

PD-AAT-429
45164

UNITED STATES GOVERNMENT

memorandum

DATE: May 16, 1979

REPLY TO
ATTN OF:

J.A. Vasile, Regional Telecom Technician (RTT) *J. Vasile*

SUBJECT: Telecommunications Status Report for Period April 16 - May 16, 1979
per paragraphs 2,3 - Contract AID/lac C 1285, Project No. ~~527-9424~~
(State 136-00-1-1-01) Narcotics Control.

TO: Contracting Officer, Office of Contract Management, AID
Senior Narcotics Control Officer, AmEmbassy, Lima
S/NM TSD
AID Reference Center AID, WashDC

Agency for International Development
Library
Room 1003 P
Washington, D.C. 20502

I. SUMMARY

A. General

1. Apr 27 - May 3 of the reporting period was spent TDY La Paz.

B. Peru

1. Peru Investigative Police (PIP) Telecom Project
 - a) PIP telecom technician attending Motorola training course.
 - b) Bid under review for 10 locally fabricated towers.
2. Guardia Civil (GC) Telecom Project
 - a) GC telecom technician attending Motorola training course.
 - b) Five locally fabricated towers delivered. Bid under review for 14 additional towers.
 - c) HF-SSB installation completed Lima. Two officers and two technicians begin installations Huanuco and Tingo Maria May 15.

C. Bolivia

1. DCNSP Telecom Project
 - a) FY-79 telecom commodities procurement program revised to conform to project changes.
 - b) Two telecom technicians attending Motorola training course.
 - c) Flood damaged mobile telecom equipments inspected.
 - d) A conference was held with DCNSP. Chief, Col. Victor Ameller, on projected installations, maintenance and technical staffing program.
2. Bolivia Customs Telecom Study
 - a) A preliminary study was completed for telecom support of Customs Narcotics program under consideration.

D. Colombia Telecom Projects

1. Two OAG telecom technicians are attending the Motorola training course.



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OPTIONAL FORM NO. 10
(REV. 7-76)
GSA FPMR (41 CFR) 101-11.6
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2. A report of the Leticia portion of Colombia Customs telecom study was submitted.

II. PERU

A. PTP Telecom Project

- 1) PTP telecom technician, Rugh Varillas Aspilgueta, departed for Motorola 21 day training course on 5/5/79. Ref. Lima 03710
- 2) A bid is under review for 10 locally fabricated towers for VHF gain antenna support. Towers are of relatively light construction, 15 meters high with 2 1/2" galvanized pipe termination of top section for convenient mounting of Motorola TDD 6073 antenna. The lighter design reduces local technician problems in erection of towers as well as transportation costs.
- 3) PTP is in process of improving both VHF and HF antenna plant in the Lima area. Twelve locally fabricated 15 meter towers were procured with GOP funds for this purpose. This program may be a response to RTT criticism of antenna and tower deficiencies resulting in unreliable transmission performance.
- 4) Telecom Commodities, PA/C 802305, reported shipped via Lan Chile Apr 20 not received during reporting period.

B. GC Telecom Project

- 1) GC telecom technician, Aquilino Galvez Preguntegui, departed for Motorola 21 day training course 5/5/79. Ref. Lima 03710
- 2) Five locally fabricated 18 meter towers were delivered to GC 4/9/79. Distribution of these towers is programmed as follows:
2 Telecom Center, Ministry of Interior, Lima
1 DIPOD, GC Narcotics Headquarters, Lima
1 Huanuco - VHF Antenna TDD6073
1 Tingo Maria - VHF Antenna TDD6073
- 3) A Bid for 14 additional towers of lighter construction design, 15 meters high, is under review. These are programmed for seven Huanuco Department Narcotics Headquarters sites for support of HF-SSB antennas.
- 4) Two officers and two telecom technicians departed Lima for Huanuco and Tingo Maria HF-SSB installations and antenna tower rehabilitation.
- 5) An HF-SSB Transceiver, Scientific Radio Model SR204-4 was installed at the Ministry of Interior Telecom Center for Communication with Huanuco Department installations, 2d, preceding, using existing antennas. New tower and antenna construction is pending coordination between Ministry of Interior and GC.

