40th BOMBARDMENT GROUP HISTORICAL DATA

7. Strength, officers and enlisted men on last day of each month:

Date	Officers	Enlisted Men
1 Apr 41	30	548
29 Apr 41	29	567
26 Nov 41	72	739
3 Mar 42	111	895
1 Apr 42	112	1003
4 Jun 42	113	1256
31 May 43	245	1391
15 Jun 43	239	1381
20 Aug 43	261	1507
30 Sep 43	287	1087
31 Oct 43	387	1294
30 Nov 43	476	1436
31 Dec 43	428	1414
31 Jan 44	434	1916
31 Mar 44	394	1789
30 Apr 44	448	1835
31 May 44	444	1856
30 Jun 44	440	1854
31 Jul 44	429	1880
31 Aug 44	440	1906
30 Sep 44	459	1923
31 Oct 44	452	1936
30 Nov 44	455	1902
31 Dec 44	454	1882
31 Jan 45	421	1862
28 Feb 45	410	1747
31 Mar 45	394	1739
30 Apr 45	393	1745
31 May 45	444	1801
30 Jun 45	457	1818
31 Jul 45	474	1784
31 Aug 45	502	1696

7. Strength, airplanes by types, each month.

	Strength						Losses			
Date	B-29	B-25	B-24	C-46	F-13	L-5	Combat*	Oper*	Trans*	Other*
Apr 44	34									
May 44	36	1	1	2						
Jun 44	32	1	1	2			3	1		
Jul 44	35	2	1			1	1	2		
Aug 44	38	1	1				3	1		
Sep 44	41	1	2					3		
Oct 44	39	2	2			3	4	1		1
Nov 44	36	1	2			3	4	1		
Dec 44	38	1	2		1	3	7	2	4	
Jan 45	43	1	2			3	1		6	2
Feb 45	39	1	2			3	2		8	
Mar 45	38								1	
Apr 45	39									
May 45	39						5	1		
Jun 45	33								2	
Jul 45	48							3	2	
Aug 45	46						1	1	3	
				TOTAL LOSSES			34	16	30	3

*** For losses of B-29 aircraft only**

40th BOMBARDMENT GROUP HISTORICAL DATA

CONTRIBUTIONS AND DIFFICULTIES ENCOUNTERED

The record of accomplishments of the 40th Bombardment Group makes it easy to say that the 40th has played a highly important role in winning the war against Japan.

With the first mission against the Japanese homeland to Yawata on 15 June 1944, the people of Japan received a potent warning of the fate in store for them if the B-29 were to be used on a large scale. Immediately after the first bombing, the Japanese government ordered ever increasing blackouts and a constant dim out. With the continuation of bombing from China and India and finally the many effective operations from Tinian, the morale of the Japanese people reached an extreme low. This was brought about mainly by the burning out of the urban-industrial areas of the largest Japanese cities and by the ever increasing and accurate blows against her vital war industries.

Good examples of the Group's efficiency in destroying urban-industrial areas are: Fukui – 95% destroyed, Hachioji – 90%, Numazu 89.5%, Tsu – 71.1%, Imabari – 70%, and the combined effort of the 40th with the rest of the 21st Bomber Command in destroying 50.8% of the 120 square miles of built up areas in Tokyo.

In daylight precision attacks both the 1000 foot graving dock and the large floating dry dock at Singapore were put out of commission. These are two of the highlights of precision bombing in this war. For the Tinian based bombers two examples of excellent precision bombing achievement are the destruction of the Himeji Aircraft Works and the devastating mission against the Osaka Sumitoma Light Metal Industry which was left in ruins by 4000 pound bombs with 98% of the target area destroyed.

Included in this report is the 40th Bombardment Group's combat record in CBI and PO? As prepared by the Group Statistical Section found on Page 1a.

When the 40th Bombardment Group began operations in Pratt, Kansas, 1 July 1943, it was faced with many distressing problems.

First of all the Group had to man the squadrons for their new job. There was much training to be accomplished, and due to the lack of B-29's the practical experience was obtained in B-17's. A rigid school schedule was set up with men training from 0700 until 2200 daily. Much of the required training was hampered by the lack of buildings and facilities.

Until the activation of the Bomb Maintenance Squadrons in November of 1943, there was a shortage of qualified engineering personnel. Also the cold winter months of late '43 and early '44 hampered maintenance.

