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National Institute of Justice
United States Department of Justice
Washington, D.C. 20531
INTRODUCTION

The Office of Mr. Donal D. Kavanagh, APCO Director of Projects, Technical Assistance Office, P. O. Box 669, New Smyrna Beach, Florida 32089, received a request for assistance to review the Bristol County, Massachusetts Law Enforcement Regional Radio Network's operational procedures; access user training; determine network discipline, and establish, generally, the Regional Radio Network's level of network effectiveness and operating efficiency.

The APCO Technical Assistance Manager, Mr. Bruce M. Karr, responded to the requestor, Mr. Charles Rainville, Director of EMS Communications for the City of New Bedford, assigning Joseph H. Gallelli, currently a Lieutenant with the New York State Police and Director of State Police Communications. Lieutenant Gallelli accepted the task, #79011601, to be conducted on other than business hours, and arranged an on-site field review, through Mr. Rainville, to complete the task prior to April 10, 1979.
BACKGROUND

In 1976, twelve law enforcement agencies within Bristol County, Massachusetts, succeeded in securing approximately $320,000 from the Regional LEAA Planning Agency, located in New Bedford, Massachusetts, to implement an ultra high frequency (UHF) Regional Police Radio Network.

Bristol County, with a population of approximately 300,000, is composed of sea level, metropolitan coastal to low rolling rural geography encompassing approximately 650 square miles, with the highest elevation located in the southwest corner near the city of Fall River. The coastal area, located on Buzzards Bay, has an east-west interstate highway, I-195, whose high traffic volumes are predominately generated by the adjacent resort communities on Cape Cod. Boston, approximately 75 miles north of Fall River and New Bedford, has an established influence of transient metropolitan crime, particularly stolen cars deposited or passing through Bristol County. The population base is predominately stable with minimal annual change, with a fluctuation perceptible in both cities, transient, one to the other. A seasonally fluctuating population is located in the border town of Mattapoisett, between Plymouth and Bristol County, where a large summer community is present. The countywide crime rate is moderate, substantially generated by transient activity, requiring cooperative policing by adjacent jurisdictions through loosely woven, longstanding verbal agreements, spawning the need for the Regional Police Emergency Network. The regional system was installed, as identified on the attached System Diagram, Exhibit I, as a countywide satellite receiver (voted) mobile relay operation, with a secondary low-power base Simplex operation. The land mobile equipment for the mobile relay system is manufactured by Motorola, Inc., and the General Electric Company; Motorola, Inc. provides service and equipment to the towns, and the General Electric Company provides equipment and service to the City of New Bedford, reduced to equipment only to the City of Fall River.

BRISTOL COUNTY REGIONAL RADIO NETWORK DISTRIBUTION

The regional channel provides each of the subscribing twelve departments with "all call," two-way capability for point-to-point and mobile-to-base operation. Channel use varies, dependent upon each departments' interpretation of the unique circumstances surrounding an incident. The system also has a subregional network, dividing the county into five subdivisions. The 12-user agencies (nine other counties contained within the borders of Bristol County, including North Attleborough; Attleboro; Seekonk; Rehoboth; Norton; Mansfield; Easton; Westport and Dartmouth, are non-participants, electing to remain apart from the regional network), geographically reside within the subdivisions but share access to the common regional channel. The subdivisions are:

I. Somerset
   Swansea
   Dighton
   Freetown

II. Taunton
    Raynham
    Bridgewater

III. Acushnet
     Fairhaven
     Mattapoisett

IV. Fall River
V. New Bedford

Each subdivision within the region operates independently of the other, sharing a radio relay station with each of the common users in the subdivision, with the exception of the Cities of Fall River and New Bedford, who, due to their size, must operate independently. The regional network, with a primary radio relay point located on a relatively high hill near the City of Fall River, provides good coverage for mobiles and portables throughout the county. The regional system design parameters for radio coverage were met or exceeded, which has been verified by the users through the operation of the system over the past three years.
Bristol County, and the majority of eastern Massachusetts, operate under a UHF format which is part of a state plan not available at the time of this report. The UHF format apparently does not contain an inter-regional frequency or channel, as the adjacent Plymouth County operates a similar UHF regional network. There is no formal interface between the two counties, with the exception of the Town of Mattapoisett, which operates a parallel radio control for Plymouth and Bristol County.

OTHER AVAILABLE LAW ENFORCEMENT RADIO CHANNELS

The State of Massachusetts provides law enforcement with two available channels for point-to-point and mobile-to-mobile use. The availability of these channels are not uniformly distributed. Exhibit 2 identifies the Massachusetts cities and towns intercity radio network (also includes certain locations in adjacent Rhode Island), a high-band point-to-point radio link to the cities listed. It is readily apparent a limited number of Bristol County Police Departments subscribe to the intercity network. A UHF channel, identified as the "Simplex Channel," provides mobile-to-mobile capability, which is widely implemented and available in most Bristol County vehicles. The application of the Simplex Channel has also been extended to base-to-mobile, dependent on the departments' prerogatives. The Simplex Channel, through experience by local law enforcement officers, has shown it is available beyond southeast Massachusetts, as prison transport tasks have demonstrated its compatibility through experience to various personnel interviewed during the reporting period.

