

RADIO COMMUNICATIONS REPORTS

Public Safety Division/Guatemala

Mark R. Seaton

TECHNICAL ASSISTANCE REPORT

Public Safety Division

RADIO COMMUNICATIONS SYSTEMS OF THE NATIONAL POLICE AND
BORDER PATROL

Mark R. Seaton
Public Safety Advisor, Communications

Guatemala, April 26, 1963

I. REFERENCES AND BACKGROUND DATA

- A. Under the provisions of Project No. 520-Q1-71-AB, Agreement 57-16, entered into by the Government of the United States of America and the Government of Guatemala on June 27, 1957, and subsequent continuances and revisions thereof, commodity assistance has been provided in the interest of the cooperative public safety program. This assistance has included six procurements of radio communications equipment to enhance the reaction time and overall effectiveness of the Guatemalan law enforcement and internal security agencies. The present radio inventory stands at 109 units, and is valued at approximately Q200,000.00 (See Annex A).
- B. Five procurements of communications equipment totaling 61 units, were made to establish and expand National Police radio patrol operations within the city and to provide point-to-point communications with the major provinces. These 40-megacycle, frequency-modulated (FM) radios function well within the city; however, direct communication is presently possible to only 3 of some 16 major cities tested. A manual-relay radio network is now operating between twelve (12) major cities, utilizing Santa Cruz del Quiché to relay all westerly traffic and El Progress for relay of easterly traffic.
- C. Two additional procurements of radio communications equipment, totalling 48 units, have been made. One consisted of five FM radios procured for the Border Patrol in conjunction with two diesel-powered speed boats for coastal patrol operations. The other was for 43 long-range, single sideband radios to be utilized in developing a country-wide communications network for the Border Patrol and to supplement the National Police FM system with a long-range communications capability.

- D. The two speed boats mentioned in the paragraph C above, are no longer in the possession of the Border Patrol, having been directed by presidential decree to the marine department of the Ministry of Defense; however, the five (5) FM radios are still on hand and are being used for administrative communications within the Border Patrol.
- E. Concurrently with the initiation of procurement action for the long-range, single sideband radios, a request was forwarded for the services of a U.S. technician to review the country-wide communications requirements of the National Police and Border Patrol, and to supervise subsequent installation, operation and maintenance of the radio equipment. In response, the undersigned arrived in Guatemala on June 27, 1962, and established the following four point plan for development of radio communications capabilities:

1. Improvement of existing FM radio facilities within the National Police.
2. Development of independent country-wide radio networks for the National Police and Border Patrol with integration capabilities during periods of national emergency.
3. Concurrent development of logistical support facilities and capabilities.
4. Study of future communication requirements.

II. GENERAL DISCUSSION

A. Improvement of existing National Police Facilities

- I. A country-wide survey of the present National Police FM radio network has been completed by the undersigned and the following deficiencies noted:
 - a. Radio contact with seven of the eleven cities in this network is dependent upon proper operation of the radio at Santa Cruz del Quiché. Numerous failures of that radio have isolated the entire western half of the country

from radio communications with National Police headquarters.

- b. Seven installations are using improper antennas that seriously reduce the effective range of transmission. Improper selection of antenna sites also serves to compound the error.
 - c. All radios are in need of a complete operational check and general alignment, some having been in service for five years without the benefit of adequate maintenance.
 - d. The lack of required testing instruments, installation materials, repair parts and travel funds have been the primary factors responsible for the generally poor condition of the present radio communications network. Actually, the technical personnel of the National Police have performed remarkably well considering the handicaps under which they have worked.
2. The foregoing deficiencies were primarily responsible for development of the belief that 40-megacycle FM radios were not satisfactory for country-wide coverage in Guatemala. This belief led to a request by the National Police for long-range single sideband equipment and resulted in the sixth and latest procurement of 43 SSB units.
 3. Although SSB equipment can certainly provide country-wide coverage, it is inferior in many respects to FM. For example, elaborate antenna systems are required, frequencies must be changed two or three times during each 24 hour period to maintain continuous communications, changing ionospheric conditions makes it necessary to periodically re-crystal each unit to provide new frequencies that are compatible with ionospheric characteristics, man-made and atmospheric noise problems are many times more severe than with FM, the use of this frequency spectrum for nearly all long distance communications, world-

wide, together with its long-range characteristics makes clear channel selection impossible and results in continuous interference problems.

4. In addition to the fact that SSB is inferior to FM communications within comparable areas of coverage, a mixture of the two types of communications in the same system would present severe operational limitations and would nearly double the expense of establishing maintenance facilities. Complete replacement of the existing FM system with SSB equipment is, of course, beyond consideration.
5. It is the opinion of the undersigned that the existing FM network can be modified and expanded to the point where direct communications would be possible to all major cities. With this in mind, communication-path profile charts were developed for those areas of the country where accurate topographic maps are available. The focal point of these charts is a site located approximately 25 kilometers by road from Guatemala City, 5 kilometers NW of Mixco, at an altitude of 2,263 meters. This site, which has an altitude advantage over Guatemala City of approximately 750 meters, is presently being used by Civil Aeronautics for radio communications with Tegucigalpa, Honduras. Preliminary discussions with civil aviation personnel indicate that space and power could be provided for police radio equipment. From this location it should be possible to communicate with any properly orientated installation throughout the republic, Petén excepted.
6. Relocation of the main National Police radio to the "high-site" described above would in no way interrupt present operations. Radio Patrol would continue to be headquartered in the National Police Palace and would, of course, have direct communications with the high-site. Initially, the high-site

would operate on the common police frequency and would have to be manned by one radio operator 24 hours per day. Eventually, the installation could be converted to a fully automatic relay operating on separate frequencies from the city radio patrol.