Contributions and Difficulties Encountered, Cont'd

Soon after the maintenance squadrons were organized they were dispatched to the new base in India to set up 1st and 2nd echelon maintenance and provide for mess and housing facilities for the remainder of the Group.

Once again only combat crews and skeleton maintenance crews were left in Pratt, with the responsibility of making several modifications on the newly arrived B-29's.

Before the base in India was ready to accommodate them, the B-29's were sent over. This fact along with the terrific heat of the India sun made early working and living conditions extremely difficult. The average daily temperature was over 100°F between the hours of 1000 and 1500, making it impossible to work during that period. Alert crews were maintained on aircraft on a 24 hour schedule due to proximity of the base to Japanese lines.

The extreme heat also had an adverse affect on the performance of the B-29's.

Many personnel problems were encountered, one of the most disagreeable being the lack of transportation between the line and quarters area. Since the distance involved was about five miles, maintenance of an exact schedule was almost impossible. Later living quarters were built closer to the line and the problem was solved to a great extent.

An order from XX Bomber Command to establish a forward echelon detachment in China created new personnel shortages, since there was no TC allowance for the new unit.

In May the Group ran into many and varied engineering difficulties. Conversion of B-29's to tankers was initiated to increase the amount of gas transported across the Hump. Shortages continued to create problems. At one time eighteen aircraft scheduled for transport duty over the Hump were prevented from taking off due to lack of oxygen. Shortages of aircraft parts kept many B-29's grounded.

In June closer cooperation between the Bomb Group and the 28th Service Group was achieved when the Commanding Officer of the Service Group became Deputy Commander of the Bomb Group.

Failure of fuel transfer pumps caused considerable worry at this time. This problem needed immediate attention since two planes had already ditched in the Bay of Bengal as a result of fuel transfer pump failure. The introduction of the new ammeter type fuel transfer indicator went a long way toward solving the problem.

Contributions and Difficulties Encountered, Cont'd

A threat to aircraft and persons encountered at this time was the inaccuracy of available maps of China. Inaccuracies in elevation constituted a particular menace. The only immediate solution was flying B-29's at higher altitudes to cover discrepancies.

Following is a list of major parts for which supply delay was excessive and the total number of days aircraft were awaiting these parts:

Nomenclature	No of days
Blisters	23
Hydraulic Fluid	11
Nose wheel self centering device	22
Weld assembly – various types	38
Exhaust and engine Collector rings, Bolts, Brackets and Assemblies	34
Ammunition Booster Motors, all turrets	31
Fuel Quantity Gauges	24

OEL Shortages were as follows:

Section	Per Cent of Authorized Equipment on Hand
Corp of Engineers	50%
Medical Corps	34%
Ordnance Department	96%
Quartermaster Corps	72%
Signal Corps	78%
Total	70%

The transportation shortage was gradually relieved. The dates and percentages of authorized vehicles available are as follows:

Date	Per Cent of Authorized Vehicles on Hand
1 May	29%
1 June	59%
1 July	78%

The months of July, August and September passed by without additional outstanding difficulties. In July however rules were added and precautions to prevent further accidents due to taxiing, careless

Contributions and Difficulties Encountered, Cont'd

flying etc. The accident rate for this month was 1.17 per thousand hours of flying time. The combat mission accident rate was 6.74 per thousand hours flying time.

In September Major General Curtis E. LeMay took command of the XX Bomber Command and introduced a 12 ship formation (later changed to 11 ships to increase fire power). At this time the lead crew system was initiated and special schools were set up for certain phases of ground and air training. Ten thousand two hundred fourteen man hours of training were accumulated during the month of December. This was triple the record achieved during the previous month.

In November a large new engineering building was constructed, to take care of all electrical equipment and instrument work at the 2nd and 3rd echelon level. A marked decrease in the number of parts which had to be sent to depots was immediately evidenced.

Insufficient weather information due to a lack of forward stations made forecasting very difficult and impeded all operations in the CBI Theater.

Operations were stepped up in January with six missions being run in 17 days from India and China bases which were 1300 miles apart. Radar was coming into the limelight although there was an alarming shortage of qualified radar operations. Early replacement crews arrived without operators. Difficulties in radar bombing grew out of the inexperience of radar operations, changes of load because of inoperative radar sets and high velocity winds. The primary radar equipment difficulty encountered was in pressurization of the Rr unit. This problem was solved by running a line from the deicer system. The newer planes from the States solved the problem by utilization of pressure from the supercharger.

