. This means only 49% of the people who were asked this question had heard of the program. These low numbers indicate that people are not being made aware of the programs. Hence more advertising should be done for the programs.

From our interviews and focus groups we have concluded that the timing of “Rock of Ages” is not at all convenient. Out of the six interviews conducted three of the adult participants said the program was on at a very inconvenient time. One of these participants became very vocal and agitated over the timing of the program. One participant also stated that the afternoon would be a better time for the program. This was mentioned once at each focus group. Those who hadn’t voiced their opinions, nodded and agreed with the statement. Five youths also mentioned the poor timing. The most common reason stated was the timing conflict with church. Five times participants also claimed that the afternoon would be a more convenient time.

We compared the information concerning how often people attend chapel with the information on whether these people have listened to “Rock of Ages” in the past. The only group with members answering that they listen to “Rock of Ages” zero times per month was the group that attends chapel weekly. This could imply that these respondents are at religious services each week so therefore are unable to listen to the program. From all three of these methods we have concluded that the timing of “Rock of Ages” is not convenient for the intended audience.

There was very little information gathered on the timing of “A Touch of Grace.” The youths of one focus group mentioned twice that it was on too early. Another youth from the other youth focus group mentioned how he liked listening to the program in the morning while showering. One adult mentioned that he loved waking up to programming about God. Other than these comments, none expressed an opinion of the timing of “A Touch of Grace.” For this reason, we feel there is no reason to change the timing of the program.

From our focus groups, it became apparent that AFN-Europe is not competing with German radio stations for listeners. Only one participant mentioned that he occasionally listened to German radio. All other participants said that they do not listen to German radio. They claimed they do not like the fact that they cannot understand what the radio personality is saying. The participants indicated that they enjoyed listening to their own CDs or cassettes as opposed to radio.

In the interviews the participants gave us nearly the same response as the focus groups. They all did not listen to German radio and only would listen to AFN-Europe

when listening to radio. They also mentioned that they also enjoyed listening to CDs or tapes.

From the survey, we found that 240 people claimed to listen to the radio. 229 of these people also claimed to listen to AFN-Europe. This means only approximately 5% of the people who listen to the radio from the four bases do not listen to AFN-Europe.

From these three statistics we have concluded that the AFN-Europe is not competing against German radio stations. CDs and cassettes are the main competition that AFN-Europe is competing against.

From the focus groups and interviews we have also concluded that it would be advantageous for a target audience to be determined for “Rock of Ages.” From our focus groups and interviews, there was a division of opinion between adults and youths in 4 of the 6 themes that arose. Youths had differing opinions from adults in their preferred music styles, their willingness to listen to radio, their preference between AM or FM, and their opinions of the radio personality. From these divisions of opinion, we have concluded that “Rock of Ages” will not be able to meet the needs of the entire audience to which it is currently targeting. A more specific potential listener base should be determined, so that the show can be more effectively aimed towards the preferences of its audience.

Our survey has data indicating that FM would be a better band for the two programs to air on. Two hundred forty people were asked how many hours per week they listen to AM radio. Of these, one hundred twenty claimed they never listen to AM. This shows that nearly 50% of the people surveyed who listen to radio never listen to AM. This means 50% never even have an opportunity to listen to the two programs. Two

hundred forty people were also asked whether they prefer AM, FM or had no preference. One hundred sixty-eight participants answered that they preferred FM. From these two findings we feel that the programs would both benefit greatly from being put on the FM band of AFN-Europe.

The final conclusion we made, was that there should be more Christian music on the radio. Our survey indicated that the potential listener base for Christian music on AFN-Europe made up 60% of the inhabitants at the four bases of Darmstadt, Heidelberg, Hanau, and Ramstein. Currently, Christian music is allocated 3 hours per week, which makes up almost 2% of the weekly schedule. In addition, from our focus groups and surveys, it was unanimous among the 18 participants with whom it was discussed that Christian music should be more adequately represented in AFN-Europe's schedule. In conducting our background research, it was found that there is no limit to the amount of religious programming that AFN-Europe is allowed to broadcast. From this data, it can be concluded that Christian music is not being properly represented on AFN-Europe's lineup and an increase in the amount of Christian music broadcast on AFN-Europe would be beneficial.