NETWORK ANALYSIS

A review of the Bristol County regional police radio network, during the period March 31, 1979 through April 2, 1979, commenced with a meeting with Mr. Charles Rainville, a Sergeant with the New Bedford Police Department currently acting as Director of Emergency Medical Services, Office of Communications, and Secretary to a declared regional network user committee. Mr. Rainville is the soliciting agent to APCO for technical assistance (see Exhibit 3). The meeting was chaired by the President of the Bristol County Law Enforcement Regional Radio Network Operations Committee, Mr. Edward Nello, a Lieutenant and second in command of the Freetown Police Department. Other participating principals in the meeting included Chief Peter King, Raynham Police Department, Treasurer of the Organization; Chief William Reidy, Somersett Police Department, and Committee advisor, Mr. William Claffin, Jr., Service Manager for Electronic Sales and Service, Inc., Fairhaven, Massachusetts, the principal service agent representing Motorola and General Electric. The intent of the session was to secure information, documentation, and other instruments representing the regional system, including a Standard Operating Procedure (SOP), protocols for operation, the formal development of the Committee, system disciplines, and other material facts which may represent the structure of the Bristol County Regional Police Radio System. Representatives of the Committee present readily identified the positive operational features of the network, sound radio coverage, but identified low utilization, due to undefined purpose, resulting in a rarely used, but readily available resource. In addition, a schedule was established for agency interviews with typical user agencies, to properly cross section the law enforcement regional users within the County. The interviews, were designed to review each agencies' subregional, current operational practices, interpretation of the use of the channel, and to recommend remedies to enable the potential of this valuable law enforcement radio resource. The agencies, as follows, were interviewed on April 1 and 2, 1979.
NEW BEDFORD POLICE DEPARTMENT

Sergeant Rainville was interviewed. A 24-hour, 365 day communications operation serving a population of 105,000. 300 law enforcement officers are dispatched, utilizing a card system, time punched, for recording complaints and status. The agency dispatches law enforcement only, with a normal tour coverage for communications complaint handling and dispatching of three, with a sworn supervisor. Minimum coverage between 12 midnight and 8:00 a.m. is two. Operations personnel are predominately civilian, utilizing sworn officers for relief. A modified ten-code is inconsistently utilized. SOP are not documented, and no formal training is provided. The usual method of producing a new "dispatcher" is on-the-job training by incumbent dispatchers. A SOP, as identified by Exhibit 4, was not available, although operators professed working knowledge of the system. The department operates a LEAPS terminal in the Records Section, which is not readily accessible to the Communications Staff. The regional channel is infrequently used.

FREETOWN POLICE DEPARTMENT

Interviewed Lieutenant Mello. A 24-hour, 365 day operating Communications Center, serving a population of 6,000. A low-powered base station, 4 law enforcement mobiles, 8 hand-held portable radios, are equipped with the regional channel. This agency's Communications Center receives requests for service and dispatching for law enforcement, fire, emergency medical services and local government. Civilian personnel serve as complaint handlers/dispatchers. No documented regional channel SOP is available, although a formal procedure exists for handling various requests for service such as the distribution of fire calls and service from emergency medical teams. A transaction log is maintained for daily activity, including regional radio network transactions. No LEAPS teletype terminal is present. Vehicle registrat' data is obtained from SP Dartmouth. The ten-code is not utilized.

MATTAPoisETT POLICE DEPARTMENT

Interviewed Chief M. Duane Tuttle. Operates a 24-hour, 365 day Communications Center serving a population of: stable - 8,000; 16,000 summer seasonal, with 911. Utilize a sworn communications staff who receive requests for service and dispatch for emergency medical services, fire and law enforcement. A low-powered base station, 3 law enforcement vehicles and 4 portables are equipped with the regional channel. A transaction log is present, which includes regional traffic. The regional channel is rarely used, and usually for point-to-point only. The department does not have a LEAPS teletype terminal, and relies on license plate information by telephone access to the Plymouth County, Wareham Police Department. No instructions for the regional channel were present, although an SOP for the Communications Center was apparent.

RAYNHAM POLICE DEPARTMENT

Interviewed Chief Edward King. A 24-hour, 365 day law enforcement Communications Center, serving a population of 8,000. A low-powered base station, 7 law enforcement vehicles and 6 hand-held portable radios contain the regional capability. A daily transaction log is maintained at the Communications Center, where civilian personnel are on duty. No LEAPS terminal is available, requiring vehicle/license information to be secured by telephone through SP Middleborough. The regional channel instructions are available. The channel is infrequently used, and when used, is predominately for point-to-point traffic.
TAUNTON POLICE DEPARTMENT
Interviewed Chief Roger Renaud. A sworn staff maintains a Communications Center 24-hours a day, 365 days, for fire, emergency medical services and law enforcement, serving a population of 44,000. A 94-member department utilize a low-powered base station, 17 mobiles and 25 portables with the regional channel capability. A daily transaction log is maintained, including regional traffic, which is limited to point-to-point broadcast of loosely defined information, normally limited to stolen vehicles and wanted and missing persons. The department has a documented SOP which includes the regional channel instruction. The Communications Center is equipped with a LEAPS teletype terminal. The department does not subscribe to ten-code, although a code is available but infrequently utilized due to lack of standardization. The regional channel is also used to contact radio repair service agents. The Communications Center is well staffed with a normal complement of 12 plus relief. Tour coverage is provided by two complaint officers and a non-commissioned officer in charge.

