

Region 19

700 MHz Frequency Application Window 9

May 2009 Application Window

Submitted By:

The State of Connecticut

Department of Public Safety

State Police

CTS Unit

Mark Matson

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SECTION ONE

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**State of Connecticut - Department of Public Safety - State Police
700 MHz Frequency Application**

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State of Connecticut - Department of Public Safety - State Police
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SECTION TWO

INTRODUCTION, REQUEST, and OPERATION

**State of Connecticut - Department of Public Safety - State Police
700 MHz Frequency Application**

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STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC SAFETY

Bureau of Communications & Technology

1111 Country Club Road

Middletown, CT 06457



State of Connecticut - Department of Public Safety - State Police 700 MHz Frequency Application

May 2009 Application Window

INTRODUCTION, REQUEST, and OPERATION

Mr. Jerry Zarwanski – Chairman
New England Region 700 MHz Regional Planning Committee
FCC Region 19
1111 Country Club Road
Middletown CT. 06457

The following information is submitted by the State of Connecticut Department of Public Safety State Police to the Region19 Planning Committee for your review and serves as our formal request to license the following State Police tower sites with six (6) 700 MHz general use channels to serve the communication needs for Federal, State, County, Town, and Local Public Safety Governmental Agency Entities in and around the Fairfield County Connecticut area for daily interoperability two-way radio communications.

The Connecticut State Police is upgrading the existing Motorola 4.1 800 MHZ trunk system controller and is replacing it with a Motorola Astro P25 IP 700/800 MHz controller. The controller upgrade will allow for the continued use of the existing 800 MHz channels for State Police daily operations allow for system expansion and add the ability to use the new allocation of 700 MHz channels for multi jurisdictional interoperability operations. The 700 MHz migration is required do to the lack of additional 800 MHz channels for system expansion in the New York metro area. The channels requested will serve as an interoperability interconnect network for the State Police and other Federal, State, County, Town, and Local Public Safety Agency Entities in and around the Fairfield County Connecticut area. The controller upgrade will also provide other entities for the proposed 700 MHz trunk system a seamless migration to the State Police Access Network (SPAN) state-wide radio talk-group for statewide radio coverage outside the Fairfield County area.

The six (6) 700 MHz channels requested are planned for use in the Connecticut State Police Troop G service area Fairfield County Connecticut at the following tower sites; Bridgeport site 33, Greenwich site 74, Redding site 69, Shelton site 29, Stamford Landmark, Westport site 32, and Wilton site 31.

Please refer to the Region 19 application sheet in section three (3) in this report for additional site location parameters which include site number, site name, latitude & longitude, ground elevation, power out-put, ERP, antenna height, antenna gain, antenna down-tilt, antenna direction, and area served.

The agencies served by the existing state-wide communication system include the Connecticut State Police, Revenue Service, Department of Corrections, Department of Environmental Protection, Department of Motor Vehicles, Home Land Security, Constables, FBI, Metropolitan District Commission, Health Dept, States Attorney, and US Attorney.

The enclosed information in this request is as detailed and complete as possible in order to assist the Committee in assigning and granting the request for six (6) Fairfield County general use 700 MHz channels. We have addressed the following seven (7) key areas for the Region 19 review Committee.

1. Detailed Engineering Report

See the attached data sheets, site documentation, and required contour studies in sections five (5), seven (7), and eight (8). This documentation includes site information, technical design parameters, and a description of the area of routine operation. It also outlines the steps taken by the State Police to restrict radio coverage and keep it within the existing 800 MHz propagation footprint by using minimal ERP outputs and directional antennas. This is indicated in the 65, 40, and 5 dBu contour studies. To date there are no incumbent (victim) 700 MHz general-use licensed systems in and around the Fairfield County Connecticut area. The State Police will adhere to the TIA/EIA TSB88 Area Reliability Degradation Threshold specifications and any agreements between Region 19, 8, and 30 with regards to the grant and operation of the six (6) general-use channels for the Connecticut State Police 700 MHz Fairfield County Trunk Radio System

2. The Connecticut Department of Public Safety will interface to other public safety agencies in the lower frequency bands.

Interface to other public safety agencies is supported through dispatch console cross patch and or direct control station access to other radio systems by the use of microwave, fiber and radio networks. The dispatch consoles that are utilized by the State, as part of our statewide 800 MHz communications system does support multiple radio ICON cross patch function allowing an 800 MHz user to communicate with a user in one of the other radio bands or by direct ICON transmit functionality.

Base Interface Modules (BIMs) currently link the State's 800 MHz system to existing regional access frequencies such as RAFS 1 & 2 (Hartford County), WARN (Waterbury area), AON (Fairfield County) and SCAN (New Haven County).

3. When a regional or national emergency occurs, the Connecticut Department of Public Safety will interface to existing Emergency Management radios systems such as FEMA.

The State's 800 MHz system is able to interface with the existing Connecticut Office of Emergency Management (OEM) VHF system through BIMs located at appropriate sites. Additionally, the State has two Disaster Recovery Vehicles (DRV's) which have satellite link capability in order to access our own transponder or one used by FEMA. There is also a mobile command post which is equipped for field use in an emergency, which ties in directly with the DRV's to provide fully functional dispatch and interface options as needed. The DRV's are also equipped with VHF and UHF radios programmable to enable operation on all local and FEMA frequencies.

4. How the five National Common Channels will be implemented and utilized.

As required by the Regional Committee's frequency plan, the State has installed multi-frequency conventional radio repeaters throughout the State solely for use on the National Common Channels. These channels are currently used to support all of the mutual aid or interoperability needs of 800 MHz radio users that travel into the areas served by the new system. The repeaters are normally set in the "non-repeat" mode to reduce interference. A dedicated receiver voting system is provided to continuously monitor the call-In frequency (ICALL) on a statewide basis. The ICALL/ITAC system is in place and functional.

5. Why the Connecticut Department of Public Safety requires the frequencies being requested.

The State Police is upgrading the trunk controller which will allow the use of daily multi agency interoperability functions with one (1) statewide radio network for multi jurisdictional agency joint operations. The 700 MHz channels are required due to the lack of 800 MHz channels for system expansion in the New York metro area to achieve multi jurisdictional agency joint operation regional goals.

6. Budget and contract commitment for the installation of the frequencies/ system being requested.

The Connecticut State Police currently has a Statewide 800 MHz trunk system in place and operating. The infrastructure is in place and has the capacity to expand to allow for a dual 700/800 MHz trunk system to operate on one (1) statewide network platform. A license MOU (memorandum of understanding) and funding agreement is outlined in section ten (10) in this report with The City of Stamford and the State of Connecticut Department of Public safety Connecticut State Police. Please refer to section ten (10) in this report for further and more complete information with regards to the MOU and system funds.

7. Technical Design Information

The Connecticut Department of Public Safety Connecticut State Police is requesting to license the six (6) new channels within the existing 800 MHz trunk system propagation footprint. It is the State's intent to add these channels to enhance multi-agency daily interoperability operations in and around Fairfield County Connecticut.

As part of this request, please refer to the 65 dBu, 40 dBu, and 5 dbu coverage contours supplied for the existing previously licensed 800 MHz sites. These RF predictions are provided for the Committee's review, and identify the anticipated propagation for the proposed 700 MHz sites. The contours included are part of the multiple steps that the State has taken to restrict coverage and potential interference with future co and adjacent channel 700 MHz users.

In summary, we feel that all reasonable steps have been taken to restrict RF coverage using the design methods outlined by Region 19 that are summarized in this report.

Refer to the remainder of this report for a complete detailed system summary.

Thank you
Respectfully submitted



Paul Zito
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State of Connecticut
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SECTION THREE

REGION 19 APPLICATION WINDOW 9

**State of Connecticut - Department of Public Safety - State Police
700 MHz Frequency Application**

May 2009 Application Window

State of Connecticut
Dept. of Public Safety
Division of State Police

FCC Region 19 APPLICATION 764-776MHz and 794-806MHz Channels

CT Telecommunications Systems
1111 Country Club Road
Middletown, CT 06457

(1) _____
Agency Name _____
Address _____

Voice Channel Requests (6.25KHz, 12.5KHz, 25KHz)

Six (6) Voice 12.5 KHz

(2) Please identify spacing requirements between channels _____

150 KHz

Please identify spacing requirements between data channels

Data Channel Requests (12.5KHz, 25KHz)

None

Broadband Channel Requests

Please identify spacing requirements between channels _____

(15) Channel Loading

Agency	Number of Vehicles	Number of Portables	# of Aircraft	# of Marine	# of Pagers	# Laptops/data devices (data req.)
CSP	4290	1200	5	5		
Revenue Service	Within CSP					
Dept of Corrections	Within CSP					
DEP	Within CSP					
DMV	Within CSP					
Home Land Sec.	Within CSP					
Constables	Within CSP					
FBI	Within CSP					
Metropolitan District	Within CSP					
Greenwich, Town of	501					
Stamford, Town of	1000					
Port Authority	Future Use					
UASI Fairfield County	Future Use					
MTA Police	Within CSP					
Health Department	Within CSP					
State Attorney	Within CSP					
U.S. Attorney	Within CSP					

(16) Frequencies Returned

NONE

List

(17) Frequencies used

Site Name	Channel	Frequency	Latitude	Longitude
Troop G Trunk System	654	866.7125		
	691	867.2000		
	720	867.5875		
	767	868.2000		
	811	868.7500		
CSPERN	simulcast	858.2625		
EICALL FCC standard	simulcast	866.0125		
ITAC FCC standard		866.0125		
ICAL FCC standard		866.5125	867.0125	867.5125
		868.0125		

(18) Intercommunication Requirements

Agency Frequencies Used

(19) In the application a list of frequencies will be returned (see # (16)) when the system is completed. Explain how these frequencies are being used. No frequencies will be return. State Police will continue to use the 800MHz trunk System for daily operations. All Fairfield County agencies will use the 700 MHz channels for daily operation. One (1) controller will operate the 800 and 700 MHz trunk system. This shared use of the controller will allow for a seamless migration between the two trunk systems for interoperability and daily operations. One (1) mobile or portable radio may be used to access the 800 MHz statewide or the 700 MHz countywide trunk system. Please refer to section two (2) in this report for more detailed information.

