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DEPARTMENT OF  
GENERAL SERVICES

OFFICE OF THE DIRECTOR

CITY OF SACRAMENTO  
CALIFORNIA

5730 - 24TH STREET  
BUILDING FOUR  
SACRAMENTO, CA  
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DIVISIONS:

COMMUNICATIONS  
FACILITY MANAGEMENT  
FLEET MANAGEMENT  
PROCUREMENT SERVICES

July 1, 1988

Budget and Finance Committee  
Sacramento, California

Honorable Members in Session:

**SUBJECT: Communications Division Restructuring**

SUMMARY

The Department of General Services has reviewed the current contractual program for maintenance, repair, installation, and removal (MRIR) for General Government, Police, and Fire mobile voice and data communication systems. Based on our findings, this report recommends the re-direction of currently budgeted resources for implementation of in-house capability of taking over contractor services over the next two years.

BACKGROUND

In the "Continuing Issues" section of the 1988-89 proposed budget for the Communications Division (page 132) and with the Director's presentation at the Committee budget review held on May 17, 1988, the Committee was advised this report would be forthcoming.

Currently, the City is in its third year of a five year contract with Motorola Communications and Electronics, Inc. for the maintenance, repair, installation, and removal of Local Government, Fire, Police, Communications Center, and fixed base radio systems and equipment. Additionally, with the installation of Mobile Data International's Mobile Data Terminals (MDT's) and fixed base equipment for Fire and Police; maintenance, repair, installation and removal must be provided. MDI has provided a service agreement proposal for on site, two times per week, service.

The Communications Manager, on a day-to-day basis, is responsible for the management of the City's fire alarm system, the Centrex telephone system, and radio communications systems. All matters pertaining to technical and operational matters involving communications systems (i.e., purchase, installation, repair, application for new frequencies, maintaining licensing of currently authorized systems), evaluation and modification, are handled personally by the Division Manager. Mr. Costa is extremely busy dealing with the day to day brush fires, leaving little time available for long range planning, besides delaying projects that are not related to the public's safety (See Exhibit I). In addition, a City-wide Security System Master Plan and Communications Master Plan are in progress. An additional staff resource to support the division planning needs and assist the Division Manager with technical support, etc., in the form of a Communications Engineer (1-FTE) is required immediately.

IMPLEMENTATION PLAN OVERVIEW

A two year, four phase process is planned to provide the required staffing and equipment for the assumption of all maintenance, repair, installation, removal of mobile voice and data communication systems with in-house staff and alleviate the current mode of reacting to problems and crisis which is extremely costly and inefficient when decisions are made without the benefit of a master plan. The resources required to support this plan are as follows:

- 1 - Communications Engineer
- 2 - Telecommunication/Digital Technicians
- Service and Supplies
- One time start-up costs for equipment

The four phased implementation planned for a reasonable lead time (Refer to Exhibit II) is outlined as follows:

<u>Phase</u>	<u>Period</u>	<u>Description</u>
I	FY88-89	Purchase equipment - one time start-up cost \$70,500
		2 trucks with radios
		test equipment
		shop fixtures
		computer equipment
		tools

<u>Phase</u>	<u>Period</u>	<u>Description</u>
II	FY88-89	Hire 1 FTE Communications Engineer in early September 1988  Hire 2 Telecommunication/Digital Technicians early November 1988 in order to assume responsibility for MDT MRIR  Notify Motorola in March of 1989 that on July 1, 1989 City will assume responsibility for M, R, I, and R of Local Government and Fire Mobile Radio Systems, also, assume Frontier's servicing
III	FY89-90	Hire 1 FTE Telecommunication/Digital Technician beginning of fiscal year to assume responsibility for Local Government and Fire Mobile Radio Systems  Notify Motorola in March 1990 that on July 1, 1990, the end of the 5 year contract, the City will assume responsibility for M, R, I, and R of Police Mobiles, Communication Center, and fixed base equipment
IV	FY90-91	Hire 2 FTE Telecommunication/Digital Technicians at the beginning of fiscal year to assume responsibility for M, R, I, and R of Police Mobiles, Communication Center, and fixed base equipment