III. BOLIVIA

A. DCNSP Telecom Project

1. Two new sub-projects were projected, since preceding TDY Bolivia, Jan 15-25, (a) addition of Charaña and Tambo Quemado as Narcotics Control Headquarters and (b) 23 highway check points in the Coca Production Control Program. It was therefore necessary to revise the FY-79 telecom commodity procurement planning to meet the new project support needs. Attached Memo, DNSP Telecom Project Review and Projection, provides details.
2. A conference was held between Embassy NCU and DNSP Director to coordinate programmed installations, scheduled maintenance and technical staffing requirements as well as for resolution of current problem areas. A synopsis is contained in the attached Memo, Agenda - DNSP/Embassy meeting.
3. Two DNSP telecom technicians, Luis Infantes and Edgar Encimas, departed for Motorola Training Course May 4, 1979. Ref. La Paz 3884.

B. Proposed Bolivia Customs Telecom Project

1. Based upon consultation with a Customs Official and a Ministry of Finance Telecom Technician a preliminary customs telecom policy and system proposal was developed. Details are given in attached Memo, Bolivia Customs - Preliminary Telecom Proposal.

IV. COLOMBIA TELECOM PROJECT

1. Two OAG Telecom Technicians, Enrique Alvarez and Jose Celis departed for the Motorola Training Course, 5/5/79.
2. The Leticia portion of the Colombia Customs Telecom Project Study performed Apr 6 - 9 during TDY Colombia, is attached. Ref: Apr 15 Status Report, V3.

V. COMMENTS

1. The proposed Bolivia Customs teletype system integration with the DNSP teletype system, if approved, lends emphasis to need for INM teletype system standardization and resolution of existing problems as suggested in attachment, April 15 Status Report, Memo: INM Teletype Systems.

UNITED STATES GOVERNMENT

Memorandum

TO : MR. CARLOS LOPEZ, NCU

DATE: April 30, 1979

FROM : JOSEPH VASILE, RIT

SUBJECT: DNSP TELECOM PROJECT REVIEW AND PROJECTION.

A. SYNOPSIS

1. Existing system, equipment, and technical personnel status was reviewed with DNSP Telecom Chief, Luis Infantes and DNSP Personnel officer, Major Arriaza.
2. PA/C N° 701324 reviewed for accuracy.
3. FY-79 Telecom Commodity projections revised and draft PA/C prepared to include support of new operations:
 - a) 23 check points in Coca Production Control.
 - b) Two projected Narcotics Control stations at Charaña and Tambo Quemado.
4. FY-80 and FY-81 Telecom commodity projections proposed.
5. Agenda for a DNSP Director/Embassy NCU meeting prepared.

B. STATUS

1. Existing Systems:
 - a) All systems - HF-SSB, VHF/FM and teletype point-to point and telex services are operating normally with no transmission difficulties reported.
2. Equipment
 - a) All equipment in country is in service except one mobile HF/SSB and one mobile VHF/FM repeater which were damaged when the Dodge Wagon in which they were installed sank in the Irpavi river near Santa Cruz during flood conditions. The units were inspected in the La Paz Telecom Repair Center after intensive attempts had been made to remove the mud, which had completely filled the units for several days. The number of corroded components and connections and general damage of these units suggests that salvage is uneconomical and further efforts not



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warranted. They can be written off as total loss of approximately \$9,500. RIT suggest increase in FY-79 telecom commodity funds to replace lost units.

- b) Two technicians are scheduled to travel to Tarija on April 28, to replace the installed four channel Southcom SC-150 HF-SSB Transceiver with a five channel unit prepared in La Paz to include 11400 KHz, useful over this path. A dipole on 11400 KHz will be erected at that site.

The same team will continue travel to Yacuiba to install a channel 5 modification kit, 11400 KHz, on the Southcom SC-150 transceiver installed there and also to erect the corresponding antennas as in Tarija.

- c) The Oruro TCC DPD72A Teletype Privacy Device is operating in the "Clear" mode due to errors when set for "Private" operation. A spare unit is available in stock for replacement if tests on other combinations do not clear the defect.