(20) Identify how you plan to integrate a list of all frequencies that will not be returned when the system is completed. Explain how you will integrate the existing frequencies with the 700MHz frequencies (see # (17)). Explain the intended use of all frequencies. One (1) Motorola Astro P25 IP 700/800 Controller will operate the 700 MHz Fairfield County multi agency trunk systems and the 800 MHz CSP trunk system. The existing State Police statewide microwave system will be used for interconnect purposes and provide data transport to the tower sites. Please refer to section two (2) and section three (3) in this report for more detailed information.

(21) Explain how the users of the new system will intercommunicate with other public safety agencies operating in lower bands during emergency or disaster situations. Identify the intercommunication requirements of your dispatch center (see #18). **Please refer to section two (2) and section three (3) in this report for more detailed information.**

(22) Explain the needs of your agency for a new system in the 700MHz spectrum and why those needs cannot be served by existing communications resources. Explain the deficiencies of your existing system which caused you to apply for new spectrum. The 700 MHz migration is required do to the lack of additional 800 MHz channels for system expansion in the New York metro area. Please see section two (2) in this report for more detailed information.

(23) System Justification: Explain why you require this spectrum. The 700 MHz channels are required to meet system interoperability and expansion goals in Fairfield County. Please refer to section two (2) in this report for more detailed information.

(24) Implementation Time Table: Explain the proposed implementation schedule of your required system. Please refer to section eleven (11) in this report for a detailed implementation time table provided by Motorola.

(25) Provide detailed information and supporting documentation showing the budget commitments for the completion of the system within the time allowed. (RPC expects a letter committing funds to system build out.) **Please refer to section ten (10) in this report for a detailed MOU between the City of Stamford and the State of Connecticut.**

(26) Provide a time schedule of all significant implementation phases including funding, licensing, initial operation, channel loading and completion of your system. **Please refer to section eleven (11) in this report to review the construction schedule.**

(27) Provide an area of operation map detailing city/town/county/state boundaries and waterways. Identify any overlap coverage into neighboring cities/towns/counties/states and waterways. Provide marker identifications and a legend. **Please refer to section five (5) for the Fairfield County map and DEMHS Region map. Please refer to section seven (7) for the Motorola Fairfield County overlay map. One (1) map with the Stamford site installed and one (1) map with the Westport site installed.**

(28) Provide engineering studies as identified in “Procedure for Frequency Coordination”. The Technical Sub-committee plans to utilize software engineering known as “Comstudy”. The Longley-Rice model is used for coverage and interference prediction methodology (See Below - 1. Interference Determination/ Protection) because it is freely available in the public domain and has consistent implementations across propagation modeling programs of different sources, unlike Okumura Hata Davidson. All radiated and received power levels are referenced to a dipole antenna. The Technical Sub-committee will verify the accuracy of all engineering studies submitted to the committee. The engineering studies must be submitted in a version of “Comstudy” that is presently in use by the Technical Sub-committee. The Sub-committee in the future may change engineering software and will identify the software engineering required for submission in advance of any Window. ComStudy 2.0 file named CSP Fairfield County 700 MHz will be provided in soft copy form.

(29)

NONE

This form must be completed using the Region 19 Antenna Pattern Information Form (refer to

Table 1, Horizontal Antenna Pattern, and Table 2, Vertical Antenna Pattern.

Please complete this form in full for each unique fixed-facility transmit antenna configuration (Antenna Number on the Form 601 Schedule-H) employed within the application. Be sure to include both the vertical and horizontal patterns with all gain units in dB and normalized to zero dB at the main lobe.

This information supersedes the Schedule-H antenna information fields: Azimuth, Beam width, Polarization, and Gain.

Site Name: _____

Location Number: _____

Antenna Number: _____

Horizontal Antenna Pattern:
Horizontal antenna pattern from 0° to 360° degrees, with 0° and 360° referenced at true North, and numbered clockwise (CW).

Table 1, Horizontal Antenna Pattern

Pattern Reference (degrees)	Normalized Horizontal Antenna Pattern (dBr)
0	180
1	181
2	182
3	183
4	184
5	185
6	186
7	187
8	188

0	180
1	181
2	182
3	183
4	184
5	185
6	186
7	187
8	188

-14
-13
-12
-11
-10
-9
-8
-7
-6
-5
-4
-3
-2
-1

166
167
168
169
170
171
172
173
174
175
176
177
178
179
180

(30) Comments: Provide any supplemental information, explanation, or requirements. **NONE**

Application prepared by: **Mark Matson** Title: **Engineer I**

Applicant's Telephone Number: **(860) 685-8280** Fax #: **(860) 685-8345**

Company Name: **State of Connecticut Department of Public Safety Division of State Police**

Company Address: **1111 Country Club Road Middletown, CT. 06457**

Authorized Company Signature  Title: **Public Safety Director of Telecommunications CTS**

Printed Name: **Paul Zito** Date: **October 6, 2009**

Frequency Coordinator Name **APCO Amanda Bredstrup, Processor**

Coordinator's Telephone Number: **1-888-272-6911. 1-386-944-2467.** Fax #: **1-386-322-2501.**

Company Name **APCO**

Company Address: **361 North Williamson Boulevard**

Daytona Beach, FL. 32114-1112

The technical information contained in this application has been reviewed by me and is true and correct.

Frequency Coordinator's Signature:

Printed Name: **Amanda Bredstrup.** Date . Title: **Processor**

This agency has a firm intention to implement a new/expanded/modified 700MHz system with the time permitted by the FCC and to return for use by other public safety eligibles existing unneeded channels/frequencies. We will provide the committee with semi-annual copies of all progress reports. Should implementation not begin or be completed with the time approved by the FCC or channel loading projections are not achieved, the channels will be returned for re-allocation to other public safety agencies.

This agency will comply with all applicable requirements for common channel implementation and participation as required in the 700 MHz Plan – Region 19

The information contained in the application and attachments is true and correct.

Signature  Date: October 6, 2009

Typed Name: Mark Matson Title: Engineer I

Address: State of Connecticut Department of Public Safety Division of State Police

111 Country Club Road Middletown CT.06457

E-mail: mark.matson@po.state.ct.us

Phone #: (860) 685-8280 Fax #: (860) 685-8345

SECTION FOUR

AGENCY USE AND CHANNEL LOADING

**State of Connecticut - Department of Public Safety - State Police
700 MHz Frequency Application**

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(15) Channel Loading

Agency	Number of Vehicles	Number of Portables	# of Aircraft	# of Marine	# of Pageers	# Laptops/data devices (data req.)
CSP	4290	1200	5	5		
Revenue Service	Within CSP					
Dept of Corrections	Within CSP					
DEP	Within CSP					
DMV	Within CSP					
Home Land Sec.	Within CSP					
Constables	Within CSP					
FBI	Within CSP					
Metropolitan District Greenwich, Town of Stamford, Town of	Within CSP	501				
Stamford, Town of	1000					
Port Authority	Future Use					
UASI Fairfield County MTA Police	Future Use					
Health Department	Within CSP					
State Attorney	Within CSP					
U.S. Attorney	Within CSP					

(16) Frequencies Returned

List

SECTION FIVE

**EXISTING 800 MHz TROOP G TRUNK SYSTEM
INCLUDES FIVE CHANNEL PAIRS
CSPERN (SIMULCAST), EICALL (SIMULCAST),
ITAC, and ICALL**

