

(REV. 4/71)

STATE LAW ENFORCEMENT PLANNING AGENCY

FOR SLEPA USE ONLY

DISTRICT FUNCTIONAL CATEGORY

APPLICATION FOR LAW ENFORCEMENT  
ACTION GRANT

(Under Part C Title I Public Law 90-351)  
(As amended by Public Law 91-644)

PROJECT # DATE RECEIVED

TRANS. # DATE APPROVED

PART A - PROJECT DATA

1. PROJECT TITLE Public Safety Communications, Phase II
2. TYPE OF APPLICATION (check one) ☒ Initial ☐ Revision ☐ Contin.
3. APPLICANT AGENCY Columbia Region Association of Governments
4. ADDRESS 6400 S.W. Canyon Court, Portland, Oregon 97221
5. LOCATION OF PROJECT City/County Communications Center  
on Kelly Butte, Portland, Oregon
6. PROJECT DURATION From: July 1, 1975 To: June 30, 1976
7. PROGRAM AREA (see instructions) P.L. 93-83, Section 301 (b) (1)
8. DESCRIPTION OF PROJECT (describe in detail on ATTACHMENT 1)
9. BUDGET (see instructions--provide itemization as called for on ATTACHMENT 2)
10. TOTAL ESTIMATED COSTS (Including non-federal share)

SOURCE OF FUNDS	FY <u>75-76</u>		FY _____		FY _____	
	\$	Amount	\$	Amount	\$	Amount
FEDERAL	90	465,424				
STATE						
LOCAL GOVERNMENT	10	51,714				
OTHER						
TOTAL		517,138				
11. SPECIFY HOW NON-FEDERAL SHARE WILL BE PROVIDED: The hard cash  
match will be provided from Multnomah County General Fund.

12. PROJECT DIRECTOR

Name Richard Schleich

Title Deputy, Sheriff's Office

Address 222 S.W. Pine Street

Tel. No. (503) 248-4075

Portland Oregon 97204

Portland, Oregon 97221

The participating jurisdiction(s) or agency(s) expended or budgeted for law enforcement programs and activities the following amounts for the fiscal years as indicated below:

[illegible]

- Attachment 1: Description of Project  
Attachment 2: Project Budget  
Attachment 3: Significance of Project in District Program  
Attachment 4: Significance of Project in State Program

Signature of agency official \_\_\_\_\_ Date \_\_\_\_\_

Chairman, Board of  
County Commissioners

## ATTACHMENT 1

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### PART A - ITEM 8. DESCRIPTION OF PROJECT

#### a. The Problem

The City of Portland and Multnomah County (hereafter referred to as City/County) have recognized the need to increase the level of police service to the approximately 556,000 people who live within the incorporated and unincorporated areas of Multnomah County. The City and County have, pursuant to agreement,<sup>1</sup> undertaken a project designed to increase the level of police service by upgrading the link between the citizen and the police departments that serve them, police emergency communications.

Presently the residents of Multnomah County and the City of Portland are served by two police communications systems, the Portland Police Radio and the Multnomah County Sheriff's Radio. These two systems are unable to provide an increased level of service to the residents of Multnomah County for several reasons which are listed below:

1. Both systems operate independently and quite frequently one system duplicates the work being done by the other.
2. Both systems presently operate in facilities that are inadequate both in space and in security.<sup>2</sup>
3. Neither system is able to adequately handle peak loads.
4. Neither system is able to process citizen requests for assistance as efficiently as quickly as is necessary if response times are to be reduced.<sup>3</sup>
5. Neither system adequately records the large amounts of information they process daily.
6. The radio system of the Portland Police is totally inadequate both in the equipment itself and in the radio traffic loads this equipment must bear.
7. While the radio system of the Sheriff's Office is presently barely adequate to support its radio traffic loads, there is much consensus that considerable improvement must be made to prepare for predictable future increased loads.<sup>4</sup>
8. There are no present shared radio frequencies that allow City/County field units to coordinate their efforts.

The purpose of the ongoing City/County Communications Project is to eliminate the existing problems listed above. The City/County Communications Systems will move to a shared facility in the Kelly Butte Civil Defense Center this fall and begin operation in a temporary center. At the time of the move to Kelly Butte, the Portland Police will begin operating new 450 MHz radio equipment. Upon completion of the permanent center on the main floor at Kelly Butte in July, 1975,



## ATTACHMENT 1 (Continued)

the City and County will begin operations using a partially completed computer assisted dispatch system. Funding for the Sheriff's portion of the project to this point will have been provided by a Federal Discretionary Grant of \$277,779.