5.2 Recommendations

The conclusions arrived upon in the previous section have led us to make the following recommendations to AFN-Europe. These are only recommendations, and are not essential for the success of "A Touch of Grace" and "Rock of Ages." However, our data lead us to believe that these two shows have not yet reached their full potential concerning listener base and popularity. We feel that if these recommendations are

implemented, then they will help to improve the quality of these two programs and AFN-Europe.

Due to the difference in preferences between youths and adults that was introduced in the last section, it would be beneficial for a more specific target audience to be selected for “Rock of Ages.” Currently, according to the radio personality, the target audience is all chapel attendees, from all age groups. Although it is obvious from our data that “Rock of Ages” is satisfactorily meeting the needs of this population, it would be advantageous to select a more focused listener base, to try to attract more listeners to the program. This would allow the radio personality to concentrate on a related set of musical genres, and thus make the play selection more focused. This specific targeting of the music to a certain group may result in higher ratings for “Rock of Ages.”

Particularly, we feel a choice should be made between the youth and adult audiences. An alternative to choosing only one audience is to split the current show up into two segments. Each segment should attempt to appeal to a different target audience. For instance, the first hour of the program could be directed toward youths and the second hour could be directed toward the adult population.

From the survey, we learned that the majority of people have not heard of “A Touch of Grace” or “Rock of Ages.” If the listener base of these two shows is to be maximized, then AFN-Europe should increase the frequency and effectiveness of its radio and television advertisements. The commercials should incorporate themes and ideas that are portrayed in the shows in an interesting way. These commercials should also be made with the intent of leaving the viewer/listener thinking about the shows even after the television or radio has been turned off. We also recommend that advertisements for “A

Touch of Grace” and “Rock of Ages” be included in chapel bulletins. Another place that we feel would be advantageous to advertise is in religious newsletters that reach people included in the listener base. This will increase awareness of the existence of these two shows, and thus, the potential listener base will be greatly increased.

From our conclusions, we have been led to recommend that AFN-Europe insert Christian music into its daily schedule. The large listener base commanded by Christian music is almost completely ignored by AFN-Europe, with only three hours of programming per week. In addition, if a show is to be added to the daily schedule, we also recommend that it be aired on the FM band of AFN-Europe. This recommendation is drawn from the conclusion regarding listener preferences between AM and FM. If AFN-Europe chooses not to add a Christian music show to the daily schedule, then we recommend that “Rock of Ages” be given a time slot on the FM band that differs from the existing AM time slot. This second alternative would appeal to listeners who prefer AM as well as those who prefer FM.

The final recommendation we have from this study is that the time slot allocated to “Rock of Ages” be changed, so that it is aired later in the day. This is supported by the data presented earlier concerning the timing of the show. Moving the show to a time that will not conflict with religious services will increase the potential listening base substantially. We are unsure of the feasibility of switching the time for “Rock of Ages.” However, an example of one change that could be made would be to displace “51 Percent/Field & Stream,” which airs on AM from 4:00pm to 5:00pm on Sunday afternoon and “Prime Time Radio,” which airs on AM from 5:00pm to 6:00pm directly following

“51 Percent/Field & Stream.” This change would place “Rock of Ages” in the four to six time slot on Sunday afternoons, and would put it right before “Focus on the Family.”

5.3 Future Research

Our study was a preliminary study for AFN–Europe radio stations. It dealt specifically with the two programs “A Touch of Grace” and “Rock of Ages.” Both of these programs air on AFN-Europe’s AM band. In order to make more in-depth and valuable recommendations, further research is needed.

One aspect of our study that could have been performed more in-depth was the gathering of information from youths. A survey given to youths would have greatly improve our ability to draw conclusions and make recommendations for improving broadcasting for this population of listeners. The survey would help to obtain quantitative data for the study.