**MICROWAVE NETWORK INTERCONNECT MAP
WITH SITE NUMBERS**

FAIRFIELD COUNTY and DEMIS REGION MAP

**State of Connecticut - Department of Public Safety - State Police
700 MHz Frequency Application**

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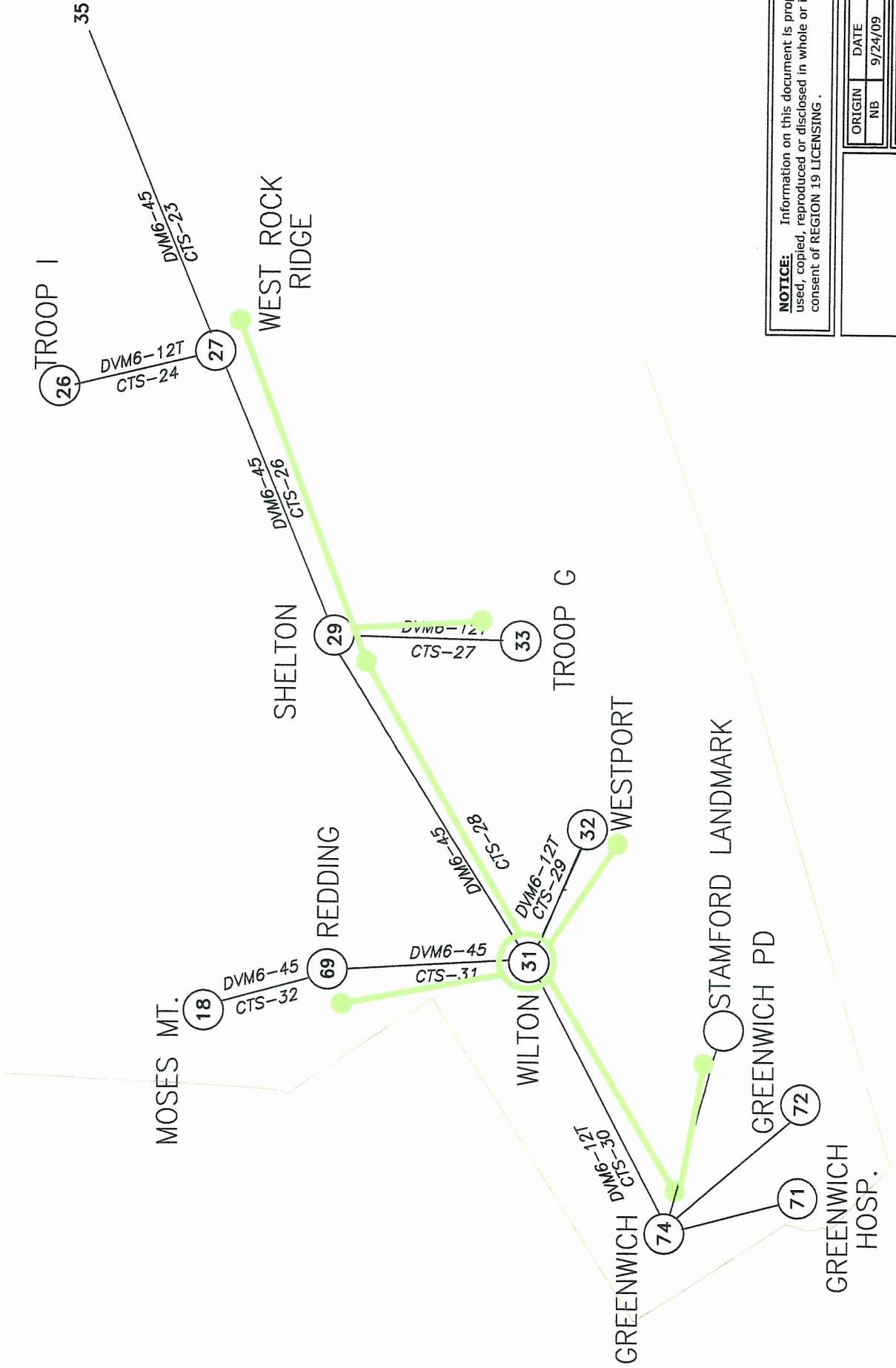
System Name	G	License	Town	Cnty	Site#	Lic	Call Sign	Lic	Call Sign	Lic	Site	Lic	Site	Includes
CH Freq														
654 866.7125		Wilton		FF	31	A	wnsm674			A	prime	A	eicall itac icall	
691 867.2000		Greenwich		FF	74	A	wnsm681			A	trunk	A	eicall itac icall	
720 867.5875		West Haven		NH	27	A	wnsm682			A	trunk	A	eicall itac icall	
767 868.2000		Shelton		FF	29	A	wpqd716			A	trunk	A	eicall itac icall	
811 868.7500		Redding		FF	69	A	wpqd716			A	trunk	A	eicall itac icall	
		Westport		FF	32	A	wqed819	B	wqei250	A	trunk	B	eicall itac icall	
CSPERN		Greenwich		FF	71	A	wqeh734					A	eicall itac icall	
858.2625		Bridgeport		FF	33	A	wqeh741					A	eicall itac icall	