During the month of February only two accessories were causing outstanding trouble – the fuel transfer pumps and propeller governors. Transfer pumps having carbon vanes were not dependable due to breakage of vanes. The broken pieces lodged in the fuel selector valves and this permitted fuel in the wing tanks to drain back to the center wing tank. To prevent this, screens were made and installed in the outlet lines of the pump. The electrical heads of prop governors proved very unsatisfactory. There was a frequent incidence of props sticking at one RPM setting. As this usually occurred at high RPM's aircraft were frequently unable to complete long missions due to excessive fuel consumption. Information from the States indicated that the electric head was being replaced by manual controls as in the B-17.

Contributions and Difficulties Encountered, Cont'd

With the completion of the April movement to Tinian, the most noticeable trouble was once again lack of transportation to the line. This shortage was not remedied for several weeks. A shake-up in ground policy occurred shortly after arrival. Wing Headquarters assumed responsibility for the training of replacement crews and took over many communications responsibilities which had been Group functions. Also Wing took over the Link, Loran and Bomb Trainers. Loran training was emphasized because of the excellent Loran coverage between Tinian and the Japanese Homeland.

Because of the increased number of available aircraft and the speeding up of operations a modified PLM system was inaugurated. Individual pride in aircraft suffered in the early stages of the change, but despite the fact that the system falls far short of perfection, it has proved satisfactory.

Retyped from microfilm by Joan D. Stewart

	CBI	POA	TOTAL
Number of Combat Missions	38	32	70
Number of Aircraft Airborne on Bombing Missions	716	1048	1764
Number of Aircraft bombing Primary	566	971	1537
Number of Aircraft Bombing other Targets	94	23	117
Tons of Bombs Dropped on Primary	2119	6728	8847
Tons of Bombs Dropped on All Targets	2331	6887	9218
Number of other Type Missions	48	26	74
Claims Against the Enemy			
Destroyed	37½	9	46½
Probably Destroyed	16	6	22
Damaged	50	14	64
Aircraft Lost			
Combat	26	8	34
Transport	9	-	9
Training	1	4	5
War Weary	23	4	27
Ground	3	3	6
TOTAL	62	19	81
Flying Time			
Combat	9366	15977	25343
Transport	9695	-	9695
Training and Miscellaneous	5991	1967	7958
TOTAL	25052	17944	42996
Number of Engine Changes Completed	481	167	648
Number of Aircraft Suffering Battle Damage	92	83	175

40th BOMBARDMENT GROUP HISTORICAL DATA

FACTORS AFFECTING LIVING CONDITIONS AND MORALE

The following narrative and statistics constitute a large portion of the factors, both good and bad, encountered by the 40th Bombardment Group which have affected the living conditions and morale of the unit.

At the outbreak of the war, 7 December 1941, the Group was stationed at Borinquen Field, Puerto Rico, as a medium bombardment outfit. With the news of the attack on Pearl Harbor came the first introduction to blackouts, censorship, restriction to Post etc which had the result of making all personnel definitely war conscious.

On 7 May 1942 the 40th Bombardment Group graduated from medium to heavy classification. They remained a heavy bombardment group until the following year when assigned the new B-29 aircraft with the classification very heavy.

In May 1943 word was received that the Group was returning to the United States. A definite boost in morale was felt even though the reason for return was still doubtful.

At the time this Group began training at Pratt, Kansas the B-29 aircraft was still wholly unknown and practically untried. As a result many difficulties were soon to present themselves in the line of maintenance, flying characteristics, loading and otherwise establishing it as a combat aircraft. It was with no little amount of pride and satisfaction that the Group discovered they were the first to be assigned the new B-29 type aircraft however.

There was also a definite shortage of B-29's for training purposes and the combat crews were beginning to be rather doubtful as to whether they would be prepared for combat in time. Though the training program was stepped up a pilot with as much as fifty hours in a B-29 was almost an unheard of thing. The other crew members were in like circumstances.

The acute housing shortage and overcrowded barracks for enlisted personnel presented no little difficulty. Together with the increase of respiratory diseases due to extremely bad weather caused to drop somewhat the morale of the men. Christmas 1943 it was announced that aircraft would be available to fly men home for the holidays. Immediately feelings soared again.