3. Technical Personnel

- a) In consultation with Major Willy Arriaza he assured RIT that DNSP plans to contract two additional telecom technicians by June 30, 1979 in compliance with FY-79 PRO-AG terms.
- b) Two technicians are scheduled to attend the Motorola Specialized Training Course in Ft. Lauderdale, Fla, May 7-25, 1979. Areas for emphasis in training were discussed between Motorola Representative Jose Mendez and RIT.
- c) The DNSP pay discrepancy relating to one of its best telecom technicians was recently corrected after the affected employee resigned. He was rehired with appropriate increase in compensation.
- d) Technical personnel assignments are proposed for program implementation in a meeting agenda paper attached.

C. PA/C N°701324 Review

This PA/C was reviewed for accuracy and completeness and found satisfactory.

D. FY-79 Telecom Commodity Projection and proposed PA/C.

1. Two new projects have evolved in Narcotics Control and Coca Production Control since the FY-79 projections submitted by RIT on November 9, 1978. Accordingly, modifications of these past projections were required in an effort to support the high priority current objectives.
2. Two Narcotics Control stations having high priority are Charaña and Tambo Quemado. HF/SSB and VHF/FM base station and hand held transceiver support are provided in the draft FY-79 PA/C attached.
3. Also supported in full are the telecom equipment requirements of the Coca Production Control project at 23 designated check-points - items One through 23 on the attached FY-79 projection chart. The FY-79 draft PA/C attached includes the equipment designated on the chart.
4. Funds necessary to meet the requirements of 2 and 3 preceding and also the initial requirements for establishing operations in the Lake Titicaca area amount to \$170,000. This is \$10,000 in excess of PRO-AG proposed funding.
5. VHF/FM support of Lake Titicaca region establishments and some mobile units previously projected for FY-79 were postponed to FY-80 proposed funding.

E. FY-80 and FY-81 Telecom Commodity Projections

1. These projections are attached and are self explanatory. The proposals are based on extrapolated evolution of the project assuming satisfactory operational performance evaluations of trafficking and coca production control.
2. No specific projection has been made for technician participant training in the U.S. for FY-80/81. However, such training should be given both years to assure continuity in long range telecom goals.

F. Agenda for DNSP Director/Embassy NCU Meeting

1. The agenda provides for discussion of local telecom administrative problems and attempts to propose solutions.

A copy of the agenda is attached.

2. It should be noted that while coordination between DNSP Logistics and DNSP Telecom can be improved as well as installations programming and equipment maintenance scheduled and routines, notable progress is being steadily made. Judged by systems performance, installations quality and equipment maintenance results DNSP and especially its Telecom Division are to be commended.

Attachments:

1. PA/C FY-79
2. Projection Chart FY-79 Telecom Commodities
3. Projection FY-80 Telecom Commodities
4. Projection FY-81 Telecom Commodities
5. DNSP/Embassy meeting agenda

La Paz, April 27 de 1979

FY-79 PA/C TELECOM COMMODITIES · DNSP
(\$170,000)

<u>Item N°</u>	<u>Qty</u>	<u>Description</u>	<u>Cost</u>
1	10	HF-SSB Base Station Transceivers, 125 watts, 6-Ch, 220V AC power.	40,000
2	14	VHF/FM Base Station Transceivers, 90 watts, 4-channel, 220V AC/12,V DC.	42,000.
3	1	VHF/FM Repeater, fixed station, single channel.	6,000
4	4	VHF/FM Mobile Transceiver, 90 watts, 4 Ch.	12,000
5	40	VHF/FM Hand Held Transceivers, .5 watts, 4 channel.	40,000
6	32	Single Unit Battery Chargers for Item 5	4,000
7	5	HF/SSB Base Stations, same as item 1, except with 12 V DC power supply.	20,000
8	10	Lead-Acid Batteries, 12V, 200 AMP.	2,000
9	5	Battery Chargers for 220V AC operation for item 8.	2,000
10	5	12V DC Generators, gas driven for charging item 8.	2,000

- NOTES: 1. Items 1 through 7 increased over previous projections to provide for support of new project - Coca Production Control at 23 check points shown on attached FY-79 Projection Chart Items 1 through 23.
2. Charaña and Tambo Quemado newly added DNSP stations provided with HF/SSB and VHF/FM base station support and two handie-talkies. See items 31, 32 on FY-79 chart.
3. VHF/FM Base Station, Mobile Transceiver and HT support for Copacabana, Puerto Acosta, Desaguadero, Uyuni and Cobija postponed to FY-80

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La Paz, April 27, 1979.