DIGHTON POLICE DEPARTMENT
Interviewed Chief Carl Spratt. Maintains a Communications Center 24-hours a day, 365 days, serving a population of 5,000. Civilian dispatchers handle emergency medical services, fire control and law enforcement. A daily transaction log is maintained, including regional traffic. Low-powered base, 3 law enforcement mobiles and 4 hand-held portable radios contain the capability to access the regional network. The channel is predominately used as a point-to-point vehicle to the Taunton Police Department, to identify recently committed crimes. No LEAPS teletype terminal is available, relying on SP Middleborough for motor vehicle data. No ten-code is utilized.

SOMERSETT POLICE DEPARTMENT
Interviewed Chief William Reidy. Provides law enforcement only dispatching through 4 civilian and uniform sworn relief personnel, serving a population of 18,000. A low-powered base station, 9 mobiles and 6 hand-held portables are equipped to access the regional network. A documented SOP is not available, although the intent of the regional channel is known to those operating the system. The regional channel is predominately used for point-to-point communications to the City of Fall River, in stolen car investigations. No LEAPS teletype terminal is available, with motor vehicle data access accomplished through a telephone call to the Registry Office in Boston. Long intervals to securing registration and license data are incurred. A daily transaction log is maintained, where regional traffic is logged. The department does not use the ten-code.

CITY OF FALL RIVER POLICE DEPARTMENT
Chief Henry Ramos. Interviewed civilian supervisor, A. Marks of the department’s Signalling Unit, who represents the Chief in all radio matters. The 235 manned department maintains a 24-hour a day, 365 days Communications Center manned by 20 civilian/sworn staff, with a uniform non-commissioned officer in charge of each shift. Tour coverage is adequate with the supervisor plus three dispatchers on the 12 midnight to 8:00 a.m. shift, and a sergeant plus 4 dispatchers on each of the other two shifts. The Communications Center is responsible for dispatching police only with 48 mobiles and 40 hand-held portables and wireline control of the radio relay station available to access the regional channel. Fall River is the licensee, and does maintain a tape logging system, retaining thirty days plus one of all transactions in the Communications Center, including regional traffic. A SOP is present, although the original instructions of 1976 are not. The regional channel is identified
EVALUATION

A. Technical System Performance:
A review of pre-implementation "two-way" countywide system coverage predicted by each vendor, is met or exceeded by system operation. The Fall River Police Department is the host for the comparator, which has performed adequately since placed in service, according to Mr. Marks, who advised that with the exception of one General Electric, CM UHF Master Pro repeater, which has failed consistently, the regional equipment is performing in an acceptable manner. The "repeater" and "transceiver" control stations are maintained by Electronic Sales and Service, Inc. by means of a shared cost maintenance agreement. It may be concluded, the RF and audio portions of the system perform in an acceptable manner. Statements made during the interviews established that the majority of equipment purchased under the 1976 LEAA Grant, is reliable. The exception is New Bedford Police Department, where the agency complains about the performance and reliability of the equipment, particularly the G.E. PE65 hand-held portable transceivers.

B. System Utilization:
The field analysis, through the on-site visitations, indicates the system utilization is extremely low due to the lack of a stated purpose. Each department holds a different philosophy for the use of the channel.

C. Management and Control:
The user agencies formed a loosely structured committee which is the soliciting agent for APCD technical assistance. The organiza-
RECOMMENDATIONS FOR IMPROVED SYSTEM UTILIZATION AND SYSTEM PERFORMANCE

A. Establish the Committee:
The members of the Bristol County Regional Police Network Communications Committee should formally constitute their committee within the law enforcement community in Bristol County. I would recommend the committee choose a title such as "The Bristol County Law Enforcement Communications Committee." This committee should develop a constitution, including a purpose, "to manage and guide the operation of the Bristol County Regional Police Radio Network." This committee would act as an agent to the law enforcement community in communications matters to encourage additional regional participation, and provide a clearing house for law enforcement communications requirements within Bristol County. This committee should receive favorable recognition from law enforcement planning and funding agencies, including the regional LEAA Planner. Attachment #1 is a suggested format, based on the New York State Law Enforcement Telecommunications Committee.

B. Define the Channel's Purpose and Establish Control:
The committee should establish, from a consensus of users, the purpose of purposes the channel will serve. I would recommend serious consideration of a large user agency such as the Fall River Police Department, to act as network control agency, insuring compliance with FCC Rules and Regulations, maintaining discipline in accord with the purpose or purposes stated. The Fall River Police Department, with an adequate staff, wireline control, tape monitoring capability, and a LEAPS teletype
B. Define the Channel's Purpose and Establish Control (Cont'd.):

terminal, is an ideal prospect for this role. The regional radio network has a very high potential for multiple purpose utilization by establishing priorities for the channel.

c. Standard Operating Procedure (SOP) and System Protocols:

It is readily apparent that the Massachusetts Registry for motor vehicle and license information is available directly from their Boston Office through the State Police LEAPS teletype network, which is sparsely distributed throughout the county. The majority of agencies have limited access to this information, relying on various means, predominately telephone, to an intermediate agency, which greatly restricts the field officers' availability to such files. The regional network is an ideal vehicle to provide this service, if a host agency can be selected and accept the responsibility. In addition, the LEAPS terminal also provides interstate, county and local active crime information, which is not normally broadcast. A review of regionally associated stolen items, wanted persons, is not standard procedure in Bristol County, but should be considered for incorporation into the broadcast format. A substantial service can be provided to the law enforcement community who use the regional network. The channel can be made available as high priority emergency mutual aid channel, by identifying a code word to be broadcast by the control station such as "clear the air," "red flash," which would be preceded by an alert tone sequence. The net control station would insure the channel is available for appropriate station or stations who require emergency coordination. The APCO phrase word "brevity code", Attachment #2, is recommended to insure continuity of information, and a common understanding of all terms to be used on the regional network.