7. In view of the foregoing, further action to develop a SSB network for the National Police is not anticipated at this time. Instead, full attention will be given to improvement and expansion of the FM system. The proposed communications plan is described at Annex B. Four SSB units, 2 fixed and 2 vehicular, are included in the plan to provide a long-range radio patrol capability and facilities for entrance into the Border Patrol network. Thirteen additional SSB fixed station radios will be held in reserve pending final evaluation of the FM system.

B. Development of the Border Patrol Radio Network

1. A country-wide survey of all proposed sites for the long-range single sideband equipment is nearing completion. The communications plan under which the survey is being conducted is described at Annex C. Twenty-six (26) single sideband radios will be required to execute the plan, 17 fixed stations and 9 vehicular units. One base station radio will be used as an alternate to the primary transmitter at Border Patrol headquarters and as an emergency exchange unit for radios in the field.
2. Many of the proposed sites are located where adequate primary power is not available and auxiliary power-generating equipment will be necessary. Diesel-driven electrical generators have been selected for their reliability and economy of operation, and procurement action has been initiated for a quantity of 10 units (See Annex D). The proposed locations of these units are indicated on

the Border Patrol Communications Plan at Annex C; however, the National Police will jointly utilize the power facilities at Malacatán, Chiquimula and Jutiapa.

C. Maintenance of Radio Communications Equipment

1. The present radio maintenance facilities and capabilities of the National Police and Border Patrol are entirely inadequate to cope with the responsibilities of maintaining an inventory of 109 complex, two-way radios. This is evidenced by the fact that 50% of the radio inventory that was procured from 4-5 years ago is presently inoperative, and the balance is in poor operating condition.
2. Aggressive, cooperative action must be taken immediately to correct the existing deficiencies and insure maximum utilization and operational life of the radio inventory. Certain positive steps must be taken prior to proceeding with development of the communications networks.
3. Procurement action has been initiated for a one-year level of radio repair parts and expendable maintenance items. To insure the continuing availability of these supplies, the Government of Guatemala has been requested to provide Q7,000 per year from FY 1964, 1965 and 1966 funds (total Q21,000) as a separately identified item, equally divided in the operating funds provided to the National Police and Border Patrol (See Annex E). Specifically, the maintenance funds will be utilized for replenishment of stocks initially provided by the U.S. Government and for necessary travel expenses incurred not only in accomplishing routine installation and repair work, but in conducting a country-wide preventive-type maintenance program as well.
4. In addition to the required expendable supplies, procurement action has been

initiated for the necessary tools and testing instruments to establish radio maintenance facilities within the National Police and Border Patrol. A survey has been conducted of available sites for the maintenance shops and layout drawings are enclosed at Annex G. As part of this cooperative effort, it will be necessary for the using organizations to provide the space, carpenter and electrician services and materials, standard office furniture and some limited funds for procurement of incidental materials.

5. Negotiations are underway with the Instituto Técnico Vocacional to establish a special training course for personnel selected to staff these maintenance facilities. The basic curriculum and equipment training materials are being prepared by the undersigned and it is anticipated that the course will begin on or about June 3, 1963, and terminate approximately November 1, 1963. It will be necessary for the National Police and Border Patrol to provide salaried trainees from personnel within their organizations who are best qualified for this type of work, are interested in an electronics career, and who presently possess either a high school education or grammar school with some high school mathematics. Four trainees from each organization are recommended.

6. Short-term radio operator training courses will be scheduled as soon as practicable.

D. Future Communications Requirements.

A detailed study of future communications requirements has not been accomplished to date; however, some possibilities that appear to be worthy of further consideration are listed below:

1. Man-pack radios with 50 mile range and self contained power supplies for

border patrol operations.

2. Pocket radios with concealed antenna for close-in surveillance of mob activity.
3. Pocket radios with helmet antennas for police foot patrols and coordination of traffic direction.

III. RECOMMENDATIONS

A. Improvement of Existing National Police Facilities.

1. It is recommended that the 250 watt FM radio presently in use at : National Police Headquarters be relocated to the high-site previously described in this report. This radio would be utilized for point-to-point communication with other base stations throughout the republic and would initially operate on the common frequency presently in use. Upon verification of the improvement in country-wide coverage, further recommendations for conversion to a fully automatic relay facility operating on independent frequencies will be presented.
2. Concurrently, with relocation of the main National Police transmitter, it is recommended that action be taken to correct existing deficiencies in the departmental radio installations. The commodity assistance required to correct these deficiencies and to accomplish relocation of the main transmitter can be provided by the U.S. Government; however, it will be necessary for the National Police to provide labor, transportation and funds to defray travel expenses incurred by their personnel.

B. Expansion of Radio Communications Facilities

1. It is recommended that the proposed radio communications plans described at Annex B and C be accepted as shown for purposes of determining distribution of the radio equipment received under Project No. 520-Q-71-AB, Agree-

ment No. 134. Some internal modifications to these plans may be directed by either or both the National Police and Border Patrol.

2. It is further recommended that the five FM radios received by the Border Patrol for coastal patrol operations be released for expansion of the National Police network. In return, a larger percentage of SSB equipment will be utilized for development of the Border Patrol network.
3. Upon acceptance of these proposals, the undersigned is prepared to proceed immediately with installation of the new equipment; however, it will be necessary for the National Police and Border Patrol to provide labor, transportation and funds to defray travel expenses incurred by their personnel in accomplishing these installations.
4. It is further recommended that the power generating equipment being procured by the Border Patrol under Release Agreement No. 106, be retained by that agency for use in accordance with the radio communications plan at Annexes B and C. Responsibility for installation, operation and maintenance of this equipment would be borne by the Border Patrol with the stipulation that the National Police would be provided electrical service from these units at locations where such service is required for radio communications.

