

## CHAPTER 1

### INTRODUCTION

#### History

1. Today Sri Lanka Navy has the strength of over 54225 personnel actively in service. Sri Lanka Navy was established on 09<sup>th</sup> December 1950, which was called as the Royal Ceylon Navy.<sup>1</sup> It became Sri Lanka Navy on 1972; when Sri Lanka was, declared as a republic. Even though Sri Lanka was a small country of 65610 Km<sup>2</sup>, Navy operates well beyond the territorial limits. Today Sri Lanka Navy was divided in to 7 commands. Therefore naval personnel are spread from south to north and west to east of Sri Lanka. In the early stage of Sri Lanka Navy had a limited number of personnel and it was also located in close proximity of the Colombo. Therefore, Navy did not require a good transport network to transfer the people. But when Navy was growing bigger with the time it had to develop transport network which can cater the requirements of the Navy

2. Meaning of the Convoy is the group of vehicles. As in the history, convoy was first used in 12<sup>th</sup> century. It was when the merchant ship travelling under the protection of Naval protection. This was a common term used by worldwide in Navies for their transport system. In 1970 with the start of Eelam war Navy had to protect the major harbours in North and Eastern parts of Sri Lanka. However, in mid 1980's when the LTTE was started attacking innocent armed forces personnel who were travelling in buses while on leave. This was the first time Navy started to use Convoy system. This was initially used in operational areas, but later it was well spread to all part of Sri Lanka.

3. Convoy system was started in 1987 with the attack on the buses at Kitulutuwa in Trincomalee, where they killed 16 civilian people travelling in a bus. Then with that incident, LTTE started to target service personnel who were travelling in public transport.

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<sup>1</sup> Sri Lanka Navy,06 may 2013,15 Aug 2012.<<http://www.navy.lk>>

During this time, there was no mechanism to carry service personnel to operational areas. Therefore, the requirement of such a system was highlighted due to these incidents. Nevertheless, with the increase of such attacks Navy decided to introduce its own transport system, which is called as Convoy. However, Navy did not have buses to run a transport system. Therefore, Navy had to hire them from the outside.<sup>2</sup>

4. First step was to hire buses from Katubadda depot in Colombo. Initially it was decided to deploy buses in three routes.<sup>3</sup>

- a. From Colombo to Trincomalee via Kurunagala
- b. From Colombo to Trincomalee via Negambo
- c. From Colombo to Trincomalee via Kandy

5. During this period naval personnel those who were working in Kankasnthuri used to travel by air from Palali to Trincomalee or Ratmalana. However, this was inadequate due to the availability of aircraft in Sri Lanka Air force. Therefore, later Navy had to start a Bus system, which runs from Kankasnthurei to Colombo. Because of the buses were started to run between Vavuniya to Jaffna. However, with time all the armed forces had to increase their number of service personnel due to war. Navy had to deploy all around the island and therefore it was needed to have a better transport system to transport their men safely to other parts of the island.

6. Then the convoy system was gradually started growing with number of buses all the operational areas were covered through this system. Nevertheless, when the war was getting intensified LTTE targeted many buses, which took armed forces personnel. Especially after the attack in Digampatana in October 2006 which killed 103 naval personnel. Therefore, Navy had to move their men with utmost care and safety. Then at the

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<sup>2</sup> Vipularatna ,JAK,(62)interview at Trincomale, 12 december 2012

<sup>3</sup> Sayanasiri, KDR (64) interview at Colombo, 28 November 2012

later stages of the war, Navy had to use some modification to the convoy system. Those are,

- a. Modification of the buses such as Arm plating of buses
- b. Modification of the seats of buses
- c. Arm the all personnel travelling in buses
- d. Wearing of body armour and helmets.
- e. Disguise them as civil buses
- f. Change the timing of departure and arrival
- g. Carry minimum no of personnel.
- h. Carry out route clearing prior to departure
- i. Minimise traffic when convoy was moving.
- j. Establish transit camps
- k. Change transit location regularly.

Therefore, many planning's and safety precautions were applied during the last stage of the war. Because of that, there were no attacks against the convoy after 2006 attack.

7. However, when the war was finished in 2009, the safety of the convoy was loosening, and development of the public transportation was given a little respect with this system. Nevertheless, Naval convoy is still running in eastern and northern part of the Sri Lanka. Today there are three buses running from Trincomalee to Colombo via kurunagala, Negambo and Kandy. Same times there are 3 buses travelling in same route from Colombo to Trincomalee. In addition, from Kankasanthurei there are 3 buses are going to Vavuniya and same routes there are 3 buses are coming back to Kankasanthurei.

8. However, is it enough for the strength of more than 50000 men to travel by the 12 buses, which travel in Eastern and Northern parts of Sri Lanka? In addition, there are seven commands in Navy and other areas in Sri Lanka too. Convoy was started to take service personnel safely to their working places. Government is spending a lot of money on it. Today do we need such a system? During my research, I intend to find out answers for these questions. My prime aim is to find out whether this system is effective or not for the Sri Lanka Navy.

### **Limitations**

9. Following limitations are highlighted during the research
- a. Non-availability of academic research material related to Navy convoy system was a main limitation of this study.
  - b. The data bank of the Convoy buses was not available in Naval headquarters.
  - c. Buses data were mainly acquired from SLNS Tissa convoy pool
  - d. Convoy buses are available only in 3 Naval Commands( East, West and North)
  - e. In addition, there is no permanent place, which some of the bases used use convoy buses until 2009 and until that time convoy buses and with time, they were changed and data was not recorded properly.
10. Above limitations are the main points, which I encountered when researching on this topic. Especially even through Navy has seven commands and strength of over 50000 it has a few facilities to transfer the Naval personnel. Therefore, it was a major limiting factor of this study. In addition, Navy has never maintained a data bank on these aspects. It was a difficult task for me to find the facts about buses and the passengers. History of the convoy system also was not recorded in books, there were many changes due to Eelam war, and data was not available in books.