DNISP FY-80 TELECOM COMMODITIES PROJECTION

\$106,000

<u>Item N°</u>	<u>Qty</u>	<u>Description</u>	<u>Cost</u>
1	1	HF/SSB Linear Amplifier, 1000 watts 6 channel.	6,000
2	1	Log Periodic Antenna, rotatable, lower frequency design 8 MHz.	25,000
3	5	VHF/FM Base Station Transceivers, 4 channel, 90 watt.	15,000
4	9	VHF/FM Mobile Transceivers, 4 channel, 90 watt.	27,000
5	20	VHF/FM Handie-Talkie transceivers, 5 watt, 4 channel.	20,000
6	6	Convertacom Mobile Units, for use with item 5, equipped with 220V AC/12DC power supply.	5,000
7	1	Lot, test equipment and tools.	8,000

- NOTES:
1. Items 1 and 2 provide 20 DB gain in transmission from La Paz to all HF/SSB base stations and 10 DB gain, approximately, in reception at La Paz.
 2. Items 3 through 5 complete the programmed VHF/FM complement in support of Narcotics operations planned FY-79.
 3. Item 6 provides flexibility in operational installations, as mobile units or fixed stations.
 4. Item 7 provides for establishment of a regional maintenance shop at Santa Cruz to reduce travel costs, from La Paz for routine maintenance or emergency repairs to frontier stations.

La Paz, April 27, 1979.

DNSP FY-81 TELECOM COMMODITIES PROJECTION

\$105,000

<u>Item N°</u>	<u>Qty</u>	<u>Description</u>	<u>Cost</u>
1	1	HF/SSB Base Station Transceiver, 6 channel 125 watts.	4,000
2	1	HF/SSB Mobile Transceiver, 6 channel, 125 watts	4,000
3	1	VHF/FM Base Station Transceiver, 90 watt, 4 channel.	3,500
4	1	VHF/FM Mobile Transceiver, 4 channel, 90 watts.	3,000
5	1	VHF/FM Mobile Repeater, 4 channel, 90 watts.	5,500
6	1	VHF/FM Fixed Station Repeater, 1 channel, 90 watt.	5,000
7	20	VHF/FM Hand Held Transceivers, 5 watt, 4 channel.	20,000
8	1	Lot spare parts for items 1 through 8, in service in Bolivia.	20,000
9	2	Siemens Teleprinters, Type DSBl00.	7,000
10	2	Diamond SS-745 Sub-Sets	1,000
11	2	TCC DPD-72A Privacy Devices.	7,000
12	1	10-Line Teletype switching terminal - ins- talled.	30,000

- NOTES:
1. Items 1 through 6 are in support of existing installed equipment, as spare units for quick field replacement.
 2. Item 7 provides estimated increase in support requirements of Coca Production Control check points.
 3. Items 9 through 12 provide for extension of Point-to-Point Teletype service to Tarija, Trinidad and Puerto Suarez provided Project Evaluation justifies need for these services. An alternative at lower cost but without data privacy would be TELEX service at the three points.

