

Department of Communication



ANNUAL REPORT

IN COUNCIL

RESOLVED THAT
CERTIFICATE BE
Providence Department

1986



Telecommunications Department

"Building Pride In Providence"

July 28, 1987

Mr. Joseph R. Paolino, Jr.
Mayor of the City of Providence
City Hall
Providence, RI 02903

Dear Mayor:

With this annual report we have attempted to chronicle the duties and the responsibilities of the Department of Telecommunications.

We have also included information and statistics that assist us in determining proper response to different types of alarms.

We have gathered information from different City and State agencies such as the Fire Department, Water Supply Board, Tax Assessors Office, and the Department of Economic Development. I wish to extend my gratitude for their unselfish help and cooperation.

This department now and in the years ahead is dedicated to constantly reducing costs for telecommunication services.

This year we have requested that a new classification - telephone technician be added to our roster.

This person will assist us in further efficiencies and cost reductions by working to upgrade existing systems to reflect the latest state of the art technology, by inventorying and purchasing telephone equipment and telephone lines wherever possible and by performing our own repair service and preventive maintenance program.

I wish to express my sincere thanks to John Roach the Deputy Director, for his efforts in compiling the statistics and information illustrated in this report. He also deserves much credit for supervising the gathering of the information and for his excellent presentation of all the statistical information.

I wish also to express my sincere thanks and appreciation to all the members of the Communication Department for their splendid efforts throughout the year and for their cooperation in the compiling of this report.

This past year the City and the State Emergency 911 Commission agreed to locate the statewide E-911 Center in our Communication Building.


The Executive Director and Assistant Director are on board readying their space in the building and working with the New England Telephone Company to assist them in gathering data from the 39 cities and towns. They contemplate being fully operational by the spring of 1988.

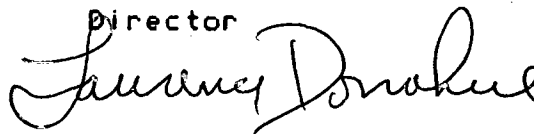
We are looking forward to working closely with the 911 people and feel our association will benefit all of the citizens of our state.

I would also take this opportunity to thank you for my appointment this year to head this fine department.

I will do my best to uphold the standards set by my predecessors, especially Alfred J. Mello, the former Director whose efforts throughout his 35 years of public service have shaped this department into the modern Communications Center that it is today.

Sincerely yours,


Lawrence Donahue
Director



LD/cp



Telecommunications Department

"Building Pride In Providence"



DIRECTOR
LAWRENCE DONAHUE

SECRETARY
CINDY PARENTE

DEPUTY DIRECTOR
JOHN A. ROACH

CHIEF RADIO ENGINEER:
EUGENE GIANFROCCO

RADIO ENGINEER:
JOHN LANGSHAW

RADIO REPAIR TECHNICIAN:
ANTHONY DESMARIS

FIRE ALARM INSPECTION:
PAUL BIELLO

TELEPHONE OPERATORS:
ROSE BROCK
ROBIN GLANCEY
CHERYL HAGERTY

TELEPHONE TECHNICIAN:
GILBERT BILODEAU

CABLE FOREMAN:
MANUEL VIEIRA

CREW:
FRANCIS DUFFY
RAYMOND PATTON
RICHARD REBELLO

LINE FOREMAN:
HERBERT WOODWARD

CREW:
JOSEPH HEALEY
PAUL REALL

CHIEF DISPATCHER OF CONTROL
HENRY TRAINOR
(CAPT.)

LT. IN CONTROL ROOM:
MICHAEL BURNS
ROBERT BUTLER
JOSEPH REBEIRO
RAYMOND LAFFEY
ALFRED LAMOTHE
JOHN PRATT

CONTROL ROOM DISPATCHER:
DANIEL BYRNE
MITCHELL FEDERICO
DOUGLAS GEORGE
RAYMOND JARVIS
JOHN LANZONE
EDWARD MARTIN
JOHN MCDONALD
STEPHEN MOISE
ROBERT PAPA
JOSEPH RICHARDSON
FRANCIS SWEET
RAYMOND VEZINA

PROVIDENCE, THE CAPITAL CITY OF RHODE ISLAND, SITUATED AT THE HEAD OF NARRAGANSETT BAY, HAS A POPULATION OF 160,000 AND AN AREA OF 20.0 SQUARE MILES MINUS 1.9 MILES OF INLAND WATERS.

PROVIDENCE HAD A DENSITY OF 8,663 INHABITANTS PER SQUARE MILE OF LAND AREA IN 1980, AND IT HAS INCREASED SINCE.

PROVIDENCE IS INTERSECTED BY TWO MAJOR STREAMS (THE WOONASQUATUCKET AND THE MOSSHASSOCK) AND SHARE 10 MILES OF COMMERCIAL WATERFRONT WITH EAST PROVIDENCE.

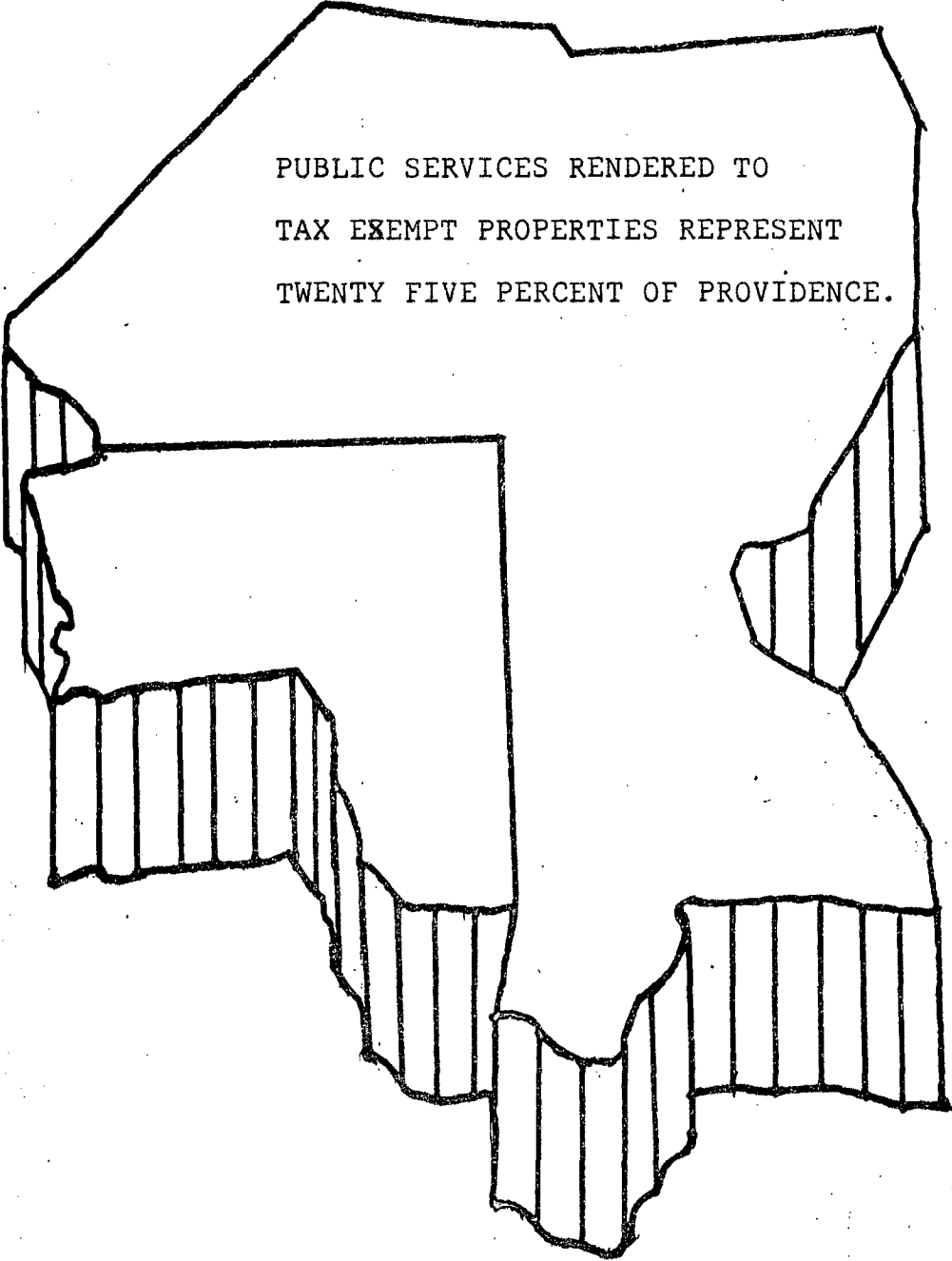
THERE ARE 372 MILES OF STREETS AND HIGHWAYS IN PROVIDENCE AND APPROXIMATELY 14 MILES OF THIS TOTAL ARE OWNED AND MAINTAINED BY THE STATE.

TO PROTECT THIS AREA THE PROVIDENCE TELECOMMUNICATIONS DEPARTMENT HAS 1,380 FIRE ALARM BOXES THROUGHOUT THE CITY WITH 55 MILES OF UNDERGROUND CABLE AND 138 MILES OF AERIAL CABLE. THIS IS BACKED UP BY A GRID SYSTEM OF 3,032 FIRE HYDRANTS WITH 160 OF THEM BEING HIGH SERVICE.

ALSO WITHIN THE CITY'S BOUNDARIES ARE OVER 1921 PARCELS OF PROPERTY WHICH ARE TAX EXEMPT, BUT STILL THE RESPONSIBILITY OF OUR FIRE ALARM SYSTEM PROTECTION. SOME OF THE LARGER EXEMPT PROPERTIES ARE:

COLLEGES
HOSPITALS
PROVIDENCE HOUSING
CITY OF PROVIDENCE
STATE OF RHODE ISLAND
UNITED STATES GOVERNMENT
SCHOOLS
CHURCHES
RI HOUSING AUTHORITY

CHECK THE FOLLOWING TABLES FOR OUR WORK IN THIS AREA.



PUBLIC SERVICES RENDERED TO
TAX EXEMPT PROPERTIES REPRESENT
TWENTY FIVE PERCENT OF PROVIDENCE.

F-1

COMMUNICATIONS DEPARTMENT

DATE: JANUARY 2, 1987

FROM: CAPT. HENRY F. TRAINOR, JR. CHIEF DISPATCHER, B.O.C.

TO: LAWRENCE DONAHUE, DIRECTOR OF COMMUNICATIONS

SUBJECT: 1986 ANNUAL REPORT FOR THE BUREAU OF OPERATIONS AND
CONTROL

SIR:

THE PRINCIPAL DUTY OF THE BUREAU OF OPERATIONS AND CONTROL IS THE ACCURATE INTERPRETATION OF ALL EMERGENCY ALARMS AND TRANSMISSIONS OF SAME TO THE PROPER APPARATUS OF THE FIRE DEPARTMENT.

ATTACHED IS A BREAKDOWN OF ALL TYPES OF ALARMS TRANSMITTED DURING 1986 COMPARED WITH 1985.

THE TOTAL NUMBER OF ALARMS TRANSMITTED DURING 1986 HAS INCREASED. THE LARGEST INCREASE BEING IN RESCUE CALLS AND LOCKOUTS. ALL OTHER ALARMS SHOWED A DECREASE.

THIS OFFICE IS RESPONSIBLE FOR THE KEEPING OF ALL RECORDS FOR ALL ALARMS TRANSMITTED TO THE FIRE DEPARTMENT. WE ALSO RECORD ALL TESTS BY COMMUNICATIONS DEPARTMENT PERSONNEL, INSURANCE COMPANIES, AND OTHER AUTHORIZED AGENTS. THIS RECORD KEEPING REQUIRES THE SERVICES OF ONE MAN TO RECEIVE AND RECORD ALL TESTS.

IN NOVEMBER OF 1971 CIVILIAN EMPLOYEES WERE ASSIGNED TO THIS OFFICE. THE TRAINING OF THESE EMPLOYEES IS THE RESPONSIBILITY OF THE CHIEF DISPATCHER AND THE LIEUTENANTS IN CHARGE OF EACH SHIFT.

IN CLOSING, I WISH TO THANK LAWRENCE DONAHUE, DIRECTOR OF COMMUNICATIONS, AND JOHN ROACH, DEPUTY DIRECTOR, ON BEHALF OF MYSELF AND ON BEHALF OF THE B.O.C. FOR THEIR LEADERSHIP AND CONFIDENCE IN US. I PERSONALLY WANT TO THANK THE MEMBERS OF THIS OFFICE FOR HAVING HANDLED ALL ALARMS IN A MOST EXPEDITIOUS MANNER; MANY TIMES UNDER ADVERSE CONDITIONS, ALSO FOR THEIR CONTINUED DEDICATION TO THEIR WORK PARTICULARLY DURING MAJOR EMERGENCIES.

RESPECTFULLY SUBMITTED

CAPT. HENRY F. TRAINOR, JR.
CHIEF DISPATCHER B.O.C.

HT/CP

C O M M U N I C A T I O N S D E P A R T M E N TDate: 2-JAN-87

From: Henry V. Trainor Jr, Chief Dispatcher;

To: Lawrence Donahue, Director of Communications;

Subject: The following is a breakdown of alarms transmitted for the years 1985 and 1986.

	1985	1986	
Box Alarms	9348	8553	-
S.Boxes	1136	995	-
Stills	3994	3771	-
R.I.E.P.	78	68	-
Emergencies	374	340	-
Lockouts	265	482	+
Rescues	15,377	16,778	+
Total Alarms Transmitted	30,572	30,987	+

The following is a breakdown of the codes for the years 1985 and 1986.

Reds	367	323	-
Blues	6,954	6,034	-
Yellows	3,218	3295	+

The following is a breakdown of out of town rescues responding into our city.