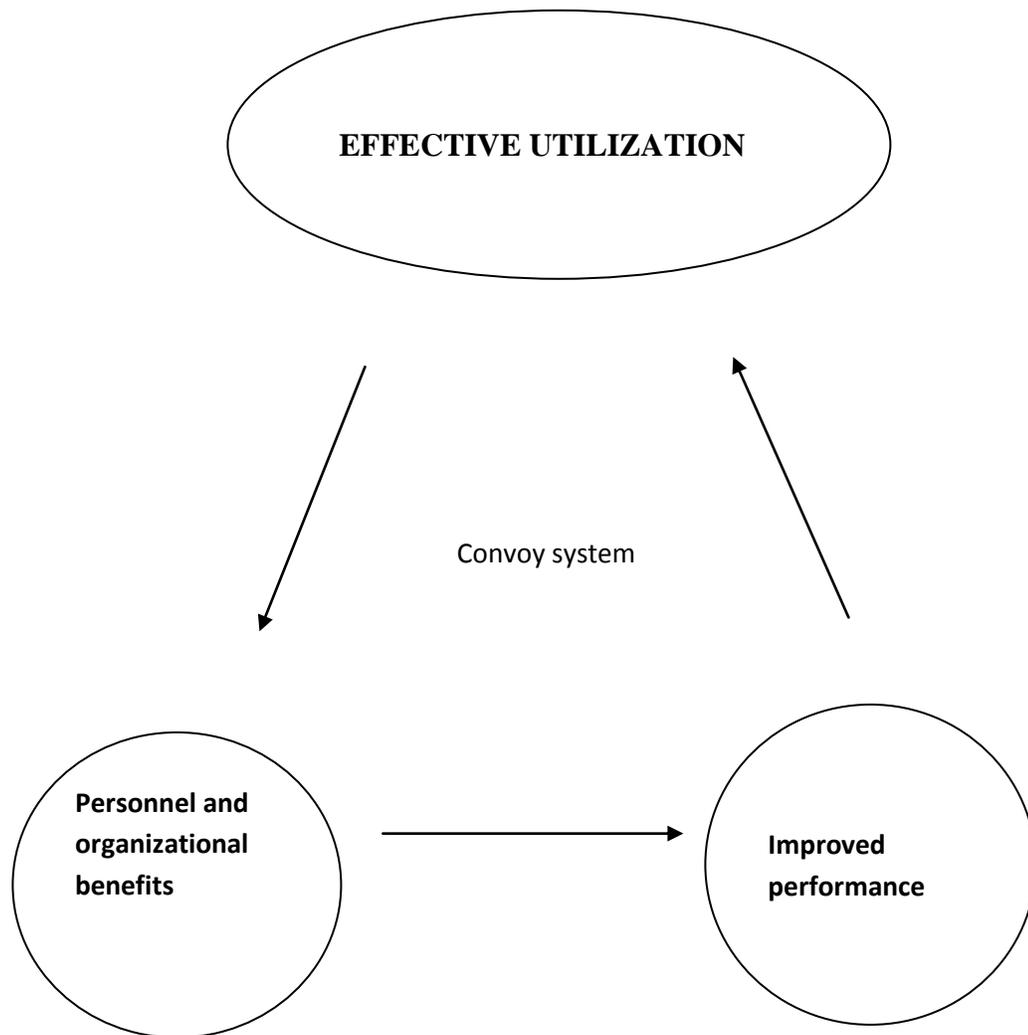
### **Literature review**

11. There were no such academic researches, which are done on this subject, or similar to this topic, therefore it was difficult for me to narrate anything on this topic. There are some scholars who have done research on transport system but those were entirely different from this topic. They have mainly focused on service as well as the profit of such a system. However, it is very different in terms of such, because in this we do not expect any profits. It should be also highlighted that this kind of facility is only available in Sri Lanka.

12. As per the studies, this service is not considered as a cost effective in terms of monetary aspects but cannot be compared with commendable service, which rendered during the wartime. Therefore, still it is running as a service to naval personnel. However, when studying the subject I was able to identify that the effective utilization is utmost importance. Because it gives lot of benefits for the personnel as well as to the organization. Ultimate result is that the it affects for the improvement in the performance of the Navy.

### **Conceptual framework**

13. The conceptual framework is arranged with the way of thinking of how and why the work is done and to recognize its activities. The conceptual framework aims to illustrate the construction of the theoretical literature review and the practical focus of the study. The concepts presented in above sub paragraphs are combined and created a framework as a foundation for this study is shown in below as **Figure I:**



**Figure I: interconnecting of effective utilization, benefits and performance**

**Hypothesis**

14. Hypothesis of this study is naval personnel are not utilizing Sri Lanka Navy convoy system effectively.

## **CHAPTER II**

### **METHODOLOGY**

15. This chapter is consisted of the research method, which used is to carry out the survey and explains the data analysis of the thesis.

#### **Research Methods**

16. The research method is a single case/one organization study (Sri Lanka Navy) which can be justified by using following reasons.

- a. In order to explore the area more in detail, seen from the Navy's point of view, there was no reason to involve any other organization in the research.
- b. The researcher of this study is working in the Sri Lanka Navy and therefore he has a reasonably easy access to the necessary data and interactions.

17. The research is carried out covering mainly the Eastern Naval Command. Because until today Eastern command has the only proper convoy system that functions almost for 25 years. In addition, when analyzing the past records of passenger transportation, 90% has done covering the Eastern Naval command. Therefore my sample was based on that which consist of 30 numbers of officers, 125 senior sailors, 250 junior sailors from the Eastern Naval command that based on cluster sampling method to obtain the data. Where as data about buses were mainly obtained from the SLNS Tissa in Trincomalee.

18. For this survey both officers and sailors were selected randomly from various ranks and branches because it would be helpful to see how different levels and different jobs role use the convoy. Both multiple and open-ended questions are included in the survey

questionnaire. The survey is entirely focused on the convoy system on its effectiveness, which was carried out in November 2012. The objectives of the survey were to find out usage of convoy, effectiveness, why they use it, how satisfied they are with the facility, to identify whether they are utilizing it effectively and how to improve the effective utilization of convoy system among the Navy personnel. They were also asked to gain their individual opinions to improve the convoy system.

### **Data Collection**

19. A questionnaire was used to carry out survey to find out the effectiveness of the Convoy. I used printed copies and Email among the naval personnel in the Eastern command. More than 450 printed copies were distributed and 46 E- mails were sent to them. Most number of officers has mailed me the answers and most number of sailors has answered for the printed papers. Most of them answered to close ended questions and have not replied to the open-ended questions. In addition, details were collected from SLNS Tissa bus pool about personnel they transfer and the total cost for the convoy buses of Trincomalee for the year 2012.