C. Maintenance of Radio Communications Equipment

1. It is recommended that the proposed plans for radio maintenance facilities presented at Annexes F and G be approved and that necessary remodeling of these facilities begin immediately. Special tools, testing instruments, expendable maintenance items and initial stocks of repair parts required to equip the shops can be provided by the U.S. Government; however, it will be necessary for the National Police and Border Patrol to provide the remodeling

materials and labor, and to assume financial responsibility for recurring operational expenses. These recurring expenses will total approximately Q3,500 per year per maintenance facility plus salaries.

2. The foregoing maintenance facilities will have an estimated value of Q30,000 and will be charged with the responsibility of maintaining an inventory valued at approximately Q200,000. The necessity for high-caliber, well-trained personnel to staff these facilities cannot be over-emphasized. Accordingly, the U.S. Government is willing to sponsor intensive technical training for these technicians and necessary arrangements are being made with the Instituto Técnico Vocacional. It will be necessary for the National Police and Border Patrol to furnish the undersigned as soon as practicable, names and background data on those personnel considered best qualified to assume these responsibilities. Four trainees will be selected from each agency for enrollment in the training program. In recognition of the skill level required and the responsibilities involved, it is recommended that the following job titles and salary grades be established for each maintenance facility:

	Trainee	School Trained & 6 mos. exp.	School Trained & 3 years. exp.
Chief Radio Technician	Q 90.00	Q 150.00	Q 225.00
Radio Technician	80.00	125.00	170.00

It is further recommended that the present Chief of the National Police Laboratory attend only the latter portion of the above training program when equipment familiarization is being presented. Upon completion of this training and in recognition of his previous experience, it is recommended that the salary of this individual be increased to Q 250.00 per month.

3. In order to insure efficient operation of the maintenance facilities and reasonable control over the expenditure of supplies, it is recommended that a system of recording work processed be adopted together with a complementary method of stock record keeping. These systems would serve as management tools for internal shop control, for external justification of personnel and material requirements, and for historical records of equipment performance. Specific recommendations for implementation of these systems will be presented at a later date; however, the following records would be included in a typical system:

- a. Work Order Form - A serially numbered form, in duplicate, for recording type of work performed, parts expended, hours worked, serial number of equipment if applicable, technician performing work, etc.
- b. Work Order Register - Numerical sequence summary of work orders issued.
- c. Stock Record Card File - An identification and location file for each item of stock with running inventory and cross reference to Work Order numbers for materials issued.
- d. Shop Tag - Tie-on card to be attached to incoming equipment identifying applicable Work Order number and status.

IV. SUMMARY

- A. Under the cooperative public safety program, a total of 100 two-way radios have been procured for use by the National Police and Border Patrol of Guatemala. Of this total, 42 units are being released by the U.S. Government through execution of the documents at Annexes H and I.
- B. The existing radio network is deficient in several aspects and maintenance facilities and capabilities are totally inadequate. Recommendations for correction of

these deficiencies and plans for expansion of existing facilities are covered in this report.

- C. The U.S. Government is prepared to cooperate in this effort with further commodity and technical assistance; however, certain cooperative steps must first be taken to insure maximum utilization and operational life of the radio inventory.
- D. Attached at Annexes H and I are documents which, when officially executed by authorized representatives of the National Police and Border Patrol, acknowledge formal receipt of the additional radio communications equipment and signifies approval of the recommendations and proposals contained in this report.

MARK R. SEATON
Public Safety Advisor (Communications)

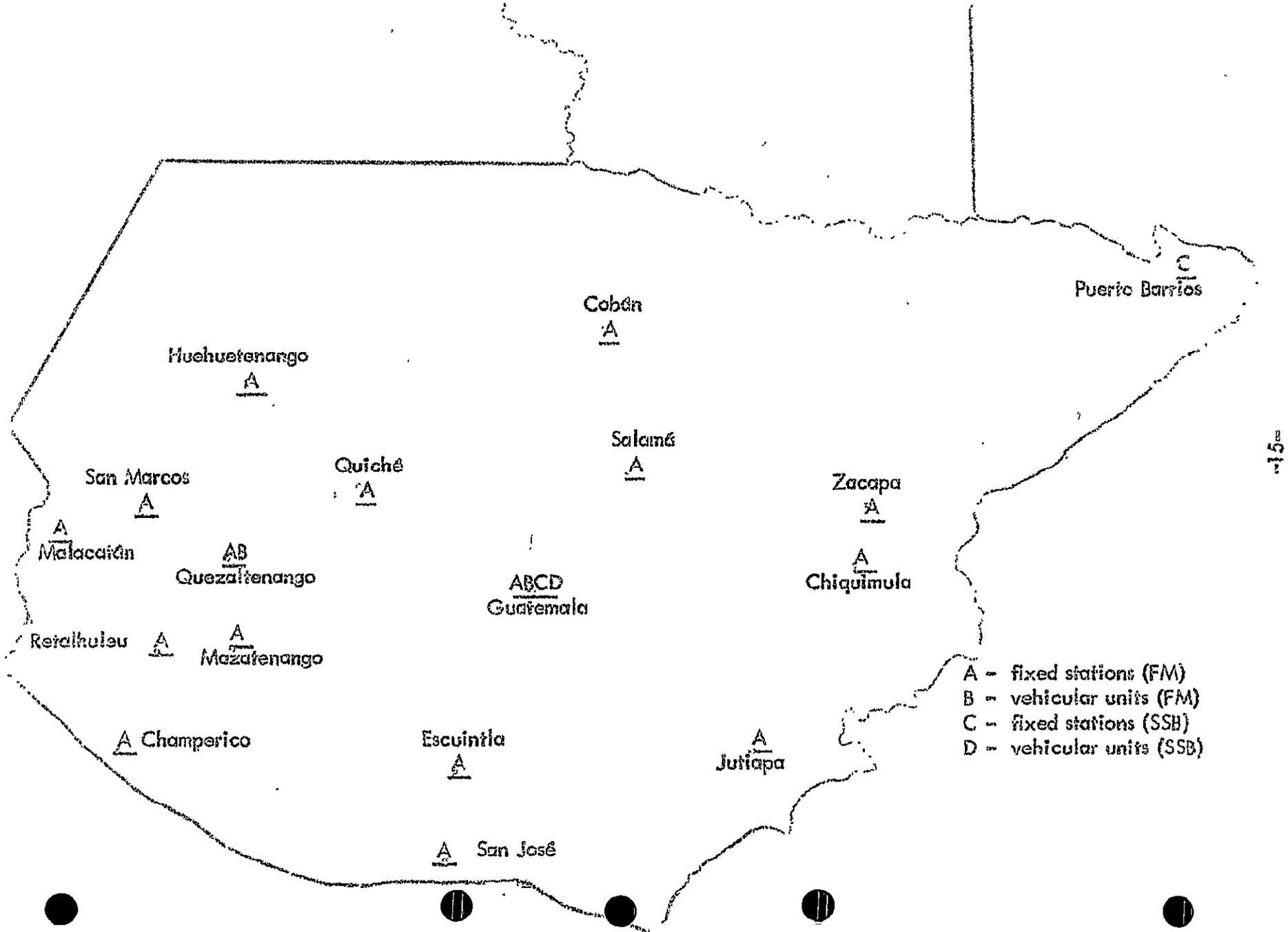
INVENTORY OF RADIO COMMUNICATIONS EQUIPMENT