A statement by General Arnold, when his visit to the base was conducted, to the effect that all personnel should get away from preparation and training for at least a week caused a momentary rise in the morale of the Group. This was short lived however for shortly afterward came the order that no leaves or furloughs were to be given prior to moving overseas.

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Factors Affecting Living Conditions and Morale, Cont'd

During this period innumerable mechanical difficulties and failures were being encountered. During the month of January ten long range flights were scheduled by the 44th Squadron. Of these ten, three were airborne and only one completed the flight which lasted 11:20 hours. Upon landing this ship required an engine change. More doubt as to the capabilities of the new aircraft.

In March 1944 some ill feeling was aroused by the civilian personnel from modification centers when they made special demands for fleece lined clothing to wear on the line and which was not available to Army personnel for this purpose. Also the fact that they were working shorter hours.

At their new base in India the intense heat, monsoon rains, together with an excess of "C" rations and buffalo meat, shortage of ice, frequent cases of dysentery and scattered cases of malaria had an adverse affect on the men. Not only were personnel affected but also the working and flying schedule suffered. So intense was the heat that no ship was allowed to take off between 1000 and dusk. Work also stopped between 1000 and 1500. Living quarters were felt to be inadequate. The grass roofs on the barracks and administrative buildings let the water pour through and the personnel living in tents were either flooded out or stifling in the heat.

Occasional passes to Calcutta, Jalshedhpur, rest Camp and to Madras were some compensation but it took the beginning of combat missions on 5 June 1944 to bring things back to normal. Later on in August the establishment of the Red Cross Club for enlisted men, the opening of the Officers Club and the transfer to new living quarters and mess halls somewhat relieved the situation.

The fact that no policy of rotation had been set up caused some disturbance which was partially balanced by the announcement that all "Tankers" and "war weary" B-29's would be returned to the United States and would be flown by crews having the most missions. Coupled with the arrival of several replacement crews this news had a certain benefit on all combat crew personnel.

With October came the news of the American landings in the Philippines. Decided weather improvement was also forthcoming.

A factor which brought relief to everyone was the revelation by "walk-out crews" that the Chinese in occupi8ed territory were friendly and went to great lengths to render assistance to flyers down behind Jap lines.

On 14 December 1944 the loss of four B-29's and severe damage to several other ships in the formation in a bombing mission over Rangoon caused no little comment and apprehension. The cause of the damage was

Factors Affecting Living Conditions and Morale, Cont'd

believed to be the premature explosion of a 1000 lb bomb. It was common belief that mixing the load, i.e. 1000 lb bombs and 500 lb bombs had led to two bombs colliding directly beneath the formation and resulted in the explosion of either one or both.

Some resentment was felt over the occurrence of an unfortunate incident on 18 December 1944. B-29 aircraft 6331, the first B-29 to arrive in a combat theater of operation, piloted by Major R. E. Moss was shot down by a British Beaufighter west of Chittagong while returning from a trip over the hump.

In January came the announcement that the XX Bomber Command was scheduled to leave India for new bases not yet revealed. At that time everyone was glad to move regardless of the destination. Few crews had any desire to fly the Hump during another monsoon season.

Tinian, like any other base had its good points and it's bad. Here were found decided improvements in climatic conditions and excellent swimming facilities. On the other side of the books stood the lack of lighting and recreational facilities, lack of provision for flooring of tents in low, swampy areas, the acute shortage of mail caused by the movement, and the almost complete absence of water. The schedule for use of water was three two hour periods per day and the water usually lasted only 10 or 15 minutes of each period.

VE Day in Europe brought a rise in morale because it had been the almost universal feeling of the men that his was the forgotten war. They felt that now we could throw our total efforts against the Japs.

Innovations of laundry facilities for both officers and enlisted men was a great help.

A very bad situation existed when a liquor locker club was made available to officers and not to enlisted men. The regrettable part of the whole affair was that officers were selling or trading liquor to the Seabees in spite of an order from higher headquarters forbidding it. The enlisted men had knowledge of this and resented it deeply. Three or four years in the Army has failed to convince the men that certain class restrictions were a necessity in the successful prosecution of the war.

Conflicting feelings were felt upon the announcement of the point system, together with the fact that B-29 outfits were not to be affected.

Combat crew personnel morale probably hit an all time low when it was announced that some combat crews might have to fly more than 35 missions. Thirty-five missions in a B-29 aircraft average some 525 hours of combat time – equivalent to two or three tours of duty in other

40th BOMBARDMENT GROUP HISTORICAL DATA

CHANGES IN ORGANIZATION

Records prior to 1 July 1943 are inadequate and as a result this section deals primarily with changes in organization of the 40th Bombardment Group after that date.