The monies from the Discretionary Grant will have provided the funds necessary to eliminate items number 1 and 2 listed earlier, and will have made substantial impact on items 3, 4 and 5. Complete elimination of the problems presented in items 3, 4 and 5, however, is dependent upon the completion of the computer assisted dispatch system. Additional funding is necessary to complete this system. Elimination of items 7 and 8 can come only from the upgrading of the Sheriff's radio equipment. To be precise, this means that the Sheriff's Office must take steps to procure radio equipment that is compatible with and with the same frequency capabilities as that which has been purchased by the City of Portland.

### b. Goals and Objectives

The goal of Phase II of the Public Safety Communications Project is to provide an increased level of police service to the residents of Multnomah County. Specifically, Phase II of this Project is designed to complete the computer-assisted dispatch system and to develop the first portion of the Sheriffs 450 MHz communications system.

The completion of the computer-assisted dispatch system will convert the City/County communications center from manual operations to a fully automated operation. The completed computer-assisted dispatch system will:

1. Automatically count all incoming calls for service, which will eliminate the lack of data regarding calls for service.
2. Automatically log all information switched between the complaint operators and dispatchers, which will eliminate the present lack of data regarding calls handled within the center.
3. Automatically log all messages requiring action by a dispatcher or field unit, which will eliminate the lack of data regarding message transactions.
4. Automatically log all unit status changed and the time spent within each status, as well as incident assignment. This will reduce the amount of time a dispatcher must spend in manually recording these transactions. This will also provide resource allocation data.
5. Automatically verify incident addresses, which will identify invalid addresses, receiving false calls and possible dangerous situations.

## ATTACHMENT 1 (Continued)

6. Automatically screen for multiple calls, which will reduce the number of units that might otherwise be assigned to the same incident.
7. Significantly reduce the amount of time spent in processing an incident, therefore reducing dispatch response time.
8. Provide detailed historical transaction data for statistical processing.

Also to be accomplished by Phase II of this Project is the procurement of enough 450 MHz radio equipment to provide the Sheriff's Office uniform force and key investigative units with equipment of similar capabilities to that already purchased by the Portland Police. The long range goal of the Sheriff's Office is total conversion to the 450 MHz frequency range, therefore we will seek additional federal funding at a later date to complete the conversion.

It is critical to the concept of City/County consolidated communications that the Departments have the same frequency capabilities. In order to make the most efficient use of manpower and equipment within the center, it is imperative that equipment with the same capabilities be obtained. Specifically, during periods of low activity (early morning hours), channel sharing would have a significant impact on the manpower required to operate the center.

Coordination of field operations involving both City and County units can be done efficiently only if these units have access to the same channels for car-to-car communications.

Conversion to 450 MHz equipment will provide the Sheriff's Office with up-to-date radio equipment and allow for the phase-out of the outdated vacuum tube-type equipment it presently operates. It is also important to look to the future loads and the frequencies required to handle them. Available frequencies in the Sheriff's present frequency range of 155 MHz are extremely limited. Therefore, it is necessary to look to 450 MHz for future expansion.

Phase II of the Sheriff's Communications Project is consistent with the philosophy that the Kelly Butte Center have the inherent capability and flexibility to become the Regional 911 and Emergency Communications Center. In other words, a completely consolidated Regional 911 communications system is the County's long range goal and everything in this grant is intended to be consistent with that goal.

### c. Project Activities

1. Completion of computer-assisted dispatch system.
  - Continued development of software. The hardware will already have been procured.
  - Training of our personnel for the automated system.

## ATTACHMENT 1 (Continued)

2. Development of the first portion of the Sheriff's 450 MHz radio system.<sup>10</sup>
  - Purchase of 450 MHz radio equipment.
  - Construction of two remote transmitter sites.
  - Installation and testing of the equipment as it is delivered.

Attached are three bar charts. The first illustrates the tasks to be completed with the funds requested in this grant. Chart 1 illustrates the tasks which we will complete in making the computer-assisted dispatch system fully automated. Chart 2 illustrates the tasks which we will complete in the first portion of our change over to a 450 MHz system. Chart 3 illustrates the tasks necessary to complete our 450 MHz system.

### d. Project Management

The City/County Consolidated Communications Project is under the management of the City of Portland's Office of Support Services, with purchase decisions, policy-making and management participation guaranteed to Multnomah County. The Project Manager is Sgt. Charles L. Taylor of the Portland Police Bureau. The Sheriff will be represented in the Office of Support Services by Deputy Richard Schleich, who will remain responsible to the Sheriff. This particular grant project will be totally administrated by the Department of Public Safety.

### e. Personnel

This grant request does not include the hiring of additional people to implement the project.

### f. N/A

### g. Participating Agencies

The Multnomah County Division of Public Safety (grant administration), the City of Portland (participation in joint communications project), and Multnomah County (source of local matching funds for this grant request).

### h. Project Evaluation

We have not included in our proposed project budget a request for funds to pay for evaluation. We are assuming that total City/County communications project evaluation will be performed by the High Impact program.