Serial No.	Make, Model, Type	Present Location
1628	Motorola T51GGV-1A 50 watt Mobile	National Police Repair Shop
1630	" " "	"
1631	" " "	"
1632	" " "	"
1633	" " "	"
1634	" " "	"
1636	" " "	"
1638	" " "	"
1642	" " "	"
1643	" " "	"
1644	" " "	"
1645	" " "	"
9489	" " "	"
1629	" " "	National Police Patrol Car
1637	" " "	"
1639	" " "	"
1641	" " "	"
1635	" " "	National Police Official Car
20270	Motorola C51GJB-1 60 watt fixed	National Police Headquarters
20271	" " "	National Police Repair Shop
1441	" " "	"
Unknown	" " "	National Police Retalhuleu
Unknown	" " "	National Police Malacatán
21596	" B61AJB-12 250 watt fixed	National Police Headquarters
Unknown	" B61AJB-1	National Police Quezaltenango
Unknown	" "	National Police Quiché
22070	" L51AJB-12 60 watt fixed	National Police Headquarters
20928	" L41GGB-2A 30 watt fixed	National Police Garita
20929	" " "	"
20930	" " "	"
20931	" " "	"
20932	" U51GGT-1000A 60 watt mobile	National Police Patrol Car
20937	" " "	"
20936	" " "	National Police Official Car
20933	" " "	National Police Repair Shop
20934	" " "	"
20935	" " "	"
68479	Motorola L51AJB-1000A 60 watt fixed	Border Patrol Headquarters
68481	" " "	"
68480	" " "	Border Patrol Sub-Headquarters
67546	" U41GGT-1000C 30 watt mobile	Border Patrol Headquarters
67547	" " "	"

INVENTORY OF RADIO COMMUNICATIONS EQUIPMENT

Serial No.	Make, Model, Type	Present Location
12 each	COMCO Model 580 40 watt Mobile	National Police Patrol Cars
Unknown	General Electric DO-17N 100 watt fixed	National Police Mazatenango
"	" " "	National Police El Progreso
"	" " "	National Police Zacapa
"	" " "	National Police Chiquimula
"	" " "	National Police San Marcos
"	" " "	National Police Huehuetenango
"	" " "	National Police Quiché
1510080	" MT-16N 50 watt Mobile	National Police Official Car
1510081	" " "	"
1510082	" " "	"
1510083	" " "	"
22 each	RCA SSB-1 Mark IIA 100 watt fixed	U.S. AID Mission
21 each	RCA SSB-5 125 watt Mobile	"

COMMUNICATIONS PLAN FOR NATIONAL POLICE



15

DISTRIBUTION OF NATIONAL POLICE RADIOS

1. Fixed Station Radios

- a. 250 watt Motorola FM - 3 each
 - (1) High-site near Mixco
 - (2) San Marcos
 - (3) Chiquimula
- b. 100 watt General Electric FM - 8 each
 - (1) High-site (Backup)
 - (2) Retalhuleu
 - (3) Huehuetenango
 - (4) Salamá
 - (5) Cobán
 - (6) Zacapa
 - (7) Jutiapa
 - (8) Escuintla
- c. 60 watt Motorola FM - 9 each
 - (1) Radio Patrol Headquarters
 - (2) Mazatenango
 - (3) Champerico
 - (4) San José
 - (5) Quezaltenango
 - (6) Quiché
 - (7) Malacatán
 - (8) Emergency Exchange
 - (9) On loan to Judicial Police
- d. 30 watt Motorola FM - 4 each
 - (1) Atlantic Highway Garita
 - (2) El Salvador Highway Garita
 - (3) Escuintla Highway Garita
 - (4) Antigua Highway Garita
- e. 100 watt RCA SSB - 2 each
 - (1) National Police Headquarters
 - (2) Puerto Barrios

2. Vehicular Radios

- a. 60 watt Motorola FM - 18 each
 - (1) Official Car - 1 each
 - (2) Patrol Cars - 4 each
 - (3) Unserviceable⁶ - 13 each
- b. 50 watt Motorola FM - 6 each
 - (1) Official Car - 1 each
 - (2) Patrol Cars - 2 each
 - (3) Unserviceable⁶ - 3 each
- c. 50 watt General Electric FM - 4 each
 - Official Cars - 4 each
- d. 35 watt COMCO FM - 12 each
 - Patrol Cars - 12 each
- e. 30 watt Motorola FM - 2 each
 - Patrol Cars - 2 each
- f. 125 watt RCA SSB - 2 each
 - Patrol cars dual equipped with SSB and FM Radios for long range patrol.