The 40th Bombardment Group functioned under the old TO for bomb squadron (X) from July 1943 until November 1943 when an expanded TO and a for very heavy bomb groups and squadrons was introduced providing for additional specialists and a general increase in personnel in accordance with needs discovered during early operations.

The TO provided for the activation of four maintenance squadrons which were designed to operate under the direct supervision of the commanding officer of the respective maintenance squadron. The commanding officer of the maintenance squadron was in turn responsible to the commanding officer of the bombardment squadron to which his unit was assigned. Each maintenance squadron was attached to one of the four existing bombardment squadrons.

The greatest criticism of this type organization was the length of the chain of command and the increased incidence of conflicting order. The men working on the aircraft were subject to orders from the line chief, engineering officer, maintenance squadron commanding officer, bomb squadron commanding officer and Group commanding officer.

Under this system of organization the Group engineering officer was merely a staff officer advising the Group commander. Although he had no direct authority over the flight line maintenance he was held responsible for existing conditions by higher headquarters.

Upon the arrival of the 40th Group in CBI Theater of operations it was discovered that a forward echelon had to be set up. This consisted of 11 officers and 150 enlisted men. In the beginning there was no allocation of personnel or grades for this organization and the loss was felt in the individual squadrons. The major difficulty was that this new detachment had not been previously anticipated and the loss of the necessary officers and men was a decided handicap in the establishment of the new base. Now it became apparent that not one but two bases had to be maintained with the men and material available. This handicap was remedied by a general order from XX Bomber Command in August 1944.

In October 1944 the maintenance squadrons were disbanded and the personnel absorbed by the parent bomb squadron, the commanding officer of the maintenance squadron becoming the executive officer of the lost squadron. This expedited matters a great deal, the faults being largely the same but on a smaller scale. Another change in organization was made in April 1945. The primary purpose of this revision was to introduce production line maintenance into the Group.

Changes in Organization, cont'd

Under PLM the following changes would have been made.

1. The Group engineering officer was to be in charge of all maintenance and answer directly to the Group commanding officer.

2. Squadron identity was to be lost except in administration.

3. All personnel were to be pooled in specialist sections and departments under Group engineering.

4. Individual maintenance crews or aircraft were to be eliminated.

5. Central auxiliary maintenance equipment section was to be created.

6. Periodic inspection teams were to be organized.

7. A centralized tech supply was to be established.

This plan was partially adopted but a few major differences are notable.

1. Squadron identity has been maintained.

2. Only certain specialists have been pooled.

3. No periodic inspection teams have been created.

This system has the advantage of pooling specialists in branches where a distinct shortage is encountered i.e. radar, sheet metal, engine change and electronics. Here too may be mentioned a distinct weakness in the present TO now and also in the past.

The present TO calls for 10 aircraft per squadron but now as in the past each squadron carries from 15 to 17 aircraft with no increase in personnel to keep up maintenance. Combined with the fact that there is a shortage in the TO allowance for specialists in electronics, Arte?? And other related branches a distinct hardship has been felt.

Not only has this been felt in the line sections but also in the administrative branch. Where 1.7 crews per aircraft were the required number as many as 2.2 – 2.4 have been in the squadrons for extended periods. No allowances were made here for the increase in personnel per squadron. As a result mess facilities, living quarters, recreational facilities and promotional vacancies were found to be insufficient.

Changes in Organization, cont'd

At the time of the movement of the 58th Wing to the Marianas the present TO made no provision for a utilities section even though each Group functioned primarily as a base unit. The Group was required to take care of its own housing, administration upkeep of grounds, clearing of area, sanitation and water and food procurement with very little outside help. There appears to have been a lack of coordination between the XX Bomber Command the XXI Bomber Command prior to the troop movement. Line maintenance men were necessarily used in this work. Also at this time administration of base functions were carried on by the Group without previously established lines of communication with sources of necessary supplies and material.

