LAW ENFORCEMENT MANAGEMENT INSTITUTE

A Feasibility Study for Student and Faculty

Emergency Call Boxes on the University of Texas

at Arlington

A Learning Contract

Submitted in Partial Fulfillment

of the Requirements for

Module I

By

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#105

LIST OF APPENDICES

As early as the 1800's a prototype of the call box system had been a means of communication for law enforcement and the public. In the mid 1800's a call box system was installed in Boston, Massachusetts by the Gamewell Company. By the 1890s the Gamewell call box system had been installed as far north as Minneapolis, Minnesota. The system consisted of a combination of call box and a public fire pull device for signaling a fire and summoning help. Both the call box and the fire system were to be pole-mounted with the fire system on one side of the call box. The opposite side of the call box was for the police officer who walked that district. The door was capable of being locked so the officer could place papers or other equipment inside, and the box contained a telephone receiver which was connected to the main station by telephone wire. A light was placed on the top of the box as a means for the main station to signal the district officer. When the light was on the officer knew he was to contact headquarters.

In St. Paul, Minnesota, a call box system installed by another call box company named Pearse and Jones, had eighty-three boxes city-wide, strung with 5,539 miles of wire. It connected five stations throughout St. Paul.

From 1900-1908 the cities of Dallas and Houston, Texas, installed the Gamewell system for the law enforcement agencies. These boxes also had notification lights on their tops.

Officers were instructed to use them to call in every hour for reports. In the city of Houston the central control for the call boxes was housed in the Electrical Department office.

It would seem that the idea of the call box system is now coming full circle. What was once used strictly by law enforcement as a means of communication to assist the public, is now being used, with special prevalence on college and university campuses, to summon assistance from or report crime to law enforcement agencies.

One of the first college campuses to use the call boxes was the University of California, San Diego. This particular campus was once a military installation and its first "call box system" originated as a fire box. Sentries used them at night on fire watch to summon help in case of a fire. When the University of California Regents took possession of the land, the fire boxes were converted into an emergency call box system for the emerging campus.

The call box system at the University of California, San Diego was basically a hard-wire system, one of three types of call box system choices currently marketed. The other two types are cellular and radio transmitted systems.

The hard-wire system seems to be the least cost effective choice. The hard-wire system requires digging trenches and laying underground wire, using up a more significant

amount of time, man-hours, and money than the other two pre-
viously mentioned call box systems. Should the police depart-
ment want to expand their existing system or relocate the
boxes with the changing crime patterns, new trenches have to
be dug and more wire purchased and laid.

The cellular system is for all practical purposes a
telephone. The system operates on standard telephone line,
and the police departments are charged a monthly line usage
fee. The biggest disadvantage of the cellular call box system
is a problem that occurs when a caller calls from the box to
the central receiving location. If the system is not equipped
with a box location designator, which most are not, then the
call-taker or dispatcher must ask the location of the caller
at the call box. The signal identifier or designator allows
the specific box being used to be pinpointed at the receiving
location.

The third choice in emergency call box systems is the
radio transmitted type. This type of emergency call box ap-
pears to be becoming the most popular system. These boxes do
not require hard-wire systems or even telephone lines. The
box operates on a radio frequency with a portable battery
inside the box casing. The box is portable and can be moved
with very little expense or worked involved.

An important difference between the cellular box and

the radio transmitted box is that once the door is opened to
the radio transmitting box, the dispatcher or call-taker re-
ceives a signal that pinpoints the location of the box which
has been opened. Patrol units also can have the capability of
monitoring the conversation between the two points for quicker
response. One of the last advantages of the radio transmitting
systems is that they can be obtained with capabilities of op-
erating off of existing communications equipment.

Before making any decision on a system, these consider-
ations should be kept in mind:

- Be cost effective
- Be reliable
- Be easy to install/relocate
- Have ease of maintenance/replacement
  of equipment
- Be virtually vandalproof
- Pinpoint its location upon activation
- Requires no action to operate other than
  opening the door or similiar system. (A
  push-to-talk button is required
- Be compatible with existing communication
  equipment
- Have excellent audio clarity
- Have a simple method of identifying/
  replacing weak batteries
- Be able to immediately signal activation
  or removal of the call box.[1]

Since this project was designed to compare the feasi-
bility of various systems before purchasing a call box system,
it seemed useful to contact other police agencies in the state
to find out what types of call box systems are being used at
various campuses, and how agencies rate the relative

efficiency of these various systems. This report will summa-
rize survey responses from representatives of three institu-
tions: the University of Texas at Austin, Texas A&M, and the
University of Houston.