	1985	1986	
	912	1,214	+

C O M M U N I C A T I O N S D E P A R T M E N TDate: 2-JAN-87

From: Henry F. Trainor Jr., Chief Dispatcher;

To: Lawrence Donahue, Director of Communications;

Subject: The following is a breakdown of multiple alarm fires transmitted for 1986;

2nd Alarm	17-Jan-86 @ 0953 Hrs.	S.Box 1565	Eddy @ Indiana
2nd Alarm	26-Jan-86 @ 2350 Hrs.	S.Box 2212	Union Station
2nd Alarm	1-Apr-86 @ 1625 Hrs.	S.Box 1452	108-110-114 Harriet St.
2nd Alarm	1-May-86 @ 0212 Hrs.	S.Box 5214	54 Bernon St.
2nd Alarm	14-Jun-86 @ 2349 Hrs,	Box 3412	1957 Westminster St.
2nd Alarm	7-Jul-86 @ 0424 Hrs,	S.Box 1437	22-24 Taylor St.
2nd Alarm	8-Jul-86 @ 2029 Hrs.	S.Box 2175	201 Pitman St.
2nd Alarm	24-Aug-86 @ 0019 Hrs.	Box 3135	69 Sprague St.
2nd Alarm	1-Oct-86 @ 0048 Hrs.	S.Box 1323	827-833 Broad St.
3rd Alarm	16-Oct-86 @ 0631 Hrs.	Box 1415	176 Weybosset St. Outlet Co.
2nd Alarm	22-Oct-86 @ 1945 Hrs.	S.Box 1534	86 Crary St.
2nd Alarm	29-Oct-86 @ 0911 Hrs.	S.Box 2212	Union Station

RUNS TO

The following is a breakdown of master boxes and street boxes for 1986;

Master Boxes 2285

Street Boxes 6268

In keeping with Department policy in regards to sending engs. and ladders with rescues to emergencies involving Heart, Difficulty Breathing, Auto Accidents, Severe Bleeding, Choking, Elevators and etc. The following is a total of responses.

	1985	1986	
Engine Companies	6,095	6,990	+
Ladder Companies	257	318	+

Capt Henry F. Trainor

Providence, R. I. 20-OCT.86

From: Capt. Henry F. Trainor Jr. ,Chief Dispatcher,B.O.C.

To: The Chief of Department

Subject: 3 Alarm Fire at the Outlet Co,176 Weybosset St. on 16-OCT-86 ;

Sir: The following is a breakdown of the above fire;

Box 1415	@0631 Hrs.	E-3-7-9-SH L-1-4 C-1
2nd Alarm	@0635 Hrs.	E-2-10 L-8-2 AS-1 R-1 C-3
Spec. Sig.	@0639 Hrs.	L-6-5
3 rd. Alarm	@0642 Hrs.	E-8-14 L-3
Spec. Sig.	@650 Hrs.	E-13
Spec. Sig.	@0653 Hrs.	R-3
Spec. Sig.	@0658 Hrs.	L-7
Spec. Sig.	@0706 Hrs.	E-11
Spec. Sig.	@0711 Hrs.	E-12 L-9
Spec. Sig.	@0724 Hrs.	E-16
Spec. Sig.	@0731 Hrs.	E-4 L-10
Spec. Sig.	@0753 Hrs.	E-18
Spec. Sig.	@0758 Hrs.	E-17
Spec. Sig.	@0801 Hrs.	E-15
Fire Under Controll	@ 1245 Hrs.	Car-1
Recall	@ 2012 Hrs.	17-OCT-86

Capt Henry F Trainor Jr
Respectfully Submitted

Capt. Henry F. Trainor Jr.
Chief Dispatcher, B.O.C.

Providence, R. I. 20-OCT-86

From: Capt. Henry F. Trainor Jr, Chief Dispatcher, B.O.C.

To: The Chief of Department

Subject: Mutual Aid From out of town;

Sir: The following is a breakdown of the out of town companies responding into our city for the fire at the Outley co.

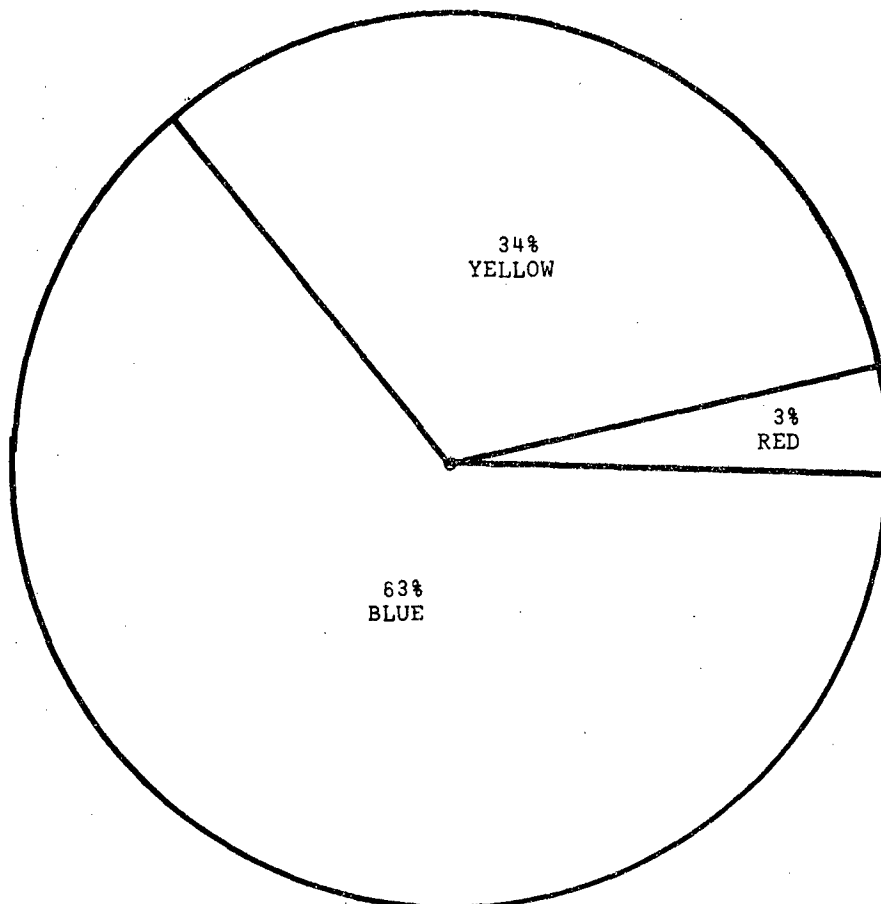
		IN	RET D
Broad St. Station	Cranston Eng.	0645 Hrs.	1456 Hrs.
	Cranston Lad.	0655 Hrs.	1614 Hrs.
Brook St. Station	E.PROV. Eng.	0719 Hrs.	1344 Hrs.
	E.Prov. Lad.	0802 Hrs.	1344 Hrs.
Branch Av. Station	Pawt. Eng.	0734 Hrs.	1340 Hrs.
	Pawt. Lad.	0734 Hrs.	1631 Hrs.
Mt. Pleasant Av. Station	N.Prov. Eng.	0742 Hrs.	1523 Hrs.
Atwells Av. Station	Johns. Eng.	0801 Hrs.	1423 Hrs.

Capt Henry F Trainor Jr

Respectfully Submitted

Capt. Henry F, Trainor Jr.

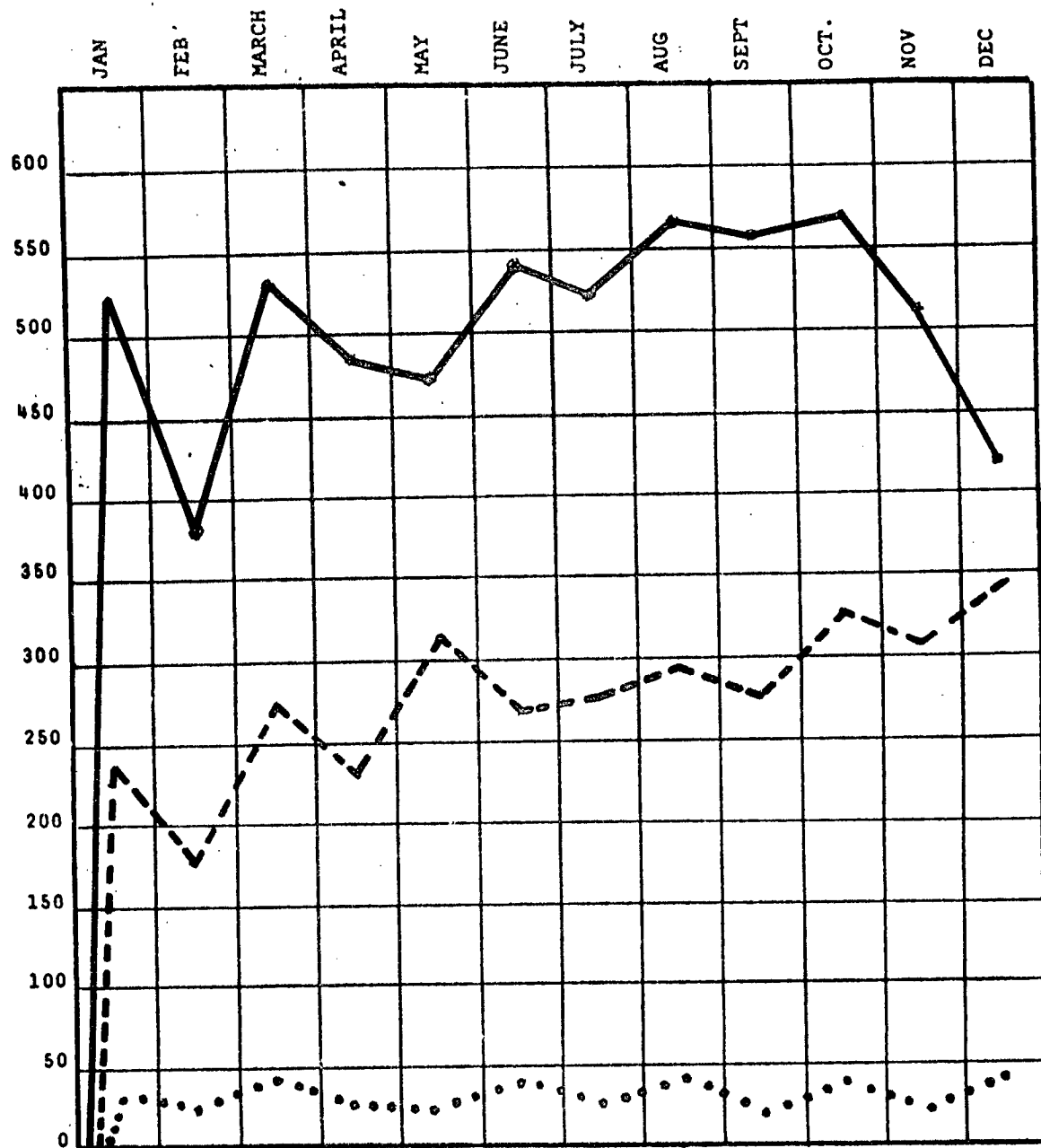
Chief Dispatcher, B.O.C.