NETWORK ENHANCEMENT EQUIPMENT RECOMMENDATIONS

The UHF radio network with its mobile relay capability, has been defined as adequate. The overall procurement included mobile transceivers with control heads not equipped for priority scanning. This limitation was observed by the Raynham Police Department where individual department funding augmented LEAA funds to procure four-channel priority scanning control heads. Each department relies on the sub-regional channel for dispatching, and is the primary channel of responsibility. A defined purpose for the regional channel, to enable availability to additional law enforcement information, including emergency information, requires the mobile operator to sequentially monitor more than one channel. This feature is essential to the proper and effective use of the regional channel. I have secured budgetary quotations from the two primary vendors of equipment in the Bristol County area, Motorola, Inc., and the General Electric Company, indicating that less than $300 per mobile would be required to adapt to four-channel selectable priority scanning. The development of this channel into an effective communications tool for the law enforcement officer, requires an upgrading of the system to include scanning control heads.

In addition, each control station should be adapted for (regional) receiver mute and separation of audio at the control console. A separate volume control should also be provided with fixed limits for volume to ensure the speaker(s) are not inadvertently turned off. Approximately $150, including parts and material, is required, per station, to accomplish this modification.
TRAINING AND SOP MANUAL PREPARATION

Formal training classes should be considered after the assembly of the regional channel purpose; channel disciplines; language standards; operational characteristics from the original 1976 handout, and net control responsibilities are incorporated in a manual of operation. The committee should distribute the manual to each committee representative, with a presentation on system operation by the service agent. Utilization should be presented by the subcommittee who assembles the manual.

SUMMATION

The Bristol County law enforcement community has an in-place, Regional Radio Network, which has a significant potential to provide the law enforcement officer with valuable information, and an available emergency access channel for assistance, where required. The organizational and equipment modification recommendations should be implemented as soon as possible to carry the network to fruition.
As secretary to the Southeast Regional Police Communications Association, which is comprised of 12 cities and towns in the county of Bristol in southeastern Massachusetts, I have been instructed to request from you certain information and possible technical assistance, in the field of communications.

We regionalized our communications network in 1974 with the assistance of federal L.E.A.A. grants, which allowed us to go on an inter-city regional network. We feel that we are not utilizing this system to its fullest capabilities.

We would like your assistance in identifying our possible short-comings, and would welcome any help which your service could provide in the field of dispatching and complaint receiving, which I understand is available at no cost to cities and towns.

I would be most happy, if you are interested in this proposed project, to answer any and all questions which would assist in making any final determinations.

Anxiously awaiting your reply, I remain,

Sincerely yours,

CTR/bg

Charles T. Rainville, Director
EMS/Communications
EXHIBIT #4

This printed handout was given each user with the new licensees to start up the system on 2/28/76.

Southwest Regional Police Network
Bristol County Radio System
New Bedford, Mass., 02740

To All Users—Welcome, a true Regional Police Network is now operational.

Dear Chief,

I am sure that you or your designee will welcome a few simple words of explanation about the new Ultra High Frequency Regional Police Radio System that has recently been implemented in your department. As we have been installing equipment in your towns, we have had many questions concerning this new system. Below is a few items of general interest.

A. Channel 1 is your local operating channel for both base and mobile equipment. Portables are just like mobiles.

B. Channel 2 is the same, REGIONAL channel and, likewise, is the same for base, mobile, and portables. On this channel, any contact the below listed communities at present:

- TOWNS
  - BETHLEHEM
  - FAIRHAVEN
  - NORTHAMPTON
  - NEW BEDFORD
  - FALL RIVER
  - SOMERSET
  - SHREWSBURY
  - SHREWSBURY
  - BLACKLOCK
  - PRESTON
  - TAUNTON
  - RAINBOW
  - Radio Shop

To read—STATIONS OPERATING ON CHANNEL 1 (LOCAL) SHALL USE THE CALL SIGNS ABOVE.

WHEN OPERATING ON CHANNEL 2 (REGIONAL), USE YOUR NAME TO IDENTIFY.

C. BASE STATION FUNCTIONS. Notes on Base Operation:

OFF-ON HOLD is the main power for the set on your desk. ALWAYS ON.

POWER VOLTAGE is the receiving volume control for both local and regional. FL-3F PUSH-BUTTON is UP for channel 1, and DOWN for channel 2.

SQUELCH PADRE on your new microphone is to defeat the Tone Squelch on your receiver to test for messages outside this network.

TRANSMIT PADRE on your new microphone is for transmitting a message.

Morse or Tone Local and Regional channels will be received simultaneously on your radio.

D. PORTABLE UNIT FUNCTIONS. Notes on operation:

OFF-ON UNIT is a plastic bar that slides vertically in an upward motion to expose a bright green color to indicate the set is on.

VOLUME is standard, it changes the volume of the received message only.

SQUELCH is used to eliminate the loud rumbling noise. Start at the left, fully counterclockwise, and rotate to the right until the noise stops. NOTE: this squelch adjustment only when the microphone is ON

SQUELCH in MICROPHONE HOLD is used to MUTE or disable the Tone Squelch. Monitoring is done by lifting the microphone or placing the switch in the UP position, or toward the painted symbol of a trumpet noise.