#### ANALYSIS/FINDINGS

Staff has looked into other public agencies - Cities of Fresno, San Jose, Santa Clara - Counties of Monterey, Santa Clara, Orange, Yolo, Solano, San Mateo - State of California, and SMUD - who are performing communication equipment servicing with in-house staff. Staff's findings were that their shops are operating efficiently, their performance is successful, and they are capable of handling problems in a responsive and timely manner. In addition, they are more cost effective when compared to contractual services. There are numerous other subjective but logical soft/hidden dollar savings from the user's side that are difficult to document.

In reviewing the current Motorola and proposed MDI contract for mobile voice and data communications systems for the annual cost of the services, we have determined that with the requested in-house staff we can provide services equal to, if not better than those being provided under the contract. Also, there will be a reduction of lost time by having all related services provided at one point, as opposed to having two different vendors maintaining equipment that is integrated into one system.

FINANCIAL IMPACT

No increases in funding will be required for the proposed FY88-89 operating budget. (Ref. Exhibits III and IV) Funding for servicing and maintaining mobile voice and data communications systems is provided for in the systems user's operating budget that will cover the in-house servicing costs. The cost of the Communications Engineer will come from Budget 1953, line 4202 thereof, resulting from savings created by cost cutting system improvements and enhancements. The proposed plan should result in a savings (i.e., in-house vs. contractual services) of approximately \$1.2 million over a 10 year period. Approximately \$250,000 of this savings needs to be set aside for the construction of a permanent repair facility.

Additionally, staff will be returning with a report on establishing an equipment depreciation account for replacement of communications equipment based on a usable life cycle. This would eliminate the need for annual budgeting in the operating budget for equivalent replacement cost.

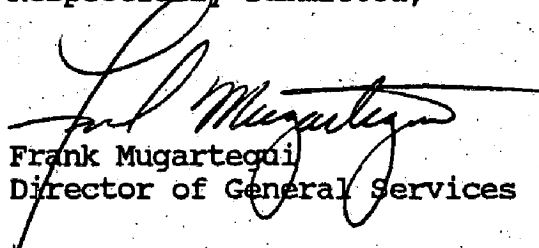
CONCLUSION

Based on our analysis and findings, the proposed program will provide the City a better level of service and over the long term result in cost savings for the City Communications service requirements, etc.

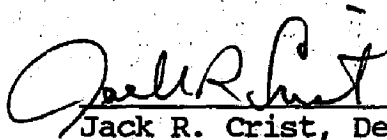
RECOMMENDATION

It is requested that the Budget and Finance Committee direct staff to forward this report to the City Council with Committee's recommendation for their adoption of the attached Resolution.

Respectfully submitted,

  
Frank Mugartegui  
Director of General Services

Recommendation Approved:

  
Jack R. Crist, Deputy City Manager

July 12, 1988

CITY OF SACRAMENTO  
COMMUNICATIONS DIVISION  
INVENTORY OF PROJECTS

	<u>In Process</u>	<u>Pending</u>
. PD MDT Installation	X	
. MDT Project Management	X	
. MDT Negotiations	X	
. Fire Dispatch Systems	X	
. Water Department 960 MHz		X
. Local Government Channel 4		X
. Replacement of Convention Center Radios		X
. City Hall Council Chambers - Multi Media Project	X	
. City-Wide Security System		X
. PD Substation Security System		X
. Private Pay Telephones		X
. Inventory Telephone Equipment		X
. Inventory Telephone Lines		X
. Inventory and Directory Local Government Radio System		X
. Cenpac Vs. Swordpac Pac Bell Centrex Management System		X
. Maintenance and Contract Administration	X	
. Uniform Call Distribution Selection for PD and Utility Billing	X	
. Sound System Selection for Personnel	X	