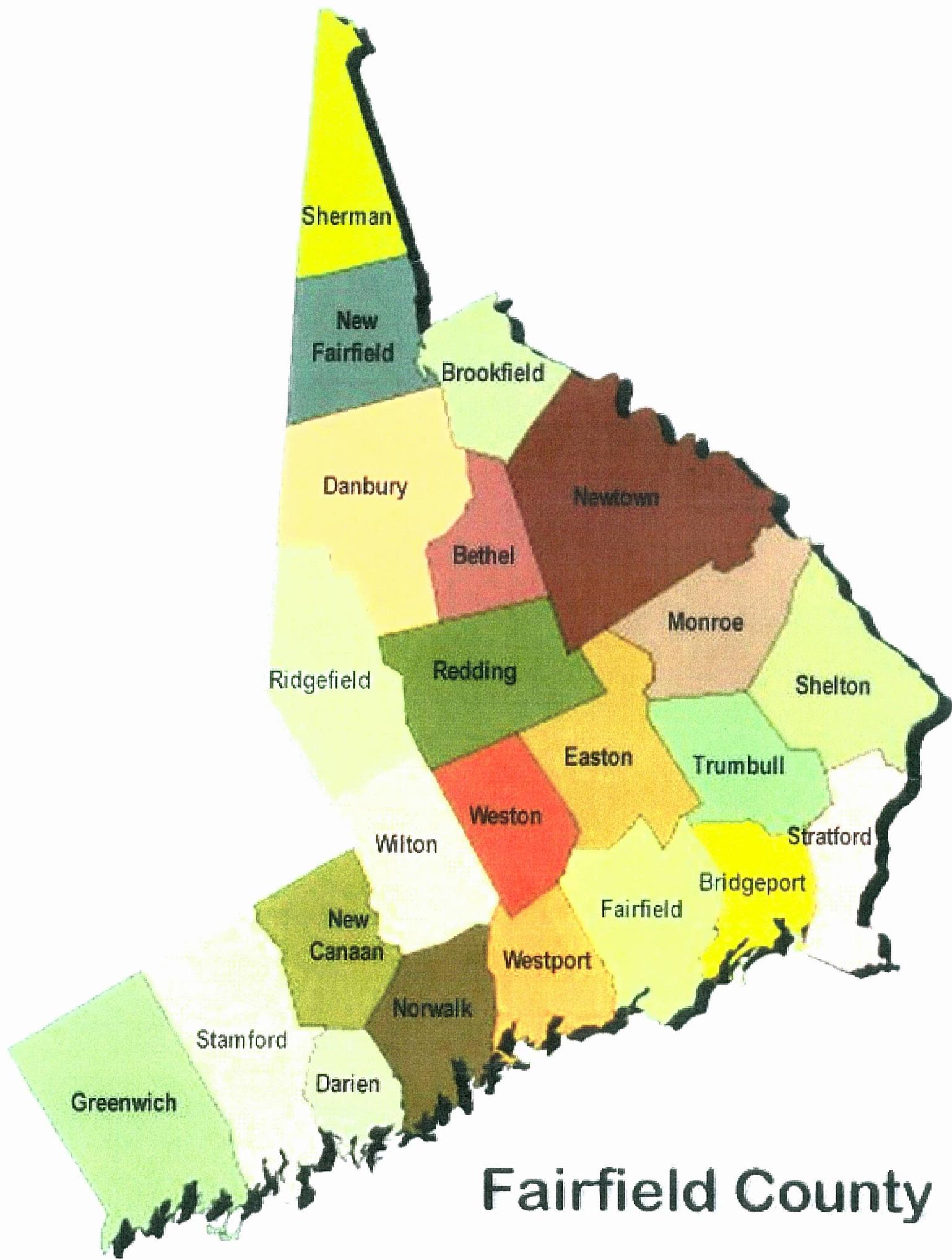
eicall fcc standard

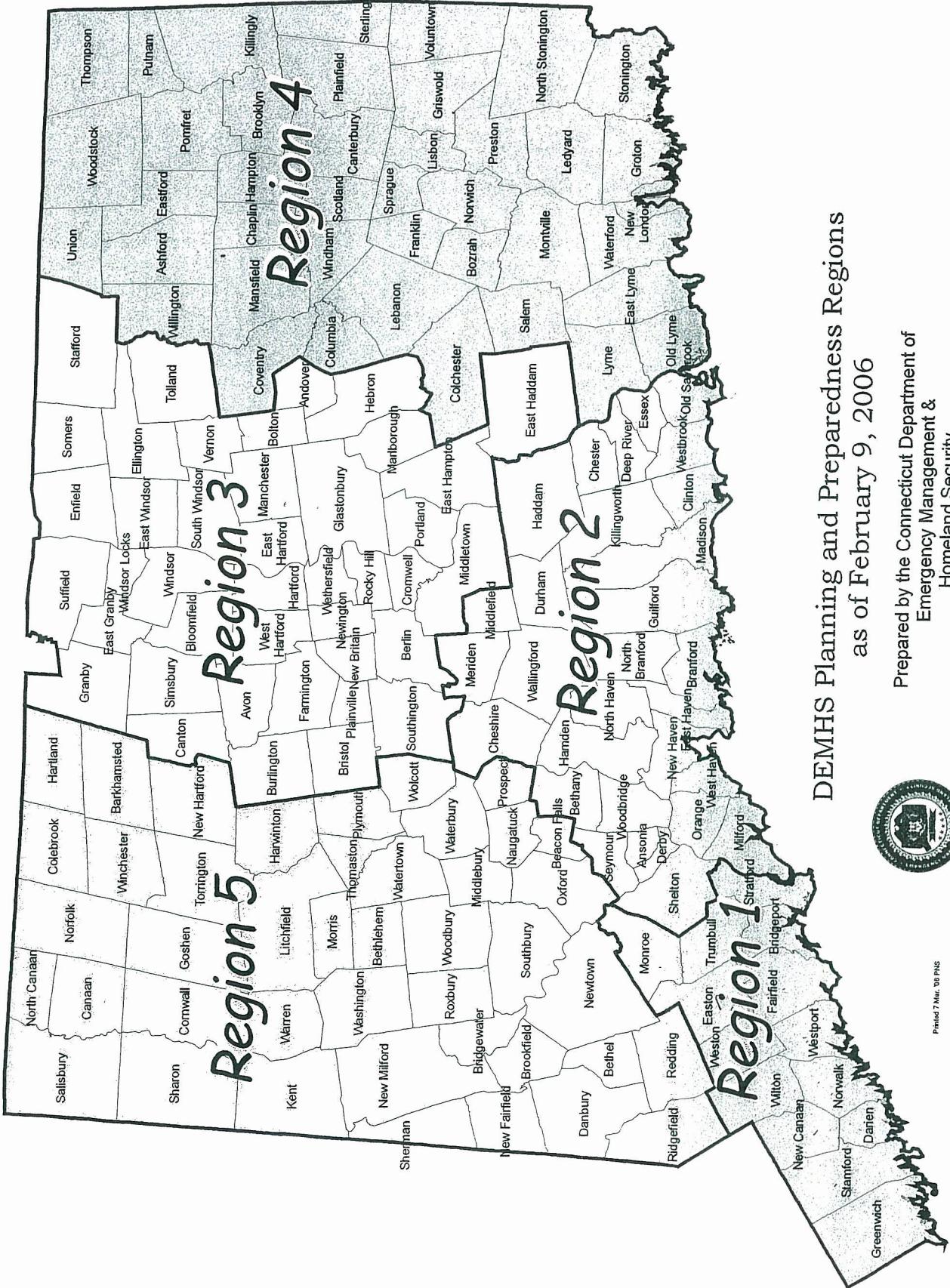
simulcast

itac fcc standard

icall fcc standard







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Prepared by the Connecticut Department of
Emergency Management &
Homeland Security

SECTION SIX

CAPRAD GENERAL USE CHANNELS FAIRFIELD COUNTY

CHANNEL NUMBER and CHANNEL CENTER FREQUENCIES NARROWBAND SEGMENTS
12.5 KHz requested channels highlighted in (GREEN)

12.5 KHz orphan channels highlighted in (YELLOW)

FAIRFIELD COUNTY CHANNEL LIST

SPECTRUMWATCH SEARCH

Please note that channels 85, 173, 253, 357, 405, and 445 could not be searched with Spectrumwatch. Only channel 793 and 833 showed results.

No incumbents found in co-channel or adjacent channel search.

Only channels used to date are low power itinerants with the FCC call signs of WQFL699, WQEL977, WQED539, WQGH335, WQGH338, and WQJM332. All call signs are located in Region 19 and Region 08.

**State of Connecticut - Department of Public Safety - State Police
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CAPRAD COMPUTER ASSISTED PRE-ORIENTATION RESOURCE AND DATABASE SYSTEM

700 MHz Public Safety Spectrum

REGION 19 SELECT AREA: CT Fairfield County

Region 19 - New England - Fairf
County
Channel Allotments

Population: 882,567 representing 6.3390% o
Geocoordinates: 41-16-00N 073-19-0C

Class	Band Width	Channel	Base Frequency	Mobile Frequency
General Use	Voice 12.5KHz	85-86	769.531250	799.531250
General Use	Voice 12.5KHz	173-174	770.081250	800.081250
General Use	Voice 12.5KHz	253-254	770.581250	800.581250
General Use	Voice 12.5KHz	357-358	771.231250	801.231250
General Use	Voice 12.5KHz	405-406	771.531250	801.531250
General Use	Voice 12.5KHz	445-446	771.781250	801.781250
General Use	Voice 12.5KHz	793-794	773.956250	803.956250
General Use	Voice 12.5KHz	833-834	774.206250	804.206250
State License	Voice 25KHz	269-272	770.687500	800.687500
State License	Voice 25KHz	649-652	773.062500	803.062500
State License	Voice 25KHz	729-732	773.562500	803.562500

SELECT DATA

- Sites
- Channel Allotments
- Licenses
- TV Stations
- Admin. Info

REGIONAL PLAN

Channel Numbers and Channel Center Frequencies

Narrowband Segments of the 769-775 MHz and 799-805 MHz Bands

Revised: October 11, 2007

Narrowband Base Channels				Narrowband Mobile Channels					
Channel Number	Center Frequency 6.25 kHz	12.5 kHz	25 kHz	Allocation	Channel Number	Center Frequency 6.25 kHz	12.5 kHz	25 kHz	Allocation
81	769.503125	769.50625	769.51250	General Use	1041	799.5031250	799.50625	799.51250	General Use
82	769.509375			General Use	1042	799.5093750			General Use
83	769.515625	769.51875		General Use	1043	799.5156250	799.51875		General Use
84	769.521875			General Use	1044	799.5218750			General Use
85	769.528125	769.53125	769.53750	General Use	1045	799.5281250	799.53125	799.53750	General Use
86	769.534375			General Use	1046	799.5343750			General Use
87	769.540625	769.54375		General Use	1047	799.5406250	799.54375		General Use
88	769.546875			General Use	1048	799.5468750			General Use
89	769.553125	769.55625	769.56250	General Use	1049	799.5531250	799.55625	799.56250	General Use
90	769.559375			General Use	1050	799.5593750			General Use
91	769.565625	769.56875		General Use	1051	799.5656250	799.56875		General Use
92	769.571875			General Use	1052	799.5718750			General Use
93	769.578125	769.58125	769.58750	General Use	1053	799.5781250	799.58125	799.58750	General Use
94	769.584375			General Use	1054	799.5843750			General Use
95	769.590625	769.59375		General Use	1055	799.5906250	799.59375		General Use
96	769.598875			General Use	1056	799.5988750			General Use
97	769.603125	769.60625	769.61250	General Use	1057	799.6031250	799.60625	799.61250	General Use
98	769.609375			General Use	1058	799.6093750			General Use
99	769.615625	769.61875		General Use	1059	799.6156250	799.61875		General Use
100	769.621875			General Use	1060	799.6218750			General Use
101	769.628125	769.63125	769.63750	Secondary Trunking	1061	799.6281250	799.63125	799.63750	Secondary Trunking
102	769.634375			Secondary Trunking	1062	799.6343750			Secondary Trunking
103	769.640625	769.64375		Interoperability	1063	799.6406250	799.64375		Interoperability
104	769.646875			Interoperability	1064	799.6468750			Interoperability
105	769.653125	769.65625	769.66250	State license	1065	799.6531250	799.65625	799.66250	State license
106	769.659375			State license	1066	799.6593750			State license
107	769.665625	769.66875		State license	1067	799.6656250	799.66875		State license
108	769.671875			State license	1068	799.6718750			State license
109	769.678125	769.68125	769.68750	State license	1069	799.6781250	799.68125	799.68750	State license
110	769.684375			State license	1070	799.6843750			State license
111	769.690625	769.69375		State license	1071	799.6906250	799.69375		State license
112	769.696875			State license	1072	799.6968750			State license
113	769.703125	769.70625	769.71250	State license	1073	799.7031250	799.70625	799.71250	State license
114	769.709375			State license	1074	799.7093750			State license
115	769.715625	769.71875		State license	1075	799.7156250	799.71875		State license
116	769.721875			State license	1076	799.7218750			State license
117	769.728125	769.73125	769.73750	Reserve	1077	799.7281250	799.73125	799.73750	Reserve
118	769.734375			Reserve	1078	799.7343750			Reserve
119	769.740625	769.74375		Interoperability	1079	799.7406250	799.74375		Interoperability
120	769.746875			Interoperability	1080	799.7468750			Interoperability