LOVE for a bright orange label in your vehicle that shows the new CALL LETTERS of your Station, and new CAR NUMBERS necessary for the operation of all vehicles on the new REGIONAL RADIO SYSTEM.

SELECTOR wheel selects your channel: 1-Local, 2-REGIONAL, 3-Simplex.

FREQUENCY UNIT FUNCTIONS. Notes on operation:

OFF-ON VOLUME is the small knob in the rear left corner of the unit. CHANNEL Selector is the pointer at the back left corner.omanab

GENERAL SYSTEM OPERATION

The local channel #1 for each town or city, and the REGIONAL channel #2 for each town or City is operated as follows. Station, mobile, or portable units transmit a message which is picked up on one of several outputting receivers; the message is repeated or sent out on the air by a central transmitter at high power to ensure clear reception at the other end. Each RECEIVER has a built-in time delay, which keeps the signal you receive on the air for a few seconds waiting for the reply message. You may hear a soft hum tone in the background of a received signal. This soft tone is the constant tone squelch feature built into this entire system. To eliminate the foreign interferences you get from ships and foreign stations. All transmissions in this Bristol County USP Radio System have this Tone Squelch feature to eliminate foreign interference. WHENEVER you wonder if your receiver is working, place your receiver in a MUTING or "P-1" OFF condition and test your reception. Make sure you will have all your equipment in place.

Your Car Numbers have been changed for proper identification throughout the extended coverage that you now can communicate with many more stations and earn the much larger system you now can enjoy.

THE NEXT PAGE—MAIN IMPORTANT INFORMATION ON THE USE OF THE REGIONAL PLEASE BE FULLY FAMILIAR WITH THESE PROCEDURES.
It has become an acknowledged fact among professional police administrators that law enforcement radio communication systems are generally failing to provide law enforcement agencies of differing jurisdictions with coordinated, cooperative and mutually supportive services.

The reasons for this failing are certainly not attributable to a lack of technological advances in the radio communications field. The "finger of guilt", unfortunately, must be pointed at inadequate management and planning initiatives which have caused a lack of direction in the development of technically compatible and supportive law enforcement radio communication systems.

This lack of direction is caused to a large degree by "non-police" planners making law enforcement communications systems decisions, without benefit of qualified technical and operational police oriented expertise. This problem is compounded by the fact that these decisions are often slanted to favor a local geographic region or political subdivision, to the ultimate detriment of the Statewide law enforcement and public safety community.

These problem areas were recognized by the New York State Division of Criminal Justice Services and the Telecommunications Committee of the New York State Association of Chiefs of Police, and initiative was taken during March of 1976 to aggressively address this matter.
It was a preliminary determination that a Statewide committee should be established to develop long-range plans and procedures to significantly improve law enforcement communications, and that this committee should be comprised of police oriented individuals who understand the communications problems based upon experience gained from day-to-day exposure to the problem. This committee would be designated the New York Statewide Law Enforcement Telecommunications Committee.

The membership of this committee would purposely and necessarily be selected to generally represent law enforcement, Statewide, with a specific number of individuals being appointed to represent various regions of the State and various law enforcement groups. These committee members are appointed by the New York State Association of Chiefs of Police, the New York State Sheriffs' Association, the New York State Police, the New York City Police Department, and the Atlantic Chapter of the Associated Public-Safety Communications Officers, Inc. (APCO). The New York State Division of Criminal Justice Services Mobile Radio District Staff and Bureau for Municipal Police are represented, in an advisory capacity, on the committee.

Because the field of telecommunications is so expansive, it was decided by the committee that priority problem areas should receive primary attention. The priorities were identified as:

1. The Nationwide Law Enforcement Emergency Radio Channel (155.475 MHz)
2. The Statewide Intersystem Law Enforcement Operations Radio Channel (155.370 MHz)
3. Point-to-point Law Enforcement Radio Communications

The committee (NYSLETC) has now developed a basic overview in each of these areas, with planning objectives for each area being within the following parameters:

**THE NATIONWIDE LAW ENFORCEMENT EMERGENCY RADIO CHANNEL (155.475 MHz)**

In January, 1976, the Federal Communications Commission authorized a Nationwide emergency frequency for law enforcement purposes at the request of the Associated Public Safety Communications Officers (APCO). The establishment of such a frequency would:

1. Permit direct mobile-to-mobile emergency communications between law enforcement vehicles from various jurisdictions;
2. Provide itinerant law enforcement vehicles with a communications capability when away from their normal jurisdiction;
3. Provide improved command and control communications to supervisory personnel in situations where law enforcement officers from multiple jurisdictions are responding to an emergency.

The NYSLETC intends to proceed within the general guidelines of APCO recommendations concerning the implementation of the Nationwide Law Enforcement Emergency Radio Channel, while developing a modified plan to most efficiently and effectively serve the unique needs of New York State law enforcement.

The basic goal of this channel, in the view of NYSLETC, is that every police officer should have the capability to inter-communicate by radio on an "emergency" basis with other nearby police officers regardless of jurisdiction.

**THE STATEWIDE INTERSYSTEM LAW ENFORCEMENT OPERATIONS RADIO CHANNEL (155.370 MHz)**

The realization and admission that intersystem law enforcement
December 10, 1976
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Communications are imperative for "emergency" use aids in identifying the necessity to communicate on an intersystem basis for "non-emergency" official law enforcement purposes.