	<u>In Process</u>	<u>Pending</u>
. Answering Machine Selection for Personnel and Purchasing	X	
. Disaster Plan	X	
. Communications Master Plan	X	
. Radio Specifications for PD and Local Government	X	
. License 2 Emergency Operation Center Control Stations		X
. License Microwave for Centrex Line Replacement		X
. License Water Department Microwave		X
. Planning Department Phone System bid	X	
. Pager Service Bid	X	
. Police South Area Voting Receiver		X

COMMUNICATIONS DIVISION  
RESOURCE RE-DIRECTION  
TIME LINE

	FY88-89				FY89-90			
	Jul-Aug	Sept-Dec	Jan-Mar	Apr-Jun	Jul-Aug	Sept-Dec	Jan-Mar	Apr-Jun
<b>CONTRACTUAL SERVICES</b>								
o Motorola Contract (#45282)	3rd Yr. of Con.		4th Yr. of Contract		5th Yr. of Contract			
I Local Gov. Radio System	X			X				X
II Fire Systems	X			X				X
III Police System	X			X				X
IV Communication Center & Fixed Base	X			X				X

5 year contract (7/1/85 to 6/30/90)

Refer to Exhibit III for additional information

o Frontier Service (Bid #866)	X			X				X
o MDI - MDT's Fire and Police Installation	X	X						
90 Day Warranty Period		X	X					
Maintenance Begins (Dec. 88)			X					X

COMMUNICATIONS DIV. ASSUME RESP.

o MDT Maintenance-Dec. 88			X					X
o Local Gov., Fire & Frontier Service-July 89					X			X
o Police & Communications Ctr.-July 90								X

RESOURCES TO SUPPORT PROGRAM

o Staffing 1-Communications Engineer			*Hire Sept. 1, 88					
5-Telecommunications/Digital Tech.			*2 FTE Oct. 88		*1 FTE July 89			*2 FTE July 90
o Initial Start-Up Costs:	X							
2 Trucks w/Radios		\$29,000						
Test Equipment		31,000	*					
Shop Fixtures		7,500	Order					
Digital Equipment		3,000	in June					
		\$70,500						

EXHIBIT III

- o Motorola Communications and Electronics, Inc.  
 Contract 5 Years - 7/1/85 Through 6/30/90 (45202)  
 Renewable Annually W/Rate Adjustments of 2% + CPI  
 Contract Provides - Maintenance, Repair, Installation, and Removal

Annual Cost -

		<u>Budget FY87-88</u>	
	<u>Std.</u>	<u>Non-Std.</u>	<u>Total</u>
I Local Government Radio System	\$ 20,193	\$18,534	\$ 38,727
II Fire System	21,394	3,606	25,000
III Police System	54,347}		
IV Communications Center	} 46,237		130,000
& Fixed Base Equipment	<u>29,416}</u>		
		<u>46,237</u>	
			<u>130,000</u>
TOTAL 87-88	<u>\$125,350</u>	<u>\$68,377</u>	<u>\$193,727</u>

Est. 88-89 \$208,000 + Added Equipment  
 Est. 89-90 \$230,000 + Added Equipment

- o Mobile Data International Proposal for Maintaining MDT's

1st Year Price for Monthly Service \$8,519

Annualized Cost for Standard \$102,228  
 Estimated Non Standard @ 25% 25,000

TOTAL 1ST YEAR \$127,228 + Added Equipment

Estimated FY 88-89 Costs for 7 Months Assuming Warranty Ends November 11

\$8,519 x 7 months = \$59,633 Standard  
15,000 Non-Standard

\$74,633 + Added Equipment



	<u>FY87-88</u>	<u>FY88-89</u>	<u>FY89-90</u>	<u>FY90-91</u>	<u>3 Year Program Total</u>
<u>CURRENT BUDGETED FUNDS</u>					
Communications Div. 1953					
Line 4202	\$562,199	\$552,000	\$580,000	\$610,000	\$2,304,199
Various Activities -					
Motorola Service	193,727	215,300	234,200	247,000	890,227
MDI Service	-0-	75,400	134,500	141,600	351,500
Frontier Service		11,600	14,400	15,400	41,400
<b>TOTAL PROGRAM FUNDING</b>	<b>\$755,926</b>	<b>\$854,300</b>	<b>\$963,100</b>	<b>\$1,014,000</b>	<b>\$3,587,326</b>