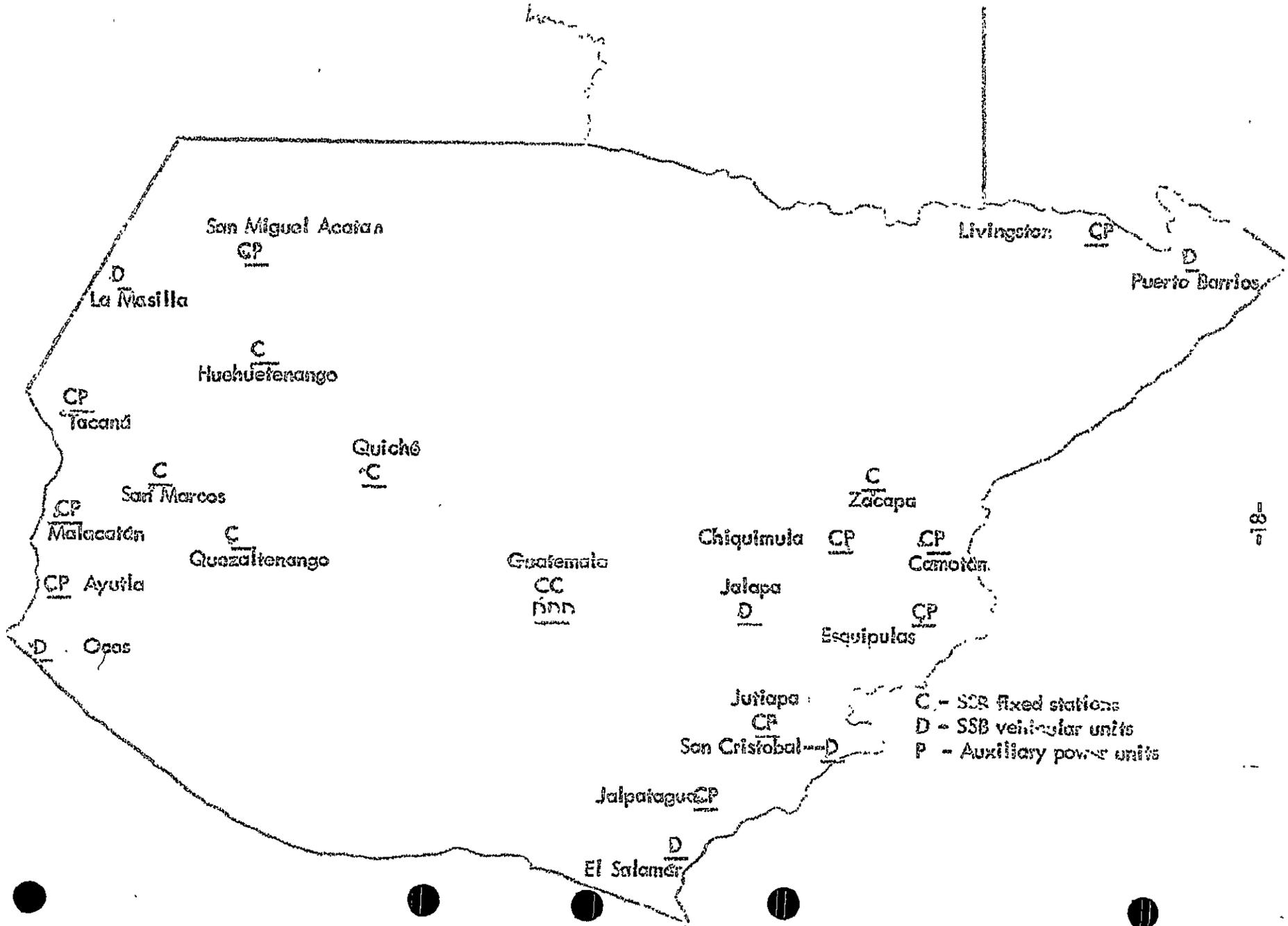
⁶These radios will be serviced and utilized to expand Radio Patrol operations. Some may be converted to fixed station radios and others will be held for emergency exchange purposes.

ANNEX B
GENERAL OPERATING PROCEDURES

page 3 of 3 pages

1. All FM radios will operate on 31.05 MC until such time as the necessary crystals can be obtained to separate radio patrol and point-to-point frequencies.
2. All SSB radios will operate on the Lower Sideband unless extreme interference is experienced and the change to Upper Sideband is mutually agreeable with those parties being contacted. Upon termination of such communications, each operator will return to Lower Sideband monitoring.
3. All SSB radios will operate on Channel 4 (7632.5 KC) between the hours of 12:00 noon and 6:00 p.m. Channel 3 (5366 KC) will be utilized from 6:00 p.m. - 8:00 p.m. and from 6:00 a.m. 12:00 noon. Channel 2 (3220 KC) will be utilized from 8:00 p.m. - 6:00 a.m. except when experiencing extreme interference that can be eliminated by changing to Channel 1 (3250 KC). As in the case of alternate sideband operation, all stations being contacted must agree to the proposed change, and each operator will return to channel 2 monitoring upon completion of such transmission.
4. The Border Patrol will be operating on identical schedule on the same frequencies utilizing the Upper Sideband for normal transmissions. Placing a National Police SSB radio in Upper Sideband will automatically net that radio with the Border Patrol system.