The Crime Prevention representative at the University
of Texas At Austin reported that its system is a hard-wire
system. The system is direct wired to the pole with a pole-
mounted box, and a push button activation. It is relatively
a simple system. The estimated cost of the call box system
was approximately $1,000.00 per box, including the cost of
installation.[2]

The Crime Prevention representative at Texas A&M Univer-
sity reported that its system is a telephone-type system. The
call box operates on telephone lines and has a three-sided,
open-front covering; the box contains a telephone handset
and a push button pad. Upon activation of a button, the hand-
set is lifted to talk. The call boxes are pole-mounted or
building-mounted with a light inside for dark hours, much
like a telephone booth. The Texas A&M system is a telephone
line wire system and the cost per box is estimated at approx-
imately $1,500.00, plus a monthly line usage fee.[3]

Referring back to the list of consideration for a call
box system, the University of Houston's emergency call box
system seemed to exemplify many of the most optimal criteria.

The police department at the University of Houston installed
the radio transmitted call box system. It is perhaps the first
and only university in the country with a radio call box sys-
tem.[4] The first box was installed in June of 1977, looking to
develop a more efficient and effective alternative to the
present video and telephone security systems.[5] Since 1977 the
University of Houston has installed twenty-four emergency
call boxes at an estimated cost of $3,500.00 each. The police
department attributed its purchase of the radio transmitting
call boxes to the fact that the box has a one-time purchase
fee, it is mobile, capable of being re-installed at other lo-
cations in response to changing crime patterns, and the sim-
ple opening of the door to the box "keys" the microphone
while registering its location on the communication center's
console.[6] Although the department receives approximately 260
calls per month, it reports they have not measured any sig-
nificant fluctuation in crime either way.

In response to questions regarding maintenance costs,
the representative from the University of Houston Police De-
partment advised that the department incurs a maintenance
cost of replacing at least two batteries a month for the call
boxes. He further stated that if there are any repairs, un-
scheduled or scheduled for a call box, the box is taken into
the dealer's service center and is usually out of commission

no longer than a day, unless the box requires extensive work. The call box system dealer does have on-site service, however the cost is much higher than the direct delivery to the dealer.[7]

The University of Texas at Arlington is one of 14 component institutions which comprise the University of Texas System. The University of Texas at Arlington (UTA) encompasses 348 acres of land, is the fifth-largest university in the state, and the second-largest university in the University of Texas System. In 1989, the University had a combined population of 27,551; 3,680 faculty and staff members, and 23,871 students. The allotted police force for the University of Texas at Arlington is 25 sworn police officers and 19 civilian guards, who provide service and protection to the personnel and property of the University.

In the 1988-1989 fiscal year, the patrol division handled 10,631 Calls for Police Service. These calls mainly consisted of, but were not limited to, assisting motorists on campus or proximities around the campus jurisdictional boundaries with vehicle unlocks and jumpstarts, escorts, and providing information and directions to campus visitors. Even though the University of Texas at Arlington continues to rank as one of the safest university campuses in the state of Texas, the University did experience an increase in crime.

In addition to polling other state-wide universities by telephone, this survey reports on a randomly-conducted poll of faculty and students at UTA designed to access interest and concern for emergency call boxes. The survey also

asked whether any of the persons polled had had prior experi-
ence using an emergency call box system (APPENDIX I). The
survey instrument was distributed among 50 randomly selected
faculty and staff members and 50 randomly selected students.
The survey consisted of 15 questions, four of which required
written response from the survey taker. The allotted survey
period was two weeks.

After the two-week period had elapsed, upon tabulating
the survey results, it was found that 56 percent of the stu-
dents and 24 percent of the faculty and staff had returned
the survey instrument. Also, of the surveys returned, only
one student participating in the survey attended UTA on a
part-time basis. Only 39 percent of the students polled had
ever seen or used an emergency call box on another campus.
Only 33 percent of the faculty/staff polled had used or seen
an emergency call box. Both groups polled thought that the
UTA campus was a safe campus community, but 25 percent of the
students and 50 percent of the faculty/staff had witnessed
some type of crime or suspicious activity and very few had
reported it. Also, the information given on the survey indi-
cates that 58 percent of the faculty/staff reported they were
on campus at least four times during the week after dark.
Less than 2 percent of these 58 percent witnessed any suspi-
cious activity, while 39 percent of the students were on

campus a minimum of four times a week after dark. Less than
2 percent of these 39 percent witnessed any suspicious activity.