Channel Numbers and Channel Center Frequencies

Narrowband Segments of the 769-775 MHz and 799-805 MHz Bands

Revised: October 11, 2007

Narrowband Base Channels				Narrowband Mobile Channels					
Channel Number	Center Frequency 6.25 kHz	12.5 kHz	25 kHz	Allocation	Channel Number	Center Frequency 6.25 kHz	12.5 kHz	25 kHz	Allocation
161	770.003125	770.00625	770.01250	General Use	1121	800.0031250	800.00625	800.01250	General Use
162	770.009375			General Use	1122	800.0093750			General Use
163	770.015625	770.01875		General Use	1123	800.0156250	800.01875		General Use
164	770.021875			General Use	1124	800.0218750			General Use
165	770.028125	770.03125	770.03750	General Use	1125	800.0281250	800.03125	800.03750	General Use
166	770.034375			General Use	1126	800.0343750			General Use
167	770.040625	770.04375		General Use	1127	800.0406250	800.04375		General Use
168	770.046875			General Use	1128	800.0468750			General Use
169	770.053125	770.05625	770.06250	General Use	1129	800.0531250	800.05625	800.06250	General Use
170	770.059375			General Use	1130	800.0593750			General Use
171	770.065625	770.06875		General Use	1131	800.0656250	800.06875		General Use
172	770.071875			General Use	1132	800.0718750			General Use
173	770.078125	770.08125	770.08750	General Use	1133	800.0781250	800.08125	800.08750	General Use
174	770.084375			General Use	1134	800.0843750			General Use
175	770.090625	770.09375		General Use	1135	800.0906250	800.09375		General Use
176	770.096875			General Use	1136	800.0968750			General Use
177	770.103125	770.10625	770.11250	General Use	1137	800.1031250	800.10625	800.11250	General Use
178	770.109375			General Use	1138	800.1093750			General Use
179	770.115625	770.11875		General Use	1139	800.1156250	800.11875		General Use
180	770.121875			General Use	1140	800.1218750			General Use
181	770.128125	770.13125	770.13750	Secondary Trunking	1141	800.1281250	800.13125	800.13750	Secondary Trunking
182	770.134375			Secondary Trunking	1142	800.1343750			Secondary Trunking
183	770.140625	770.14375		Interoperability	1143	800.1406250	800.14375		Interoperability
184	770.146875			Interoperability	1144	800.1468750			Interoperability
185	770.153125	770.15625	770.16250	State license	1145	800.1531250	800.15625	800.16250	State license
186	770.159375			State license	1146	800.1593750			State license
187	770.165625	770.16875		State license	1147	800.1656250	800.16875		State license
188	770.171875			State license	1148	800.1718750			State license
189	770.178125	770.18125	770.18750	State license	1149	800.1781250	800.18125	800.18750	State license
190	770.184375			State license	1150	800.1843750			State license
191	770.190625	770.19375		State license	1151	800.1906250	800.19375		State license
192	770.196875			State license	1152	800.1968750			State license
193	770.203125	770.20625	770.21250	State license	1153	800.2031250	800.20625	800.21250	State license
194	770.209375			State license	1154	800.2093750			State license
195	770.215625	770.21875		State license	1155	800.2156250	800.21875		State license
196	770.2221875			State license	1156	800.22218750			State license
197	770.228125	770.23125	770.23750	Reserve	1157	800.2281250	800.23125	800.23750	Reserve
198	770.234375			Reserve	1158	800.2343750			Reserve
199	770.240625	770.24375		Interoperability	1159	800.2406250	800.24375		Interoperability
200	770.246875			Interoperability	1160	800.2468750			Interoperability

Channel Numbers and Channel Center Frequencies

Narrowband Segments of the 769-775 MHz and 799-805 MHz Bands

Revised: October 11, 2007

Channel Number	Narrowband Base Channels		Allocation	Narrowband Mobile Channels		
	6.25 kHz	12.5 kHz		6.25 kHz	12.5 kHz	25 kHz
241	770.503125	770.50625	770.51250	General Use	800.5031250	800.50625
242	770.509375		General Use		800.5093750	800.51250
243	770.515625	770.51875	General Use		800.5156250	800.51875
244	770.521875		General Use		800.5218750	800.53750
245	770.528125	770.53125	770.53750	General Use	800.5281250	800.53125
246	770.534375		General Use		800.5343750	800.55625
247	770.540625	770.54375	General Use		800.5406250	800.54375
248	770.546875		General Use		800.5468750	800.5531250
249	770.553125	770.55625	770.56250	General Use	800.5531250	800.55625
250	770.559375		General Use		800.5593750	800.56250
251	770.565625	770.56875	General Use		800.5656250	800.56875
252	770.571875		General Use		800.5718750	800.58125
253	770.578125	770.58125	770.58750	General Use	800.5781250	800.58750
254	770.584375		General Use		800.5843750	800.59375
255	770.590625	770.59375	770.596875	General Use	800.5906250	800.5968750
256	770.596875		General Use		800.5968750	800.6031250
257	770.603125	770.60625	770.61250	General Use	800.6031250	800.60625
258	770.609375		General Use		800.6093750	800.61625
259	770.615625	770.61875	770.621875	General Use	800.6156250	800.61875
260	770.621875		General Use		800.6218750	800.6281250
261	770.628125	770.63125	770.63750	Secondary Trunking	800.6343750	800.63750
262	770.634375			Secondary Trunking	800.6343750	800.6406250
263	770.640625	770.64375		Interoperability	800.6406250	800.64375
264	770.646875			Interoperability	800.6468750	800.6531250
265	770.653125	770.65625	770.66250	State license	800.6531250	800.65625
266	770.659375			State license	800.6593750	800.66250
267	770.665625	770.66875		State license	800.6656250	800.66875
268	770.671875			State license	800.6718750	800.68125
269	770.678125	770.68125	770.68750	State license	800.6781250	800.68750
270	770.684375			State license	800.6843750	800.69375
271	770.690625	770.69375		State license	800.6906250	800.69375
272	770.696875			State license	800.6968750	800.7031250
273	770.703125	770.70625	770.71250	State license	800.7031250	800.70625
274	770.709375			State license	800.7093750	800.71625
275	770.715625	770.71875		State license	800.7156250	800.71875
276	770.721875			State license	800.7218750	800.7281250
277	770.728125	770.73125	770.73750	Reserve	800.7281250	800.73125
278	770.734375			Reserve	800.7343750	800.7406250
279	770.740625	770.74375		I/O low speed data	800.7406250	800.74375
280	770.746875			I/O low speed data	800.7468750	800.74875

Channel Number	Narrowband Base Channels		Allocation	Narrowband Mobile Channels		
	6.25 kHz	12.5 kHz		6.25 kHz	12.5 kHz	25 kHz
1201			General Use	800.5031250	800.50625	800.51250
1202			General Use	800.5093750		General Use
1203			General Use	800.5156250	800.51875	General Use
1204			General Use	800.5218750		General Use
1205			General Use	800.5281250	800.53125	800.53750
1206			General Use	800.5343750		General Use
1207			General Use	800.5406250	800.54375	General Use
1208			General Use	800.5468750		General Use
1209			General Use	800.5531250	800.55625	800.56250
1210			General Use	800.5593750		General Use
1211			General Use	800.5656250	800.56875	General Use
1212			General Use	800.5718750		General Use
1213			General Use	800.5781250	800.58125	800.58750
1214			General Use	800.5843750		General Use
1215			General Use	800.5906250	800.59375	General Use
1216			General Use	800.5968750		General Use
1217			General Use	800.6031250	800.60625	800.61250
1218			General Use	800.6093750		General Use
1219			General Use	800.6156250	800.61875	General Use
1220			General Use	800.6218750		General Use
1221			Secondary Trunking	800.6281250	800.63125	800.63750
1222			Secondary Trunking	800.6343750		Secondary Trunking
1223			Interoperability	800.6406250	800.64375	Interoperability
1224			Interoperability	800.6468750		Interoperability
1225			State license	800.6531250	800.65625	800.66250
1226			State license	800.6593750		State license
1227			State license	800.6656250	800.66875	State license
1228			State license	800.6718750		State license
1229			State license	800.6781250	800.68125	800.68750
1230			State license	800.6843750		State license
1231			State license	800.6906250	800.69375	State license
1232			State license	800.6968750		State license
1233			State license	800.7031250	800.70625	800.71250
1234			State license	800.7093750		State license
1235			State license	800.7156250	800.71875	State license
1236			State license	800.7218750		State license
1237			State license	800.7281250	800.73125	800.73750
1238			Reserve	800.7343750		Reserve
1239			I/O low speed data	800.7406250	800.74375	I/O low speed data
1240			I/O low speed data	800.7468750		I/O low speed data

Channel Numbers and Channel Center Frequencies
Narrowband Segments of the 769-775 MHz and 799-805 MHz Bands

Revised: October 11, 2007

Narrowband Base Channels				Narrowband Mobile Channels				
Channel Number	Center Frequency 6.25 kHz	Center Frequency 12.5 kHz	Allocation	Channel Number	Center Frequency 6.25 kHz	Center Frequency 12.5 kHz	Allocation	
321	771.003125	771.00625	771.01250	General Use	1281	801.0031250	801.00625	801.01250
322	771.009375			General Use	1282	801.0093750		General Use
323	771.015625	771.01875		General Use	1283	801.0156250	801.01875	General Use
324	771.021875			General Use	1284	801.0218750		General Use
325	771.028125	771.03125	771.03750	General Use	1285	801.0281250	801.03125	801.03750
326	771.034375			General Use	1286	801.0343750		General Use
327	771.040625	771.04375		General Use	1287	801.0406250	801.04375	General Use
328	771.046875			General Use	1288	801.0468750		General Use
329	771.053125	771.05625	771.06250	General Use	1289	801.0531250	801.05625	801.06250
330	771.059375			General Use	1290	801.0593750		General Use
331	771.065625	771.06875		General Use	1291	801.0656250	801.06875	General Use
332	771.071875			General Use	1292	801.0718750		General Use
333	771.078125	771.08125	771.08750	General Use	1293	801.0781250	801.08125	801.08750
334	771.084375			General Use	1294	801.0843750		General Use
335	771.090625	771.09375		General Use	1295	801.0906250	801.09375	General Use
336	771.096875			General Use	1296	801.0968750		General Use
337	771.103125	771.10625	771.11250	General Use	1297	801.1031250	801.10625	801.11250
338	771.109375			General Use	1298	801.1093750		General Use
339	771.115625	771.11875		General Use	1299	801.1156250	801.11875	
340	771.121875			General Use	1300	801.1218750		General Use
341	771.128125	771.13125	771.13750	General Use	1301	801.1281250	801.13125	801.13750
342	771.134375			General Use	1302	801.1343750		General Use
343	771.140625	771.14375		General Use	1303	801.1406250	801.14375	
344	771.146875			General Use	1304	801.1468750		General Use
345	771.153125	771.15625	771.16250	General Use	1305	801.1531250	801.15625	801.16250
346	771.159375			General Use	1306	801.1593750		General Use
347	771.165625	771.16875		General Use	1307	801.1656250	801.16875	
348	771.171875			General Use	1308	801.1718750		General Use
349	771.178125	771.18125	771.18750	General Use	1309	801.1781250	801.18125	801.18750
350	771.184375			General Use	1310	801.1843750		General Use
351	771.190625	771.19375		General Use	1311	801.1906250	801.19375	General Use
352	771.196875			General Use	1312	801.1968750		General Use
353	771.203125	771.20625	771.21250	General Use	1313	801.2031250	801.20625	801.21250
354	771.209375			General Use	1314	801.2093750		General Use
355	771.215625	771.21875		General Use	1315	801.2156250	801.21875	General Use
356	771.221875			General Use	1316	801.2218750		General Use
357	771.228125	771.23125	771.23750	General Use	1317	801.2281250	801.23125	801.23750
358	771.234375			General Use	1318	801.2343750		General Use
359	771.240625	771.24375		General Use	1319	801.2406250	801.24375	
360	771.246875			General Use	1320	801.2468750		General Use