A review of this channel by NYSLETC has revealed that the intersystem frequency of 155.370 MHz is presently being used in many areas of the State. It is also being used in several different ways with a number of different localized purposes.

This lack of common purpose for the use of the channel has, in the view of NYSLETC, notably diminished the effectiveness of its "inter-system" intent.

The basic goal of NYSLETC with regard to the frequency 155.370 MHz is to arrive at a mutually agreed upon channel usage so that uniformity exists on a Statewide level for the benefit of the entire Statewide law enforcement community.

**POINT-TO-POINT LAW ENFORCEMENT RADIO COMMUNICATIONS**

Point-to-point radio communications (base-to-base) is another area of law enforcement communications that would gain efficiency from statewide planning and uniformity.

Point-to-point radio communications serve a wide variety of administrative needs between agencies and further become vital in times of disaster when non-radio communications become impossible due to cable breakage, etc., and when attempting to coordinate multi-agency law enforcement functions and public safety operations.

It is the view of NYSLETC that inasmuch as there is little need for one law enforcement agency to talk to another law enforcement agency across the State via radio communications, this area of current consideration offers the greatest of flexibility in planning and future usage. It is anticipated that any official law enforcement

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Business would be acceptable radio traffic within point-to-point guidelines.

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NYSLETC is also prepared to evaluate other public safety radio communications systems, both within and without New York State, so that compatibilities and integrations can be objectively considered in terms of long-range planning, i.e., neighboring out-of-state law enforcement agencies, emergency medical service and fire service systems.

It is reiterated that the foregoing considerations are primary planning objectives and it is not intended that this summarization can be considered as a complete and all-encompassing outline of NYSLETC direction.

These are, however, the views and current direction of the committee, with it being noted that much work yet remains before actual changes can be implemented.

Constructive comments are solicited by NYSLETC from anyone in the public safety field which would aid in attaining the summarized objectives.
PREAMBLE:

Many of the law enforcement radio systems in New York State are being replaced and upgraded in connection with the New York State Division of Criminal Justice Services Mobile Radio District (MRD) Program. As a result of this program it has become apparent that an urgent need exists to develop and implement a statewide law enforcement emergency radio channel or network and in connection therewith to develop and implement rules, procedures, and guidelines for the use of such a channel or network.

DEFINITIONS:

FCC ................................. Federal Communications Commission

Committee ............................ New York Statewide Law Enforcement Telecommunications Committee

Agency ............................... Official police or law enforcement group

NYASAP ............................... New York State Association of Chiefs of Police

NYSBA ................................. New York State Sheriffs' Association

NYPD ................................. New York City Police Department

AVCO ................................. Atlantic Chapter, Associated Public-Safety Communications Officers, Inc.

DCJS ................................. New York State Division of Criminal Justice Services

ARTICLE II: COMMITTEE

A. Name and Purpose

1. The New York Statewide Law Enforcement Telecommunications Committee is hereby created to develop and implement a statewide law enforcement emergency radio channel or network and in connection therewith to develop and implement rules, procedures, and guidelines for the use of such a channel or network.

2. The committee shall also serve as a liaison to DCJS, the law enforcement agencies of the state, and other organizations as deemed necessary in telecommunication planning.

B. Membership

1. The Committee shall consist of fifteen (15) members. In order to assure statewide representation, the membership should be representative of each portion of the state. For this purpose the state has been divided into four (4) sections as follows:

a. Northern Region: That part of the state north of a line comprised of the southern boundaries of the following counties: Washington, Warren, Montgomery, Herkimer, Oneida, Oswego.

b. Western Region: That part of the state from the eastern boundary of the following counties: Cayuga, Seneca, Schuyler, Chemung.

c. Central Region: That part of the state from the southern boundary of the northern region to the eastern boundary of the western region.

d. Southern Region: That part of the state south of the southern boundary of the central region.

The appointing authorities should make every effort to appoint members of the Committee which represent them and also represent the above areas of the state.

2. a. Membership on this Committee shall be appointed by the following appointing authorities:

   1) New York State Association of Chiefs of Police 4 members

   2) New York State Sheriffs' Association 4 members

   3) New York State Police 4 members

   4) Atlantic Chapter AVCO (New York State Frequency Coordinators) 2 members

   5) New York City Police Department 1 member

   Total Membership 15 members
C. Term of

1. Membership on the Committee shall be for a term of two (2) years. To provide for continuity of experience and programs, initial appointments shall be as follows:
   a. NYSACP shall appoint two (2) members for terms to expire on December 31, 1977, and two (2) members for terms to expire on December 31, 1978.
   b. NYSHA shall appoint two (2) members for terms to expire on December 31, 1977, and two (2) members for terms to expire on December 31, 1978.
   c. Superintendent, NYSP, shall appoint two (2) members for terms to expire on December 31, 1977, and two (2) members for terms to expire on December 31, 1978.
   d. Atlantic Chapter, APCO, shall appoint one (1) member for a term to expire on December 31, 1977, and one (1) member for a term to expire on December 31, 1978.
   e. Commissioner, NYPD, shall appoint one (1) member for a term to expire on December 31, 1977.
   f. Commissioner, DOJS, shall appoint one (1) member for a term to expire on December 31, 1977, and one (1) member for a term to expire on December 31, 1978.
   g. All appointments thereafter shall be made by the appointing authorities for a two (2) year term as membership expires. All members of the Committee shall continue in office until their successors are appointed.