Based upon this information the UTA campus is perceived
to be a relatively safe campus community. Nevertheless, persons seem to be witnessing crimes and not reporting them.
This could be because they feel nothing can or will be done,
or because of the proximity of the nearest building or telephone. Perhaps if call boxes were installed in areas with a
high volume of pedestrian traffic or areas that are poorly
lit, the reporting rate might rise to a higher level still.

Since the UTA Police Department has allotted funds for
the purchase of a call box system and since the system could
prove to be another viable crime prevention tool, it is highly recommended. Studying the information gathered through the
literature and telephone contacts with other university representatives, the department should consider the purchase of
the radio transmitted type of emergency call box system. The
initial cost of the purchase of the system will be high, approximately $3,800.00 per unit. But, more than the other two
types, this system is a two-in-one system. Not only does the
box operate on the existing communications equipment, it can
also function independently on battery power in case of a
communications equipment failure. The system would represent

a one-time purchase with no "extra fees" attached,unlike the cellular system with its monthly charges, and a one-time installation fee. The maintenance contract, which provides for the monthly inspection of the call boxes, would be a once-a-year payment. There would be no service costs unless the dealer was called to work on a call box "in the field."

The radio-transmitted system is housed in a cast aluminum, weather-proof box. It has an easy-open "icebreaker" handle, and is equipped with a light on top for easy viewing in the darkness. The most unique feature about the radio transmitted emergency call box system is the automatic location identifier. This is the signal sent by the box as soon as the door is opened. The signal registers on the console in the communication center, pinpointing a location and allowing the dispatcher or call-taker to have patrol units enroute immediately. And last but not least, the call boxes can be relocated around campus with very few man-hours involved. Since the boxes are pole-mounted, all that is required is the placement of another pole, or mounting the box on a light pole already in place.

The radio-transmitted emergency call boxes have the following built in safeguards:

1. When the outer door of the box is opened
   for any reason, a signal registers on the
   console in the communications center.

2. When the box operates on battery power,
   a weak battery signal can be received
   on the console display.

3. The call boxes are equipped with an anti-
   tampering device which signals the console
   if someone is trying to damage or remove
   the box from the pole.

Should the decision be made to purchase call boxes, the
department will need to determine what areas experience high
volumes of student and faculty pedestrian traffic, areas
which are some distance from the center of campus, and the
areas that are not well lit in the evening hours. Appendix II
displays proposed sites for the installation of emergency call
boxes. These areas fit the above suggested criteria for place-
ment.

The safety of the faculty/staff and students is para-
mount. While the emergency call box system is not a cure-all
or remedy for the fear of crime, it can be a viable crime
prevention method. With good implementation of the call box
system, the returns will far outweigh the costs in not only
prevention, but in recovery of property and increased campus
safety.

NOTES

¹Rick Michelson, Al Jenkins, "Emergency Call Boxes on Campus- A Time For Change," <u>Campus Law Enforcement Journal</u>, January/February 1988, 38-39.

²Willie Tisdale, University of Texas at Austin Police, interview by author, (Arlington, 13 December 1989).

³Bert Kretzschmar, Texas A&M University Police, interview by author, (Arlington, 13 December 1989).

⁴George Hess, Susan Stoner, "Emergency Radio Call Boxes A Proven Tool," <u>Campus Law Enforcement Journal</u>, November/ December 1981, 28-29.

⁵Ibid., 28.

⁶Ibid., 29.

⁷Lt. Stcremski, University of Houston Police, interview by author, (Arlington, 12 December 1989).

SOURCES CONSULTED

Byrne,E.C., "Abstracts in Policing," <u>Law and Order</u> 22/11 (1974): 34-42.

Hess,George, Stoner,Susan, "Emergency Radio Call Boxes: A Proven Tool," <u>Campus Law Enforcement Journal</u> 11:6 (11-12/81): 28-29.

James,Larry, "Foot Patrol Useful on One California Campus," <u>Campus Law Enforcement Journal</u> 12:5 (9-10/82): 14-15.