Channel Numbers and Channel Center Frequencies

Narrowband Segments of the 769-775 MHz and 799-805 MHz Bands

Revised: October 11, 2007

Narrowband Base Channels				Narrowband Mobile Channels				
Channel Number	Center Frequency 6.25 kHz	Center Frequency 12.5 kHz	Allocation	Channel Number	Center Frequency 6.25 kHz	Center Frequency 12.5 kHz	Allocation	
401	771.503125	771.50625	771.51250	General Use	1361	801.5031250	801.50625	801.51250 General Use
402	771.509375			General Use	1362	801.5093750		General Use
403	771.515625	771.51875		General Use	1363	801.5156250	801.51875	General Use
404	771.521875			General Use	1364	801.5218750		General Use
405	771.528125	771.53125	771.53750	General Use	1365	801.5281250	801.53125	801.53750 General Use
406	771.534375			General Use	1366	801.5343750		General Use
407	771.540625	771.54375		General Use	1367	801.5406250	801.54375	General Use
408	771.546875			General Use	1368	801.5468750		General Use
409	771.553125	771.55625	771.56250	General Use	1369	801.5531250	801.55625	801.56250 General Use
410	771.559375			General Use	1370	801.5593750		General Use
411	771.565625	771.56875		General Use	1371	801.5656250	801.56875	General Use
412	771.571875			General Use	1372	801.5718750		General Use
413	771.578125	771.58125	771.58750	General Use	1373	801.5781250	801.58125	801.58750 General Use
414	771.584375			General Use	1374	801.5843750		General Use
415	771.590625	771.59375		General Use	1375	801.5906250	801.59375	General Use
416	771.596875			General Use	1376	801.5968750		General Use
417	771.603125	771.60625	771.61250	General Use	1377	801.6031250	801.60625	801.61250 General Use
418	771.609375			General Use	1378	801.6093750		General Use
419	771.615625	771.61875		General Use	1379	801.6156250	801.61875	General Use
420	771.621875			General Use	1380	801.6218750		General Use
421	771.628125	771.63125	771.63750	General Use	1381	801.6281250	801.63125	801.63750 General Use
422	771.634375			General Use	1382	801.6343750		General Use
423	771.640625	771.64375		General Use	1383	801.6406250	801.64375	General Use
424	771.646875			General Use	1384	801.6468750		General Use
425	771.653125	771.65625	771.66250	General Use	1385	801.6531250	801.66250	801.67250 General Use
426	771.659375			General Use	1386	801.6593750		General Use
427	771.665625	771.66875		General Use	1387	801.6656250	801.66875	General Use
428	771.671875			General Use	1388	801.6718750		General Use
429	771.678125	771.68125	771.68750	General Use	1389	801.6781250	801.68125	801.68750 General Use
430	771.684375			General Use	1390	801.6843750		General Use
431	771.690625	771.69375		General Use	1391	801.6906250	801.69375	General Use
432	771.696875			General Use	1392	801.6968750		General Use
433	771.703125	771.70625	771.71250	General Use	1393	801.7031250	801.70625	801.71250 General Use
434	771.709375			General Use	1394	801.7093750		General Use
435	771.715625	771.71875		General Use	1395	801.7156250	801.71875	General Use
436	771.721875			General Use	1396	801.7218750		General Use
437	771.728125	771.73125	771.73750	General Use	1397	801.7281250	801.73125	801.73750 General Use
438	771.734375			General Use	1398	801.7343750		General Use
439	771.740625	771.74375		General Use	1399	801.7406250	801.74375	General Use
440	771.746875			General Use	1400	801.7468750		General Use

Channel Numbers and Channel Center Frequencies

Narrowband Segments of the 769-775 MHz and 799-805 MHz Bands

Revised: October 11, 2007

Narrowband Base Channels				Narrowband Mobile Channels					
Channel Number	Center Frequency 6.25 kHz	12.5 kHz	25 kHz	Allocation	Channel Number	Center Frequency 6.25 kHz	12.5 kHz	25 kHz	Allocation
441	771.753125	771.75625	771.76250	General Use	1401	801.7531250	801.75625	801.76250	General Use
442	771.759375			General Use	1402	801.7533750			General Use
443	771.765625	771.76875		General Use	1403	801.7656250	801.76875		General Use
444	771.771875			General Use	1404	801.7718750			General Use
445	771.778125	771.78125	771.78750	General Use	1405	801.7781250	801.78125	801.78750	General Use
446	771.784375			General Use	1406	801.7843750			General Use
447	771.790625	771.79375		General Use	1407	801.7906250	801.79375		General Use
448	771.796875			General Use	1408	801.7968750			General Use
449	771.803125	771.80625	771.81250	General Use	1409	801.8031250	801.80625	801.81250	General Use
450	771.809375			General Use	1410	801.8093750			General Use
451	771.815625	771.81875		General Use	1411	801.8156250	801.81875		General Use
452	771.821875			General Use	1412	801.8218750			General Use
453	771.828125	771.83125	771.83750	General Use	1413	801.8281250	801.83125	801.83750	General Use
454	771.834375			General Use	1414	801.8343750			General Use
455	771.840625	771.84375		General Use	1415	801.8406250	801.84375		General Use
456	771.846875			General Use	1416	801.8468750			General Use
457	771.853125	771.85625	771.86250	General Use	1417	801.8531250	801.85625	801.86250	General Use
458	771.859375			General Use	1418	801.8593750			General Use
459	771.865625	771.86875		General Use	1419	801.8656250	801.86875		General Use
460	771.871875			General Use	1420	801.8718750			General Use
461	771.878125	771.88125	771.88750	General Use	1421	801.8781250	801.88125	801.88750	General Use
462	771.884375			General Use	1422	801.8843750			General Use
463	771.890625	771.89375		General Use	1423	801.8906250	801.89375		General Use
464	771.896875			General Use	1424	801.8968750			General Use
465	771.903125	771.90625	771.91250	General Use	1425	801.9031250	801.90625	801.91250	General Use
466	771.909375			General Use	1426	801.9093750			General Use
467	771.915625	771.91875		General Use	1427	801.9156250	801.91875		General Use
468	771.921875			General Use	1428	801.9218750			General Use
469	771.928125	771.93125	771.93750	General Use	1429	801.9281250	801.93125	801.93750	General Use
470	771.934375			General Use	1430	801.9343750			General Use
471	771.940625	771.94375		General Use	1431	801.9406250	801.94375		General Use
472	771.946875			General Use	1432	801.9468750			General Use
473	771.953125	771.95625	771.96250	General Use	1433	801.9531250	801.95625	801.96250	General Use
474	771.959375			General Use	1434	801.9593750			General Use
475	771.965625	771.96875		General Use	1435	801.9656250	801.96875		General Use
476	771.971875			General Use	1436	801.9718750			General Use
477	771.978125	771.98125	771.98750	General Use	1437	801.9781250	801.98125	801.98750	General Use
478	771.984375			General Use	1438	801.9843750			General Use
479	771.990625	771.99375		General Use	1439	801.9906250	801.99375		General Use
480	771.996875			General Use	1440	801.9968750			General Use

Channel Numbers and Channel Center Frequencies
Narrowband Segments of the 769-775 MHz and 799-805 MHz Bands