ANNEX C
 COMMUNICATIONS PLAN FOR BORDER PATROL

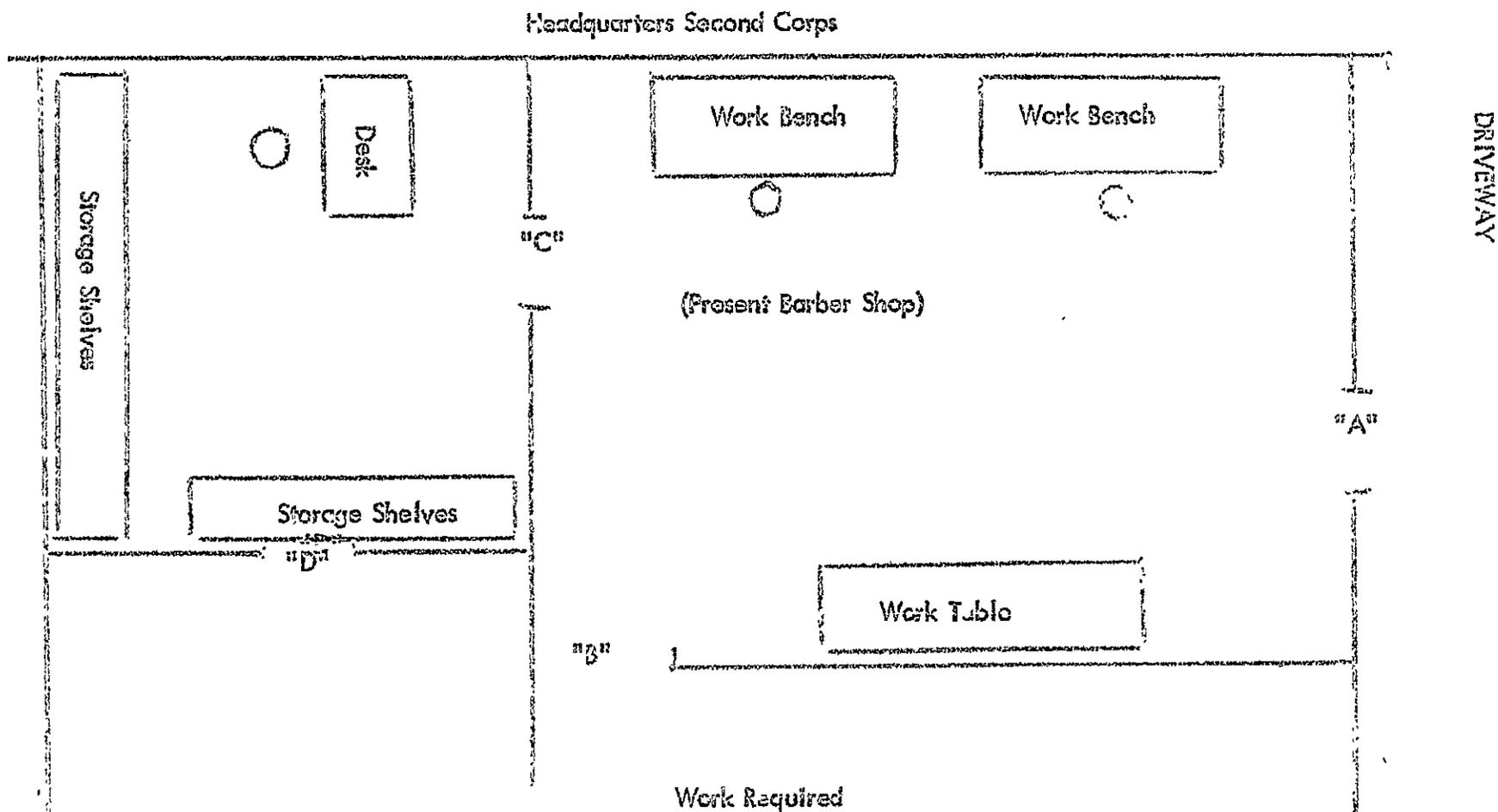


C - SCR fixed stations
 D - SSB vehicular units
 P - Auxiliary power units

GENERAL OPERATING PROCEDURES

1. All stations will operate on the Upper Sideband unless extreme interference is experienced and the change to Lower Sideband is mutually agreeable with those parties being contacted. Upon termination of such communications, each operator will return to Upper Sideband Monitoring.
2. All SSD : radios will operate on Channel 4 (7632.5 KC) between the hours of 12:00 noon and 6:00 p.m. Channel 3 (5366 KC) will be utilized from 6:00 p.m. - 8:00 p.m. and from 6:00 a.m. - 12:00 noon. Channel 2 (3270 KC) will be utilized from 8:00 p.m. - 6:00 a.m. except when experiencing extreme interference that can be eliminated by changing to Channel 1 (3250 KC). As in the case of alternate sideband operation, all stations being contacted must agree to the proposed change, and each operator will return to channel 2 monitoring upon completion of such transmission.
3. The National Police Headquarters and Puerto Barrios will be operating on identical schedule on the same frequencies utilizing the Lower Sideband for normal transmissions. Placing any Border Patrol radio in Lower Sideband operation will automatically net that radio with the National Police System.