D. Nomination and Election of Officers

1. The Committee shall elect from its own members one Chairman, one Vice-Chairman, and one Secretary. Terms of office shall be for one year.
2. In the absence of the Chairman, the Vice-Chairman or the Secretary, in that order, will act in that capacity.
3. In the absence of the Chairman, Vice-Chairman and Secretary, a temporary Chairman will be selected by the Committee.

E. Officers

1. The Committee shall elect from its own members one Chairman, one Vice-Chairman, and one Secretary. Terms of office shall be for one year.
2. In the absence of the Chairman, the Vice-Chairman or the Secretary, in that order, will act in that capacity.
3. In the absence of the Chairman, Vice-Chairman and Secretary, a temporary Chairman will be selected by the Committee.

F. Additional Offices

1. The Committee is empowered to create and fill through election such additional offices, from its own membership, as it deems advisable for the proper functioning of its activities.

G. Nomination and Election of Officers

1. The nomination and election of officers shall be held at the second quarterly meeting of each calendar year. Each nomination shall be seconded to be placed on the ballot, and elections shall be by written ballot unless there is no contest for the office.

H. Meetings

1. Regular meetings of the Committee will be quarterly or as called by the Chairman.
2. Written notice of all regular meetings will be mailed so as to be received by members at least two weeks prior to the meeting date if possible.
3. Special meetings may be called by the Chairman or upon the written request of four (4) members of the Committee. Notice of special meetings is to be by personal telephone confirmation, or personally acknowledged radio or teletype contact, or by mail, provided notice is given 72 hours prior to the meeting date.
NEW YORK STATEWIDE LAW ENFORCEMENT TELECOMMUNICATIONS COMMITTEE

TO: Police Chiefs, Sheriffs, Supt. of State Police
FROM: New York Statewide Law Enforcement Telecommunications Committee

SUBJECT: New York Statewide Law Enforcement Emergency Communications Plan

March 19, 1979

The N.Y. Statewide Law Enforcement Telecommunications Committee (NYSLETC) was formed in June 1976 primarily for the purpose of improving intercom and interagency police communications. We believe significant progress has been made since that time, although there still remains emphasis for law enforcement administrators and personnel throughout the state has been encouraging.

NYSLETC representatives met with staff of the Federal Communications Commission in Washington, D.C. on November 30, 1976 and received FCC support of a new "N.Y. Statewide Law Enforcement Emergency Communications Plan."

At a meeting of NYSLETC on February 1, 1978, the plan of the plan should proceed and all police administrators should be requested to circulate and post this plan so that all law enforcement personnel particularly communications personnel and dispatchers are familiar with it.

We realize that there are some areas of the state which because to make local policies and plans compatible with the statewide plan. NYSLETC members are willing to rest with anyone who needs assistance in accomplishing these goals.

We welcome your comments and suggestions concerning the plan through your respective representatives on NYSLETC. This plan should be discussed further and efforts made to modify the NYSLETC.
NEW YORK STATEWIDE LAW ENFORCEMENT TELECOMMUNICATIONS COMMITTEE

February 1, 1979

The N.Y. Statewide Law Enforcement Telecommunications Committee after considerable deliberation and discussion among the members and in consultation with others concerned with the improvement of law enforcement communications in N.Y. State, have adopted the following "New York Statewide Law Enforcement Emergency Communications Plan.

The Plan is intended to be the basis for improving the effectiveness of law enforcement radio communications throughout the state. The Plan calls for law enforcement radio communications to be conducted on a channel priority basis, with channel(s) 1 being the lowest priority and channel 5 being the highest priority. By following the Plan, the lowest priority channel is selected to accomplish police radio communications while leaving the higher priority channels open until absolutely required.

1. DISPATCH, INDEPENDENT, OR DATA CHANNEL(S)

To be used for day-to-day police radio dispatch and communications within the police agency or agencies which are licensed for the channel(s). In large police agencies, the channel(s) may be their independent channel(s), while in smaller agencies several agencies may share a channel for dispatch and day-to-day police operations.

2. MOBILE RADIO DISTRICT (MRD) SHARED CHANNEL

To be used for radio communications between base/base, base/mobile, and mobile/mobile stations or agencies within a Mobile Radio District which have no common dispatch/independent channel.

3. STATEWIDE POINT-TO-POINT LAW ENFORCEMENT CHANNEL (39.46 Mhz.)

To be used for radio communications between police base stations only, primarily between adjacent and nearby MRD stations. The main purpose of this channel is to eliminate base/base or point-to-point radio traffic from the other channels which is detrimental to mobile and day-to-day operations, and which for the most part is administrative in nature.

4. STATEWIDE INTERSYSTEM LAW ENFORCEMENT OPERATIONS CHANNEL (155.370 Mhz.)

To be used for mobile/mobile police radio communications between law enforcement agencies within the state which have no common dispatch/independent channel and no common MRD channel. As an example, radio communications with transient mobiles from this state, with mobiles from neighboring MRD's, and state police mobiles which are not equipped with local MRD channels. Limited base/mobile use will be permitted as required to service the mobiles.

5. NATIONAL POLICE EMERGENCY CHANNEL (155.475 Mhz.)

To be used for urgent police related matters where no other means of communications exists and also for communications with transient police mobiles from other states.