1986 ALARM RESPONSES

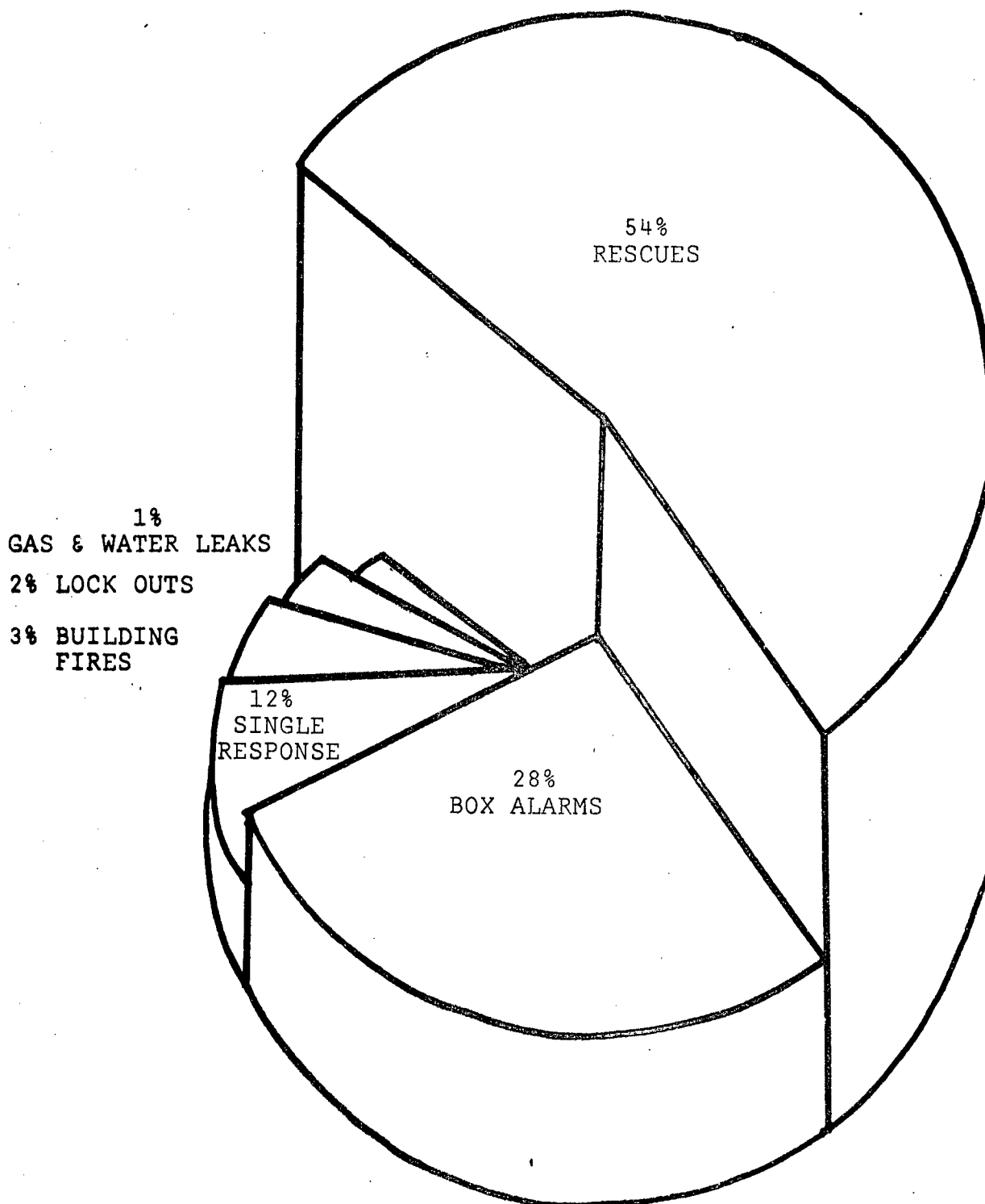
WORKING FIRE - RED
 FALSE ALARM - BLUE
 1ST. COMPANY CAN HANDLE- YELLOW

BLUE	6,034
YELLOW	3,295
RED	323
<hr/>	
TOTALS	9,652



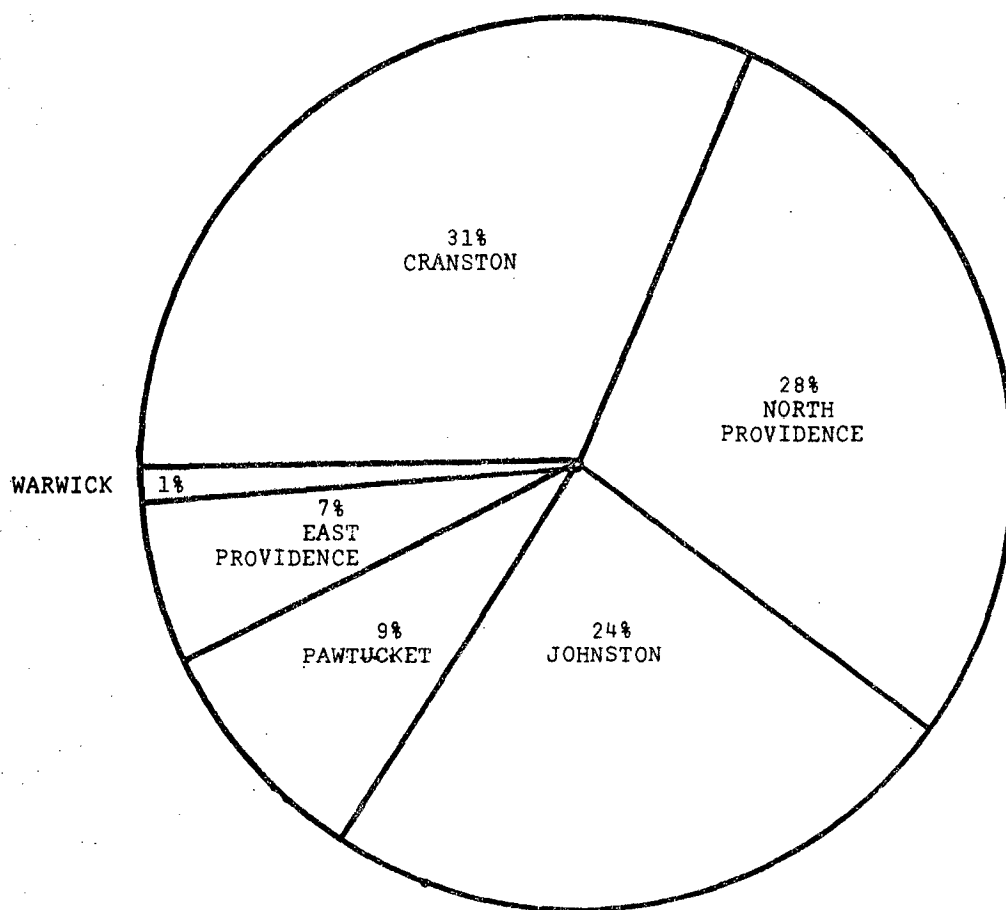
1986 ALARM RESPONSES

WORKING FIRE
 FALSE ALARM —————
 1ST COMPANY CAN HANDLE - - - - -



1986
ANNUAL DISPATCHES

RESCUES	16,987
BOX ALARMS	8,553
SINGLE RESPONSE	3,771
BUILDING FIRES	995
LOCK OUTS	482
GAS & WATER LEAKS, ETC.	340
R.I.E.P.	68
TOTAL ALARMS TRANSMITTED	30,987



1986

OUT OF TOWN RESCUES

CRANSTON	378
NORTH PROVIDENCE	336
JOHNSTON	294
PAWTUCKET	104
EAST PROVIDENCE	90
WARWICK	9
BARRINGTON	1
CENTRAL FALLS	2
TOTALS	1,214

RESCUE BY CATEGORY

TELEMETRY:

1) 250
2) 163
3) 577
990

AUTO ACCIDENTS:

1) 457
2) 454
3) 752
1,663

MATERNITY:

1) 127
2) 139
3) 66
333

INDUSTRIAL ACCIDENTS:

1) 25
2) 76
3) 43
144

SUICIDES:

1) 3
2) 6
3) 9
18

WATER RESCUE:

1) 1

ELEVATORS:

1) 7
2) 18
3) 12
37

C P R:

1) 45
2) 62
3) 50
157

BORN BY RESCUE:

1) 6
2) 14
3) 5
25

JAWS OF LIFE USED:

1) 1

CERVICAL INJURIES:

1) 390
2) 348
3) 501
1,239

CONVERTED TO TELEMETRY:

1) 5
2) 9
3) 3

D. O. A.:

1) 60
2) 68
3) 52
180

DIABETICS USED DEXTROS:

1) 14
2) 25
3) 40
79

MEDICATIONS USED:

1) 101
2) 97
3) 141
339

IVS STARTED:

1) 217
2) 335
3) 505
1,057

FALSE ALARMS:

1) 99
2) 142
3) 101
342

HOSPITALS TRANSPORTED TO:

RHODE ISLAND:

1) 1,545
2) 903
3) 1,371
3,819

SAINT JOSEPHS:

1) 1,584
2) 1,044
3) 550
3,178

ROGER WILLIAMS:

1) 323
2) 1,172
3) 1,039
2,534

WOMENS & INFANTS:

1) 136
2) 144
3) 113
393

MIRIAM:

1) 178
2) 136
3) 837
1,151

PAWTUCKET MEMORIAL:

1) 3
2) 15
18

CRANSTON GENERAL:

1) 77
2) 21
3) 11
109

PROV. MENTAL HEALTH:

1) 1
2) 14
3) 15
30

VETERANS:

1) 67
2) 65
3) 89
221

TOTAL TRANSPORTED:

1) 3,823
2) 3,507
3) 4,029
11,359

TOTAL SERVICE TIME:

1) 2,647.44 HOURS
2) 2,776.12 "
3) 2,889.10 "
8,313.11 HOURS

PRIVATE AMBULANCE:

1) 49
2) 73
3) 100
222

On the following graphs we have listed only
five categories;

TOTAL REPORTED

SMOKE DETECTORS

FALSE ALARMS

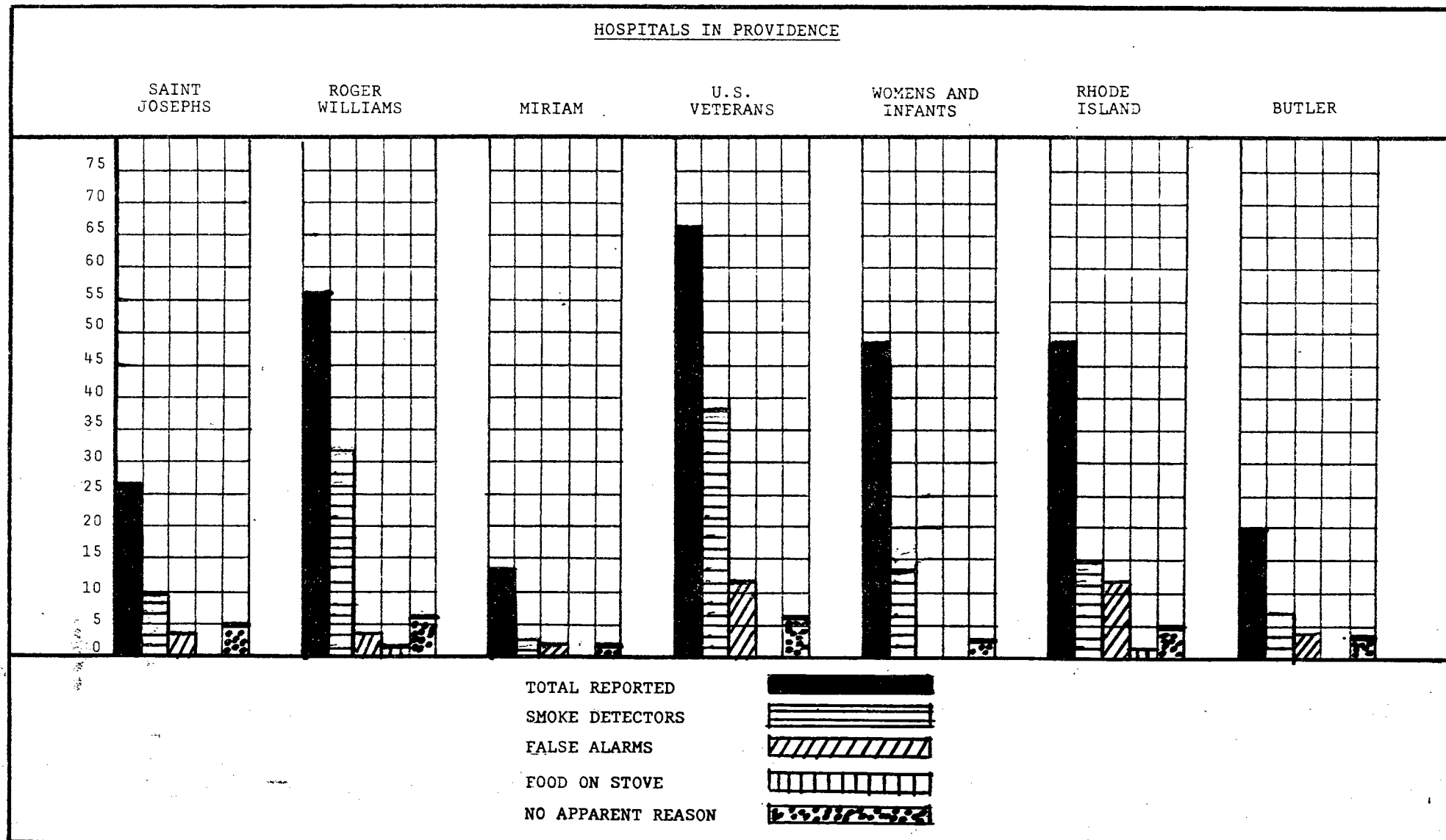
FOOD ON STOVES

NO APPARENT REASON

We have ignored other categories such as
Working on Systems and Accidental Alarms.

As a result these categories are not intended
to equal the total reported.

HOSPITALS IN PROVIDENCE



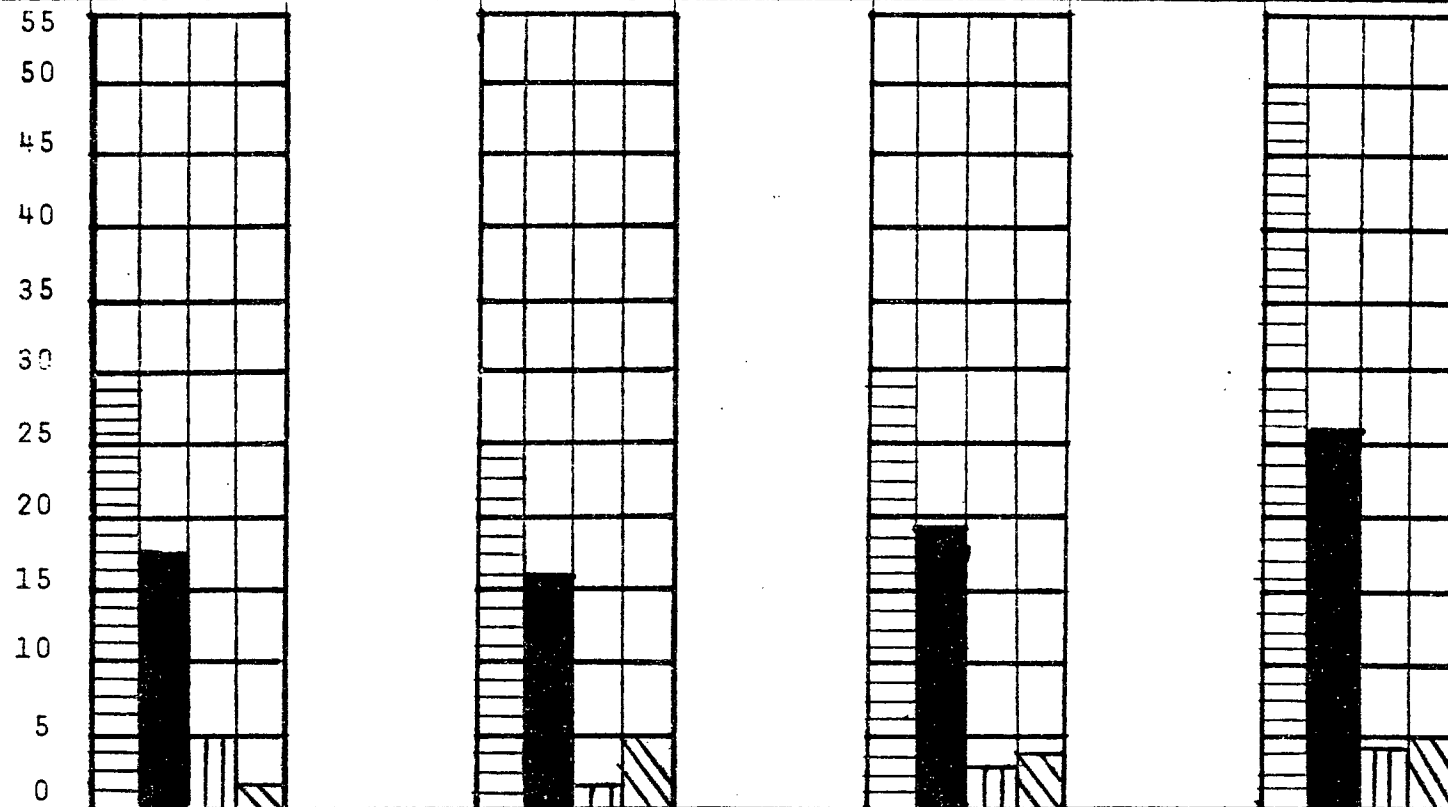
HOTELS IN PROVIDENCE

BILTMORE

HOLIDAY

MARRIOTT

Y.M.C.A.