An important conclusion that we have come up with is that trying to perform mail surveys using the military mail system is not very effective. The mail system is very slow, inefficient and sporadic. Eight weeks proved to be not nearly enough time to obtain the desired number of responses necessary when dealing with the army’s mailing system. We recommend that future studies should be conducted using face-to-face surveys.

Another topic in which future research could be done is doing focus groups and interviews with secular individuals. These were not done with our study. These could prove useful if the radio personality wanted to see ways in which to change his program so that secular people would enjoy listening to it. They could also offer more insight for changes desired in overall AFN-Europe programming.

We were only able to perform one circle of interviews through reference sampling. A better design would have been to simultaneously conduct three circles of interviews with one containing women, one containing men, and one containing youths.

Future research could be done concerning advertising. Our study was not designed to research exactly how effective current advertising is. It could also prove beneficial to see which types of advertising could be most effective and what would be the best way to implement them.

Glossary of Terms

AFN-Europe (American Forces Network) - Network that provides command information, news, and entertainment to military personnel abroad, via television and radio

AM - Amplitude Modulation

APO Box – Army Post Office. A mail service box provided by the United States Military to Armed Forces personnel.

Band - Range of the electromagnetic spectrum, specifically, the ranges assigned to AM and FM radio broadcasting

Booster Stations - Station used for rebroadcast of a signal to increase the broadcast distance of a radio station

Clear Channel Stations - Stations that are allotted a national channel on which no other station can broadcast

Conduction - A means by which radio waves are propagated around the surface of the earth by its electromagnetic field.

Confidentiality - The act of protecting participant information from access outside of the research group

Cross Programming - Scheduling a program based on a competitor's schedule so that the program overlaps a competitor's programs.

Facilitator - Research group member in charge of moderating the focus group according to the predetermined instrument

Fidelity - The degree to which an electronic device (as a radio) accurately reproduces its effect (as sound)

FM - Frequency Modulation

Frame - The specific population from which the sample will be drawn for a study

Groundwaves (Groundwave Propagation) - Radio waves which are conducted over the surface of the earth

Juxtaposition - The act of placing similar shows directly before or after each other

Line of sight - The straight path between a radio or television transmitting antenna and receiving antenna when unobstructed by the horizon

Listenership - The audience for a radio program or recording; also, the number or kind of that audience

Longitudinal study - A study in which an interview or focus group is repeated after a period of time, to ensure consistency and truthfulness in responses

Normative Response Bias - Bias that will affect a participant's response based upon fear of repercussions from the group

Pre-test - A method by which an instrument is reviewed and revised prior to use

Program Log - The schedule of programs at a radio station

Quadraphonic - Four-channel audio consisting of front left and right channels, as well as rear left and right channels for a surrounding effect

Qualitative - Involving a method of obtaining descriptions, opinions, and in-depth information

Quantitative - Involving a method of obtaining numerical data

Reference Sampling - The method of obtaining a sample through references from previous participants

Secular – An individual who doesn't attend religious services.

Showmanship - The techniques used to make programs more attractive

Simulcasting - A method by which one program is simultaneously broadcast through multiple media

Skywaves (Skyway Propagation) - Radio waves which are reflected due to changes in the ionosphere during nighttime conditions

Stereo - Two-channel audio consisting of left and right channels

Transcription - The method of writing or typing the complete session of an interview or focus group

Translator Stations - A station that rebroadcasts another station's signal on a different channel

Triangulation - The process of using three separate methods or frames in order to minimize biases present in each separate method or frame

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Valvo, V. (1989, September). AM Mixes It Up as Radio's 'Other' Band. Across the
Board, vol. 8 issue 18, p. 7.

Appendix A - Contact information

Liaison Contact Information:

Name: Captain David Deppmeier

Address:

CH (CPT) David Deppmeier

HQ, AFN Europe

Unit 29405, Box 176

APO AE 09175

Phone: 011 49 6915 688143

E-mail:

Work: deppmeierd@AFN.frankfurt.army.mil

Home: deppmeier@surfl.de or deppmeier@hotmail.com

Appendix B - Ingredients for an effective focus group

Excerpt from page 110 of Berg (1998).