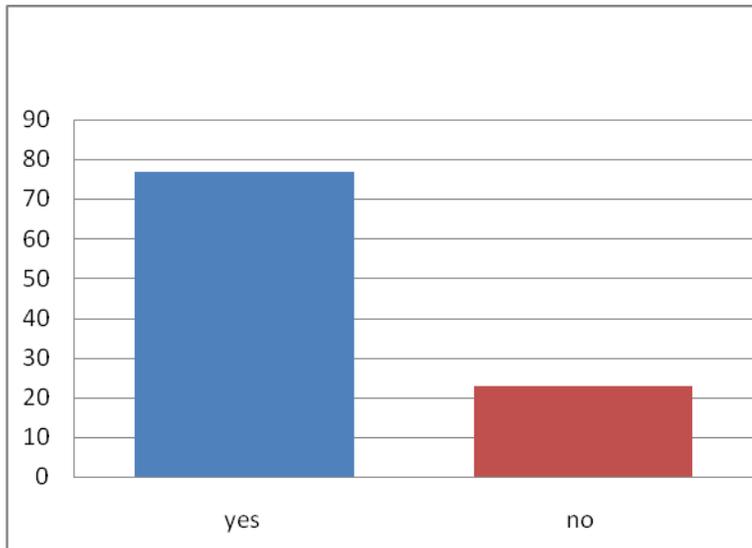
## CHAPTER III

### FINDINGS

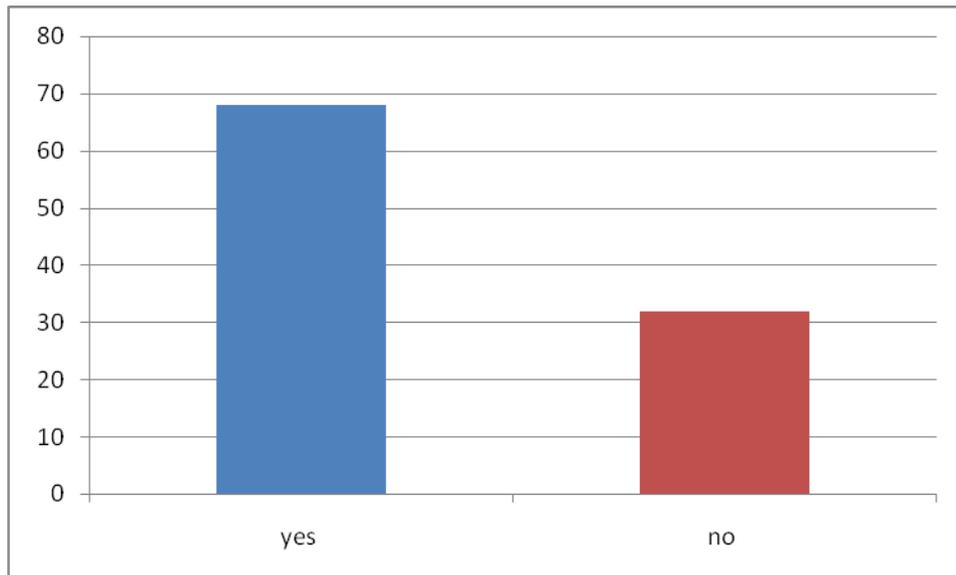
20. Results of the questionnaire were the findings of the research. Findings are divided in to four parts. The first part includes the usage of the convoy by naval personnel. It includes in percentage of how much they use convoy, for what they use it, why they do not use it. Second part includes the effectiveness of the convoy. These sections discuss the satisfaction of the users of convoy and the expectation of passengers of the convoy. Then the next question was about the possible drawbacks that are identified by the passengers and majority of them was reluctant to answer this question. However, some of them were supportive and provided their fullest support. Further, last question gives the opinions and suggestions for what should be done to improve the convoy system. Finally, last section summarizes all findings and tries to find out whether the convoy system is used effectively and if not what are the reasons for that.

#### Use of the Convoy

21. According to the findings of the survey among the 30 officers, 77% of officers use the convoy and the 23% of them do not use it. Among the senior sailors, 68% use the convoy and 32% of them do not use it. When it comes to the junior sailors 46% of them, use the convoy and 54% of them do not use it. These findings are shown in the **Graph-I**, **Graph-II** and **Graph III** respectively below.

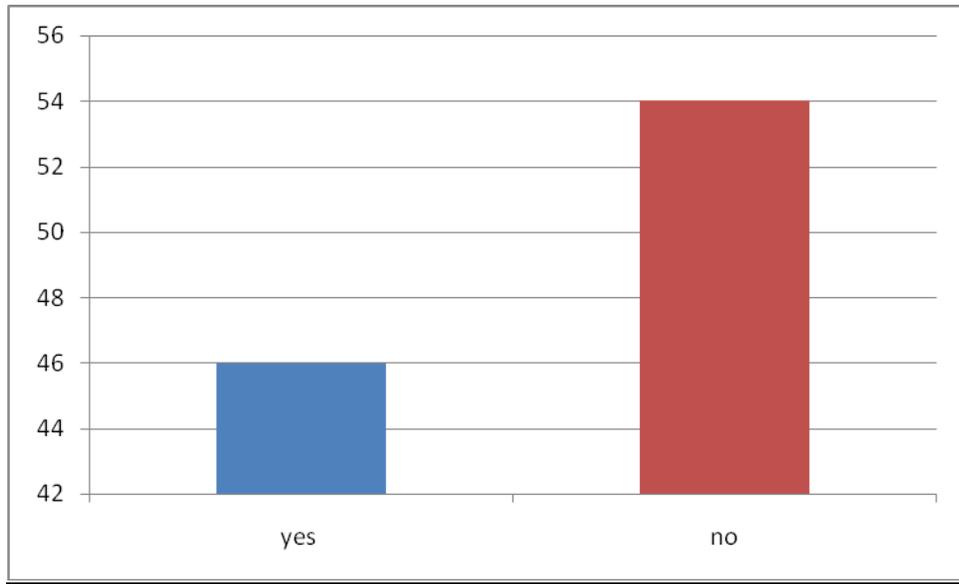


**Graph-I: Use of the Convoy by officers**



**Graph-II: Use of the Convoy by senior sailors**

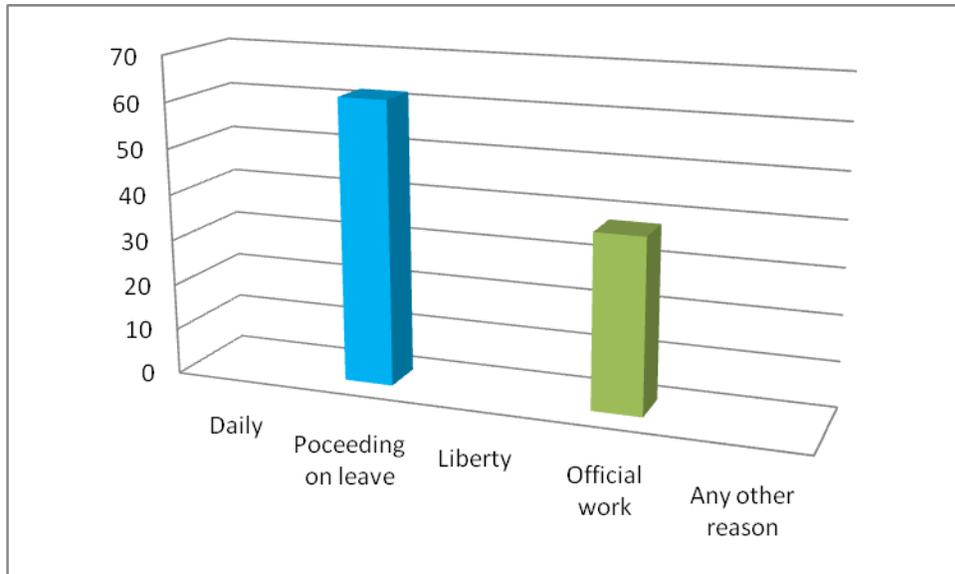
**Source-** Graph-I & II prepared by data collected by the questionnaire