TOTAL REPORTED



SMOKE DETECTORS



FALSE ALARMS



NO APPARENT REASON



COLLEGE ACTIVITY LIST

BUILDING FIRE ALARMS

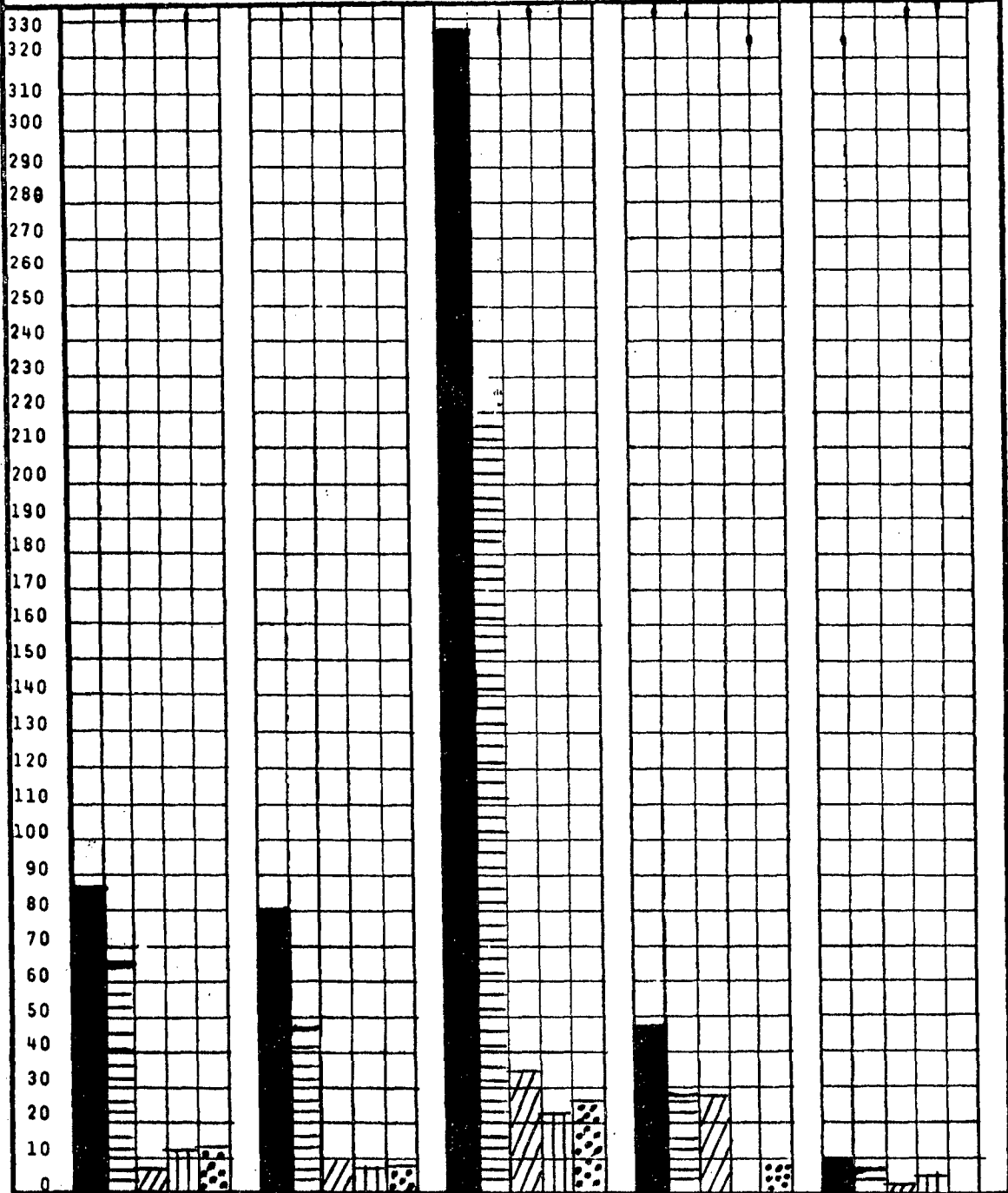
R.I. SCHOOL
OF DESIGN

PROVIDENCE
COLLEGE

BROWN
UNIVERSITY

JOHNSON
AND WALES

RHODE ISLAND
COLLEGE



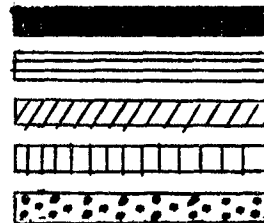
TOTAL REPORTED

SMOKE DETECTORS

FALSE ALARMS

FOOD ON STOVE

NO APPARENT REASON



TO: LAWRENCE DONAHUE, DIRECTOR OF COMMUNICATIONS
FROM: ROSE BROCK, SUPERVISOR
SUBJECT: CITY HALL TELEPHONE SYSTEM
DATE: JANUARY 26, 1987

THIS DIVISION IN 1986 HANDLED OVER 2,240 CALLS PER DAY, ON A NORMAL WORKING DAY, OR OVER 600,000 CALLS A YEAR. THIS FIGURE IS CONSIDERED LOW WHEN YOU ACCOUNT FOR THE TREMENDOUS INCREASE IN CALLS AT DIFFERENT PEAK INTERVALS, SUCH AS TAX COLLECTING PERIODS.

SINCE 1982 WHEN THE DIMENSION 400 SYSTEM WAS INSTALLED THE WORK HAS BEEN VERY EFFICIENT AND PLEASANT. THIS MODERN AND EASILY WORKABLE SWITCHBOARD OPERATED BY ONE SUPERVISOR AND TWO OPERATORS DO AN OUTSTANDING JOB IN ASSISTING US IN OUR WORK, ESPECIALLY DURING PEAK PERIODS.

BUT NO MATTER HOW BUSY WE ARE, WE ALWAYS ENDEAVOR TO BE AS COURTEOUS AND EFFICIENT AS POSSIBLE.

THIS DIVISION WILL LOOK FORWARD TO WORKING UNDER YOUR SUPERVISION AND IS PLEASED TO BE A PART OF SO NECESSARY AN ORGANIZATION.

OFF PREMISE LINES

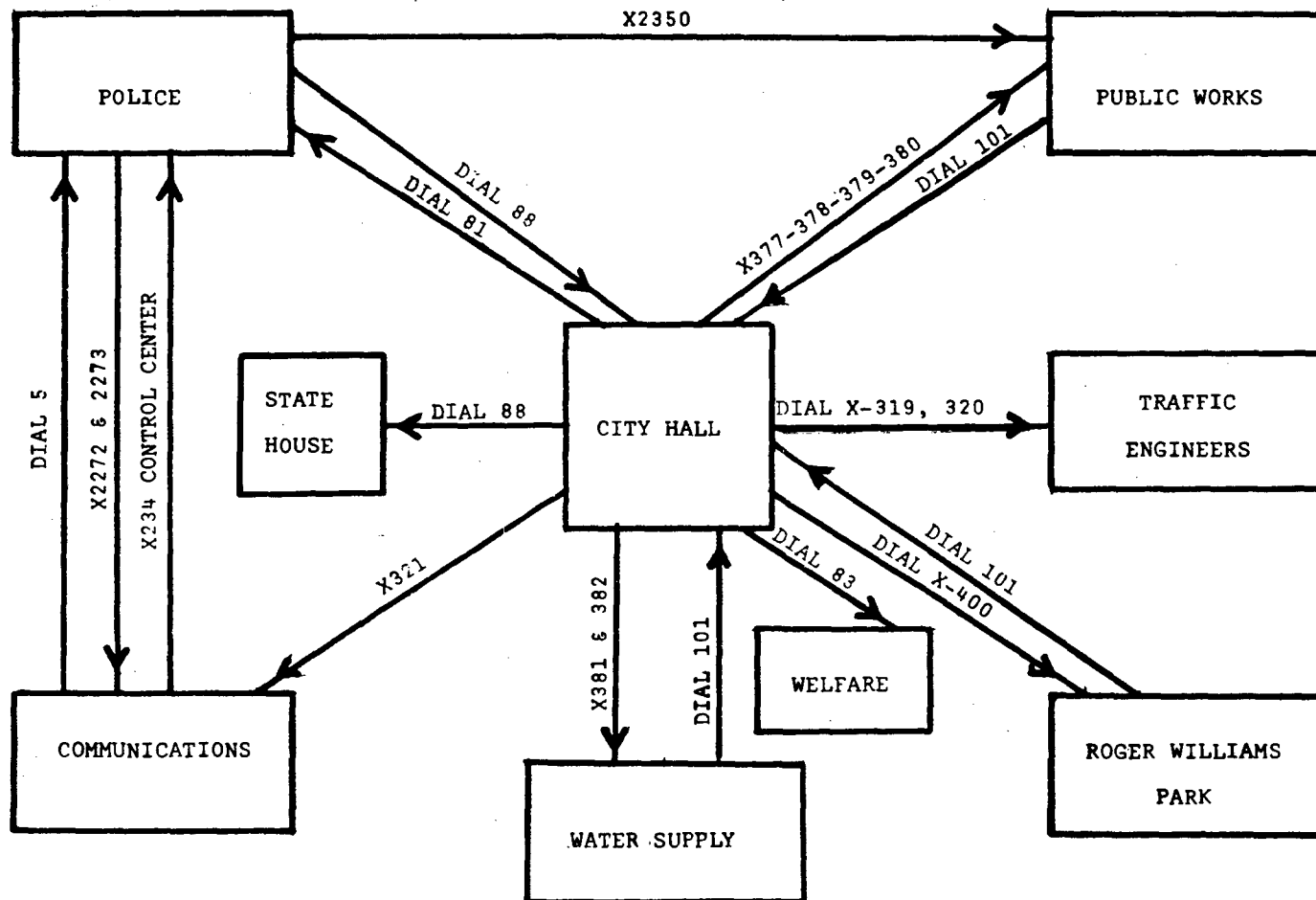
THE GRAPH ON THE FOLLOWING PAGE SHOWS THE VARIOUS DEPARTMENTS THAT ARE LINKED TO CITY HALL BY OFF PREMISE LINES.

THE OFF PREMISE LINES ARE A VERY INEXPENSIVE WAY OF COMMUNICATING BETWEEN VARIOUS CITY DEPARTMENTS.

THE LINES ARE EITHER OWNED AND MAINTAINED BY THIS DEPARTMENT OR LEASED FROM NEW ENGLAND TELEPHONE AT A FLAT RATE OF \$26.00 PER MONTH.

THE USE OF THESE EXTENSIONS ELIMINATES THE COST OF MESSAGE UNITS (12 CENTS FOR EVERY 5 MINUTES) AND TIME CHARGES FOR EXCEEDING THE ALLOWED MINIMUM OF 85 CALLS PER LINE PER MONTH.

CITY HALL INFORMATION X220



COMMUNICATIONS DEPARTMENT

Date: February 11, 1987

From: Lawrence Donahue, Director of Communications

To: All Department Heads

Subject: Telephone Charges

I am making an effort to control telephone charges for all departments, especially long distance and message units.

I am not singling out any departments, but am asking all department heads to cooperate with this department in an effort to reduce our monthly charges.

There are 3 areas of particular concern:

1. Long distance calls
2. Message units
3. Information requests

Long distance calls should not be made unless absolutely necessary.

Message units are charged after 85-5 minute calls per telephone line.

After the allowed 85, a charge of 12 cents is charged for every 5 minutes of calling time; in some cases, message units exceed the cost of the basic service.

Information requests should only be used if for some reason the listing does not appear in the telephone book. Informations requests are mounting and are costing the city many hundreds of dollars in unnecessary charges.

Sincerely yours,

Lawrence Donahue
Director

LD/cp

TO: DIRECTOR LAWRENCE DONAHUE

FROM: EUGENE GIANFROCCO

DATE: MARCH 12, 1987

RADIO REPAIR AND ELECTRONICS DIVISION

THIS DIVISION HAS THE RESPONSIBILITY FOR THE REPAIR AND
MAINTENANCE OF THE TWO-WAY RADIO SYSTEMS, ALL COMMUNICATIONS
EQUIPMENT, AND OTHER ELECTRICAL AND ELECTRONIC SYSTEMS FOR THE
FOLLOWING AGENCIES:

POLICE DEPARTMENT

FIRE DEPARTMENT

PUBLIC WORKS

WATER SUPPLY BOARD

EMERGENCY MANAGEMENT

PROVIDENCE HOUSING AUTHORITY

PUBLIC PROPERTIES

PARK DEPARTMENT

FOLLOWING IS A LIST OF DEPARTMENTS AND THE EQUIPMENT THIS
DIVISION SERVICED OR MAINTAINED IN THE PAST YEAR:

FIRE & COMMUNICATIONS DEPARTMENT

RADIO AND ELECTRONIC EQUIPMENT

- 2 110 WATT BASE/REPEATER STATIONS (MAIN & STANDBY)
- 1 60 WATT FIRE INTERCITY BASE STATION
- 2 MOTOROLA COMMUNICATIONS CONSOLES. 8 CHANNELS PER CONSOLE
- 1 20 CH. DICTAPHONE 24 HOUR LOGGING RECORDER
- 2 ECHO PLAYBACK RECORDERS 274-3344/274-3345
- 2 VOICE COMMUNICATIONS DISPATCH SYSTEMS (VOCALARM) CONNECTING FIRE STATIONS WITH COMMUNICATIONS HEADQUARTERS USED FOR DISPATCHING APPARATUS (MAIN & AUX)
- 2 STATUS BOARDS TO KEEP TRACK OF FIRE APPARATUS
- 1 STATUS MAP TO KEEP TRACK OF FIRE APPARATUS
- 2 DIGITIZE BOX DISPLAYS TO DECODE FIRE ALARM BOX NUMBERS
- 1 D.P.M. DISPLAY TO DECODE FIRE BOXES & EVCS VOICE BOXES.
- 2 MASTER REGISTERS TO READ FIRE ALARM BOXES (AUX)
- 1 60 CIRCUIT FORM 4 TO POWER 60 FIRE ALARM CIRCUITS
- 1 40 CIRCUIT EVCS SYSTEM TO DECODE FIRE VOICE BOXES AND ANSWER EVCS PHONES
- 1 NIGHTTIME FIRE STATION DISPATCH SYSTEM TO SEND ALARMS TO INDIVIDUAL FIRE STATIONS WHEN ON NIGHTTIME OPERATION.
- 2 CENTRA COMM II PAGING TERMINALS
- 1 FIRE TO POLICE CH. 1 BASE
- 10 PRIMARY CIRCUITS
- 13 STATION BLOW LIGHT SYSTEMS
- 13 VOCALARM RECEIVERS TO RECEIVE ALARM AT EACH FIRE STATION
- 13 VOCALARM DESKS, BELL SYSTEM (ONE PER FIRE STATION)
- 1 RADIO AMP SYSTEM FOR FIRE HEADQUARTERS
- 50 VEHICLE HAND LIGHT CHARGERS

