

Identifying challenges in setting up a Camp for defense personnel in high altitude areas of the Jammu and Kashmir region for the purpose of efficient management during construction execution

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Article Information

Article history:

Received May 10, 2023

Accepted Jul 10, 2023



ABSTRACT

This paper presents identifying challenges in setting up Camps for defence personnel in high altitude areas of the Jammu and Kashmir region for the purpose of efficient management during its execution. The occupants of the Camp are working in the most inhospitable weather conditions, with a lack of oxygen, in sub-zero temperatures to face the unexpected. With developed living standards, a Camp as a whole does an important administrative aspect to boost the morale of its occupants. The various components in these Camps are affected by climatic and proximity factors, making the situation extremely difficult in peak winter conditions. Essential criteria for the Camps involving site selection, security, accessibility, sewage disposal, water availability make the situation more adverse due to a lack of basic facilities. A systematic study of the adverse conditions at these Camps, along with routine functions and amenities with specifications would improve functionality, training, administrative, living, and recreational setup. This study emphasized on the challenges of setting up a Camp and reducing the loss of various sources. The research developed a focus group survey evaluation method to perceive delays in the Camp establishment process. A detailed analysis was carried out to identify the delays in Camp installation.

Keywords: Camp; Resources; Camp installation; Camp challenges; High Altitude Area; Execution Delays.

1. INTRODUCTION:

The installation plan, operation and features of the Camp are very essential in any defence setup in a high altitude area. Countries have set requirements for the setting up of a Camp, and they depend on these standards. Area, weather, seasons decide the specifics of the Camp set up, facilities in the Camp and its premises and the choice of their region is very vital for the excellence of all activities and operations within the Camp area. In an effort to build a Camp as speedy as feasible, reduce the losses of numerous assets whilst establishing a Camp and overcome the challenges of its establishment, it is important to understand its technicalities. The Camp is defined as a place where individuals stay, consume, sleep, learn and relax.

There are 3 kinds of outdoor Camps:

- Minor Base (Brief halts)

- Operational Camp/Base Camp (as much as 90 days)
- Long-period Camp – big sized units / institutions are positioned there.

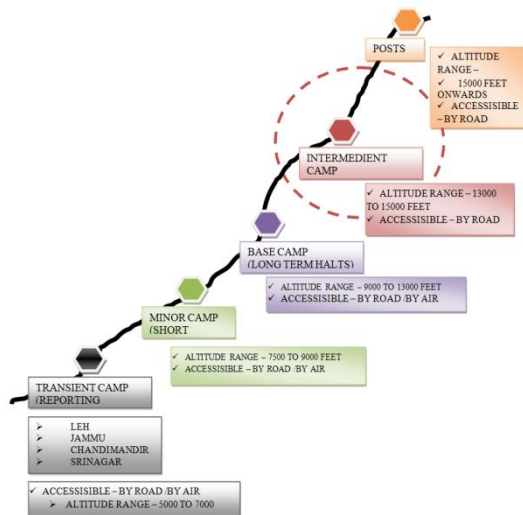


Fig. 1: Typical cross section of Camps based on their altitudes

2. BASIC CAMP CONSIDERATIONS:

The Camp has a logistical function, which includes operating and storing diverse supplies such as, food, water, ammunition, medical components, and many others. The dimension of the Camp to be established relies on the kind (range of troops and responsibilities), number of shelters, purpose & equipment of the Unit.

- Camps are typically installed in the case of long-period (weekly and more) operations. Intermediary Camps have been equipped with proper roads, Messing, lodging, washrooms, working regions, storage areas, laundries, aircraft landing, communications center, medical aid station, automobile parking and repair-restoring stores, gasoline depots, fire-fighting store etc.
- Sustenance in the most hostile environment, and inaccessibility imposed by harsh terrain implies a frozen conflict in these Camps. Watch towers and underground /semi-underground bunkers are very frequently constructed within the Camp premises for safety motives.
- In this research, studying the nuisances of Intermediate Camp (altitude 13000 to 15000 feet) might be carried out.
- Troops on standby can visualize the threat, and resting people ought to cover themselves in the bunkers from aerial assaults or any comparable life hazard in those Camps. All unsafe materials and systems needs to be kept away from the residential and medical set-up primarily based on the Camp layout. Covered Garages shall be constructed in such a way that automobiles can be approached, unloaded or loaded as easily and simply as viable based on the site conditions.
- Logistics play a special role in the modern world. It acts as an effective decision making tool for the person responsible for the activities in a Camp during

routine work as well as operational tasks.

- In a Camp set up the equipment and machinery operators, to be well trained and should be able to repaired in situ given the required essential tools & spares.
- Improperly established Camps can bear in mind the comfort, fitness and motivation of people to carry out assigned responsibilities.

3. AIM:

The intention of the studies is to identify the main challenges and causes of delay in the establishment of the Camp.

4. OBJECTIVES:

- To identify the major challenges in setting up an Intermediary Camp.
- To provide effective and practical recommendations on overcoming the obstacles causing delays during the Camp setup.
- Provide assistance in reducing the overall loss of resources and time during the Camp installation.

5. RESEARCH METHODOLOGY:

- Specialists in high altitude regions holding exclusive positions associated with the setting up of a Camp have been interviewed .This study would examine and perceive numerous demanding situations during installation, making plans of a Camp in high altitude areas and reasons for its delay.
- An in-depth interview was turned into a regular verbal exchange, as natural flow with one query leading to the subsequent. The precise questions had been decided and established for the interview.
- The questions have been designed on the premise of Camp set up technique, requirements and challenges faced during various stages of construction.
- Consequently, an in-depth interview was established as a technique of constructing trust with the Camp users. The study commenced with simpler background questions.
- The comparative evaluation changed into applied study of the Camp requirements, hygiene norms, and the unique and corrected plans. Comparisons were made between other Camps which were erected in similar high altitude regions.
- A systematic study of adverse conditions at these Camps, along with routine functions, amenities with specifications that would improve not only the functionality but also the training, administration, living and other recreational facilities for the occupants.