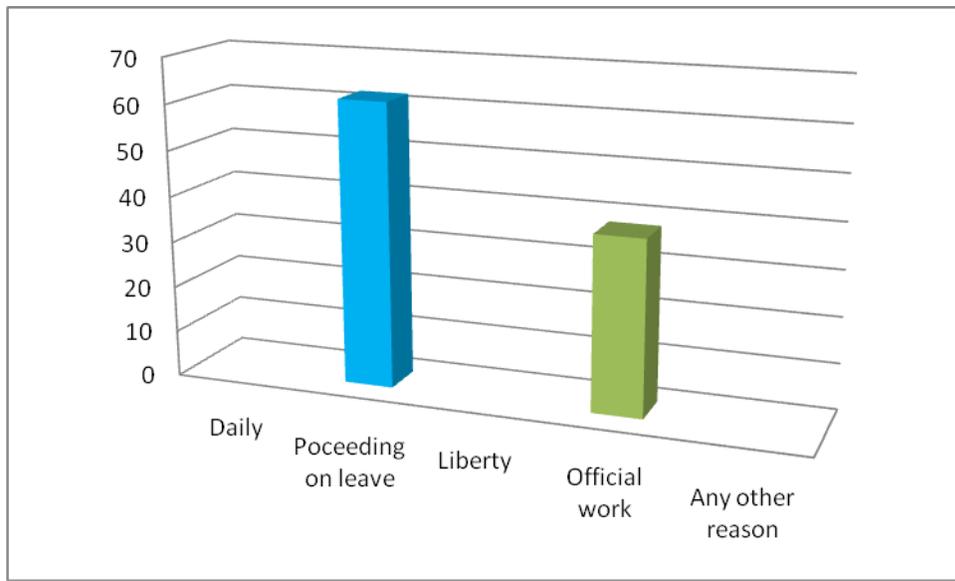
**Graph-III: Use of the Convoy by junior sailors**

**Source-** Graph-III prepared by data collected by the questionnaire

22. Respondent officers and sailors were asked for what purposes do they use the convoy. Out of 30 officers, 66% of officers use convoy to proceed on leave and 34% of others use it to travel for official work. Among the respondent senior sailors, 78% of them use it to proceed on leave and 22% of others use it to travel for official work. Then about junior sailors, 62% of them use it to proceed on leave and 38% of others use it to travel for official work. These findings were shown in the **Graph-IV**, **Graph-V** and **Graph VI** respectively below.

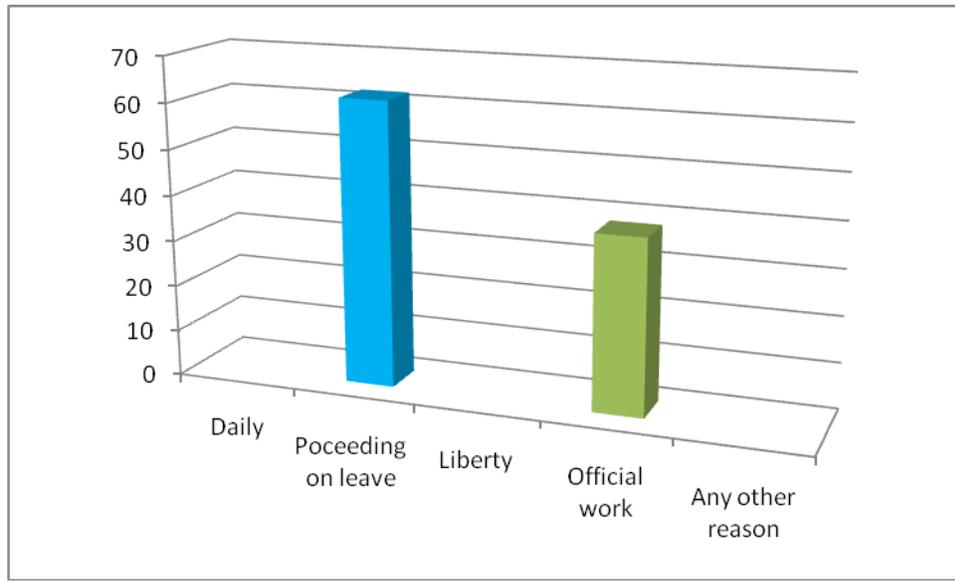


**Graph-IV: Purpose of use by officers**



**Graph-V: Purpose of use by senior sailors**

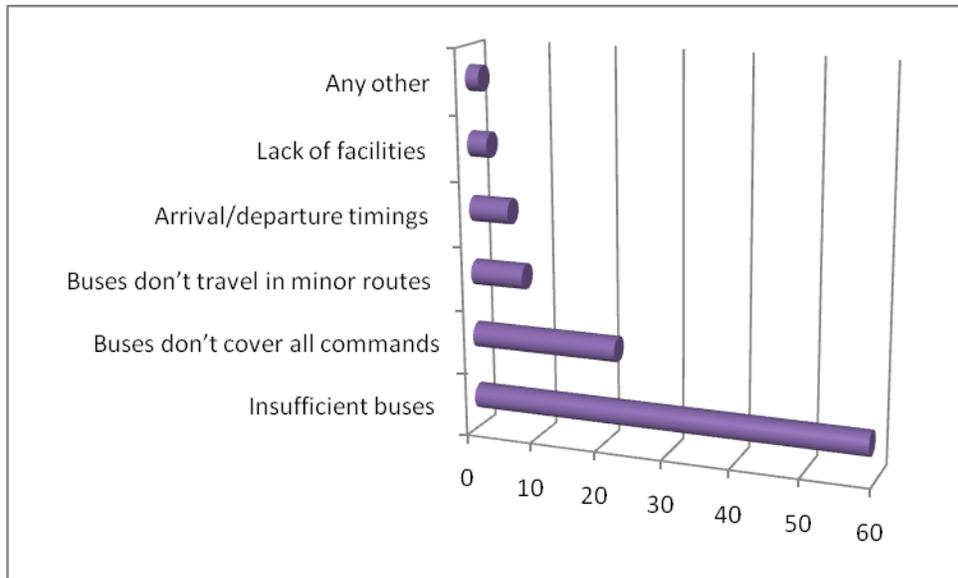
**Source-** Graph-IV & V prepared by data collected by the questionnaire



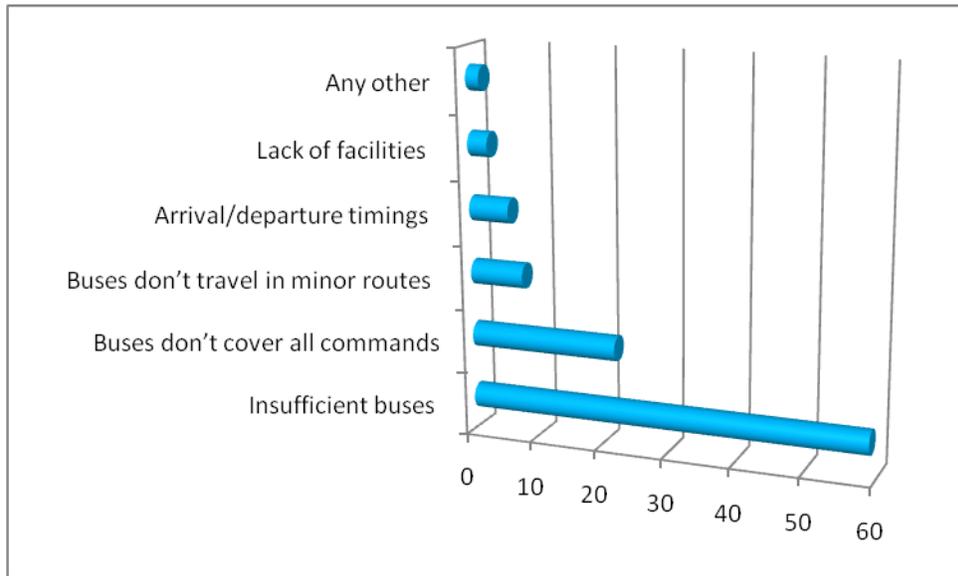
**Graph-VI: Purpose of use by junior sailors**