Michelson,Rick, Jenkins,Al, "Emergency Call Boxes on Campus- A Time for Change," <u>Campus Law Enforcement Journal</u> 18:1 (1-2/88): 38-39.

<u>National Criminal Justice Reference Service</u>, National Institute of Justice, Washington, D.C.

Peak,Ken, "Campus Policing in America," <u>The Police Chief</u> 54:5 (6/87): 22-24.

Survey Questionnaire

The University Police Department is conducting this survey to obtain interest and ideas concerning a new crime prevention system. The Police Department is conducting a study of Emergency Radio Call Boxes to be placed throughout the campus. These boxes will enable the user to seek assistance or information directly from the police department, within seconds, by the touch of one button. We would appreciate your taking a few minutes to answer this questionnaire.

1. Please check one:

    ___ faculty/staff   ___ student

2. If you checked student, are you full or part-time?

    ___ full-time   ___ part-time

3. What is/was your major field of study? (if applicable)

    _____

4. Do you feel UTA is a safe campus community?

    ___ yes   ___ no

5. How many nights per week are you on campus after dark?

    ___ 0-2 times   ___ 2-4 times   ___ 4-7 times

6. Do you generally park in the lots near your building or in the remote lots?

    ___ near   ___ remote

7. If you do not drive, how far is the walk to campus?

    _____

8. Have you ever witnessed a crime or suspicious activity on campus?

    ___ yes   ___ no

9. Have you ever been victimized on this campus?

    ___ yes   ___ no

10. If so, did you contact the police? (for questions 8 or 9)

    ___ yes   ___ no

11. Are you familiar with Emergency Radio Call Boxes?

    ___ yes   ___ no

12. If yes, have you used a call box on another University campus?

    ___ yes   ___ no

13. If you answered yes to question 12, did you feel satisfied with the police response time?
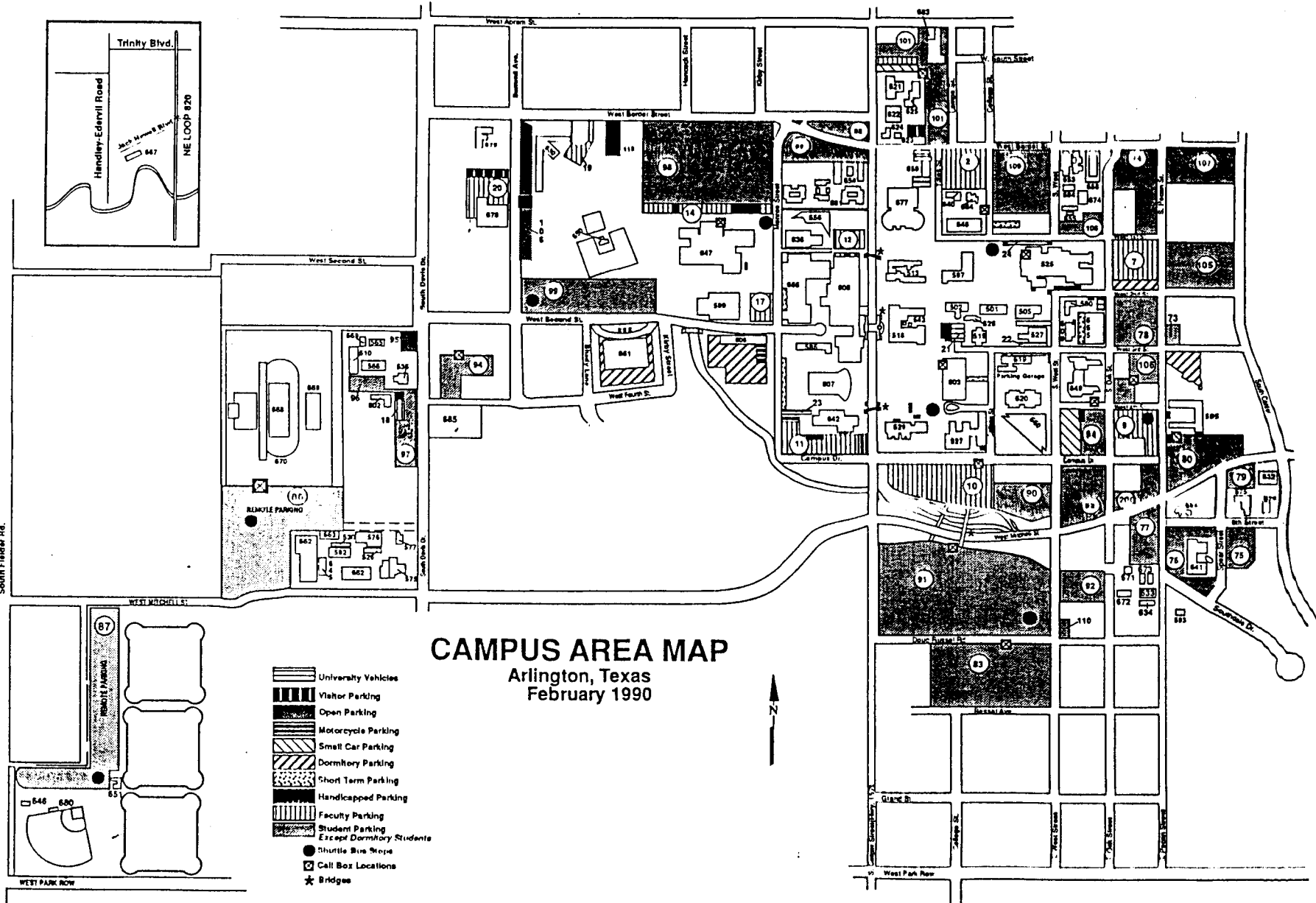
    ___ yes   ___ no