UNITED STATES GOVERNMENT

Memorandum

TO : MR. CARLOS LOPEZ, NCU

DATE: April 27, 1979

FROM : JOSEPH VASILE, RIT

SUBJECT: AGENDA, DNSP/EMBASSY MEETING

Attendig: Col. Víctor Ameller, DNSP Director
Mr. Luis Infantes, DNSP Telecom Chief
Mr. Carlos Camacho, DNSP Logistics
Mr. Carlos Lopez, NCU
Mr. Joseph Vasile, RIT

1. Installations Programmed July/December, 1979.
 - a) VHF Base Stations - Trinidad, Puerto Suarez, Guayaramerin, Tarija, Montero.
 - b) HF-SSB Base Stations - Desaguadero, Chulumani, Villa Tunari, Cobija.
 - c) Mobile Installation - two HF-SSB, two VHF/FM on two vehicles, one each Chulumani, Villa Tunari.
 - d) Handie-Talkies, 18, three each to Trinidad, Puerto Suarez, Guayaramerin, Tarija, Chulumani, Villa Tunari.
 - e) Above value \$78,000, PA/C N° 701324.
2. Installations Programmed September 1979 - May 1980.
 - a) See chart attached of items to be procured from FY-79 funds, \$150,000 approximately. Includes HF-SSB Base Stations four cities, VHF/FM Base Stations 11 cities, 12 VHF/FM Mobile Units, 27 Handie-Talkies.
 - b) Handie-Talkies to be increased to 40 units to equip some of 23 check points recently programmed in the Coca Comercialization check point project.
 - c) HF-SSB base stations installations may be diverted from Puerto Acosta and Copacabana to Charaña and Tambo Quemado if latter have higher priority.
3. FY-80 Program - In preparation to provide necessary HF-SSB and VHF/FM communications to balance of 23 cities not so equipped and



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to established check points.

4. Telecommunications Manpower Requirements.

- a) It is understood that two additional telecommunications technicians will be contracted for a total of seven by June 30, 1979. These will be employed as follows:
- (1) Two Technicians-Maintenance La Paz, mobile unit installations, radio repair laboratory.
 - (2) Two technicians - field installations.
 - (3) Two technicians - field maintenance and installations.
 - (4) One technician, chief, programs, direction, instruction.
- b) It is assumed that a programmed maintenance schedule of all installed equipment is in effect to maintain all teletype, HF/SSB and VHF/FM base station and mobile units, in optimum operating condition and with acceptable incidence of inoperative units.

5. Problem Areas Requiring Resolution.

- a) Mobile units - vehicle to be taken to DNSP headquarters for removal, repair or installation of mobile units. Telecom technicians should not be permitted to remove equipment at the vehicle maintenance center and to personally transport it from that center to DNSP headquarters.
- b) Components stock at Telecommunications Center.
- 1) The Telecom Chief should be authorized to withdraw from stock in advance a one month supply of transistors, diodes, resistors, condensers and other components he estimates to be required in normal equipment maintenance operations.
 - 2) Commodities specifically procured for telecommunications personnel training should be released to the Telecom Chief for that purpose - not maintained in stock uselessly. Examples: MAV-PAK training materials, telegraphy code instruction materials.
 - 3) Spare Equipment Units - One spare equipment unit of each type should be readily available for emergency replacement purposes - TCC Privacy Unit, SS-745 Subscriber set, VHF/FM mobile transceiver, HT single unit battery charger.
 - 4) HT Rechargable battery units.

These normally have a life of approximately two year in service. A number of these have deteriorated so that they will not hold a charge for a more than a few hours. 36 hours is normal. Batteries in stock become useless on the shelf in approximately five years. These should be released to the telecom maintenance shop for replacements of deteriorated units in La Paz and in field maintenance operations.

Replacement units should be placed on order within the next year.

- c) Transportation for telecom operations in La Paz.

For local procurement of installation and maintenance materials and for inspection and maintenance of the El Alto repeater DNSP provided transportation would result in less wasted time and more effecient telecom division operations.

6. Comments:

- a) The Telecommunications Division performance is highly commendable in terms of the quality of its installations and the maintenance results to date. More stations are in service than was originally contemplated under the program, new frequencies on HF/SSB are providing excellent transmission results, all equipment available in country is in service and only flood damaged equipment is out of service. (One VHF/FM mobile repeater and one HF/SSB mobile transceiver)
- b) Programming for FY 1979 through FY 1981 provides for increasing telecommunications support well integrated with DNSP operations growth in narcotics traffic ontrrol and coca production control.