RE-DISTRIBUTION OF BUDGETED FUNDS TO PROVIDE FOR IN-HOUSE PROGRAM

Telephone Budget Savings (1953 Line 4202)	\$ 53,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 203,000
MDT Service	-0-	74,550	134,500	141,600	350,650
Motorola Service	-0-	-0-	73,000	247,000	320,000
Frontier Service	-0-	-0-	14,400	15,400	29,800
<b>TOTAL FUNDING AVAILABLE TO SUPPORT PROGRAM</b>	<b>\$ 53,000</b>	<b>\$124,550</b>	<b>\$271,900</b>	<b>\$454,000</b>	<b>\$ 903,450</b>

FUNDING REQUIRED TO SUPPORT PROGRAM

Staff: 1 Communications Engineer	-0-	\$ 42,000 (1 FTE 10 mos.)	\$ 50,400 (1 FTE)	\$ 53,000 (1 FTE)	
5 Tele/Digital Techs	-0-	48,300 (2 FTE 8 Mos.)	123,000 (3 FTE)	215,000 (5 FTE)	
OS&S Vehicle Rental	-0-	2,400	5,400	9,000	
Uniforms	-0-	350	900	1,500	
Misc. Supplies	-0-	11,000	15,000	25,000	
<b>SUB-TOTAL</b>	<b>-0-</b>	<b>\$104,050</b>	<b>\$194,700</b>	<b>\$303,500</b>	<b>\$ 602,250</b>
Equipment					
4 Trucks W/Radios	\$ 29,000 (2)		\$ 30,000 (2)	-0-	
Test Equipment	22,000	9,000	18,000	9,000	
Shop Fixtures		7,500	5,000	-0-	
Digital Equipment		3,000	-0-	-0-	
Tools	2,000	1,000	2,000	-0-	
<b>SUB-TOTAL (4630)</b>	<b>\$ 53,000</b>	<b>\$ 20,500</b>	<b>\$ 55,000</b>	<b>\$ 9,000</b>	<b>\$ 137,500</b>
<b>TOTAL FUNDING REQUIRED</b>	<b>\$ 53,000</b>	<b>\$124,550</b>	<b>\$249,700</b>	<b>\$312,500</b>	<b>\$ 739,750</b>
<b>ESTIMATED SAVINGS</b>	<b>\$ -0-</b>	<b>\$ -0-</b>	<b>\$ 22,200</b>	<b>\$141,500</b>	<b>\$ 163,700</b>

# RESOLUTION NO.

ADOPTED BY THE SACRAMENTO CITY COUNCIL ON DATE OF

RESOLUTION APPROVING THE REPORT OF THE  
DIRECTOR OF GENERAL SERVICES AND AMENDING THE  
1988-89 COMMUNICATIONS DIVISION OPERATING BUDGET  
TO IMPLEMENT AN IN-HOUSE TELECOMMUNICATIONS PROGRAM

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF SACRAMENTO THAT:

1. The report and recommendations are hereby approved for the redistribution of budgeted funding to accommodate the development of in-house capability to assume complete maintenance, repair, installation, and removal services for City mobile voice and data communication systems over the next two years, without any additional appropriation augmentation of the Operating Budget.
2. The 1988-89 Operating Budget is hereby amended to provide for:

101-190-1964-0000-41XX	90,300	Employee Services
101-190-1964-0000-42XX	16,750	Service & Supplies
101-190-1964-0000-4630	70,500	Equipment
101-190-1963-0000-4202	<50,000>	Transfer
101-190-1964-0000-4374	<74,550>	Various User Charges
101-710-7012-0000-4999	<53,000>	1987-88 Carry Over

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MAYOR

ATTEST:

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CITY CLERK