14. If you were crossing a parking lot, day or night, what color would attract your attention to the radio call box?

    _____

15. Please list three locations on the UTA campus where you feel an Emergency Radio Call Box should be placed.

    _____

    _____

BUILDING INDEX

501 Ranson Hall
502 Preston Hall
505 College Hall
513 Geoscience Building
518 Science
519 Maintenance Office
525 Student Center
526 Paint Shop
527 Central Utility Plant
530 Greenhouse
536 Residence
565 University Police Building
566 Boy's Dorm West Campus
569 Police Annex
575 Warehouse
576 Woodshop
577 Residence
580 Brazos House
586 Pachl Hall
592 General Warehouse
593 Grounds Service Building - East
595 Lipscomb Hall
597 Engineering I
599 Physical Education Bldg.
602 Maverick Building
603 Library
606 Trinity House
607 Texas Hall Auditorium
608 Fine Arts Building
609 Health Center
610 Athletic Dressing Room
614 Gas Station
619 Trimble Hall
620 Hammond Hall
621 Social Work Complex - A
622 Social Work Complex - C
623 Social Work Complex - E
624 Social Work Complex - D
625 Social Work Complex - B
626 Carlisle Hall
627 Life Science Building
629 University Hall
630 Swift Center
632 San Suz Apartments
633 Shelmar Apartment No. 1 N.
634 Shelmar Apartment No. 2 S.
638 Campus Center Building
640 Del Mar Apartments
641 Campus Apartments
642 E.E. Davis Hall
643 Chemical Storage Building
644 General Warehouse
645 Warehouse
646 Grounds Service Building-West
647 Activities Building
648 Engineering Lab Building
649 Business Building
650 Tennis Center
651 Fielder Complex
652 Solar House
653 Border West Apartments
654 Cooper South Apartments
655 West Apartments
656 University Bookstore
658 Capricorn Apartments
659 Pisces Apartments
660 School of Nursing Building
661 University Village
662 Central Service Bluiding
663 Central Service Annex
664 Engineering Annex
665 Thermal Energy Plant
666 Architecture Building
667 Engineering Research Building
668 Maverick Stadium
669 Athletic Stadium
669 Ticket Booth - East
670 Ticket Booth - South
671 Warwick Apartments - 1
672 Warwick Apartments - 2
673 Warwick Apartments - 3
674 Warwick Apartments - 5
675 Aero Research Center
676 Compressor Building
677 Engineering II
678 Personnel Office
679 Building No. 678 (Child Care)
680 Athletic Storage Building
681 Keys Apartments
683 Building No. 683 ("TSO)
684 Libra Apartments
685 Housing Maintenance Office

CAMPUS AREA MAP

Arlington, Texas
February 1990

University Vehicles
Visitor Parking
Open Parking
Motorcycle Parking
Small Car Parking
Dormitory Parking
Short Term Parking
Handicapped Parking
Faculty Parking
Student Parking
Except Dormitory Students
● Shuttle Bus Stops
☑ Call Box Locations
★ Bridges

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