A Clearly Defined Objective and/or Research Problem: Is the focus group part of several other means for collecting data, or is it being used for a stand-alone data collection technique? Does the researcher have a clear understanding of the research problem, and the questions to be used during the focus group session(s)?

The Nature of the Group: What are group's characteristics? Is the group largely homogeneous or is it heterogeneous? Is it an appropriate group for the research question(s)? If you want to study Sioux Indian culture, you can simply not ask a group of Quakers.

Atmosphere/Environment and Rapport: As in any research project, the facilitator confidentiality of information discussed during the focus group. In this case, however, the facilitator must also create rapport between him- or herself and the group, as well as between group members. In other words, the researcher must make all of the group members feel comfortable talking openly in the group.

An Aware Listening Facilitator: Facilitators, as with any interviewer, must listen to what the subjects are saying. It is important to have a schedule or agenda during the focus group; however, it should never be so inflexible that interesting topics that spontaneously arise during the group discussion are shortchanged or unnecessarily truncated. Because of the nature of group dynamics, it is possible that topics and issues not originally considered by the researcher as important surface as very important to the study group.

A Well-Organized and Prepared Facilitator: Whether the facilitator intends to work with several specific questions, or with several general topic areas, the facilitator should have a clear idea about how things will proceed. One sure way to kill a focus group discussion is to begin it without any direction, or indication of what the flow of topics will be. Often, texts recommend that facilitators be highly trained and skilled leaders of focus groups (see for example, Krueger, 1994). Unfortunately, this is not always practical or possible. It, therefore, becomes even more important for an inexperienced researcher serving as facilitator to demonstrate clear organization and preparedness.

Structure and Direction, but Restrained Contribution to the Discussion: While the facilitator should guide the group's discussion, he or she should avoid offering opinions and substantive comments. As with any interview, the ideal product is 90 percent subjects and 10 percent researcher.

Research Assistants: Many investigators use only a single researcher / facilitator during the course of a focus group. This procedure sometimes occurs because of costs or time necessities. A more idyllic situation is to have someone serve as facilitator, while someone else sits and observes the group. This second researcher is able to create field notes about the group dynamics, as well as assist in identifying voices when it comes time to transcribe the focus group interview recording. An even more effective record might be to videotape the focus group. Videotaping, however, is not always permissible or possible.

Systematic Analysis: Whether the data is a transcribed audiotape, or a videotape of group sessions, they must be analyzed using some systematic means. One style of analysis may be to analyze the content of the statement made by subjects during the focus group. Whatever you do with the data, they should be clearly stated to ensure their verifiability. By verifiable I mean that the analysis process should permit another researcher to arrive at similar conclusions using the same or similar documents and raw data (Krueger, 1994).

Appendix C - Table of sample sizes for surveys

Table 5.1 from page 55 of Salant and Dillman

Final sample sizes needed for various population sizes and characteristics, at three levels of precision.

Population size	Sample size for a 95 percent confidence level					
	+/- 3% sampling error		+/- 5% sampling error		+/- 10% sampling error	
	50/50 split	80/20 split	50/50 split	80/20 split	50/50 split	80/20 split
100	92	87	80	71	49	38
250	203	183	152	124	70	49
500	341	289	217	165	81	55
750	441	358	254	185	85	57
1,000	516	406	278	198	88	58
2,500	748	537	333	224	93	40
5,000	880	601	357	234	94	61
10,000	964	639	370	240	95	61
25,000	1,023	665	378	234	96	61
50,000	1,045	674	381	245	96	61
100,000	1,056	678	383	245	96	61
1,000,000	1,066	682	384	246	96	61
100,000,000	1,067	683	384	246	96	61

Appendix D - Confidentiality statement

Confidentiality Statement

This form is intended to further ensure confidentiality of data obtained during the course of the study “An Analysis of Listener Preferences for American Forces Network Europe.” All parties employed in this research will be asked to read the following statement and sign their names indicating they agree to comply.

We hereby affirm that we will not reveal or in any manner disclose information obtained during the course of this study. We agree to discuss material directly related to this study only with other members of the research team. In any reports, papers, or published materials we write, we agree to remove obvious identifiers.