Revised: October 11, 2007

Narrowband Base Channels			Narrowband Mobile Channels		
Channel Number	Center Frequency 6.25 kHz	Allocation 25 kHz	Channel Number	Center Frequency 6.25 kHz	Allocation 25 kHz
761	773.753125	773.75625	773.76250	803.7531250	803.76250
762	773.759375		773.763750	803.7593750	Interoperability
763	773.765625	773.76375	773.7656250	803.7656250	Interoperability
764	773.771875	Reserve	773.7718750	803.7718750	Reserve
765	773.778125	773.78750	773.7781250	803.7781250	Reserve
766	773.784375	State license	773.7843750	803.7843750	State license
767	773.790625	773.79375	773.7906250	803.7906250	State license
768	773.795875	State license	773.7958750	803.7958750	State license
769	773.803125	773.80625	773.81250	803.8031250	803.81250 State license
770	773.809375	State license	773.8093750	803.8093750	State license
771	773.815625	773.81875	773.8156250	803.8156250	State license
772	773.821875	State license	773.8218750	803.8218750	State license
773	773.828125	773.83125	773.831250	803.8281250	803.83125 State license
774	773.834375	State license	773.8343750	803.8343750	State license
775	773.840625	773.84375	773.8406250	803.8406250	803.84375 State license
776	773.846875	State license	773.8468750	803.8468750	State license
777	773.853125	773.85625	773.86250	803.8531250	803.86250 Interoperability
778	773.859375	Interoperability	773.8593750	803.8593750	Interoperability
779	773.865625	773.86875	773.8656250	803.8656250	803.86875 Reserve
780	773.871875	Reserve	773.8718750	803.8718750	Reserve
781	773.878125	773.88125	773.881250	803.8781250	803.88125 General Use
782	773.884375	General Use	773.8843750	803.8843750	General Use
783	773.890625	773.89375	773.8906250	803.8906250	803.89375 General Use
784	773.896875	General Use	773.8968750	803.8968750	General Use
785	773.903125	773.90525	773.91250	803.9031250	803.91250 General Use
786	773.909375	General Use	773.9093750	803.9093750	General Use
787	773.915625	773.91875	773.9156250	803.9156250	803.91875 General Use
788	773.921875	General Use	773.9218750	803.9218750	General Use
789	773.928125	773.93125	773.93750	803.9281250	803.93750 General Use
790	773.934375	General Use	773.9343750	803.9343750	General Use
791	773.940625	773.94375	773.9406250	803.9406250	803.94375 General Use
792	773.946875	General Use	773.9468750	803.9468750	General Use
793	773.953125	773.95625	773.96250	803.9531250	803.96250 General Use
794	773.959375	General Use	773.9593750	803.9593750	General Use
795	773.965625	773.96875	773.9656250	803.9656250	803.96875 General Use
796	773.971875	General Use	773.9718750	803.9718750	General Use
797	773.978125	773.98125	773.98750	803.9781250	803.98750 General Use
798	773.984375	General Use	773.9843750	803.9843750	General Use
799	773.990625	773.99375	773.9906250	803.9906250	803.99375 General Use
800	773.996875	General Use	773.9968750	803.9968750	General Use

Channel Numbers and Channel Center Frequencies
Narrowband Segments of the 769-775 MHz and 799-805 MHz Bands

Revised: October 11, 2007

Narrowband Base Channels				Narrowband Mobile Channels				
Channel Number	Center Frequency	Allocation		Channel Number	Center Frequency	Allocation		
	6.25 kHz	12.5 kHz	25 kHz		6.25 kHz	12.5 kHz	25 kHz	
801	774.003125	774.00625	774.01250	Interoperability	1761	804.0031250	804.00625	804.01250
802	774.009375			Interoperability	1762	804.0093750		Interoperability
803	774.015625	774.01875		Reserve	1763	804.0156250	804.01875	Reserve
804	774.021875			Reserve	1764	804.0218750		Reserve
805	774.028125	774.03125	774.03750	State license	1765	804.0281250	804.03125	804.03750
806	774.034375			State license	1766	804.0343750		State license
807	774.040625	774.04375		State license	1767	804.0406250	804.04375	State license
808	774.046875			State license	1768	804.0468750		State license
809	774.053125	774.05625	774.06250	State license	1769	804.0531250	804.05625	804.06250
810	774.059375			State license	1770	804.0593750		State license
811	774.065625	774.06875		State license	1771	804.0656250	804.06875	State license
812	774.071875			State license	1772	804.0718750		State license
813	774.078125	774.08125	774.08750	State license	1773	804.0781250	804.08125	804.08750
814	774.084375			State license	1774	804.0843750		State license
815	774.090625	774.09375		State license	1775	804.0906250	804.09375	State license
816	774.096875			State license	1776	804.0968750		State license
817	774.103125	774.10625	774.11250	Interoperability	1777	804.1031250	804.10625	804.11250
818	774.109375			Interoperability	1778	804.1093750		Interoperability
819	774.115625	774.11875		Secondary Trunking	1779	804.1156250	804.11875	Secondary Trunking
820	774.121875			Secondary Trunking	1780	804.1218750		Secondary Trunking
821	774.128125	774.13125	774.13750	General Use	1781	804.1281250	804.13125	804.13750
822	774.134375			General Use	1782	804.1343750		General Use
823	774.140625	774.14375		General Use	1783	804.1406250	804.14375	
824	774.146875			General Use	1784	804.1468750		General Use
825	774.153125	774.15625	774.16250	General Use	1785	804.1531250	804.15625	804.16250
826	774.159375			General Use	1786	804.1593750		General Use
827	774.165625	774.16875		General Use	1787	804.1656250	804.16875	
828	774.171875			General Use	1788	804.1718750		General Use
829	774.178125	774.18125	774.18750	General Use	1789	804.1781250	804.18125	804.18750
830	774.184375			General Use	1790	804.1843750		General Use
831	774.190625	774.19375		General Use	1791	804.1906250	804.19375	
832	774.196875			General Use	1792	804.1968750		General Use
833	774.203125	774.20625	774.21250	General Use	1793	804.2031250	804.20625	804.21250
834	774.209375			General Use	1794	804.2093750		General Use
835	774.215625	774.21875		General Use	1795	804.2156250	804.21875	General Use
836	774.221875			General Use	1796	804.2218750		General Use
837	774.228125	774.23125	774.23750	General Use	1797	804.2281250	804.23125	804.23750
838	774.234375			General Use	1798	804.2343750		General Use
839	774.240625	774.24375		General Use	1799	804.2406250	804.24375	General Use
840	774.246875			General Use	1800	804.2468750		General Use

19 ME	Cumberland County	945-948	775.9125	805.9125
19 MA	Dukes County	41-44	764.2625	794.2625
19 MA	Dukes County	97-100	764.6125	794.6125
19 MA	Dukes County	137-140	764.8625	794.8625
19 MA	Dukes County	241-244	765.5125	795.5125
19 MA	Dukes County	345-348	766.1625	796.1625
19 MA	Dukes County	393-396	766.4625	796.4625
19 MA	Dukes County	465-468	766.9125	796.9125
19 MA	Dukes County	533-536	773.3375	803.3375
19 MA	Dukes County	585-588	773.6625	803.6625
19 MA	Dukes County	633-636	773.9625	803.9625
19 MA	Dukes County	701-704	774.3875	804.3875
19 MA	Dukes County	757-760	774.7375	804.7375
19 MA	Dukes County	797-800	774.9875	804.9875
19 MA	Dukes County	837-840	775.2375	805.2375
19 MA	Dukes County	905-908	775.6625	805.6625
19 MA	Dukes County	945-948	775.9125	805.9125
19 MA	Essex County, MA	41-44	764.2625	794.2625
19 MA	Essex County, MA	81-84	764.5125	794.5125
19 MA	Essex County, MA	121-124	764.7625	794.7625
19 MA	Essex County, MA	161-164	765.0125	795.0125
19 MA	Essex County, MA	205-208	765.2875	795.2875
19 MA	Essex County, MA	253-256	765.5875	795.5875
19 MA	Essex County, MA	361-364	766.2625	796.2625
19 MA	Essex County, MA	425-428	766.6625	796.6625
19 MA	Essex County, MA	501-504	773.1375	803.1375
19 MA	Essex County, MA	541-544	773.3875	803.3875
19 MA	Essex County, MA	601-604	773.7625	803.7625
19 MA	Essex County, MA	821-824	775.1375	805.1375
19 MA	Essex County, MA	873-876	775.4625	805.4625
19 MA	Essex County, MA	913-916	775.7125	805.7125
19 VT	Essex County, VT	81-84	764.5125	794.5125
19 VT	Essex County, VT	133-136	764.8375	794.8375
19 VT	Essex County, VT	173-176	765.0875	795.0875
19 VT	Essex County, VT	213-216	765.3375	795.3375
19 VT	Essex County, VT	325-328	766.0375	796.0375
19 VT	Essex County, VT	397-400	766.4875	796.4875
19 VT	Essex County, VT	457-460	766.8625	796.8625
19 VT	Essex County, VT	485-488	773.0375	803.0375
19 VT	Essex County, VT	533-536	773.3375	803.3375
19 VT	Essex County, VT	609-612	773.8125	803.8125
19 VT	Essex County, VT	745-748	774.6625	804.6625
19 VT	Essex County, VT	821-824	775.1375	805.1375
19 CT	Fairfield County	85-88	764.5375	794.5375
19 CT	Fairfield County	173-176	765.0875	795.0875
19 CT	Fairfield County	253-256	765.5875	795.5875
19 CT	Fairfield County	357-360	766.2375	796.2375
19 CT	Fairfield County	405-408	766.5375	796.5375
19 CT	Fairfield County	445-448	766.7875	796.7875
19 CT	Fairfield County	793-796	774.9625	804.9625
19 CT	Fairfield County	833-836	775.2125	805.2125
19 MA	Franklin County, MA	217-220	765.3625	795.3625