**Source-** Graph-VI prepared by data collected by the questionnaire

23. Also they were questioned about the why they do not use convoy. When the 30 officers were questioned about the reason, 76% says that major reason was the insufficient buses, 9% them say that buses don't travel in other areas and 7% say that they don't use minor routes, 3% of them worry about timings and 5% says about the lack of facilities. When analysing the senior sailor's feedback 63% says that reason was the insufficient buses, 15%, they say that buses do not travel in other areas and 8% say that they do not use minor routes, 4% of them talk about timings, 6% says lack of facilities and 4% says about other reasons. About junior sailors 59% says that reason was the insufficient buses, 22% them say that buses don't travel in other areas and 8% say that they don't use minor routes, 6% of them talk about timings ,3% says lack of facilities and 2% says about other reasons. These findings were shown in the **Graph-VII**, **Graph-VIII** and **Graph IX** respectively below.

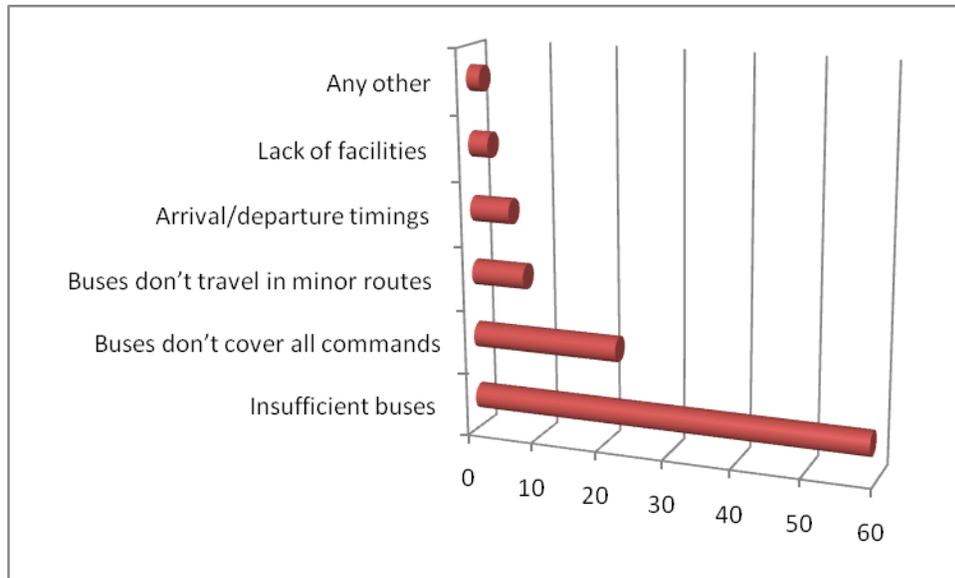


**Graph-VII: Main reason of not using the convoy- Officers**



**Graph-VIII: Main reason of not using the convoy- Senior sailors**

**Source-** Graph-VII & VIII prepared by data collected by the questionnaire



**Graph-IX: Main reason of not using the convoy- Junior sailors**

**Source-** Graph-IX prepared by data collected by the questionnaire

24. In the next question the participant were asked about satisfaction and dissatisfaction about the convoy facility. They were questioned about 8 different aspects and result is shown on **Table-I** below.

Question	Dissatisfied			Neither Satisfied Nor dissatisfied			Satisfied		
	Officers	S/Sailors	J/Sailors	Officers	S/Sailors	J/Sailors	Officers	S/Sailors	J/Sailors
<b>No of buses</b>	72%	61%	69%	23%	3%	8%	5%	36%	23%
<b>Quality/Facility of buses</b>	67%	57%	48%	5%	6%	3%	28%	37%	49%
<b>Arrival/Departure timings</b>	14%	38%	39%	3%	1%	4%	83%	61%	57%
<b>No of stoppages</b>	12%	46%	54%	3%	2%	3%	85%	52%	43%
<b>Route of buses</b>	56%	58%	51%	7%	7%	2%	37%	35%	47%
<b>Facility at transit camps</b>	38%	60%	57%	4%	2%	5%	58%	38%	38%

<b>Bus Time table</b>	5%	45%	50%	3%	8%	4%	46%	47%	46%
<b>Convoy as whole</b>	37%	30%	59%	1%	1%	1%	62%	69%	40%

**Source-** Table-I prepared by data collected by the questionnaire

25. Next question was to find out what are the expectations of the passengers from the convoy. This question was raised to the participants and 45% of officers, 43% of senior sailors and 26% of junior sailors want Convoy to be a comfortable service. Also 43% of junior sailors want to have the financial advantage. Results are shown in the **Table-II** below.

<b>Expectation</b>	<b>Officers</b>	<b>Senior sailors</b>	<b>Junior sailors</b>
<b>Financial</b>	20%	35%	43%
<b>Time</b>	23%	12%	11%
<b>Security</b>	12%	10%	20%
<b>Comfort</b>	45%	43%	26%

**Source-** Table-II prepared by data collected by the questionnaire

26. Then we moved in to open ended question, which was asked about the drawbacks of convoy. Majority of the sailors were reluctant to answer this question but officers have given their honest feedback. The summarized answers are as follows,

- a. Numbers of buses used for convoy system is inadequate
- b. Convoy system doesn't cover all areas of the island
- c. Seniority considers more than the strength
- d. Low quality of buses
- e. Convoy does not travel in minor routes.
- f. Low facilities of transit camps.
- g. Lots of restrictions on passengers.

- h. Majority of them dislike the arrival and departure timings of convoy.
- i. Some of them dislike that convoy is not stopping en route for refreshments except at Digampathna.
- j. Some of them dislike the fact that they are not allowed to get in to the convoy from the R/V points like Kurunagala and Habarana etc.
- k. Some of them want to have convoy running through the entire week.

27. Then the last question was about suggestions and recommendations to improve the convoy system. Same like previous question respondents have not given enough support to this question. However, majority of the officers gave some of the valuable points. Followings are those points, which will be leading to have a better convoy system, in the future.

- a. Increase the number of buses used for convoy.
- b. Deploy more convoy through other routes covering all areas of island.
- c. Run the convoy through the entire week
- d. Keep separate buses in the training bases when military personnel are proceeding on leave/draft.
- e. Keep a separate bus for officers.
- f. Maintain separate buses for daily movements.
- g. Have proper system for meals and improve the quality of the meals in transit camps.
- h. Allow personnel to get in to buses and get down from buses in demarcated locations.
- i. Change the timings of arrival/departure and start some buses in early morning and some of them in afternoon.
- j. Encourage personnel to use the facility.
- k. Have more stoppages en route.
- l. Have comfortable buses with more facilities.
- m. Have stand by buses to use in an eventuality.