Name: _____

Signature: _____

Name: _____

Signature: _____

Name: _____

Signature: _____

Name: _____

Signature: _____

Appendix E – Pre-notice for survey

WORCESTER POLYTECHNIC INSTITUTE

Improving Your AFN

Commander: AFN-E HQ
ATTN: PAO-AMT
AFN Frankfurt Unit 29405
APO AE 09175

March 20,2000

Dear Sir or Madam,

Within the next few days, you will receive a brief questionnaire. We are mailing it to you in an effort to determine listener preferences for American Forces Network-Europe Radio.

The survey is being conducted in order to better inform the AFN on what type of programming the listener would like to hear.

Your participation in this study would be greatly appreciated and your input will help to make this study as effective as possible. Please take a few minutes to complete and return the questionnaire.

Thank you in advance for your help.

Sincerely,

Worcester Polytechnic Institute Audience Measurement Team

William Welsh

Le Grand Reynolds

Benjamin Carl

Benjamin Leclerc

Appendix F – Survey (Booklet Form)



Improving your AFN

A study to determine the preferences of the listeners of AFN in order to determine if programming changes need to be made to better suit the listeners.

WORCESTER POLYTECHNIC INSTITUTE

The most valued resource of any radio station is its listeners. The American Forces Network – Europe needs your input to provide you with the highest quality of programming. Only with your input can AFN give you the radio station you want.

We are an independent research team from Worcester Polytechnic Institute conducting a study in order to find out what you think about AFN and how their programming can better suit you. In no way are we affiliated with AFN or the United States Armed Forces.

You were selected randomly, from a list of APO addresses on your base, to participate in this study. All information in this study will be held confidentially. Only the four members of the research team will have access to the data, and following our analysis all lists will be destroyed. In no way will your name be connected to our study.

Your participation in this study is greatly appreciated and we thank you for investing the time to complete this survey. It should take you between 5 and 10 minutes to complete. Many of the questions contain a range of selections to choose from; we ask that you answer each question honestly and thoughtfully, circling the selection or selections that best apply to you. When finished, please place the survey into the enclosed self-addressed envelope and return it to us.

For all questions, **circle one** answer unless otherwise specified

1. How many hours per week do you listen to the radio?

- a. Never
- b. Less than 1
- c. 1-5
- d. 5-10
- e. 10-15
- f. More than 15

If never, please skip to question 20.

2. What times do you listen to radio? (**Circle all that apply**)

- a. 0500-0700
- b. 0700-0900
- c. 0900-1100
- d. 1100-1300
- e. 1300-1500
- f. 1500-1700
- g. 1700-1900
- h. 1900-0000
- i. 0000-0500

3. How many hours per week do you listen to AM radio?

- a. Never
- b. Less than 1
- c. 1-5
- d. 5-10
- e. 10-15
- f. More than 15

For all questions, **circle one** answer unless otherwise specified

4. How many hours per week do you listen to FM radio?

- a. Never
- b. Less than 1
- c. 1-5
- d. 5-10
- e. 10-15
- f. More than 15

5. Which band of radio do you prefer?

- a. AM
- b. FM
- c. No Preference

6. What music genres do you listen to? (**Circle all that apply**)

- a. Classical
- b. Country
- c. Folk
- d. Heavy Metal
- e. Gospel
- f. Jazz
- g. Rap
- h. Reggae
- i. Rock
- j. Ska
- k. Soft Rock
- l. Techno
- m. Other: _____

For all questions, **circle one** answer unless otherwise specified

7. Do you listen to Christian music?

Yes No

→ 7a. If no, would you ever consider listening to Christian music?

a. Yes b. Probably c. Probably not d. No

→ 7b. If yes, how many hours a week do you listen to Christian music?

a. Less than 1
b. 1-5
c. 5-10
d. 10-15
e. More than 15

8. When listening to a radio station, do you prefer

a. A station that plays similar types of music throughout the day
b. A station that plays many different types of music throughout the day

9. When listening to a program on a radio station, do you prefer

a. A select group of popular songs or
b. A wide variety of songs

For all questions, **circle one** answer unless otherwise specified

10. Do you listen to spoken devotional or inspirational programs on the radio?

Yes No

11. Do you listen to American Forces Network radio stations?

Yes No

→ 11a. If no, would you ever consider listening to AFN?

a. Yes b. Probably c. Probably not d. No

→ 11b. If yes, how many hours a week do you listen to AFN?