PROPOSED RADIO MAINTENANCE SHOP (NATIONAL POLICE)

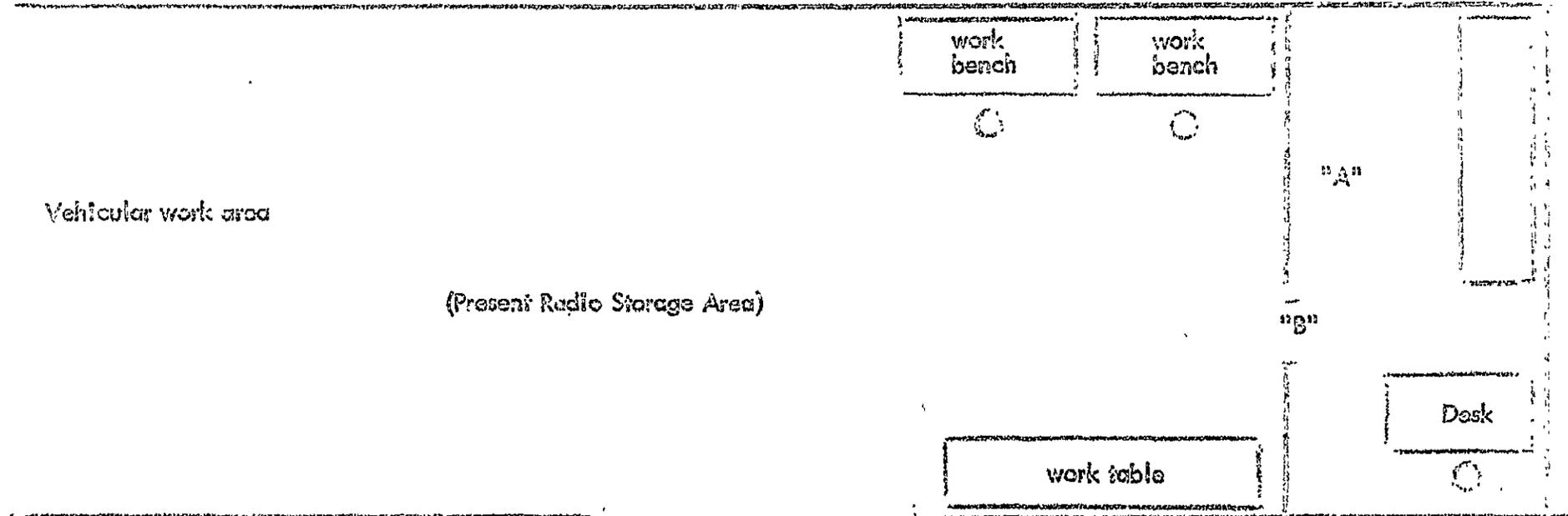


1. Install door and lock at entrance "A"
2. Seal entrance "B" and install window
3. Install cashier-type service window at entrance "C"
4. Seal entrance "D"
5. Construct work benches, shelves, table and desk
6. Install necessary electrical service.

ANNEX G
PROPOSED RADIO MAINTENANCE SHOP (BORDER PATROL)

page 1 of 1 page

Headquarters Border Patrol



WORK REQUIRED

1. Construct wall "A", solid base, wire fence top.
2. Install door "B" with chaser-type service window.
3. Construct work benches, table, shelves and desk.
4. Install necessary electrical service.

REPORT ON ARRIVAL OF AID-FINANCED COMMODITIES

Report No. 59
October, 1962

PIO/C No. 520-71-077-1007

Date of Bill of Lading	Date of Arrival in Guatemala	Date of Customs Notification	Commodity Code No.	Description & Quantity	Cost
May 28/62	June 8/62	June 12/62	720	2 RCA Radio SSB-1	3,200.00
"	"	"	720	2 RCA Radio SSB-5	3,800.00
"	"	"	720	8 GE Radio DO-17N	5,760.00
"	"	"	720	4 GE Radio MT-16N	2,400.00

NATIONAL POLICE

signature _____

title _____

date _____

REPORT ON ARRIVAL OF AID-FINANCED COMMODITIES

Report No. 51
March 1961

PIO/C No. 598-(520)-71-077-5-70216

<u>Date of Bill of Lading</u>	<u>Date of Arrival in Guatemala</u>	<u>Date of Customs Notification</u>	<u>Commodity Code Nr.</u>	<u>Description & Quantity</u>	<u>Cost</u>
2/3/61	3/8/61		720	2 Motorola Radio UH1GGF	1,297.00
2/3/61	3/8/61		720	3 Motorola Radio L51AJB	2,700.00

NATIONAL POLICE

signature _____

title _____

date _____

REPORT ON ARRIVAL OF AID-FINANCED COMMODITIES

Report Nr. 66
April 1963

PIO/C Nr. 520-Q-71-AB-C-10080

Date of Bill of Lading	Date of Arrival in Guatemala	Date of Customs Notification	Commodity Code Nr.	Description & Quantity	Cost
	April/63	April/63	543	1,200 ⁰ Polyethylene Rope	44.00
	"	"	640	210 Antenna Insulators	17.00
	"	"	640	1 Relay Cleaning tool	6.00
	"	"	660	8,000 ⁰ Guy wire	80.00
	"	"	660	80 1/4" Lag bolts	4.00
	"	"	680	1 Measuring Tape	27.00
	"	"	680	1 Masonry Drill Set	7.00
	"	"	680	2 Tool kit	50.00
	"	"	680	6 Cable grips	30.00
	"	"	680	18 Rope blocks	12.00
	"	"	680	25 1/4" Eye bolts	2.00
	"	"	680	40 Expansion shields	5.00
	"	"	680	168 Rope clamps	72.00
	"	"	680	6 12" Turnbuckles	17.00
	"	"	680	168 Rope Thimbles	11.20
	"	"	680	1,500 Pieces Assorted Hardware	15.00
	"	"	690	600 ⁰ Aluminum Wire	8.40
	"	"	720	1 RF Wattmeter	105.00
	"	"	720	2 Wattmeter Elements	65.00
	"	"	720	1 RF Load Resistor	185.00
	"	"	720	1 Simpson Multimeter	60.00
	"	"	720	1 RCA Voltohmyst Jr.	48.00
	"	"	720	75 Assorted Fuses	9.00
	"	"	720	28 Antenna Mast, 40 ⁰	300.00
	"	"	720	5 Ground Clamps	1.00
	"	"	720	28 Antenna Mast Mount	36.00
	"	"	720	2 Antenna Wall Mount	4.00
	"	"	720	181 Electron Tubes	360.00
	"	"	720	16 Semiconductors	30.00