### Summary of findings

28. Convoy was a very important service during the wartime but with aftermath of war, it has become an ordinary service where a less attention was given to it. There it was never improved and was standing same place where it left at the end of war in 2009. Still to date convoy covers 3 commands (areas) in Sri Lanka. Therefore, naval personnel do not use convoy as it was during the wartime.

29. It will be evident when you study the following details, which were collected from the SLNS Tissa bus pool. Following are details of passengers who travel during last 7 years. During wartime sometimes there were 20 buses were used daily and but at the post war period it was reduced to four buses. Also during war time personnel average about 8000 were used to travel but after war it was reduced lesser than 4000 personnel per month. No of buses used for daily for convoy in Trincomalee is shown in **Table-III**

Year	2004	2005	2008	2009	2011	2012
No of buses used	06	06	20	18	6	4

**Source-** Table-III prepared by data collected from SLNS Tissa convoy pool

30. When studying the data of passengers travels annually it can be observed that the convoy use have been reduced after the 2009. It was where the war was end; therefore, it was an other reason why people do not use convoy. Annual Passenger details of convoy buses travel from Trincomalee to the Colombo is shown in **Table-IV**

	2004	2005	2008	2009	2010	2011	2012
January	6790	7786	7968	8076	6314	2473	4855
February	7423	7564	8056	8885	5452	1915	3502
March	6897	7658	7689	8164	5725	2619	4364
April	6726	8124	7056	7717	4546	1765	4205
May	7123	7890	8234	8207	5163	2303	2250
June	6134	7456	7678	8152	2805	1914	3540
July	6543	7980	7943	8678	2581	2137	2876
August	6435	7867	7789	8019	2849	1853	3779
September	7054	7764	7754	8327	1425	2825	3569
October	6856	8045	8145	7375	2586	3855	3556
November	6657	7923	7934	8594	2300	4477	3576
December	6789	7835	7587	7496	3300	4997	3681
Total	81427	93892	93833	97690	45046	33133	43753

**Source-** Table-IV Monthly returns SLNS Tissa convoy pool(2004-2012)

31. As convoy is functioned as a service to the personnel of armed forces, which does not expect any profit from this service. However, when you analyse the monetary aspects of this service it feels that it was under the utilization. When you calculate the cost of the last year for the Convoy in Trincomalee was Rs 17971755.71(excluding the person-hour cost and maintenance cost). So the Navy spends a huge sum of money to run the convoy which was not used up to its potential and it was a waste of money and the resources. Cost estimate report of buses travel from Trincomalee to Colombo for the year of 2012 is shown in **Table-V**

Month	Running distance(Km)	Fuel consumption(L)	Oil Consumption(L)	Total cost(Rs)
January	51834	12630.2	3.500/DS 40	1092512.3
February	48380	12597.4	9.500/DS 40	1245028.5
March	50040	12627.4	5.500/DS 40	1483719.5
April	49023	11787.4	2.500/DS 40	1385019.5
May	61147	14120.1	5.800/DS 40	1659111.75
June	55623	13282	4.400/DS 40,0.350/B/O	1560635
July	60015	14294.8	5.0/DS 40	1687072.3
August	56101	13216.9	3.600/DS 40	1559858.54
September	55717	13593	7.500/DS40	1604245.86
October	54298	14333.9	7.500/DS40	1691686.87
November	52097	13522.7	9.0/DS 40	1595949.05
December	46011	11921	1.0 DS 40	1406916.42
Total	640286	157926.8	64.9 DS 40/ 0.350	17971755.71

**Source-** Table-V prepared by data collected from SLNS Tissa convoy pool

32. As per the survey result it was found, that the majority of the officers 77% of them use convoy. Then the 68% of senior sailors use the convoy and the majority of junior sailors do not use the convoy. It is clearly visible that officers and senior sailors use the convoy in most of the occasions whereas juniors do not get chance or not opting to travel in convoy. Reason for this will be revealed in next question of the survey. A next finding of our survey was how frequently they use it. Survey revealed that 66% of officers use it in every leave. 78% of senior sailors use it and 62 % of junior sailors use it for leave as well. Therefore, it is obvious that all three responsive groups use convoy leave during their leave and rest of them use it for official work.

33. In next invent of finding is the reason for them to not to use this facility. As earlier,

we found that majority of officers use the convoy and minority of them don't use convoy because of the Insufficient buses (76%), 9% of them gives the reason buses don't cover the all commands (Areas of Navy). 7% of them buses don't travel in minor routes other than the main road, 3% of them due to unsuitable arrival and departure timings and 5% of for lack of the facilities in buses and transit camps. In the category of senior sailors 78% because of Insufficient buses, 15% of other because of buses don't cover the all commands (Areas of Navy),8% of them buses don't travel in minor routes other than the main road, 4% of them due to unsuitable arrival/departure timings and 6% of for lack of the facilities in buses and transit camps and last 4% for other reasons. Then the last category of junior sailors 59% of them say Insufficient buses, 22% of other because of buses don't cover the all commands (Areas of Navy),8% of them buses don't travel in minor routes other than the main road, 6% of them due to unsuitable arrival/departure timings and 3% of for lack of the facilities in buses and transit camps and last 2% for other reasons. From these results its clearly apperant that all these 3 categories are agreed with the main reason and most of them don't use convoy is because of the reason of insufficient number of buses. Especially majority of junior sailors do not get the chance because of lack of buses and officers and senior sailors get the chance because of the matter of seniority.

34. Next findings of the survey also confirm the results of previous result. It shows the satisfaction or the dissatisfaction of the passengers about the existing system. 72% of officers are not satisfied with the number of buses. 61% of the senior sailors also do not satisfy with the same and 69% of junior sailors agreed with the same. They all agreed that convoy needs more buses to satisfy the passengers. 67% of officers, 57% of senior sailors and 48% of junior sailors do not satisfy with the quality of buses. 83 %, of officers, 61 % of senior sailors satisfy with the timings but 49% of junior sailors do not agree with the timings. Then we take convoy as a whole 62% officers, 69% senior sailors satisfy with the existing system whereas 59% of junior sailors do not satisfy with the present system.

35. Then respondents revealed their expectations of the convoy system. 20% the officers and 35 % of senior sailors and 43 % of junior sailors expect the convoy as a

financial reliever. Then the 45% of officers and 43% of senior sailors and 26 % of junior sailors worry about their comfort. It clearly shows that officers and senior sailors mostly expect the comfort rather than the financial support. However, the junior sailors worry more about financial benefit rather than the comfort.

36. Next findings were the drawbacks of this system, which were mentioned by the responsive groups. Out of the 3 groups of respondents majority highlighted the fact of inadequate buses used for convoy system. Then they highlighted the fact of this system does not cover all areas of island. Until today, it covers Colombo, Trincomalee and Jaffna. Especially junior sailors do not get seats because the seniority considers more than the strength. As the junior sailors have the more strength but they get the minimum number of seats due to the seniority factor. Then the low quality of buses is also a factor. Since convoy, buses do not travel in minor routes where the most of the naval personnel are from the rural areas of the country. Other drawbacks are Low facilities of transit camps and many restrictions are imposed on passengers, Majority of them dislike the arrival and departure timings of convoy. Some of them dislike the fact buses are that convoy not stopping en route for refreshments except at Digampathna. Some of them dislike the fact that they are not allowed to get in to convoy from R/V points like Kurunagala and Habarana .Some of them want to have convoy running through the entire week.