100 RECHARGEABLE HAND LIGHTS

100 ELECTRONIC SIRENS

1 STANDBY GENERATOR 125 KW 208/3 PHASE

100 MOBILE TWO WAY RADIOS

6 RADIO TELEMETRY RADIOS

3 TELEMETRY PORTABLE RADIOS

37 RADIO PAGERS

50 MOTOROLA PORTABLE RADIOS

37 PAGER CHARGERS

50 PORTABLE RADIO CHARGERS

24 DEMMING & HOMELITE PUMPS

10 SMOKE EJECTORS

4 WATER VACS

23 SETS EXTENSION CORDS, REELS, ADAPTERS & CIRCLE D LIGHTS

2 CLOSED CIRCUIT TELEVISION MONITORS

4 CLOSED CIRCUIT TELEVISION CAMERAS

2 CLOSED CIRCUIT TELEVISION SWITCH UNITS

3 CENTRAL ELECTRONIC BANKS FOR RADIO CONSOLE IN CONTROL ROOM (MAIN, AUX, STANDBY)

1 AUTOMATIC PAGING SYSTEM

POLICE DEPARTMENT
RADIO & ELECTRONIC EQUIPMENT

246	MT 500 PORTABLE RADIOS WITH ID
30	MX 350 PORTABLE RADIOS WITH NO ID
115	SYNTOR MOBILE RADIOS WITH ID
	OLD RADIO MOBILE WITH NO ID
20	RADIO PAGERS
20	RADIO PAGER CHARGERS
260	PORTABLE RADIO CHARGERS SINGLE
8	MULTI BANK PORTABLE RADIO CHARGERS
105	ELECTRONIC SIRENS
2	BURGLAR ALARM SYSTEMS
1	75 KW GENERATOR 208/3 PHASE (POL. HEADQUARTERS)
8	BASE/REPEATER RADIO STATIONS WITH DUPLEXERS & ANTENNAS
2	STANDBY BASE/REPEATER RADIO STATIONS
3	MOTOROLA RADIO CONSOLES & CHANNEL (POL. HEADQUARTERS)
3	REMOTE CONTROL RADIO CONSOLE (DESK TOP) (POL. HEADQUARTERS)
1	VEHICLE RADIO REPEATER UNIT
1	RADIO PAGER ENCORDER (DETECTIVES)
1	STATUS MAP

PROVIDENCE WATER SUPPLY BOARD

RADIO & ELECTRONIC EQUIPMENT

50 MOTOROLA MOBILE RADIOS
15 PORTABLE MOTOROLA RADIOS
15 PORTABLE MOTOROLA RADIO CHARGERS
4 RADIO PAGERS
4 RADIO PAGER CHARGERS
4 CONVERTACOMS
3 CONVERTACOM POWER AMPLIFIERS 100 WATT
3 RADIO BASE STATIONS
2 MICROWAVE RADIO BASE/REPEATER STATIONS
8 RADIO REMOTE CONTROLS UNITS
2 RADIO PAGER ENCORDER

PROVIDENCE HOUSING

RADIO & ELECTRONIC EQUIPMENT

10 RADIO PAGERS
10 RADIO PAGER CHARGERS
24 PORTABLE RADIOS
24 PORTABLE RADIO CHARGERS
12 PORTABLE RADIO CONVERTACOMS
12 PORTABLE RADIO AMPLIFIERS
1 CLOSE CIRCUIT T.V. SYSTEM (BRADFORD HOUSE)
1 BASE/REPEATER STATION
1 PAGING ENCORDER
2 RADIO REMOTE CONTROL UNITS (DESK TOP)

PUBLIC WORKS DEPARTMENT
RADIO & ELECTRONIC EQUIPMENT

- 1 BASE/REPEATER STATION
- 1 BASE/REPEATER STATION AUX
- 60 MOBILE RADIOS
- 3 REMOTE CONTROL (RADIO)
- 17 PORTABLE RADIOS
- 17 PORTABLE RADIO CHARGERS

PARK DEPARTMENT
RADIO & ELECTRONIC EQUIPMENT

- 6 PORTABLE RADIOS (SECURITY)
- 6 PORTABLE RADIO CHARGERS (SECURITY)
- 8 PORTABLE RADIOS (PARK)
- 8 PORTABLE RADIO CHARGERS (PARK)
- 18 MOBILE RADIOS

SCHOOL DEPARTMENT
ELECTRONIC & RADIO EQUIPMENT

- 1 BASE RADIO

PUBLIC PROPERTY
RADIO & ELECTRONIC EQUIPMENT

- 8 RADIO PAGERS
- 1 BASE RADIO LOCALE GOVERNMENT
- 1 AUTOMATIC RADIO PAGING TERMINAL

CIVIL DEFENSE
RADIO & ELECTRONIC EQUIPMENT

- 1 DESK SET RADIO REMOTE

IN ADDITION TO THE INSTALLATION, REPAIR & MAINTENANCE OF THE PRECEEDING LIST, WE ALSO PERFORMED THE FOLLOWING:

INSTALLATION OF AN EMERGENCY VOICE COMMUNICATION SYSTEM (EVCS) WHICH ENABLES FIRE ALARM BOXES TO BE CONVERTED TO VOICE BOXES AS IN THE BOX IN FRONT OF THE BILTMORE HOTEL.

AN INSTALLATION OF A LOCAL GOVERNMENT RADIO SYSTEM WHICH IS USED BY CIVIL DEFENSE.

AN INSTALLATION OF AN AUTOMATIC PAGING SYSTEM WHICH CAN ABE USED BY ALL CITY DEPARTMENTS TO PAGE AN INDIVIDUAL; YOU DIAL A PREDETERMINED TELEPHONE NUMBER AND GIVE A VOICE MESSAGE. PUBLIC PORPERTY IS CURRENTLY USING THIS SERVICE TO DISPATCH THEIR MAINTENANCE PERSONNEL.

THE COMPLETE RADIO AND RADIO TELEMTRY INSTALLATION INSTALLED IN TWO NEW RESCUE TRUCKS.

THE INSTALLATION OF COMPUTER LINES AT THE PROVIDENCE POLICE STATION.

INSTALLATION OF RADIO EQUIPMENT IN 18 PARKS DEPARTMENT VEHICLES.

INSTALLATION OF AN AUX HIGHWAY RADIO BASE STATION, AUX POLICE CHANNEL 1 RADIO BASE STATION, AUX POLICE CHANNEL 3 AUX BASE STATION, LOCALE GOVERNMENT BASE STATION.

1 FIRE INTERCITY BASE STATION. ALL THESE BASES WERE MADE FROM SURPLUS EQUIPMENT OBTAINED FROM THE OLD FIRE ALARM BUILDING.

ALSO THERE WAS TIME SPENT ON SETTING UP THE RADIO SHOP IN THE NEW COMMUNICATIONS BUILDING AND IN THE BUREAU OF OPERATIONS & CONTROL HAVING NEW EQUIPMENT OPERATE IN THE FASHION WE WANTED IT TO OPERATE.

TO: DIRECTOR LAWRENCE DONAHUE

FROM: EUGENE GIANFROCCO

DATE: MARCH 12, 1987

FOR THE COMING YEAR OF 1987-1988, THE FOLLOWING PROPOSALS
WERE MADE TO IMPROVE THE FIRE DEPARTMENT, POLICE DEPARTMENT,
AND WATER SUPPLY BOARDS RADIO COMMUNICATIONS SYSTEMS.

PROPOSAL FOR THE FIRE DEPARTMENT RADIO SYSTEM

TO IMPROVE RADIO COVERAGE FOR THE FIRE DEPARTMENT PORTABLE RADIOS, WE WOULD ADD THREE ADDITIONAL RADIO RECEIVER SITES TO OUR EXISTING RECEIVER VOTING SYSTEM. RECEIVING EQUIPMENT WILL BE PLACED AT THE FOLLOWING LOCATIONS:

SITE 1 : PROPOSED WATER SUPPLY RADIO TOWER AT NEUTACONKANUT HILL TO IMPROVE RADIO SIGNAL IN THE SILVER LAKE AND MANTON SECTION OF THE CITY.

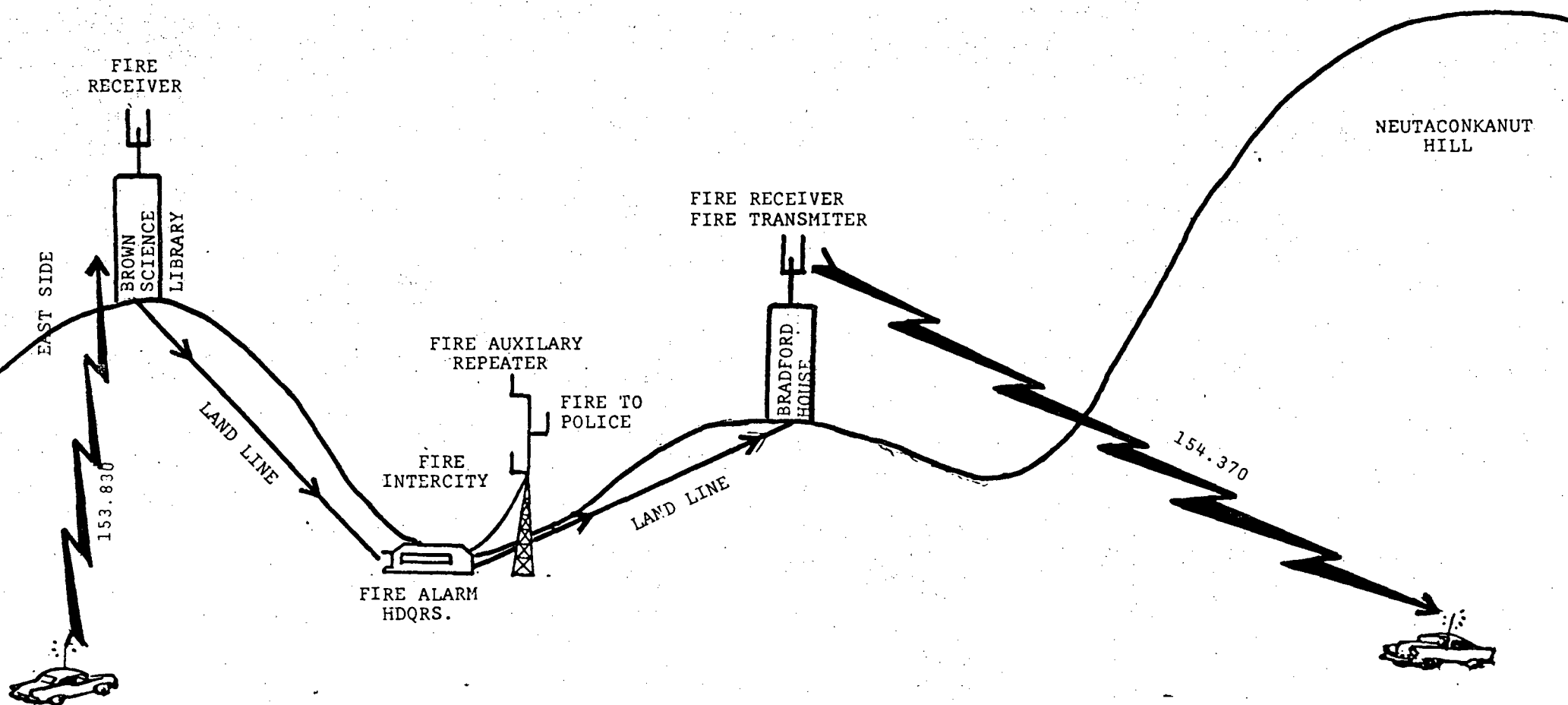
SITE 2: RADIO TOWER AT COMMUNICATION HEADQUARTERS TO IMPROVE THE DOWNTOWN SECTION. THIS IS A PROBLEM BECAUSE OF THE HIGHRISE BUILDINGS WHICH SUPPRESS RADIO WAVES.

SITE 3: COLONY APARTMENTS ON CADILLAC DRIVE TO IMPROVE COVERAGE IN THE SOUTH PROVIDENCE AREA.