6. DISCUSSION:

6.1 CHALLENGES FACED DURING SETTING UP AN INTERMEDIARY CAMP FOR

CONSTRUCTION WORK

The 4 most important issues arose during the Camp construction work because of the given nature of the difficulties were diagnosed as: Work Techniques, Assets, Human Elements and Non-compliance with requirements in Camps respectively.

The identified reasons for each of the 4 important issues can be presented in detail as follows:

- I. Work Methods
- II. Assets
- III. Human Factors
- IV. Non-compliance with requirements in Camps

Causes	Findings	Suggestions
a) Modifying the Camp layout plan on a frequent basis	Lack of inter-operability among the Executing agencies- User-Higher HQ for problems mentioned in paragraph	Interaction among the various stakeholders such as the Planning team-User – Executing agency should be conducted on a regular basis.
b) Lack of cooperation between departments.		
c) Uninterrupted power supply, water supply during commencement and ongoing schedule	Non awareness / limited information to the stakeholders' with respect to commencement /schedule of construction works.	All stakeholders should be actively involved prior to the actual commencement of Camp erection so that issue of Camps electrification and other things are coordinated in advance.

Causes	Findings	Suggestions
a) Untested machinery and systems previous to commencement of Camp construction.	Non availability of testing laboratory facility.	The government should provide testing laboratories and encourage National Accreditation Board for Testing and Calibration laboratories (NABL) facilities with subsidy rates for setting up of laboratories.
b) Mechanical failure of	Non availability	Skilled training facilities should

engineering equipments in extreme cold climate.	of repairing and maintenance facilities in nearby vicinity	be established for specialized construction work at these locations.
c) Insufficient transport facility.	Lack of local transport facilities for movement of large construction stores in this region.	Logistic facilities should be established at subsidized rates in the initial stages, regular works should be assigned to the transporters for such remote locations.
d) Logistic management coordination lacks consistency due to unstable weather conditions.	Lack of coordination with local weather department for an updated climate report on a daily basis	Regular interaction among the Meteorological department locally and executing agencies to get updates on climatic changes

Causes	Findings	Suggestions
a) Camps are not installed on a normal basis;	The establishment of a new Camp is based on government policy which is confidential in nature.	Stakeholders to be in regular interaction with the updates on new Camps.
b) Lack of local construction materials, the manpower during the working season for shelter work.	Workforce and other essential resources for construction are not locally available due to extreme weather conditions.	New areas for local construction materials may be explored with the aid of state government & local support.
c) Shortage of specialists for erection of shelter works	Local workforce if any available is not trained for sophisticated work.	Skilled training facilities to be conducted for specialized Camp work at these locations.
d) Low morale of individuals.	Long durations of working hours in an isolated location. The weather being	-Recreational facilities to be provided for all in a Camp. -Individuals to be rotated on a

	extreme adds more agony. Lack of recreational spaces.	regular basis as per policy.
e) Inadequate human assets to establish an Intermedient Camp in extreme cold conditions.	Workforce and other essential resources for construction are not locally available due to extreme weather conditions.	The government (Labour Department) along with officials involved in the construction of Camps should coordinate well in advance.

Table 4. Non-Compliance with requirements in Camps		
Causes	Findings	Suggestions
a) Extreme weather conditions.	Based on the geographical nature of the location.	Precautionary measures & awareness of acute High Altitude Pulmonary Oedema. -Provision of heating appliances and personnel kit for winter.
b) Un-acclimatization of workers (civilians) leading to health risk.	Ignorance by civilian contractors on medical issues most of the time	Civilian suppliers should be made aware of the medical issues and acclimatization during working in these regions.
c) Un-acclimatization of workers (civilian) leading to health risk.	Non communication among the supplier – executing agency.	Regular interaction among the suppliers and executing agency.
d) Stores are not marked specifically (lack codification).	Non inclusion of specifications for inventory stores in contract agreement.	Contract agreement to include codification of construction stores

7. CONCLUSIONS:

As a result of the study, the various approaches to the development of a Camp in a high altitude area were clearly identified. The suggested methods are within the limitations and the same is justified for its

implementation in setting up a Camp. The involvement of all the stakeholders plays a very crucial role in the overall development and its further maintenance. The anticipated delays in establishment of a Camp would definitely be reduced by incorporation of the corrective measures.

8. RECOMMENDATIONS:

- Reconnaissance of the site earmarked for Camp work is based on collection of information pertaining to the site and its feasibility needs to be carried out deliberately and in detail. After the reconnaissance, the executing agency can minimally change the plan of the Camp and then prepare transport, equipment, and various material lists as per requirement.
- Material supplier representative to be present on site during initial phases of Camp works.
- Proper close coordination between vendors – executing agencies is essentially required for better output to reduce challenges in the execution of Camp construction.
- Equipment/machinery for the construction work on the Camp must be pre- inspected before in hand. Solving working method problems would assist in the usage of minimal resources and reduce various shortcomings during construction of Camp.
- Resolving human factor issues such as workforce, skilled personnel along with equipment management in the logistics set-up should reduce the time on setting up a Camp to a larger extent.
- Various civilian companies can be employed in the Camp which would improve the infrastructure of the Camp considering the security aspects as well.

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