COCA PRODUCTION CONTROL PROJECT FY-79

	HF-SSB		VHF/FM				D.C. POWER			
	Base	Mobile	Base	Repeater	Mobile	HT	Chg(s)	Batt.	Chg.	Gen.
1. Chuquiaguillo										
2. Sencata						1	1			
3. Rio Seco						1	1			
4. Caranavi	1		1			1	1			
5. Oruro						3	2			
6. Caracollo				1		1	1			
7. Santa Cruz			1			1	1			
8. Angostura						1	1			
9. La Guardia						1	1			
10. Montero						1	1			
11. Camiri	1		(1)		1	3	2			
12. Puerto Suarez			1			2	2			
13. Sucre	1		(1)		1	(3)	(2)			
14. Tarija			1			2	2			
15. Bermejo	1		(1)			(3)	(2)			
16. Yacuiba			1		1	2	2			
17. Cochabamba			1		1	3	2			
18. Corani	1					1	1			
19. Parotani	1		1			2	2			
20. Totora	1		1			2	2			
21. Puerto Villarroel	1		1			2	2			
22. Potosí	1		1			2	2			
23. Villazón	1		1			2	2			
UNITS	10		12			2	2			
\$000	40		36	1	4	36	32			
24. Trinidad				6	12	36	4			
25. Guayaramerín			(1)		1	(3)	(2)			
26. Copacabana	1		(1)		1	(3)	(2)			
27. Puerto Acosta	1		1		1	2	2	2	1	1
28. Desaguadero	(1)		1		1	2	2	2	1	1
29. Uyuni	1		1		1	2	2	(2)	(1)	(1)
30. Cobija	(1)		1		1	2	2	2	1	1
31. Charaña	1		1		1	2	2	2	1	1
32. Tambo Quemado	1		1x		1	2x	2x	2	1	1
UNITS	5		5		1	2x	2x	2	1	1
\$000	20		15		9	10	10			
					36	10	1.2			

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	HF-SSB		VHF/FM				D.C. POWER			
	Base	Mobile	Base	Repeater	Mobile	HT	Chg (S)	Batt.	Chg.	Gen
33. Santa Cruz										
34. La Paz										
35. Chulumani	(1)	(1)	Lx		(1)	(3)	(2)			
36. Villa Tunari	(1)	(1)	Lx		(1)	(3)	(2)			

- NOTES:
1. () Furnished from FY-78 funds PA/C N° 703124
 2. Items 1 through 23 value \$134,000
 3. Items 24-32, 5 HF-SSB only, \$15,000
 4. Balance items 24-36 \$44,000 - for FY-80
 5. x Added to FY-79 PA/C Draft approximately \$20,000

La Paz, April 27, 1979.

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UNITED STATES GOVERNMENT

Memorandum

TO : MR. CARLOS LOPEZ, NCU

DATE: May 3, 1979.

FROM : JOSEPH VASILE, RTT



SUBJECT: BOLIVIA CUSTOMS - PRELIMINARY TELECOM PROPOSAL

1. Background

- a) Customs long range communications transmitted by Ministry of Finance during business hours.
- b) Customs have all needed vehicles for mobile operations. They plan to use two radio equipped vehicles at each Region (8) and one at each district headquarters (16).
- c) Locations of Regional and District Headquarters are the same as DNSP Headquarters nationally.

2. Policy Proposed

- a) DNSP handle Customs long range transmissions 24 hours daily - by teletype or HF-SSB.
- b) Interconnect DNSP and Customs by teletype where DNSP teletype established.
- c) Provide Customs with VHF/FM Base Stations 24 cities.
- d) Equip Customs vehicles with Convertacom Handie-Talkie Mobile Units.
- e) Allocate three handie-talkies each vehicle.
- f) Provide one common VHF frequency Customs/DNSP.
- g) Provide repeater at La Paz on Customs frequency at DNSP El Alto using DNSP building and tower.
- h) Customs to provide initial technical staff of two technicians - later four.
- i) Provide Maintenance Test Equipment and tools for shop and field repairs.
- j) Customs to provide towers and installations materials as required.



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k) Customs pay telephone line fees.