- a. Less than 1
- b. 1-5
- c. 5-10
- d. 10-15
- e. More than 15

12. Have you ever heard of the AFN program "A Touch of Grace"?

Yes No

If no, please skip to question 16.

For all questions, **circle one** answer unless otherwise specified

13. Have you ever listened to the AFN program “A Touch of Grace”?

Yes No

If no, please skip to question 16.

14. On average, how many days a week do you listen to “A Touch of Grace”?

0 1 2 3 4 5

15. Please rate “A Touch of Grace” on the following categories using this scale.

1-Poor 2-Below average 3-Above average 4-Excellent

a. Variety of subjects	1	2	3	4
b. Quality of speaker	1	2	3	4
c. Inspirational value to you	1	2	3	4

16. Have you ever heard of the AFN program “Rock of Ages”?

Yes No

If no, please skip to question 20.

For all questions, **circle one** answer unless otherwise specified

17. Have you ever listened to the AFN program “Rock of Ages”?

Yes No

If no, please skip to question 20.

18. On average, how many times a month do you listen to “Rock of Ages”?

0 1 2 3 Every week

19. Please rate “Rock of Ages” on the following categories using this scale.

1-Poor 2-Below average 3-Above average 4-Excellent

a. Variety of music types	1	2	3	4
b. Variety of songs	1	2	3	4
c. Quality of the DJ	1	2	3	4
d. Overall enjoyment	1	2	3	4

20. What is your religious affiliation? (**Please specify where applicable**)

- a. Muslim
- b. Jewish
- c. Buddhist
- d. Hindu
- e. Roman Catholic
- f. Protestant denomination: _____
- g. Other Christian denomination: _____
- h. Non-religious
- i. Other: _____

For all questions, **circle one** answer unless otherwise specified

21. How often do you attend religious services?

- a. Never
- b. A few times a year
- c. Monthly
- d. Weekly

22. What is your age?

- a. Under 18 years
- b. 18-21 years
- c. 22-25 years
- d. 26-30 years
- e. 31-40 years
- f. Over 40 years

23. What is your gender?

Male

Female

24. What is your race?

- a. African American
- b. Asian or Pacific Islander
- c. Caucasian (non-Hispanic)
- d. Hispanic
- e. Native American

Thank you for your participation in this study. Any additional comments can be made on the following page, or on the back if necessary. When finished, please place this survey in the enclosed self addressed envelope and mail it.

Comments:

WORCESTER POLYTECHNIC INSTITUTE

ID #:

Appendix G – Initial insert letter

WORCESTER POLYTECHNIC INSTITUTE

We are an independent research team from Worcester Polytechnic Institute conducting a study in order to find out what you think about AFN and how their programming can better suit you. In no way are we affiliated with AFN or the United States Armed Forces.

You were selected randomly to participate in this study from a list of APO addresses on your base. The ID #, which appears on the bottom right-hand corner of the back of the survey booklet, is present solely to allow us to contact you in case of a lost mailing. All information in this study will be held confidentially. Only the five members of the research team will have access to the data, and following our analysis all lists will be destroyed including the list of names and ID #'s. In no way will your name be connected to our study.

If you have any questions or concerns, please do not hesitate to call us at 0173 73 96 875. If you would like to view

the results of this study, please contact us after 5 May, 2000 at
bcarl@wpi.edu.

Your participation in this study is greatly
appreciated and we thank you for investing the time to complete
this short survey.