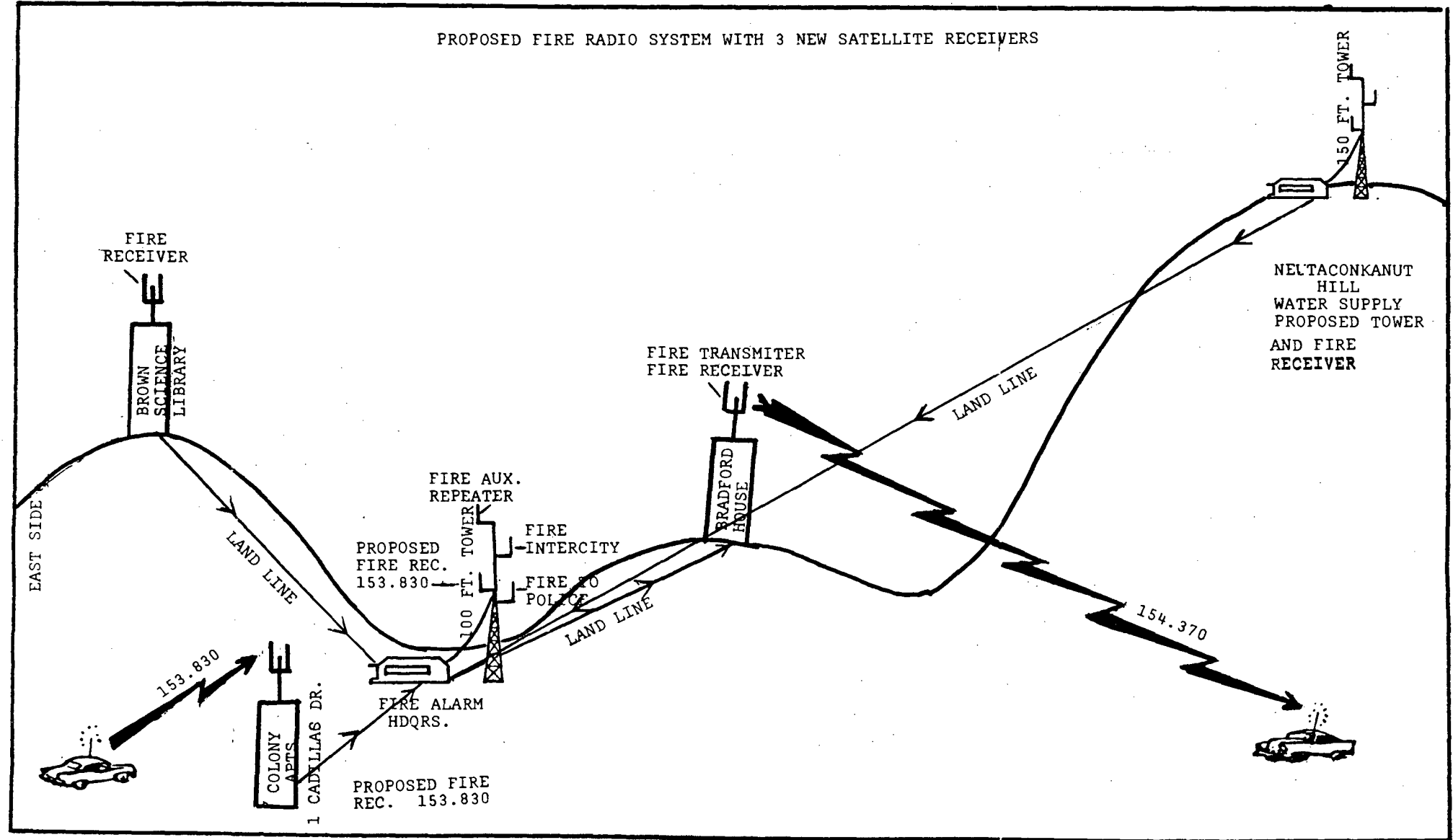
A RECEIVER VOTING SYSTEM IS CURRENTLY BEING USED. THERE ARE TWO RECEIVING SITES: THE BRADFORD HOUSE AND THE BROWN SCIENCE LIBRARY.

WITH THE ADDITIONAL 3 PROPOSED SITES INSTALLED, RADIO COVERAGE CAN BE ALMOST 100% OF THE AREA OF THE CITY OF PROVIDENCE.

FIRE DEPT. RADIO SYSTEM (EXISTING SYSTEM)



PROPOSED FIRE RADIO SYSTEM WITH 3 NEW SATELLITE RECEIVERS



PROPOSALS FOR POLICE RADIO SYSTEM

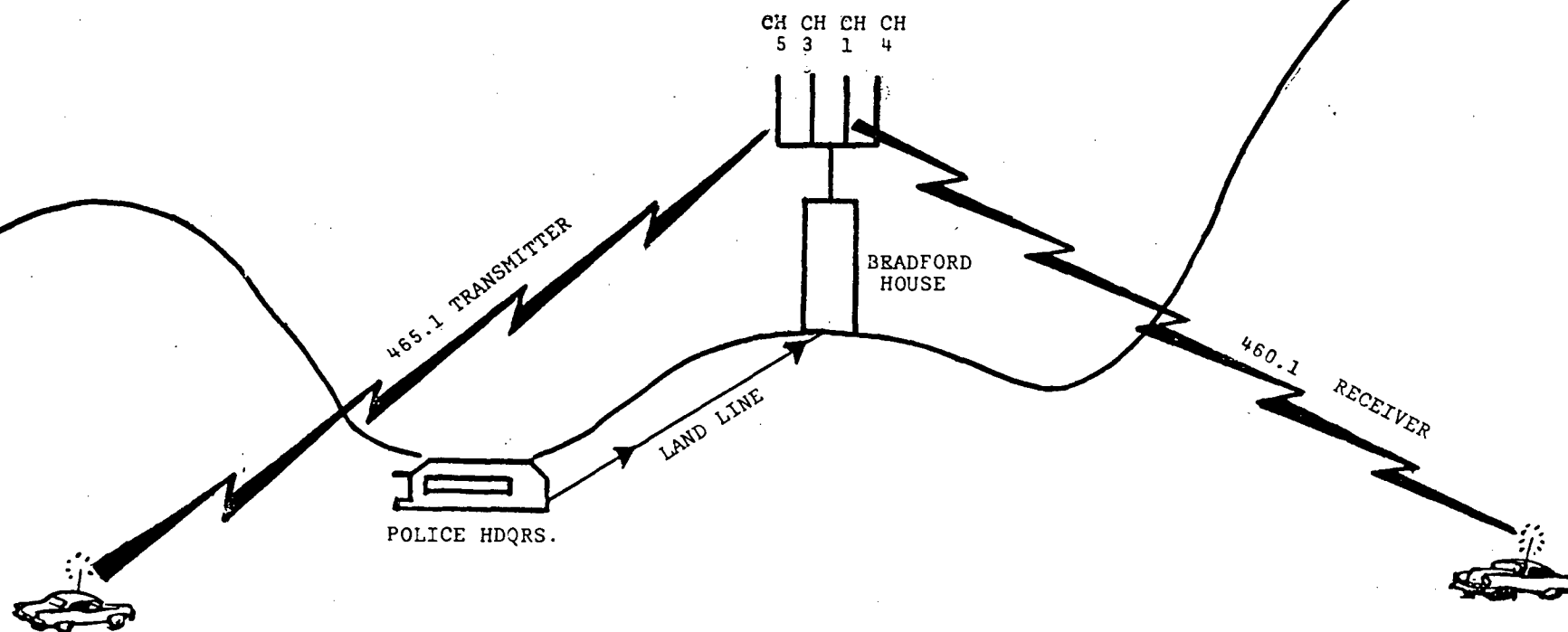
TO IMPROVE RADIO COVERAGE WITH PORTABLE RADIOS ON CHANNEL 1 (MAIN DISPATCH CHANNEL) WE PROPOSE A RECEIVER VOTING SYSTEM. RADIO RECEIVING EQUIPMENT WILL BE PLACED AT THE FOLLOWING LOCATIONS:

1. THE BROWN SCIENCE LIBRARY TO IMPROVE RADIO COMMUNICATIONS ON THE EAST SIDE.
2. AT THE EXISTING SITE AT THE BRADFORD HOUSE.
3. AT THE PROPOSED WATER SUPPLY RADIO TOWER AT NEUTACONKANUT HILL TO COVER THE MANTON SILVERLAKE, AND OLNEYVILLE SECTIONS OF THE CITY.

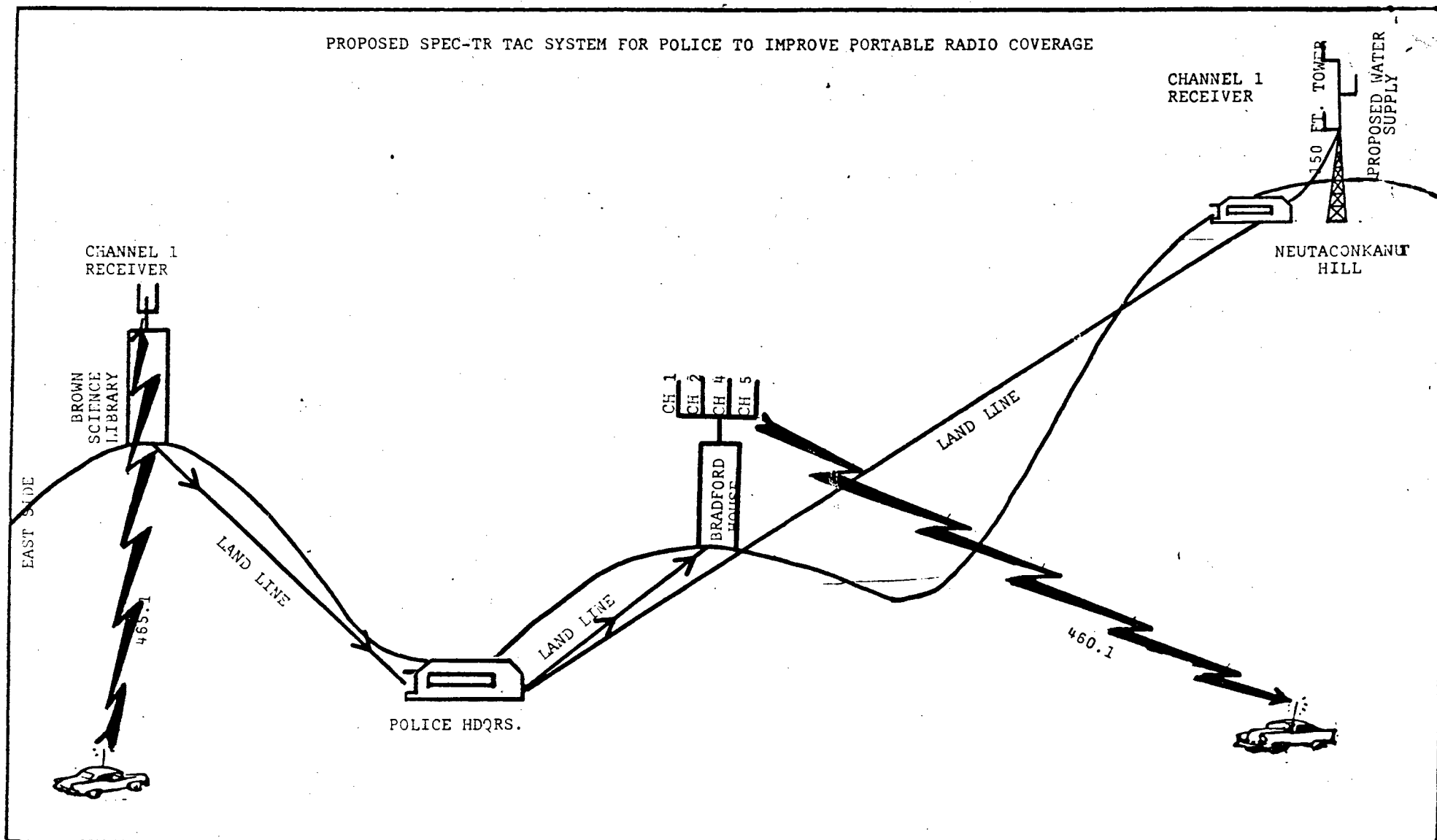
RADIO COMMUNICATIONS ON THE EAST SIDE AND ON MANTON AVENUE AT THE CITY LINE IS A PROBLEM FOR THE PORTABLE HAND HELD RADIOS BECAUSE OF THE LAND TERRAIN IN THE CITY. COLLEGE HILL AND THE ATWELLS AVENUE HILL BLOCK THE RADIO SIGNAL FROM FULLY PENETRATING THE EAST SIDE AND LOWER MANTON AVENUE.

ADDITIONAL RADIO EQUIPMENT AT THE PROPOSED SIGHTS WILL ELIMINATE THESE PROBLEMS GIVING THE POLICE DEPARTMENT 100% RADIO COVERAGE OF THE CITY OF PROVIDENCE.

EXISTING POLICE RADIO SYSTEM



PROPOSED SPEC-TR TAC SYSTEM FOR POLICE TO IMPROVE PORTABLE RADIO COVERAGE



PROPOSAL FOR WATER SUPPLY BOARD

THERE ARE TWO PROPOSALS ON THE DRAWING BOARD FOR THE WATER BOARD.

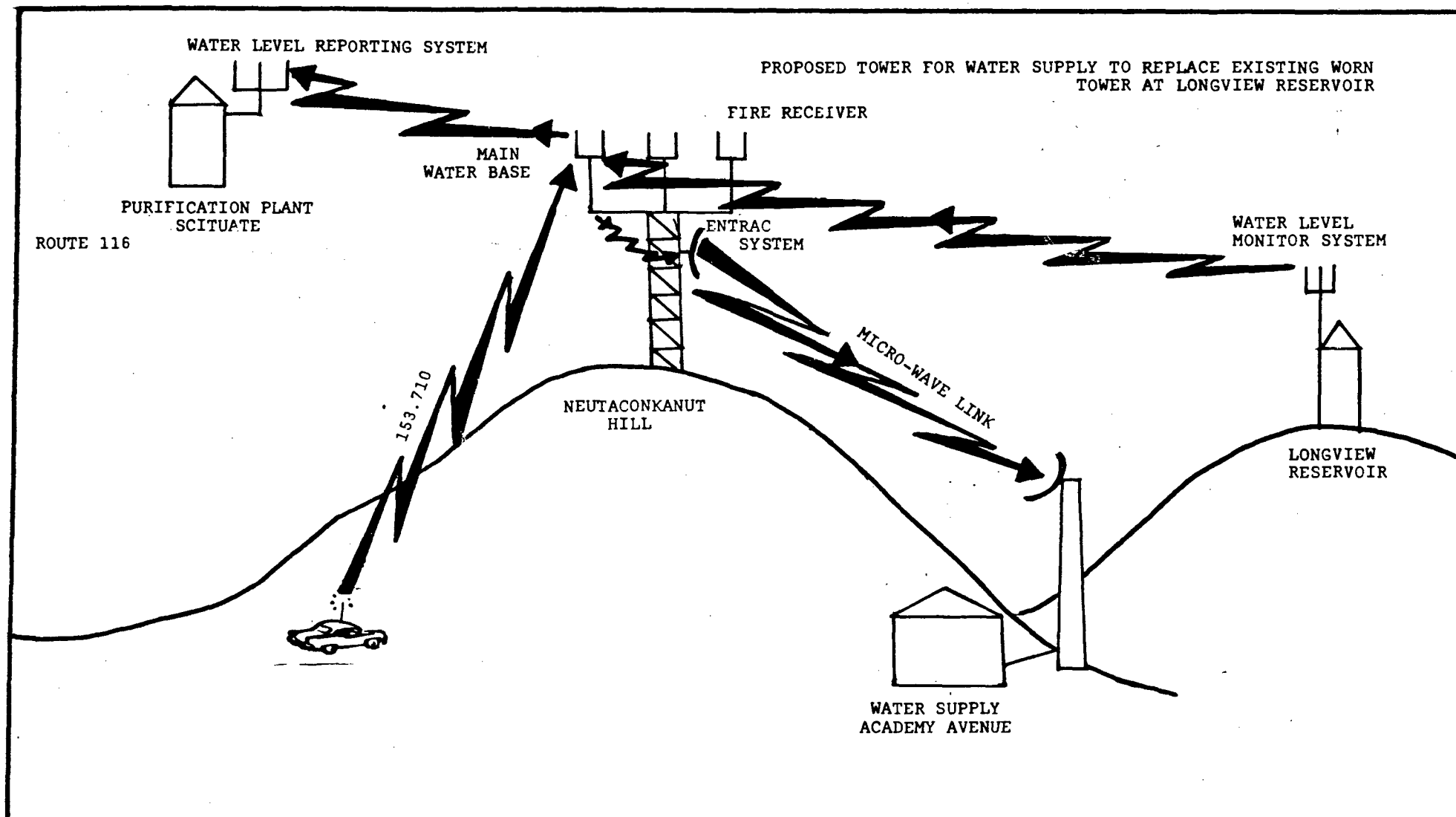
ONE IS TO USE RADIO IN PLACE OF TELEPHONE LINES TO CONTROL THE PUMPS AT NEUTACONKANUT RESERVOIR AND LONGVIEW RESERVOIR FROM THE PURIFICATION PLANT AT RT 116 IN SCITUATE.