3. Estimated Commodity Requirements for (2)

<u>Item</u>	<u>Qty</u>	<u>Description</u>	<u>Cost</u>
1	4	Siemens Teletype, ASR 100	14,000
2	4	Switching units, TTY auto	4,000
3	24	VHF/FM Base Stations	72,000
4	32	Convertacom, Mobile Units	20,000
5	96	Handie-Talkie Transceivers	96,000
6	1 lot	Test Equipment, tools	8,000
7	1 lot	Spare parts	20,000
			<u>234,000</u>

4. Comments

- a) Suggest Customs implementation be integrated with DNSP Telecom Project over FY-80/81.
- b) Program depends upon DNSP acceptance of telecom policy in (2)
- c) PRO-AG should include 2 h, j, and i.
- d) Customs has frequencies for VHF to meet with DNSP, attached.

La Paz May 3, 1979.

DNSP IN SERVICE

VHF/FM Base Station, Mobiles, HT.

	<u>TR</u>	<u>REC.</u>
Channel 1	152.200	151.600
Channel 2	152.100	152.100
Channel 3	152.000	152.000
Channel 4	151.600	152.200
Repeater	151.600	152.200

CUSTOMS - PROPOSED

Channel 1	152.300	151.700	common
Channel 2	152.100	152.100	
Channel 3	152.300	152.300	
Channel 4	152.400	152.400	
Repeater	151.700	152.300	

UNITED STATES GOVERNMENT

Memorandum

TO : Mr. Harry Allison, Customs Advisor

DATE: April 11, 1979

FROM : J. A. Vasile, Regional Telecom Tech.

SUBJECT: Narcotics Control - Customs Telecom Project - Leticia
Telecommunications Investigation.

Ref: Vasile/McIntyre Colombia Customs Telecom Study,
memo dated April 2, 1979.

1. On site investigation was made at Leticia April 7-9 to determine telecommunications improvement possibilities of Customs installation and prospects of Telecom Colombia availability of teletype channel facilities for programmed Customs teletype network.
2. The HF-SSB installation comprises an RF communications HF-SSB base station transceiver model 201-B coupled to a long wire antenna through an automatic antenna tuner. The height of the towers on which the antenna is suspended is 12 meters. The Customs radio operator reports marginal communications with Bogota on a single useable frequency, 10800 Khz.
3. On consultation with a technician at Colombia Telecom, Leticia, he reported that communication with Bogota on their HF-SSB installation was also unreliable. He also showed the progress on on-site construction of an OKI ground station for satellite communications with Bogota, identical with the one installed at San Andres, previously reported. This facility will have a 48 voice channel capacity, two of which will be dedicated to 48 teletype channels. Inauguration of service is scheduled for August 7, 1979. Accordingly, a teletype channel will be available from this point as programmed in the Customs telecom study.
4. On the basis of the availability of the teletype channel to Bogota as described in 3, preceding, recommendations for HF-SSB circuit improvement are limited to economical measures as follows:
 - a) Increase height of Customs towers from 12 meters to 18 meters by providing two 3 meter sections for each tower of identical construction as existing towers.



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- b) Provide top section of one of these towers with added galvanized tubing 2 inches in diameter to permit mounting of a UHF/FM 7.5 DB gain antenna.
 - c) Provide a new channel in the 12-13 MHz range.
5. The proposed program for Leticia provides:
- A. (1) a teletype circuit entering the Customs teletype switching system by FY-80; (2) an improved HF-SSB installation for the emergency voice/cw network, and (3) a UHF/FM local communications capability over an 80 Km range for local enforcement operations in FY-79.
 - B. The new HF-SSB channel frequency in the 12-13 Mhz ranges is being requested by Colombia Customs for service Bogota-Leticia and Bogota-San Andres.
6. Space is available in a military installation adjacent to Customs for construction of a rhombic antenna if desired by Customs. U.S. should fund only cost of copperweld wire, insulators, impedance matching transformer and coaxial RGS/U cable for such construction, approximately \$1,000, as for San Andres. Tower fabrication, transportation and construction costs should be borne by GOC.

JAV/lf