NATIONAL POLICE

REPORT ON ARRIVAL OF AID-FINANCED COMMODITIES

(Cont.)

PIO/C Nr. 520-Q-71-AB-Q-10080

Report Nr. 66
April 1963

<u>Date of Bill of Lading</u>	<u>Date of Arrival in Guatemala</u>	<u>Date of Customs Notification</u>	<u>Commodity Code Nr.</u>	<u>Description & Quantity</u>	<u>Cost</u>
	April 1963	April 1963	720	2 Antennas, doublet	120.00
	"	"	720	1 Solderless terminal kit	22.50
	"	"	720	200 ⁰ Rubber Service Cord	16.00
	"	"	720	20 Power Plug	2.00
	"	"	720	50 Ground Rod	40.00
	"	"	720	25 Coaxial Connector	17.50
	"	"	720	25 Coaxial Adapter	3.50
	"	"	720	3,000 ⁰ Coaxial Cable	165.00
	"	"	720	1 Soldering Gun	12.00
	"	"	720	1 Power Drill	28.00
	"	"	720	1 Drill Bits Set	10.00
	"	"	720	1 Extension Cord	7.50
	"	"	720	50 Neon Lamps	10.00

signature _____

title _____

date _____

NATIONAL POLICE

REPORT ON ARRIVAL OF AID-FINANCED COMMODITIESReport No. 59
October 1962

PIO/C No. 520-71-077-10076

<u>Date of Bill of Lading</u>	<u>Date of Arrival in Guatemala</u>	<u>Date of Customs Notification</u>	<u>Commodity Code No.</u>	<u>Description & Quantity</u>	<u>Cost</u>
May 28/62	June 8/62	June 12/62	720	17 Radio RCA SSB-1	27,200.00
"	"	"	720	9 Radio RCA SSB-5	17,100.00

BORDER PATROL

signature _____

title _____

date _____

REPORT ON ARRIVAL OF AID-FINANCED COMMODITIES

Form No. 57
1-50-52

PIO/5 No: 520-00-71-0AB-0-10080

Code of World Bank	Date of Arrival in Guatemala	Date of Customs Notification	Commodity Code No.	Description & Quantity	Cost
	April/63	April/63	513	3,600 ⁰ Polyethylene Rope	132.00
	"	"	620	630 Antenna Insulators	51.00
	"	"	640	1 Relay cleaning tool	6.00
	"	"	660	12,000 ⁰ Guy wire	120.00
	"	"	660	120 1/4" Lag bolts	6.00
	"	"	680	1 Measuring Tape	27.00
	"	"	680	1 Masonry Drill set	7.00
	"	"	680	1 Tool kit	25.00
	"	"	680	6 Cable grips	30.00
	"	"	680	54 Rope blocks	36.00
	"	"	680	75 1/4" Eye bolts	6.00
	"	"	680	60 Expansion shields	7.50
	"	"	680	252 Rope clamps	108.00
	"	"	680	3 12" Turnbuckles	17.00
	"	"	680	252 Rope Thimbles	16.80
	"	"	680	1,500 Pieces Assorted Hardware	15.00
	"	"	690	400 ⁰ Aluminum Wire	5.60
	"	"	720	1 RF Wattmeter	105.00
	"	"	720	2 Wattmeter elements	65.00
	"	"	720	1 RF Load Resistor	185.00
	"	"	720	75 Assorted Fuses	9.00
	"	"	720	42 Antenna Mast, 40'	450.00
	"	"	720	3 Ground Clamps	1.00
	"	"	720	42 Antenna Mast Mount	54.00
	"	"	720	4 Antenna Wall Mount	8.00
	"	"	720	120 Electron Tubes	240.00
	"	"	720	49 Semiconductors	90.00
	"	"	720	35 Antennas, doublet	1,980.00
	"	"	720	1 Solderless terminal kit	22.50
	"	"	720	300 Rubber Service Cord	24.00
	"	"	720	10 Power Plug	3.00

REPORT ON ARRIVAL OF AID-FINANCED COMMODITIES
(Cont.)

Report No. 67
April 1963

PIO/C Nr. 520-Q-71-AB-C-10000

<u>Date of Bill of Lading</u>	<u>Date of Arrival in Guatemala</u>	<u>Date of Customs Notification</u>	<u>Commodity Code Nr.</u>	<u>Description & Quantity</u>	<u>Cost</u>
	April/63	April/63	720	25 Ground Rod	20.00
	"	"	720	25 Coaxial Connector	17.50
	"	"	720	25 Coaxial Adapter	3.50
	"	"	720	3,000 Coaxial Cable	165.00
	"	"	720	1 Soldering Gun	12.00
	"	"	720	1 Power Drill	28.00
	"	"	720	1 Drill Bits Set	10.00
	"	"	720	1 Extension Cord	7.50
	"	"	720	22 Neon Lamps	3.00

BORDER PATROL

signature _____

title _____

date _____