A. OPERATIONAL SUPPORT

1. Mine Sweep

A daily reconnaissance (visual) mine sweep is made from BQ53h106 to BQ539110 on the access road leading from the company area to QL21. To date no mines have been found on the access road.
On 27 July 1969 four (h) men from second platoon were taken to the new location of the 2/35-4th Infantry, (grid coordinates BQ38516h) to assist in a mine sweep operation. The infantry personnel had run over an old land mine with 2½ ton vehicle causing damage to the vehicle and injuries to personnel. No additional mines were detected by the mine sweep crew.

2. Bypass Repair 21/30

Bypass 21/30 was partially washed out due to excessive rainfall. Company A, 70th Engr Bn constructed an expedient fording area on the upstream side of the bypass to allow traffic to pass while the bypass was restored. Two (2) h8"xh0' culvert and one (1) 60"xh8' culvert were installed and backfilled by the use of D-7-E Dozers. The project began and was completed the same day. Guard rails were constructed on the dowstream side to prevent vehicles from getting too close to the soft shoulders. An expedient concrete headwall was poured on the upstream side to prevent eroding of roadway around culvert.

3. Bypass Repair 21/31

On or about h June 1969 the downstream bypass of bridge 31 was completely destroyed by enemy sabotage. The bypass consisted of two h8" culverts with concrete headwalls. An expedient dry span was constructed by Co D, 70th Engr Bn to allow a large convoy to get access across the blown gap. Co A, 70th Engr Bn then began constructing a new bypass on the upstream side. Two (2) 60"x60' and one (1) 72"x60' culverts were installed and backfilled. An expedient concrete headwall was poured on the upstream side and guard rails installed on the downstream side of road to pretect soft shoulders from heavy vehicles.

h. Bailey Bridge 21/3h

On 16 May 1969 Co A, 70th Engr Bn was called upon to erect a 120' Double-Double (21 span) Bailey Bridge to replace the old one located upstream of Bridge 3h. It was feared the old bailey bridge would be destroyed by the on-coming Monsoon and a new one needed to be erected at a higher location. The bridge was constructed approximately 30' above the existing road elevation. Co D, 70th Engr Bn assisted Co A, 70th Engr Bn by transporting the materials to the job site and in construction of the bridge. A total of twenty (20) hours were needed to construct the double double bailey bridge. 131st LE Co furnished a rough terrain crane to assist in erecting the bridge and were also responsible for building the new approach-ways.

5. Base Camp Security

Company A, 70th Engr Bn continued improving base camp security by installing thirty(30) flood lights around the perimeter. The lights are mounted on top of 4"x4"x20' posts and illuminate the surrounding area during the night. Two (2) knife rests were also constructed and installed at the front gate. Addisional Claymore Mines were cemented into a permanent position and obstacles such as bobwire put in culvert drainage through berm.

6. Reconnaissance Patrols

Periodic seven-man patrols have been conducted to provide information on the surrounding area especially the south of the compound. Also roving patrols are utilized around project sites where enemy activity has been heaviest.

7. Asphalt Paving QL21

During the past three months major emphasis has been put forward to paving QL21 east and west of Company A, 70th Engr Bn. Company A has been called upon to furnish from three to five dump trucks to support Company D, 864th Engr Bn (Const) with paving operations east of Co A, 70th Engr Bn towards Ninh Hoa.

8. Civic Action: Hi-Ho-Jhoe Village

Co A, 70th Engr Bn along with assistance from Co D, 864th Engr Bn (Const) utilized two (2) D-7-E Dozers to excavate a lake bed for Hi-HO-Jhoe Village. The lake is located 100 meters south of the village (BQ561098). A natural stream was diverted to the lake bed by the use of the dozers. The lake is to be stocked with fish by the Vietnamese Covernment.

B. CONSTRUCTION SUPPORT:

1. Upgrade of QL21

a. Co A, 70th Engr Bn A.O.R. extends from Bridge 21/24 to Bridge 21/31. Within this area the company has been primarily concerned with: (1) Potholing the highway, (2) Construction of bypasses at the critical bridges, (3) Preparing abutments for the construction of permanent bridges and (4) Assisting the 610th Engr Co (C)(S) in asphalt operations along our A.O.R.