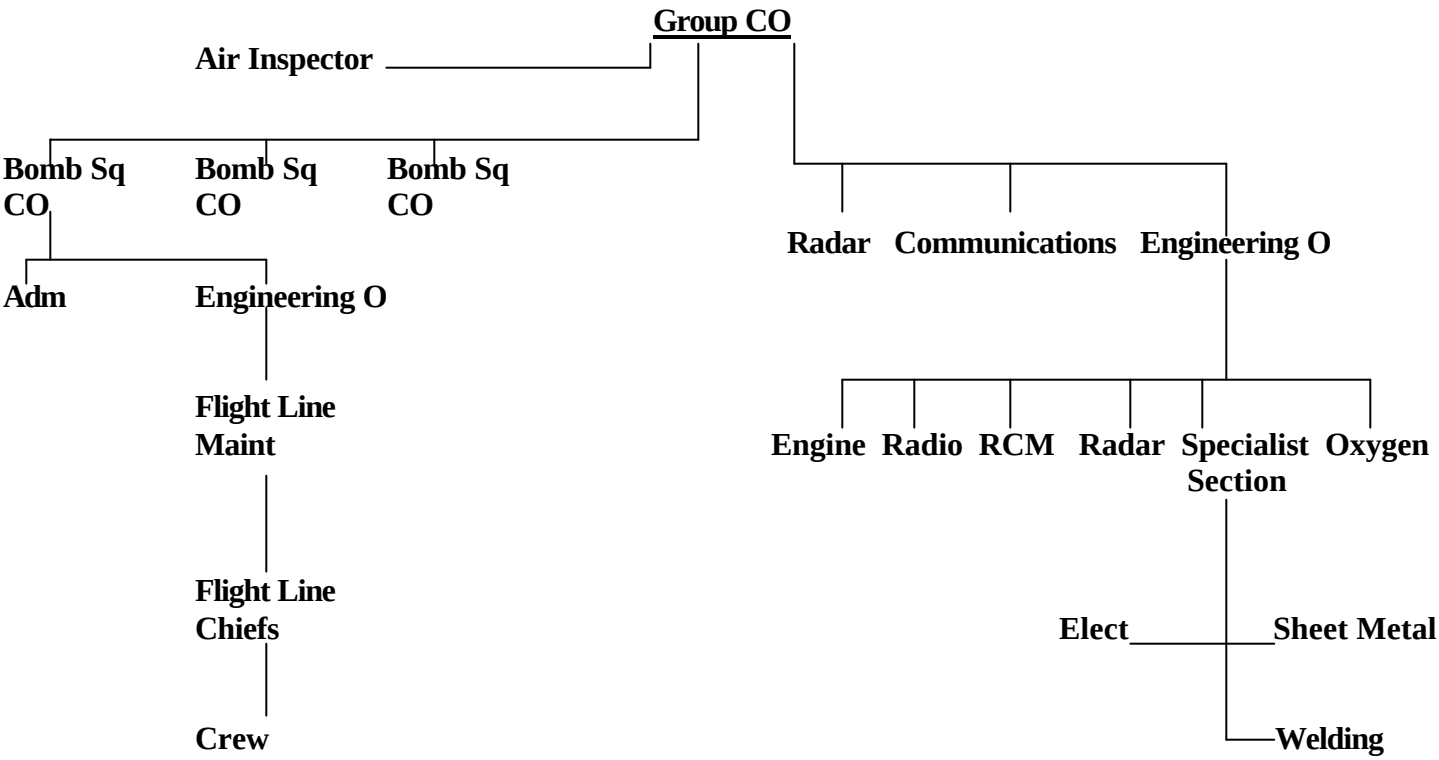
The most recent change in the organization which materially affected the operation of the unit called for the establishment of a unit personnel section on Group level. The staff of this section was to be drawn from the individual squadrons who were to continue operation in the same manner but with a resultant shortage of clerks. No provision was made to increase the TO in this department.

The echelons of supply have proved very successful and only constructive criticism has been made. The usual red tape has not been encountered and maintenance supplies have been obtained without delay. Since arrival in the POA this function has been carried on for the Group by a centralized tech supply. Group tech supply requisitions needed materials from Service Center Air Corps Supply which either fills the order or sends to Guam Air Depot or to the next higher agency.

In relation to supply and maintenance it may be said that maintenance supplies tools and related items have been very satisfactory. There has never been a time except for a short period following arrival on Tinian, when operations were hampered by lack of materials or tools in the POA.

In addition to the above facts there are three charts attached showing the skeleton outline of the chain of command within the Group with emphasis on flight line maintenance and engineering.

PRESENT SET-UP



STRICT PRODUCTION LINE MAINTENANCE