Sincerely,

Worcester Polytechnic Institute Audience Measurement Team

William Welsh Le Grand Reynolds Benjamin Leclerc

Wesley Jamison

Benjamin Carl

Appendix H – Reminder notice

WORCESTER POLYTECHNIC INSTITUTE

Improving Your AFN

Commander: AFN-E HQ
ATTN: PAO-AMT
AFN Frankfurt Unit 29405
APO AE 09175

March 29, 2000

Dear Sir or Madam,

Last week a questionnaire seeking your opinion on American Forces Network-Europe Radio was sent to you. Your name was selected randomly, from a list of APO addresses on your base.

If you already completed and returned the survey, we would like to sincerely thank you for your participation. If not, please do so today. We encourage your participation in this study. Your opinion is very important and useful to us.

If you have not received the questionnaire or if it was misplaced, please contact us at 069-15688131 and we will provide you with another copy immediately.

Thank you in advance for your time.

Sincerely,

Worcester Polytechnic Institute Audience Measurement Team

William Welsh

Le Grand Reynolds

Benjamin Carl

Benjamin Leclerc

Appendix I – Second insert letter



We are an independent research team from Worcester Polytechnic Institute conducting a study in order to find out what you think about AFN and how their programming can better suit you. You were selected randomly to participate in this study from a list of APO addresses on your base.

We have not yet received your response to our survey. If you have already completed and returned the survey, then we thank you for your participation. If you have not, we have included this second copy for you to complete and return to us. The information you provide through this survey is essential in order to assure that AFN broadcasts only the highest quality programming.

In no way are we affiliated with AFN or the United States Armed Forces. The ID #, which appears on the bottom right-hand corner of the back of the survey booklet, is present solely to allow

us to contact you in case of a lost mailing. All information in this study will be held confidentially. Only the five members of the research team will have access to the data, and following our analysis all lists will be destroyed including the list of names and ID #'s. In no way will your name be connected to our study.

If you would like to view the results of this study, please contact us after 5 May, 2000 at bcarl@wpi.edu.

Your participation in this study is greatly appreciated and we thank you for investing the time to complete this short survey.

Sincerely,

Worcester Polytechnic Institute Audience Measurement Team

William Welsh Le Grand Reynolds Benjamin Leclerc

Wesley Jamison

Benjamin Carl

Appendix J - Questionnaire for focus Groups and Interviews

What types of music do you listen to?

Do you listen to Christian music?

Do you listen to Christian music on the radio, or on CD's and tapes?

Do you listen to the radio?

When do you listen to the radio?

Do you listen to AFN-Europe radio stations?

Do you listen to German radio stations?

Have you heard of the religious shows that air on AFN-Europe, "A Touch of Grace" and "Rock of Ages?"

We play the clips of "A Touch of Grace"

What are your thoughts about the show?

What do you think of the radio personality?

We play the clip of "Rock of Ages"

What are your thoughts about the show?

What do you think of the radio personality?

Do you have any other comments that you would like to make about either of the two shows?

Do you have any general comments about AFN-Europe that you would like to make?

Appendix K

Confidentiality Disclaimer

In signing this I understand, accept and agree to the following terms and conditions:

- 1.) The recording of this session will be used only for transcription purposes, and viewed by no one other than the mediators.
- 2.) Both participants and mediators will regard all information, opinions, statements and other remarks included in this focus group session as confidential.
- 3.) Participation in the focus group is entirely voluntary. This pertains to overall participation, as well as involvement during any and all aspects, questions and subjects covered in the survey session.

Name in full (printed)

Name in full (signature)

Signature of Mediators

These measures have been taken solely to protect all participants. It is of utmost importance that all members of the focus group feel comfortable and safe sharing individual, honest opinions and thoughts

Please keep this bottom section as a copy for yourself

Confidentiality Disclaimer

In signing this I understand, accept and agree to the following terms and conditions:

- *The recording of this session will be used only for transcription purposes, and viewed by no one other than the mediators.
- *Both participants and mediators will regard all information, opinions, statements and other remarks included in this focus group session as confidential.
- *Participation in the focus group is entirely voluntary. This pertains to overall participation, as well as involvement during any and all aspects, questions and subjects covered in the survey session.

Date: _____

These measures have been taken solely to protect all participants. It is of utmost importance that all members of the focus group feel comfortable and safe sharing individual, honest opinions and thoughts