We realize, however, that the Sheriff's Office also has the responsibility to continually evaluate the progress of the Project. Before its start, it is our intention to develop a detailed work plan which will identify all work to be accomplished. By utilizing this (PERT) work chart, we will be able to evaluate the project progress. At termination, the Project can readily be evaluated by determining the amount of hardware and software that has been procured, installed and tested.

## ATTACHMENT 1 (Continued)

The Project can also be evaluated from the standpoint of statistical data that the new computer-assisted dispatch system generates. This statistical data can be used to determine system performance and can be the basis for any adjustments that the system might require. Project success can also be determined by comparing the data regarding response times and calls for service in the manual operation to data collected as the system becomes fully automatic.

### i. Alternative Methods

Since the computer-assisted dispatch system is an ongoing system, the alternative to completing it would be to stop the project at a point which would leave the new system in manual mode. We feel that the goals of the project cannot be reached unless the computer-assisted dispatch system is completed.

The alternative to the Sheriff's Office seeking a new 450 MHz radio system is to remain on its present frequencies, using its present equipment. We believe that this is inconsistent with the philosophy of a consolidated Multnomah County/City of Portland communications system. The benefits to be gained from a consolidated communications system are many but they cannot be fully realized if the City of Portland is on one frequency range and the Sheriff's Office on another.

### j. Assumption of Costs

This is not a continuing project. That is, the expenditures contemplated in this grant are one-time expenditures. However, we do contemplate requesting subsequent grants for Sheriff's communications as part of subsequent State Block Grant programs.

## ATTACHMENT 1 (Continued)

### Footnotes:

1. Attached to the back of the grant application is a copy of the agreement reached by Multnomah County and the City of Portland.
2. The Sheriff's Office present communications center is a series of three small rooms (total square footage: 750 sq. ft). The center was constructed in 1947 and remodeled in 1969. This center is not physically secure nor is it practical to redesign it to make it secure.
3. The National Advisory Commission Standard 23.2(2) suggests that delay time -- the elapsed time between receipt of a complaint call and the time of message radio transmission -- in the case of an emergency call does not exceed 2 minutes and in the case of a non-emergency call does not exceed 6 minutes. By 1978, Communications Center delay time for emergency calls should not exceed 1 minute and for non-emergency calls it should not exceed 4 minutes. A recent study conducted within the Sheriff's Communications Section indicated that within a 25-day period in early 1974, 308 routine calls (5.4%) were held in excess of 20 minutes, some being held by Communications for as long as 2 hours.
4. From 1970 to 1973, total transmissions per year increased by 110%, while calls serviced increased 13%.
5. A study conducted by PSSI, the consulting firm designing the new communications system, indicates that a dispatcher presently spends 45% of his time in manual status-keeping.
6. It would be unnecessary to operate all frequencies during this period. Therefore, if both City and County have the same frequencies, the number of dispatchers during this period could be reduced or reallocated to peak periods.
7. Incidents frequently occur in which coordination is most effective if information comes from the field units themselves. Therefore, when this type incident occurs near the City/County boundaries, it can be handled more efficiently if the City and County field units can coordinate themselves on a common frequency.
8. The National Advisory Commission on Criminal Justice Standards and Goals (1973) Standard 23.3 states: "Radio frequencies are a limited natural resource. Every police agency should immediately ensure that its radio communications system makes the most efficient use of this resource."
9. The specifications for the software will be completed in July, 1974, and contracts will then be issued through competitive bidding. The County's share of the first portion of software development will be funded by our Discretionary Grant. Since software development will continue into the Phase II period, we are asking for Block Grant funds in order to complete that development.

ATTACHMENT 1 (Continued)

10. Completion of the first portion of our new 450 system will occur in 1976. At this point, the department will begin using the new system for uniform field operations and for use by key investigative units. Because we will not be able to equip all of the department's vehicles with the new equipment requested in this grant, it will be necessary to retain our present 155 MHz equipment in all of our vehicles until future funding becomes available. During this interim period, those units not equipped with 450 MHz equipment will still be able to coordinate their activities with any other unit on our 155 MHz frequencies.