## **CHAPTER IV**

### **CONCLUSION**

37. The convoy was started in mid 1980's as a transportation system to transfer armed forces personnel under the tight security. Because by that time the LTTE had started the attacks against public transportation in operational areas. So especially people who traveled in eastern and northern areas were transferred using convoy system. From that onwards convoy had to face a lot of hardships and challenges during its long run. The saddest incident was over 100sailors were attacked and killed by LTTE on 15 October 2006. This service has done lot to the nation. Lots of people have laid their lives while protecting the other lives that travel in these buses. Today this has become a transport system, which transfers people of Navy especially from Colombo to Trincomalee.

38. This system has become an ordinary system and running with less effectiveness. Today Navy exceeds its 50000 mark in number of the cadre but it has not developed or put more effort to enhance the system. As per the records in Trincomalee Bus pool daily one convoy bus carries approximately 50 passengers and daily 4 busses are used and that makes the total of 200 or more in numbers. This is the standard of the convoy, which was considered as the most important, and critical events few years back. Therefore this attempt was to find out the effectiveness of the system, drawback of the system and finally, to provide recommendations to improve the convoy system.

### **Research method**

39. The research method was based in Eastern command (Trincomalee) and was a single case study. Topic was selected and it was easy to get the information from the working environment of the researcher. Cluster sample was selected from all the bases of

Eastern Naval command and sample was consisted of officers, senior sailors and junior sailors.30 numbers of officers, 125 senior sailors, and 250 junior sailors were the configuration of sample.

40. A questionnaire was distributed among the target group and except the 2 open ended questions other questions were answered by all of them. The questionnaire was prepared in Sinhala for sailors and was prepared in English for officers. For this survey, officers and sailors were selected randomly who are in various ranks and branches because it would be helpful to see how different levels and different job roles use the convoy. The survey questionnaire is included both multiple and open-ended questions. The survey is entirely focused on the convoy system and its effectiveness, which was carried out in November 2012. The objectives of the survey were to find out usage of convoy, effectiveness, why they use it, how satisfied they are with the facility, to identify whether they are utilizing it effectively and how to improve the effective utilization of convoy system among the Navy personnel. They were also asked to give their individual opinions to improve the convoy system.

41. More than 450 printed copies were distributed and 46 E- mails were sent to them. Most number of officers has emailed me the answers and most number of sailors has answered to the printed papers. Most of them answered to close ended questions and have not replied to the open-ended questions. In addition, details were collected from SLNS Tissa bus pool about personnel they transferred and the total cost for the convoy buses of Trincomalee for the year 2012.

### **Findings**

42. Findings of the survey were concise in this section. The first part includes the usage of the convoy by naval personnel. It includes in percentage wise how much they use convoy, for what they use it, why they do not use it. Second part include the effectiveness of the convoy. These sections discuss the satisfaction of the users of convoy and the expectations of passengers over the convoy. Then the next question was about the possible

drawbacks that are identified by the passengers and majority of them was reluctant to answer this question. However, some of them were supportive and gave their fullest support. Further, the last question gives the opinions and suggestions for what should be done to improve the convoy system. Finally, last section summarizes all findings and tries to find out whether the convoy system is used effectively and if not what are the reasons for that.

43. First findings were about the drastic decrease of convoy use after the war. When analysing the data obtained from SLNS Tissa bus pool. It can be observed that the convoy use has been reduced after 2009. It was where the war was ended; therefore, it was a major reason for the lack of use of convoy. Next findings were about the average use of convoy by target groups of my research. It is evident that majority of the officers and senior sailors use the convoy and the majority of junior sailors do not have chance to use the convoy. Then the next stage of the survey shows the majority of the officers, senior sailors and junior sailors use the convoy for proceeding on leave and for official works.

44. Then the next findings was to find out the major reason of the under utilization of the convoy. It is evident that insufficient number of buses was the major reason for this case. Apart from that, other points such as buses do not cover the all commands (Areas of Navy), buses do not travel in minor routes, unsuitable arrival/departure timings and lack of the facilities in buses and transit camps have made significant contribution to the above matter. When inquiring about the satisfaction of convoy users, 72% of officers are not satisfied with the number of buses. 61% of the senior sailors are also not satisfied with the same and 69% of junior sailors agreed with the same. They all agreed that convoy needs more buses to satisfy the passengers. 67% of officers, 57% of senior sailors and 48% of junior sailors do not satisfy with the quality of buses. 83 %, of officers, 61 % of senior sailors are satisfied with the timings but 49% of junior sailors do not agree with the timings. When we take convoy as a whole 62% officers, 69% senior sailors are satisfied with the existing system where as 59% of junior sailors are not satisfied with the present system.

45. A next finding is about the expectations of the users of convoy. It clearly shows that officers and senior sailors mostly expect the comfort rather than the financial support. However, the junior sailors worry more about financial benefit rather than the comfort. Finally the drawbacks were found such as buses used for convoy system are inadequate, convoy system does not cover all areas of island, seniority considers more than the strength, low quality of buses , convoy buses don't travel in minor routes, low facilities of transit camps etc.

### **Summary of findings**

46. Summary of the findings is shorted in this section where reader can have a better understanding about the findings. Following are the findings of the survey analysing the data collected from bus pool as well as from the questionnaire are indicated in order,

- a. Decrease of the convoy users after the war in 2009.
- b. Majority of the officers and senior sailors use the convoy, where as minority of the junior sailors have less chance to use the convoy.
- c. Majority of the Officers, senior and junior sailors use convoy for proceeding on leave.
- d. Insufficient number of buses was the major factor to under utilization of convoy.
- e. Only the officers and senior sailors satisfy with the convoy system and junior sailors are not satisfied with the system
- f. Majority of the Officers and senior sailors expect the comfort and majority of the junior sailors expect the financial benefits.

47. Drawbacks found during the survey are buses used for convoy system are inadequate, convoy system does not cover all areas of island, seniority considers more than

the strength, low quality of buses , convoy buses don't travel in minor routes, low facilities of transit camps, Majority of them dislike the arrival and departure timings of convoy, Some of them dislike that convoy was not stopping en route for refreshments except at Digampathna, Some of them dislike the fact that they were not allowed to get in to convoy from R/V points like Kurunagala and Habarana etc, Some of them want to have convoy running through the entire week

### **Recommendations**

48. Based on the survey which was carried out on the convoy system following recommendations are finalized to improve the system. The respondents gave some of these recommendations as well other, which were formulated by the researcher based on the survey, and the collected data from the past records.