Guidelines for the use of these channels is discussed in more detail in the following pages.
Although using 39.46 MHz. for point-to-point purposes continue to do so, and those utilizing the channel(s) primarily for intersystem law enforcement mobile operations, which should have representation of all user agencies within the MRO.

ended since the inception of the agencies which have either eliminated it or never used it, be encouraged to use of this channel, we hope to enhance the use of 155.370 MHz. primarily for inter system law enforcement mobile operations.

STATEWIDE INTERSYSTEM LAW ENFORCEMENT OPERATIONS CHANNEL (155.370 MHz.) is the channel for which NYSLETC has the most immediate concern. As more and more law enforcement agencies license and utilize this channel, the necessity for stricter discipline and restraint by the various users becomes imperative. The need for such a channel for the use of law enforcement in this state has been evident for many years. The M.S. Division of Criminal Justice Services has encouraged implementation of the channel in all mobile radio districts since the inception of the MRO program. NYSLETC also prepared a guideline for the use of the channel in January 1974 and NYSLETC updated this guideline on May 26, as follows:

In order to enhance law enforcement radio communications, coordination, and cooperation, the New York StateWide Law Enforcement Telecommunications Committee recommends the following:

1. That each law enforcement agency within New York State examine its current Federal Communications Commission license to determine if they or their Mobile Radio District are currently licensed for the frequency 155.370 MHz.

2. That those law enforcement agencies or MRO's currently licensed for the frequency 155.370 MHz. be encouraged to apply for modification of their existing license to include all mobile units and portable units not presently authorized to operate on frequency 155.370 MHz. and which can be modified for such use.

3. That those law enforcement agencies or MRO's planning the implementation of new systems be encouraged to include the capability for each mobile and portable on frequency 155.370 MHz.

NATIONWIDE POLICE EMERGENCY CHANNEL (155.475 MHz.) The FCC on January 14, 1976, adopted this channel as a nationwide police emergency channel. Section 90.19(e)(14) of the FCC Rules & Regulations read as follows: “This frequency is available nationwide for use in police emergency communications networks operating under the law enforcement emergency communications plan. Operations authorized on this frequency which are not in accordance with the limitations under Section 90.19(e)(4) of the FCC Rules & Regulations are prohibited.” This frequency is available nationwide for use in police emergency communications networks operating under the law enforcement emergency communications plan. Operations authorized on this frequency which are not in accordance with the limitations under Section 90.19(e)(4) of the FCC Rules & Regulations are prohibited.
ATTACHMENT #2

APCO. Any user may employ signal numbers upward beginning with 10·40 as may best suit his own needs.

**PHRASE WORD BREVITY CODE**

Standard plain language phrases offer a means to improve the understanding between agencies using different codes. In addition, use of a phrase word brevity code for local operations can reduce misunderstanding from numerical code misuse and permit new personnel to be rapidly integrated into system communications.

<table>
<thead>
<tr>
<th>PHRASE WORD</th>
<th>ENGLISH MEANING</th>
<th>APCO TEN CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Caution</td>
<td>Caution: dangerous condition is suspected to exist.</td>
<td>10·30</td>
</tr>
<tr>
<td>Unreadable</td>
<td>Radio signal is too weak to receive.</td>
<td>10·1</td>
</tr>
<tr>
<td>Out of Service</td>
<td>Unit, vehicle or person is not working.</td>
<td>10·7</td>
</tr>
<tr>
<td>In Service</td>
<td>Unit, vehicle or person is working but not necessarily “available” or “on radio.”</td>
<td>10·8</td>
</tr>
<tr>
<td>Available</td>
<td>Unit is in service ready to accept assignment, not necessarily by radio.</td>
<td>10·24</td>
</tr>
<tr>
<td>Not Available</td>
<td>Unit cannot accept another assignment, but may be “on radio.”</td>
<td>10·7A</td>
</tr>
<tr>
<td>Prepare to Copy</td>
<td>Dispatcher is about to give lengthy message.</td>
<td>10·14</td>
</tr>
<tr>
<td>Go Ahead</td>
<td>You have been given clearance to transmit your message.</td>
<td>—</td>
</tr>
<tr>
<td>Roger (Received)</td>
<td>Message received and understood.</td>
<td>10·4</td>
</tr>
<tr>
<td>Say Again (Repeat)</td>
<td>Repeat your message.</td>
<td>10·9</td>
</tr>
<tr>
<td>Stand By</td>
<td>Stop transmitting and wait for further instructions.</td>
<td>10·12</td>
</tr>
<tr>
<td>Disregard (Recall)</td>
<td>Cancel your present assignment.</td>
<td>10·22</td>
</tr>
<tr>
<td>Off Radio</td>
<td>Unit is not capable of being contacted by radio, but may be “available.”</td>
<td>10·7B</td>
</tr>
</tbody>
</table>

**PHRASE WORD** | **ENGLISH MEANING** | **APCO TEN CODE**
--- | --- | ---
On Radio | Unit is capable of being contacted by radio, but not necessarily “available.” | 10·11 |
Responding | Unit is en route to assigned location. | 10·17 |
Under Control | Situation is under control when no further assistance is anticipated. | — |
Telephone (Tel. # or person) | Call by telephone specified number or person. | 10·21 |
Priority | When transmitted, means that the following transmission must have immediate attention. | 10·18 |
In Pursuit | Unit is chasing a vehicle and requires assistance from other units. | — |
Traffic Stop | Unit is going to stop a motorist. | — |
Help Officer | Help me quick (emergency). | 10·33 |
Affirmative | Yes. | 10·4 |

Additional terse phrases may be added to suit each agency.