First Platoon has worked on the Bridge 21/29 realigning the three (3) 72"x66' culvert tubes and prefabbing berms for concrete headwall. Basecourse was brought in from Co D, 864th Engr Bn (Const) site for backfill over the culverts. Second Platoon assisted pouring the upstream and downstream headwalls. Both headwalls are completed and the project ready for backfilling.

The Second Platoon has built a bypass at Bridge 21/31 and repaired the blown bridge span at Bridge 21/27. All debris was removed for Bridge 21/27 and new abutment retaining walls poured. The center footer was also cleared of all debris. Construction of Bridge 21/27 has stopped pending approval of plans for center support. Second Platoon has also completed a bypass around Bridge 21/31. Two (2) 60"x62' culverts and and one (1) 72"x62' culvert were installed with an expedient headwall poured on upstream side. Work on the new Bridge has begun by clearing all debris from blown abutment footers to determine if footer are reusable. Second Platoon also assisted First Platoon in finishing Bridge 21/29 by helping to pour both concrete headwalls.

Third Platoon finished construction of Bridge 21/28.4. The 15'8" span was prefabbed in the company area and then installed at the job site. Five (5) 21" wide flanges were used for stringers with 10"x12" decking and 4"x12" treadway. Third Platoon also poured the west abutment footer for Bridge 21-30 and has begun excavating for east abutment footer.

Potholing has been going on steadily for the past three (3) months with First Platoon doing the majority of the work. Asphalt from the 610th Engr Co (C)(S) plant is utilized to backfill the potholes. The 610th Engr Co (C)(S) asphalt operation has been operating for the past three (3) months with Co A, 70th Engr Bn supplying men for road guards, rake and shovel crews. Co A, 70th Engr Bn also furnishes four (4) dump trucks daily for hauling asphalt to the paving site.

2. Base Camp Construction:

An Officer's B.O.Q. and N.C.O. bunker (20'x30') were completed along with other compound construction. Due to build up of water the officer/ N.C.O. shower-latrine was relocated. A new octagonal (4' sides) Bulletin Board was built along with two additional knife rests for the front gate. Two (2) 24" culverts were installed on the access road at the front gate to prevent additional rain during monsoon from washing the road away. Preparations for monsoon season were also undertaken by installing 18' of 16" culvert in various low points through the perimeter berm. To aid sanitary conditions behind the mess hall a new concrete wash rack (10'x12'x3") was installed.

C. LESSONS LEARNED:

1. Expedient Bypass Over Blown Bridge

a. Observation:
When using the blown spans of a bridge to support an expedient culvert bypass it is recommended to place pressure charges on the dropped ends of the span.
b. Evaluation:
Pressure charges placed on the fallen ends of the spans will assure positive settling of the dropped spans.
c. Conclusion:
Using pressure charges will assure the spans are settled and will prevent the spans from shifting when additional weight from the expedient culvert and backfill is placed on top of the spans.

2. Expedient Wire Mesh

a. Observation:
When pouring concrete on a slope such as the apron underneath a bridge abutment; short "U" shaped pickets and barbed wire can be just as effective as wire mesh when used properly.
b. Evaluation:
By setting up the barbed wire in a tangle foot design with the "U" shaped of the picket facing uphill and the wire stretched tight, it can be used as a retaining force for the concrete and also provide added strength.
c. Conclusion:
The use of "U" shaped pickets and barbed wire in place of wire mesh is quickly and easily made and is sufficient to take place of the wire mesh.

3. Seepage Into Footer Excavation

a. Observation:
When preparing to pour a concrete soil-bearing type footer for a bridge abutment ground water seepage from a near by stream can be a constant problem.
b. Evaluation:
The problem can be lessened by investigating downstream to find any obstructions which might be blocking the free flow of the stream and removal of these objects by blasting or dreadging.
c. Conclusion:
Removing the obstructions from downstream often lowers the water level at the bridge site enough to reduce or eliminate the seepage thus preventing werious construction problems.