THE ELIMINATION OF THESE TELEPHONE LINES WILL ADD DEPENDABILITY TO THE SYSTEM AND ELIMINATE THE MONTHLY COST OF THE PHONE LINES.

THE SECOND IS TO BUILD A 150 FOOT TOWER AT NEUTACONKANUT HILL AND ELIMINATE THE MAIN RADIO TOWER AT LONGVIEW WHICH AS EXCEEDED ITS USEFUL LIFE AND IS IN A DANEROUS CONDITION.

THE CONSTRUCTION OF THE TOWER AT NEUTACONKANUT HILL WOULD CONSOLIDATE THE MAIN RADIO AND THE WATER MONITORING SYSTEM. THIS WILL SAVE THE COST OF THE REPLACEMENT TOWER AT LONGVIEW.

ALSO THE POLICE AND FIRE DEPARTMENTS CAN USE THIS TOWER TO GREATLY IMPROVE THEIR RADIO COMMUNICATIONS.



CABLE REPAIR & MAINTENANCE

THIS DIVISION FUNCTIONS WITH ONE FOREMAN AND THREE FIRE ALARM TECHNICIANS. WE ROUTINELY MAINTAIN AND REPAIR OVER 55 MILES OF UNDERGROUND CABLE WHICH TIES IN ALL AERIAL AND CABLE FIRE ALARM, BURGLAR ALARM AND TELEPHONE SYSTEMS THROUGHOUT THE CITY OF PROVIDENCE. THIS CABLE SYSTEM LINKS OVER 1300 FIRE ALARM BOXES, 1000 PHONE EXTENSIONS AND 6 BURGLAR ALARM SYSTEMS. THE CABLE SYSTEM ALSO CARRIES THE FIRE DEPARTMENT VOCAL ALARM DISPATCH SYSTEM AND MISCELLANEOUS REMOTE BASE STATIONS FOR POLICE, FIRE, COAST GUARD, HOUSING AUTHORITY AND HIGHWAY DIVISION.

THE CABLE PLANT MUST OPERATE AROUND THE CLOCK, 7 DAYS A WEEK AND IN ANY KIND OF WEATHER. THE MEN OF THIS DIVISION ARE AWARE OF THAT AND ARE ALWAYS AVAILABLE NO MATTER WHAT THE CONDITIONS TO PERFORM THE REQUIRED WORK.

FOLLOWING IS A COMPLETE LIST OF THE WORK PERFORMED AND THE MATERIALS USED TO COVER GENERAL MAINTENANCE, UPGRADING AND EMERGENCY CALLS:

CABLE INSTALLATIONS

	1986	1985	1984
NEW INSTALLATIONS OF PRIVATE MASTER BOXES	13,860'	9,060'	7,200'
REPLACEMENT OF WORN CABLE	5,000'	28,600'	2,360'
REPLACEMENT OF WORN LATERAL CABLE	7,000'	15,000'	10,000'
OPENYD & RESPLICED CABLE	32	44	31
RENEWAL OF JUNCTION CABLE TERMINAL	41	55	60
TROUBLESHOOTING GROUNDS & OPENS	60	36	37
SNAKING & RODDING			

f

OTHER INSTALLATIONS & DETAILS COMPLETED

NEW ACO PEDESTALS	36
CABLE PEDESTALS	9
FIRE ALARM MOVEMENTS	12
ACO TYPE PEDESTALS WERE PAINTED	47

RESPONDED TO EMERGENCY CALLS

OPEN CIRCUITS	51
FIRE ALARM BOXES DAMAGED, KNOCKED OVER, ETC.	62

SUPERVISED CONSTRUCTION AT THE FOLLOWING LOCATIONS

ROGER WILLIAMS PARK
PARK STREET BRIDGE
WEST EXCHANGE PROJECT
MEMORIAL SQUARE PROJECT
NEW COMMUNICATIONS BUILDING
NEW STATE OFFICE PLAZA & BUILDING

INVENTORY AND RECORD KEEPING

THIS DIVISION IS RESPONSIBLE FOR DAILY WORK REPORTS. WE ALSO MAINTAIN AND UPGRADE ALL CABLE MAPS, RECORDS, AND INVENTORY ITEMS FOR A COMPLETE RUNNING ACCOUNT OF OUR ACTIVITIES THROUGHOUT THE YEAR.

PLANNING AND NEW CONSTRUCTION

THE CABLE DIVISION HAS PARTICIPATED IN ALL OF THE PLANNING SESSIONS FOR THE NEW CONSTRUCTION OF BUILDINGS, BRIDGES, AND RELOCATED UTILITIES THROUGHOUT THE CITY.

THIS HAS GENERATED ENGINEERING FEES, LABOR AND MATERIAL COSTS WHICH WHENEVER APPLICABLE HAVE BEEN RECOVERED FROM THE FEDERAL AND STATE GOVERNMENTS INVOLVED.

IN ADDITION TO THE WORK FOR THE OTHER AGENCIES, WE HAVE WORKED CLOSELY WITH NEW ENGLAND TELEPHONE AND CE MAGUIRE IN THE PLANNING AND IMPLEMENTATION OF THE CAPITAL CITY PROJECT. THIS HIGHLY AMBITIOUS PROJECT ALSO INCLUDES THE RELOCATION OF THE NEW COMMUNICATIONS DEPARTMENT CABLES AND EQUIPMENT FROM KINSLEY AVENUE TO ITS NEW LOCATION ON WEST EXCHANGE STREET.

WE HAVE USED THE FOLLOWING MATERIALS FOR VARIOUS JOBS THROUGHOUT THE YEAR:

15	2" PAINT BRUSHES
9	1 QUART CANS OF RED PAINT
5	1 QUART CANS OF WHITE PAINT
3	1 QUART CANS OF SILVER PAINT
1	GALLON OF PENETRATING OIL
2	CANS 3M SCOTCHKOTE ELECTRICAL COATING
14	6 VOLT LANTERN BATTERIES
1000	UTILITY TYPE BLADES FOR RAZORS
30	12" HACK SAW BLADES
100	ROLLS FRICTION TAPE
6	1/2 CONDUIT 14'
500	ACO TYPE WASHERS
160	3/4" BRASS BOLTS
250	5/8" BRASS BOLTS
2	ROLLS BLACK & WHITE THHN TW 1000'
3	GROUND RODS 5/8"
9	4 PIN STRIPS
6	8 PIN STRIPS
30	10 PIN STRIPS
4	12 PIN STRIPS
1100'	MARLIN TIE
100	1 1/2 #12 SCREWS BRASS
21	3/4" CLAMPS
7	1" CLAMPS
7000	B-210 BUTT SLEEVES
400	ROLLS PLYMOZONE RUBBER SPLICING COMPOUND
250	ROLLS RUBBER SPLICING COMPOUND
200	POUNDS PLAS-DUX ADHESIVE COMPOUND
200	ROLLS SCOTCH 3M 88 ELECTRICAL TAPE
10	CANS 1 LB. CANS ANTISEIZE LUBRICANT
24	CAMS CRC 2-26 LUBRICANT
2	CASES (24 CANS) 1 QUART CANS OF PROTEK-SORB DESICANT

AERIAL DIVISION OPERATION

THE AERIAL DIVISION OPERATES WITH ONE FOREMAN AND TWO TECHNICIANS. WITH THE USE A SERVI-LIFT BUCKET TRUCK AND A UTILITY TRUCK, THE CREW IS ABLE TO INSTALL LINE HARDWARE & LINE WIRE, MAINTAIN AND REPAIR IN EXCESS OF TWO HUNDRED AND EIGHTY FIVE MILES OF OVERHEAD LINE WIRE IN THE CITY OF PROVIDENCE.

THIS WIRE SYSTEM IS THE ARTERIES OF OUR PLANT FEEDING OVER 1,370 CITY, PRIVATE, AND EVCS FIRE ALARM BOXES. THE FOLLOWING IS A LIST OF WORK PERFORMED BY THIS DIVISION OVER THE PAST YEAR.

AERIAL CIRCUITS OPEN 51:

THIS CONDITION IS AN EMERGENCY CONDITION AND REQUIRED 24 HOUR REPAIR. AERIAL CIRCUITS CAN OPEN BECAUSE OF TRAFFIC ACCIDENTS RESULTING IN UTILITY POLES BEING KNOCKED DOWN OR ADVERSE WHEATHER CONDITIONS SUCH AS ICE STORMS AND HURRICANES.

AERIAL CIRCUIT GROUNDS 39:

GROUNDS ARE DETECTED BY EQUIPMENT AT THE BOC, READINGS ARE RECORDED THREE TIMES A DAY AND ARE GIVEN TO THE LINE FOREMAN FOR TROUBLE SHOOTING. GROUNDS ARE FOREIGN VOLTAGE.

THE AERIAL DIVISION IS RESPONSIBLE FOR THE REMOVAL OF GROUNDS FROM OUR WIRING SYSTEM.

INSTALLATION OF NEW AERIAL CIRCUIT MASTER BOXES	27
INSTALLATION OF NEW AERIAL STREET BOXES	9
AERIAL CIRCUIT TREE TRIMING	39 CIRCUITS
AERIAL CIRCUIT MAINTENANCE	39 CIRCUITS
POLE CHANGE OVERS NEW ENGLAND TELEPHONE	136
POLE CHANGE OVERS NARRAGANSETT ELECTRIC	98

THE LINE DIVISION INSTALLED THE FOLLOWING LINE HARDWARE FOR VARIOUS JOBS:

27,640' OF #10 LINE WIRE
6,240' OF #12 RURAL C WIRE
380' OF #14 THHN WIRE
220' 1/2" BOX CONDUIT
160' 3/4" BOX CONDUIT
23 SINGLE SPOOL RACKS
118 TWO SPOOL RACKS
11 THREE SPOOL RACKS
386 SPOOL INSULATORS
176 RACK LAGS
88 J HOOK LAGS
210 LINE BOLTS #10"
144 LINE BOLTS #12"
86 LINE BOLTS #14"
390 LINE BOLT WASHERS
316 WOODEN BRACKETS
14 1/2" WEATHER CAPS
5 3/4" WEATHER CAPS
36 GROUND RODS 8'
52 GROUNDERS 5'
9 EASY MOUNT BOX BRACES
11 RURAL C TERMINAL CANS
54 RURAL C DEAD ENDS
68 RURAL C TIES
360 #10 SLEEVES
44 #10 TO 12 SLEEVES
68 #10 TO 14 SLEEVES
8 #12 SLEEVES
13 #14 SLEEVES
210 GROUND ROD STAPLES

VEHICLE INVENTORY

CAR #	VEHICLE	TYPE	STATUS
33A	1973 INTERNATIONAL	BUCKET TRUCK	IN SERVICE
33	1984 FORD	BUCKET TRUCK	IN SERVICE
34	1978 CHEVY	CABLE TRUCK	IN SERVICE
36	1972 FORD	WENCH TRUCK	IN SERVICE
35	1978 CHEVY	PICK UP 1/2 TON	IN SERVICE
39	1978 CHEVY	PICK UP 1/2 TON	IN SERVICE
40	1978 CHEVY	PICK UP 1/2 TON	IN SERVICE
32	1974 FORD	1/2 TON VAN RADIO TRUCK	IN SERVICE
--	1981 CHEVETTE	4 DOOR SEDAN	IN SERVICE
--	1981 CHEVETTE	4 DOOR SEDAN	IN SERVICE
30	1978 PLYMOUTH	4 DOOR SEDAN	IN SERVICE
4	1978 CHRYSLER	4 DOOR SEDAN	OUT OF SERVICE
3	1982 FORD LTD	4 DOOR SEDAN	IN SERVICE
--	1973 FORD	1/2 TON VAN	OUT OF SERVICE

OVERTIME COSTS

Being concerned with overtime costs in the categories of SICK, VACATION, AND EMERGENCY for the past fiscal year of 1986-1987 and for projecting these definitive costs into the fiscal year of 1987-1988 we have outlined the following tables and graphs with an explanation of each.

In order to make any kind of a projection on our overtime costs we must realize that the weather plays an important role in any future planning, i.e.

A high water table effects our underground cable network, while

A freezing rain or heavy snow raises havoc with our aerial system, while

Our sidewalk equipment is constantly being battered by either vandalism or accidents.

Added to this is the necessity of replacing any vacationer with another employee as all positions are vital and our staff severely limited.

This creates a demand on our overtime work and makes an accurate estimate a conjecture at best.