ATTACHMENT 2

PART A - ITEM 9. FIRST YEAR BUDGET DETAIL (Estimate)

(If additional space is needed, use BUDGET EXPLANATION page)

COST ELEMENT	FEDERAL SHARE	STATE/LOCAL SHARE	PROJECT TOTAL
<p>a. SALARIES AND WAGES</p> <p>Position <u>                    </u> % of Monthly <u>                    </u> time salary <u>                    </u></p> <p>N/A</p>			
<p align="right">Sub-Total Salaries</p>	\$	\$	\$
<p align="right">Employee Benefits @ <u>        </u> %</p>	\$	\$	\$
<p align="right">Total Salaries</p>	\$	\$	\$
<p>b. CONSULTANTS (List by individual or type)</p> <p>1) Software Development 111,913 12,712 124,625</p> <p>2) Project Management 898 102 1,000</p> <p>3) Training by contractor 3,367 383 3,750</p> <p align="right">Total Consultants \$ 116,178 \$ 13,197 \$129,375</p>			
<p>c. TRAVEL, TRANSPORTATION, SUBSISTENCE (Itemize)</p> <p>N/A</p>			
<p align="right">Total Travel</p>	\$	\$	\$



## ATTACHMENT 2 (Continued)

COST ELEMENT	FEDERAL SHARE	STATE/LOCAL SHARE	PROJECT TOTAL
d. OFFICE SUPPLIES, POSTAGE, PRINTING, ETC. (Itemize)			
N/A			
Total Office Supplies	\$	\$	\$
e. FACILITIES, OFFICE SPACE, UTILITIES, EQUIPMENT RENTAL (Itemize)			
1) Construction of two remote transmitter sites (buildings, towers, alarms, generators)	46,876	5,324	52,200
Total Facilities	\$	\$	\$
f. EQUIPMENT (Itemize)			
1) Base Station Equipment	134,611	15,939	150,550
2) Mobile Equipment	125,630	14,270	139,900
3) Computer Hardware Maintenance	26,266	2,984	29,250
Total Equipment	\$ 286,507	\$ 33,193	\$ 319,700
g. INDIRECT COSTS (10% x \$158,625)	15,863		15,863
Total Indirect	\$ 15,863	\$	\$ 15,863
TOTAL PROJECT COSTS	\$ 465,424	\$ 51,714	\$ 517,138

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ATTACHMENT 2 (continued)

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BUDGET EXPLANATION (use if additional space needed)

b. Consultants

Listed below is the software to be developed and the estimated costs of development. (The estimated costs were calculated by PSSI, the Design Consulting Firm).

Dispatch Software	\$102,950
Front End Processor Software	14,675
Data Management Subsystem/ CRISS Integration	7,000
Total	\$124,625

A contractor will also be retained for the training of communications personnel in the use of the automated system. Funds are also required for Project Management.

e. Facilities, Office Space, Utilities, Equipment Rental

Funds will be required for a maintenance contract for the computer hardware. The County will assume these costs at the end of the Grant period.

Multnomah County will construct two remote transmitter sites to enable County-wide radio coverage. One of these planned sites is located on Bonneville Power Administration property on Biddle Butte in Skamainis County, Washington. Cost of this site will be solely Multnomah County's responsibility. The other site is planned to be located at a present El Paso Natural Gas Company site at Rocky Point in northwest Multnomah County. El Paso Natural Gas Company is interested in sharing the costs of improving this site. We intend to finalize an agreement with them before the start of this grant period. El Paso Natural Gas Company has been contacted by PSSI, who believe an agreement for 50% cost sharing can be reached.

Building - Biddle Butte	\$20,000
Tower - Biddle Butte	6,100
Alarm System - Biddle Butte	900
40KW Generator - Biddle Butte	7,500
Building - Rocky Point	10,000 (County share)
Tower - Rocky Point	3,050 (County share)
Alarm System - Rocky Point	900
40KW Generator - Rocky Point	3,750 (County share)
Total cost of remote sites	\$52,200

f. Equipment

The equipment listed below is necessary for the first portion of the Sheriff's 450 MHz radio system. The design specifications for this equipment are presently being finalized as part of the design contract. Every attempt will be made to procure "off the shelf" equipment, therefore minimizing any custom construction required.

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ATTACHMENT 2 (continued)

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BUDGET EXPLANATION (use if additional space needed)

Base Station Equipment:

Transmitters	\$52,600
Receivers	11,500
Combiners	16,000
Multicouplers	6,800
Control Panels	50,000
Selection System	2,200
Cavities	1,650
Antennas	1,650
Cables	2,650
Connectors and Clamps	3,000
Spare Parts	<u>2,500</u>
	\$150,550

Mobile Equipment:

Mobile Radios	\$122,400
Portables	13,000
Duplexors for present radios	<u>4,500</u>
	\$139,900

g. Indirect Costs

The Indirect Costs figure for this grant was calculated pursuant to LEAA's formal approval on April 16, 1974, of an A-87 Plan for Multnomah County. As we understand that Plan, there are no "Indirect Cost" items associated with this request. Thus, all costs are "Direct Costs". We totalled the non-capital expenditure Direct Costs (\$129,000 + \$29,250) in order to arrive at a basis for the Indirect Cost rate. Then, we used a rate of 10% for the Indirect Cost calculation, in order to achieve substantial fairness for all parties concerned.