#### **Increase the number of buses used for convoy**

49. Convoy movements are used to provide the transport facilities for the leave and after leave officers and sailors. Sailors who are going on draft also use the convoy movement. Especially patrol man sailors who are entitle to have personal weapon, when they are going on draft they must use convoy movement. According to the past details, officers and sailors who are working at NMA, SLN DOCKYARD, FAF4 and SLNS TISSA use the convoy movement.

50. During war period also there were convoy movement from Trincomalee to Digampathana. At that time, every bus had 2 to 3 turns per one day. At once, they provided transport facilities for 10-18 persons. Because of there were high risk about security. At that time all the naval persons compulsory to use convoy movement from Trincomalee to Digampathana. In past war period there were convoy movement only for Trincomalee to Digampathana. Then one bus provides 2 to 3 turn per day. Now they expanded their

travelling distance up to Colombo and Kandy. Because of the huge distance now, they limited their convoy service in to 1 turn.

51. These days, to provide convoy facilities SLNS TISSA bus pool has 12 busses. However, at the movement three busses are non-operation. Tissa buss pool has tasked to conduct convoy movement on daily basis from Trincomalee to Colombo (Rangala), Welisara (Gemunu) and Kandy. If there is any special requirement they will sent extra busses to Digampatana, also every morning 3 busses will comes from Kandy, Rangala and Gemunu. It means they must allocate 6 busses for daily convoy movement. Other than that Tissa convoy, movement should fulfil other requirement of SLNS Tissa.

52. Normally one bus can provide transport facilities around 50 persons. Then 3 busses can transport facilities for 150 persons. According to the leave table details the number of officers and sailors who are going on leave as follows.

- SLNS TISSA : 25-30
- FAF4 : 10-15
- NMA : 40-50
- SLN DOCKYARD : 70-80

According to above details 3 busses can provide transport facilities for leave and after leave officers and sailors.

53. However, under trainees of Naval and Maritime Academy are not included to above details. They are going on leave according to their programme. One under training division consists with 60-70 officers or sailors. If one division going on leave there will be an extra bus requirement. If one or two division going on leave, Tissa bus pool, fulfil their requirement. Then, if it is increase up to 5-6 divisions, convoy movement cannot fulfil their requirement.

54. But when we consider the April festival leave during 2 or 3 days time periods, except duty sailors division and one officer under training divisions, all the under training divisions will going on leave. At that, time there will be 600-700 under trainees per one day. At that time Tissa bus pool unable to provide the convoy facilities for all the leave and after leave officers and sailors. Because of that, officers and sailors used to use public transport. However, using public transport is wasting the time and money. Then it is better to provide sufficient convoy facilities to navy. In addition, there are no enough buses to replace the buses if any bus get technical problem. Therefore, it is very important to increase the number of buses used and keep the stand by buses for use in eventualities.

**Deploy more convoy buses through other routes covering all areas of island.**

55. Presently convoy is deployed covering three commands namely Trincomalee, Colombo and Jaffna. However, today Navy has seven Commands with over 50000 strength and keep growing with the time. There for the present mechanism of convoy not going to effect in the future. As per survey also suggest that convoy has to travel more routes covering all parts of the island. There for it is utmost importance to start new convoy schedule connecting other areas.

**Run the convoy through the entire week**

56. Presently convoy buses travel for 06 days of the week. Convoy do not functioned on Wednesdays. There for according to survey fair numbers of persons have suggested to run the convoy entire week. However, the main reason for the Wednesday has been kept free was to repair the buses and to give some rest to the personnel work in the convoy. Also this because limited number of buses and resources available for Navy. There for to run the convoy entire week Navy needs lot of resources like buses and people. If Navy could run the entire week, it well reduced the backlog of the passengers waiting to travel in convoy.

**Keep separate buses for training bases when service personnel are proceeding on leave/draft**

57. During festival seasons like April and end of the training courses of Naval academy, generally there are over 500 people to travel by the convoy. Therefore, those days it need to have additional number of buses those training bases. Presently in Trincomalee area, there are many training bases and many training have been done at any given time. There for it is very important to have separate buses for these training bases.

**Keep a separate bus for officers**

58. It also suggested that to keep separate buses for officers. Generally daily there are over 15-20 number of officers proceed on leave. Then the buses can accommodate number sailors instead of officers.

**Maintain separate buses for daily movements**

59. As it is mentioned in above to keep separate buses for festival season and the for training establishments and the maintain separate buses for daily movements. Then there will not be much problem for daily users of the convoy. At present Tissa convoy, bus pool has 12 numbers of buses with only eight are operational condition. It is extremely difficult to run convoy with 8 buses with other commitments. Therefore, it needs other additional buses to run convoy in effective manner.

**Encourage personnel to use the facility**

60. It was mention in my findings that the gradually decreased the number of convoy users for the past few years. This is because of reasons like due to safe environment and other various reasons. However, to have proper system with best facilities is not only the requirement. There should be a increase of number of users of convoy. Especially the younger generation should be educating on the convoy and the merits of using it in

regularly. Therefore, personnel should be educating to use facility efficient and effective manner.

### **Have more stoppages en route**

61. Generally, convoy buses stopped up to the transit and beyond there are no stoppages. Therefore, personnel stay in Habarana junction cannot get in to convoy. Because convoy should relax, its regulation bit because any one from anywhere should be able to get in to the convoy. There are person want to have food at outside and any other requirements. Therefore there should be an at least one stoppage apart from the transit camps.

### **Have comfortable buses with more facilities**

62. Buses used for convoy are not the luxury buses. These buses have seat with general comfort to the passengers. However, as per the survey its recommend to have more comfortable buses with more facilities. It is too costly to have air-conditioned buses for the convoy purpose. Nevertheless, the at least condition of seats and other interior condition should improve and the there should be enough space to travel for all passengers.

### **Have standby buses to use in eventualities**

63. At present Trincomalee convoy, bus pool has 12 buses and out of which four are non-operational. For daily requirement needs 06 buses and some days goes up to 8 buses. Therefore, convoy pool doesn't has any extra buses to use in, emergency, and break down. In addition, there are occasion when bus can have beak down or technical faults. Then there will be a problem if we do not have stand by buses. Therefore, there should be specially allocated and separate buses for this reason.

### **To have less regulations on passengers**

64. Generally, convoy has number of rules on passengers. As the system formulated during wartime still there are security measures are being done as a standard operation pattern. However, there have been relaxations on rules of convoy. Still there are rules of carrying weapons and handing over them at transit camp is one such event takes place. Also convoy route there are rules like passengers can't get in to convoy places like Dambulla and can't get down at any location. Therefore, these rules should amend without troubling the convoy procedure.

### **Suggestions for Future Researches**

65. After doing the research on this topic, it is my duty to give some advice for the future researchers. It is better to use the sample in a big scale so that feedback and the findings will be accurate and it is recommended to consider about the all the other commands for the sample. Then the database will be larger and accurate. Then it will be easy to get the accurate answer regarding entire Navy. In addition, the first questionnaire another questionnaire should be given in order to make the database more accurate.

66. Then other recommendation was to compare the Army and Air force convoy system. Then, it will be easy to compare each other and give recommendations accurately. If so at the end of the research, those recommendations will be better than the recommendations that I have given in this research. Then it, will be a perfect study of research.