During the last fiscal year we were two men short with the resulting dilemma of increased overtime in keeping with the requirement of minimum manning. As soon as these positions were filled there was an immediate and noticable sharp decrease in our overtime category.

On pages 3 to 6 we have outlined our overtime costs in three categories: SICK, VACATION, and EMERGENCY. In all three categories we have listed number of hours involved and amount of money. The hours and amounts are totaled by week, month, and quarterly, with a final grand total for the fiscal year of 1986 - 1987.

On page 7 based on the figures from fiscal 1986 - 1987 and the fact that the two vacant positions have been filled, we have made an estimate of 1987 - 1988 monthly projection with an anticipated increase of .047%.

On page 8 we have again presented the three categories of SICK, VACATION, and EMERGENCY of fiscal 1987 - 1988 to date.

Our graph on page 9 of Fiscal 1986 - 1987 accentuates the vacation problem and the necessity of minimum manning.

The graph on page 10 is a good comparison of performance and what we anticipate.

Percentagewise our three categories totaled out at:

SICK	35%
VACATION	29%
EMERGENCY	36%

OVERTIME COSTS - 1986

MONTH	HOURS BY WEEK	SICK		VACATION		EMERGENCY		AMOUNT BY WEEK
		HOURS	AMOUNT	HOURS	AMOUNT	HOURS	AMOUNT	
JULY	102.5	24	488.16	8	1301.76	70.5	1384.91	3,174.83
	120	48	976.32	56	1139.04	16	301.04	2,416.40
	73	- -	- -	40	813.60	33	605.34	1,418.94
	53	16	325.44	24	488.16	13	240.12	1,053.72
TOTAL	348.5	88	1789.92	128	3742.56	132.5	2531.41	8,063.89
AUGUST	92	40	813.60	48	976.32	4	78.92	1,868.84
	121.5	16	325.44	32	650.88	73.5	1390.57	2,366.89
	133	8	162.72	104	2115.36	21	349.95	2,628.03
	64	24	488.16	24	488.16	16	301.04	1,277.36
	139	24	488.16	80	1627.20	35	617.05	2,732.41
TOTAL	549.5	112	2278.08	288	5857.92	149.5	2737.53	10,873.53
SEPTEMBER	49	40	813.60	- -	- -	9	161.10	974.70
	86	48	976.32	- -	- -	38	694.84	1,671.16
	44	32	650.88	- -	- -	12	222.12	873.00
	54	40	813.60	- -	- -	14	257.92	1,071.52
	16	16	325.44	- -	- -	- -	- -	325.44
TOTAL	249	176	3579.84	- -	- -	73	1335.98	4,915.82
TOTALS	1147	376	7647.84	416	9600.48	355	6604.92	23,853.24
PREVIOUS TOTAL								
GRAND TOTAL	1147	376	7647.84	416	9600.48	355	6604.92	23,853.24

OVERTIME COSTS - 1986

MONTH	HOURS BY WEEK	SICK		VACATION		EMERGENCY		AMOUNT BY WEEK
		HOURS	AMOUNT	HOURS	AMOUNT	HOURS	AMOUNT	
OCTOBER	54	40	813.60	- -	- -	14	257.92	1,071.52
	59.5	48	976.32	- -	- -	11.5	228.31	1,204.63
	48	32	650.88	- -	- -	16	337.82	988.70
	36	- -	- -	- -	- -	36	700.52	700.52
TOTAL	197.5	120	2440.80	- -	- -	77.5	1524.57	3,965.37
NOVEMBER	84.5	16	325.44	48	976.32	20.5	386.14	1,687.90
	32	8	162.72	- -	- -	24	466.12	628.84
	44	32	650.88	- -	- -	12	229.44	880.32
	91	32	650.88	40	813.60	19	361.94	1,826.42
	56	16	325.44	40	813.60	- -	- -	1,139.04
TOTAL	307.5	104	2115.36	128	2603.52	75.5	1443.64	6,162.52
DECEMBER	38.5	8	162.72	16	325.44	14.5	329.31	817.47
	56	44	894.96	- -	- -	12	247.82	1,142.78
	48	- -	- -	8	162.72	40	774.62	937.34
	116	16	325.44	88	1789.92	12	229.44	2,344.80
TOTAL	258	68	1383.12	112	2278.08	78.5	1581.19	5,242.39
TOTALS	763.5	292	5939.28	240	4881.60	231.5	4549.40	15,370.28
PREVIOUS TOTAL	1147	376	7647.84	336	9600.48	355	6604.92	23,853.24
GRAND TOTAL	1910.50	648	13587.12	576	14482.08	586.50	11154.37	39,223.52

OVERTIME COSTS - 1987

MONTH	HOURS BY WEEK	SICK		VACATION		EMERGENCY		AMOUNT BY WEEK
		HOURS	AMOUNT	HOURS	AMOUNT	HOURS	AMOUNT	
JANUARY	93	24	488.16	48	976.32	21	385.80	1,850.28
	29.5	- -	- -	- -	- -	29.5	622.64	622.64
	88	8	162.72	40	813.60	40	771.96	1,748.28
	38	- -	- -	8	162.72	30	625.11	787.83
TOTAL	248.5	32	650.88	96	1952.64	120.5	2405.51	5,009.03
FEBRUARY	36	16	325.44	- -	- -	20	365.32	690.76
	92.5	48	976.32	- -	- -	44.5	814.54	1,790.86
	38	16	325.44	- -	- -	22	445.22	770.66
	57	16	325.44	- -	- -	41	825.78	1,151.22
	20	8	162.72	- -	- -	12	229.44	392.16
TOTAL	243.5	104	2115.36	- -	- -	139.5	2680.30	4,794.66
MARCH	18	8	162.72	- -	- -	10	212.06	374.78
	108.5	45	1403.46	- -	- -	63.5	1191.14	2,594.60
	100	40	813.60	48	976.32	12	236.76	2,026.68
	16	16	325.44	- -	- -	- -	- -	325.44
	33	16	325.44	- -	- -	17	498.26	823.70
TOTAL	275.5	125	3030.66	48	976.32	102.5	2138.22	6,145.20
TOTALS	767.5	261	5796.90	144	2928.96	362.5	7224.03	15,948.89
PREVIOUS TOTAL	1910.5	648	13587.12	576	14482.08	585.5	1115.32	39,223.52
GRAND TOTAL	2678	909	19383.02	720	17411.04	949	18378.35	55,172.41

OVERTIME COSTS - 1987

MONTH	HOURS BY WEEK	SICK		VACATION		EMERGENCY		AMOUNT BY WEEK
		HOURS	AMOUNT	HOURS	AMOUNT	HOURS	AMOUNT	
APRIL	53	32	650.88	- -	- -	21	383.16	1,034.04
	32	16	325.44	- -	- -	16	300.96	626.40
	39	- -	- -	- -	- -	39	777.46	777.46
	22	12	244.08	- -	- -	10	193.60	437.68
TOTAL	146	60	1220.40	- -	- -	86	1655.18	2,875.58
MAY	14.75	- -	- -	- -	- -	14.75	291.16	291.16
	82	16	325.44	48	976.32	18	351.50	1,653.26
	20.5	- -	- -	- -	- -	20.5	376.94	376.94
	44	24	488.16	- -	- -	20	416.60	904.76
TOTAL	161.25	40	813.60	48	976.32	73.25	1436.20	3,226.12
JUNE	40.5	8	162.72	- -	- -	32.5	630.17	792.89
	20	8	162.72	- -	- -	12	229.38	392.10
	12	8	162.72	- -	- -	4	101.00	263.72
	8	8	162.72	- -	- -	- -	- -	162.72
TOTAL	80.5	32	650.88	- -	- -	48.5	960.55	1,611.43
TOTALS	387.75	132	2684.88	48	976.32	207.75	4051.93	7,713.13
PREVIOUS TOTAL	2678	909	19383.02	720	17411.14	949	18378.35	55,172.41
GRAND TOTAL	3066.75	1041	22067.90	768	18378.36	1156.75	22430.28	62,885.54

PROJECTION OF OVERTIME COSTS

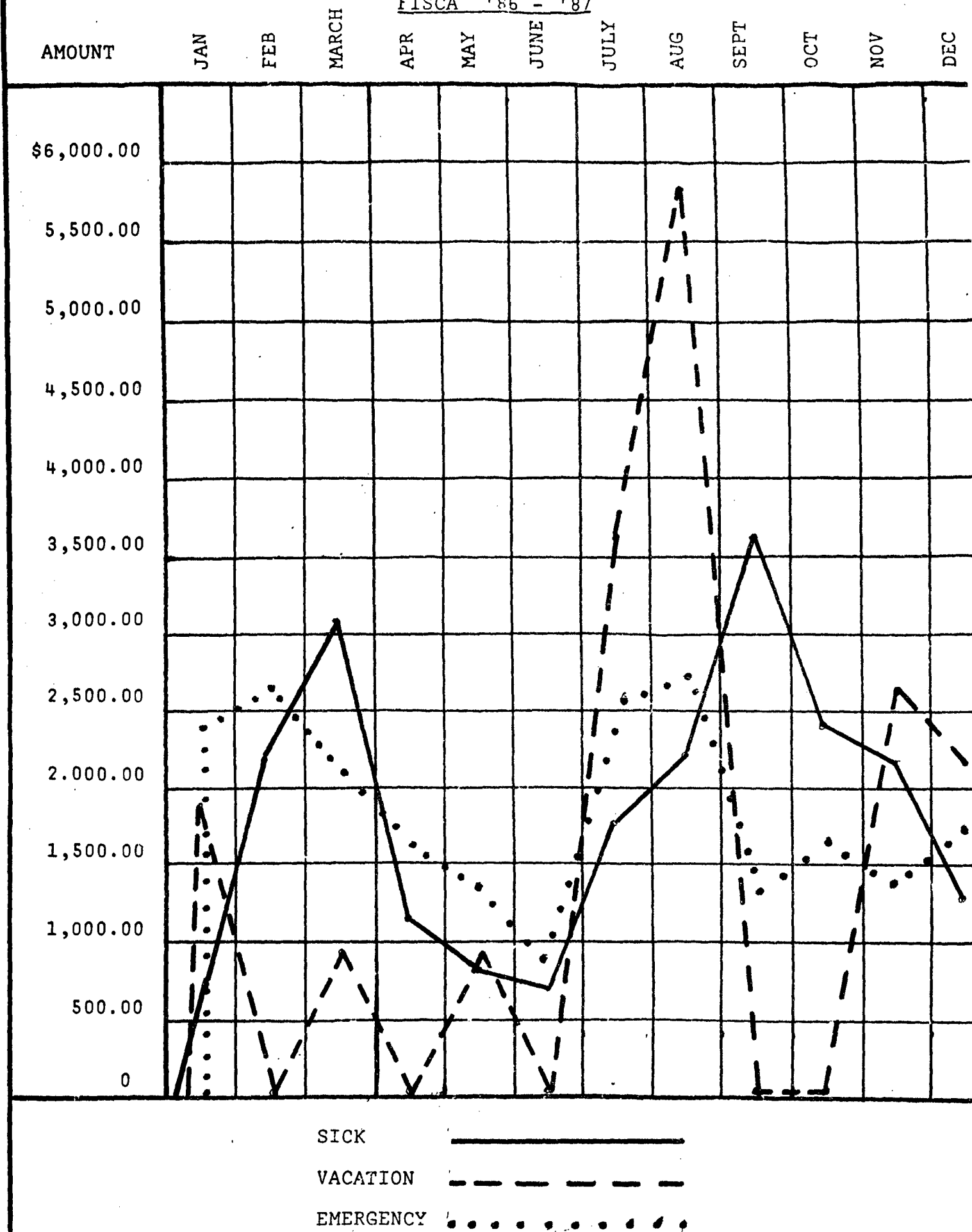
MONTH	'86 - '87	ESTIMATED '87 - '88	INCREASE .047	PROJECTION
1986 JULY	8,063.89	4,442.89	208.82	4,651.71
AUGUST	10,873.53	5,873..53	276.06	6,149.59
SEPTEMBER	4,915.82	2,915.82	137.04	3.052.86
OCTOBER	3,965.37	2,965..37	139.37	3,104.74
NOVEMBER	6,162.52	3,162.52	148.64	3,311.16
DECEMBER	5,242.39	4,242.39	199.39	4,441.78
1987 JANUARY	5,009.03	4,009.03	188.42	4,197.45
FEBRUARY	4,794.66	4,794..66	225.35	5,020.01
MARCH	6,145.20	3,145.20	147.82	3,293.02
APRIL	2,875.58	2,875.58	135.15	3,010.73
MAY	3,226.12	3,226.12	151.63	3,377.75
JUNE	1,611.43	1,611.43	75.74	1,687.17
TOTALS	62,885.54	43,264.54	2,033.43	45,297.97

OVERTIME COSTS - 1987

MONTH	HOURS BY WEEK	SICK		VACATION		EMERGENCY		AMOUNT BY WEEK
		HOURS	AMOUNT	HOURS	AMOUNT	HOURS	AMOUNT	
JULY	46	- -	- -	16	325.44	30	974.12	1,299.56
	85.50	24	488.16	16	325.44	45.50	845.57	1,659.17
	49	24	488.16	16	325.44	9	172.08	985.68
	34	16	325.44	- -	- -	18	369.90	695.34
TOTAL	214.50	64	1301.76	48	976.32	102.50	2361.67	4,639.75
AUGUST	36	16	325.44	16	325.44	4	78.92	729.80
	69	32	650.88	16	325.44	21	436.42	1,412.74
	28	24	488.16	- -	- -	4	71.56	559.72
TOTAL								
TOTAL								
TOTALS								
GRAND TOTAL								

OVERTIME COSTS

FISCA '86 - '87



OVERTIME COSTS

AMOUNTS

JAN

FEB

MARCH

APRIL

MAY

JUNE

JULY

AUG

SEPT

OCT

NOV

DEC

\$11,000.00

10,500.00

10,000.00

9,500.00

9,000.00

8,500.00

8,000.00

7,500.00

7,000.00

6,500.00

6,000.00

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4,000.00

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3,000.00

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1,500.00

1,000.00

500.00

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ACTUAL FISCAL '86 - '87

PROJECTION FISCAL '87 - '88

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