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Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.94688	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95625	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAILABLE									
qqqq qq	773.96563	AVAIL ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.95625	AVAILABLE									
9999.99	773.95625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.95313	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAILABLE									
qqqq qq	773.96250	AVAIL ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy
Search Name: CH 793 773.95625 Bridgeport Site 33				
Lo:	773.95625	MHz	Hi:	773.95625 MHz
<input type="checkbox"/> Canadian 800MHz <input type="checkbox"/> 90.261				
<input type="checkbox"/> Mexican 800MHz <input type="checkbox"/> 90.261				
Latitude: N41-10-20.30 <input checked="" type="checkbox"/> Show Lat/Lon in				
Longitude: W073-11-30.40				
Distance: 150.00 km				

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Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20625	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE									
9999.99	774.21563	AVAIL ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.20625	AVAILABLE									
9999.99	774.20625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE									
9999.99	774.21563	AVAIL ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy
Search Name: CH 833 774.20625 Bridgeport Site 33				
Lo:	774.20625	MHz	Hi:	774.20625 MHz
<input type="checkbox"/> Canadian 800MHz <input type="checkbox"/> Mexican 800MHz <input type="checkbox"/> 90.261				
Latitude: N41-10-20.30 <input checked="" type="checkbox"/> Show Lat/Lon in Longitude: W073-11-30.40 Distance: 150.00 km				

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Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.94688	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95625	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAILABLE									
9999.99	773.96563	AVAIL ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.95625	AVAILABLE									
9999.99	773.95625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.95313	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAILABLE									
9999.99	773.96250	AVAIL ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy
Search Name: CH 793 773.95625 Greenwich Site 74				
Lo: <input type="text" value="773.95625"/>	MHz	Hi: <input type="text" value="773.95625"/>	MHz	Latitude: <input type="text" value="N41-05-49.30"/> <input checked="" type="checkbox"/> Show Lat/Lon in
				Longitude: <input type="text" value="W073-38-19.50"/>
<input type="checkbox"/> Canadian 800MHz <input type="checkbox"/> Mexican 800MHz <input type="checkbox"/> 90.261 <input type="checkbox"/> Distance: <input type="text" value="150.00"/> km				

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Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20625	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE									
9999.99	774.21563	AVAILABLE ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.20625	AVAILABLE									
9999.99	774.20625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy
Search Name: CH 833 774.206250 Greenwich Site 74				
Lo:	774.20625	MHz	Hi:	774.20625 MHz
<input type="checkbox"/> Canadian 800MHz <input type="checkbox"/> Mexican 800MHz <input type="checkbox"/> 90.261				
			Latitude:	N41-05-49.30
			Longitude:	W073-38-19.50
			Distance:	150.00 km
<input checked="" type="checkbox"/> Show Lat/Lon in				

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Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date
AVAILABLE					

Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.94688	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95625	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAILABLE									
aaaa aa	773.96563	AVAI ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date
AVAILABLE					
Dist	Freq	Call Sign	SC	Class	Latitude
9999.99	773.95625	AVAILABLE			
9999.99	773.95625	AVAILABLE			

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date
AVAILABLE					
Dist	Freq	Call Sign	SC	Class	Latitude
9999.99	773.94688	AVAILABLE			
9999.99	773.95313	AVAILABLE			
9999.99	773.95313	AVAILABLE			
9999.99	773.95938	AVAILABLE			
9999.99	773.95938	AVAILABLE			
aaaa aa	773.96250	AVAI ARI F			

Search Criteria	<input type="checkbox"/> Offsets	<input type="checkbox"/> Filters	<input type="checkbox"/> Log	<input type="checkbox"/> ComStudy	
Search Name: CH 793 773.95625 Redding Site 69					
Lo:	<input type="text" value="773.95625"/>	MHz	Hi:	<input type="text" value="773.95625"/>	MHz
<input type="checkbox"/> Canadian 800MHz			Latitude: <input type="text" value="N41-17-13.30"/> <input checked="" type="checkbox"/> Show Lat/Lon in		
<input type="checkbox"/> Mexican 800MHz			Longitude: <input type="text" value="W073-26-17.40"/>		
<input type="checkbox"/> 90.261			Distance: <input type="text" value="150.00"/> km		

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Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date
AVAILABLE					

Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20625	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE									
qqqq qq	774.21563	AVAIL ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date

Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.20625	AVAILABLE									
9999.99	774.20625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date

Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.20313	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE									
qqqq qq	774.21250	AVAIL ARI F									

Search Criteria	<input type="checkbox"/> Offsets	<input type="checkbox"/> Filters	<input type="checkbox"/> Log	<input type="checkbox"/> ComStudy	
Search Name: CH 833 774.206250 Redding Site 69					
Lo:	<input type="text" value="774.20625"/>	MHz	Hi:	<input type="text" value="774.20625"/>	MHz
<input type="checkbox"/> Canadian 800MHz			Latitude: <input type="text" value="N41-17-13.30"/> <input checked="" type="checkbox"/> Show Lat/Lon in		
<input type="checkbox"/> Mexican 800MHz			Longitude: <input type="text" value="W073-26-17.40"/>		
<input type="checkbox"/> 90.261			Distance: <input type="text" value="150.00"/> km		

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Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.94688	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95625	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAILABLE									
qqqq qq	773.96563	AVAIL ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.95625	AVAILABLE									
9999.99	773.95625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.94688	AVAILABLE									
9999.99	773.94688	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95938	AVAILABLE									
qqqq qq	773.95938	AVAIL ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy
Search Name: CH 793 773.95625 Shelton 29				
Lo:	773.95625	MHz	Hi:	773.95625 MHz
Latitude: N41-16-46.30 Longitude: W073-11-06.40				
<input type="checkbox"/> Canadian 800MHz <input type="checkbox"/> Mexican 800MHz <input type="checkbox"/> 90.261 Distance: 150.00 km				

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Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20625	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE									
aaaa aa	774 21563	AVAIL ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.20625	AVAILABLE									
9999.99	774.20625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.20313	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE									
aaaa aa	774 21250	AVAIL ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy	
Search Name: CH 833 774.206250 Shelton 29					
Lo:	774.20625	MHz	Hi:	774.20625	MHz
<input type="checkbox"/>	Canadian 800MHz				<input checked="" type="checkbox"/> Show Lat/Lon in
<input type="checkbox"/>	Mexican 800MHz				Distance: 150.00 km

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Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.94688	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95625	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAILABLE									
9999.99	773.96563	AVAIL ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.95625	AVAILABLE									
9999.99	773.95625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.94688	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAIL ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy
Search Name: CH 793 773.95625 Stamford Landmark				
Lo:	773.95625	MHz	Hi:	773.95625 MHz
<input type="checkbox"/> Canadian 800MHz <input type="checkbox"/> Mexican 800MHz <input type="checkbox"/> 90.261				
Latitude: N41-03-17.10 <input checked="" type="checkbox"/> Show Lat/Lon in Longitude: W073-32-18.00 Distance: 150.00 km				

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AutoX v.11.25.2008.15.00

Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20625	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE									
aaaaa aa	774 21563	AVAIL ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.20625	AVAILABLE									
9999.99	774.20625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.20938	AVAILABLE									
aaaaa aa	774 21250	AVAIL ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy	
Search Name: CH 833 774.20625 Stamford Landmark					
Lo:	774.20625	MHz	Hi:	774.20625	MHz
<input type="checkbox"/>	Canadian 800MHz		<input type="checkbox"/>	Longitude:	N41-03-17.10
<input type="checkbox"/>	Mexican 800MHz		<input type="checkbox"/>	Distance:	W073-32-18.00
				km	150.00

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AutoX v.11.25.2008.15.00

Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.95313	AVAILABLE									
9999.99	773.95625	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAILABLE									
9999.99	773.96563	AVAILABLE									
9999.99	773.96875	AVAILABLE									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date
9999.99	773.95625	AVAILABLE			
9999.99	773.95625	AVAILABLE			

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date
9999.99	773.95313	AVAILABLE			
9999.99	773.95938	AVAILABLE			
9999.99	773.95938	AVAILABLE			
9999.99	773.96250	AVAILABLE			
9999.99	773.96250	AVAILABLE			
9999.99	773.96563	AVAILABLE			

Search Criteria	Offsets	Filters	Log	ComStudy
Search Name: CH 793 773.95625 Westport 32				
Lo:	773.95625	MHz	Hi:	773.95625 MHz
<input type="checkbox"/> Canadian 800MHz <input type="checkbox"/> Mexican 800MHz <input type="checkbox"/> 90.261				
Latitude: N41-08-27.30 <input checked="" type="checkbox"/> Show Lat/Lon in Longitude: W073-20-51.40 Distance: 150.00 km				

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AutoX v.11.25.2008.15.00

Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date
AVAILABLE					

Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19375	AVAILABLE									
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20625	AVAILABLE									
9999.99	774.20938	AVAILABLE									
qqqq qq	774.21250	AVAIL ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Co-Channel											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.20625	AVAILABLE									
9999.99	774.20625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Adjacent Channel											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.20313	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE									
qqqq qq	774.21250	AVAIL ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy	
Search Name: CH 833 774.206250 Westport 32					
Lo:	774.20625	MHz	Hi:	774.20625	MHz
<input type="checkbox"/> Canadian 800MHz			Latitude: N41-08-27.30 <input checked="" type="checkbox"/> Show Lat/Lon in		
<input type="checkbox"/> Mexican 800MHz			Longitude: W073-20-51.40		
<input type="checkbox"/> 90.261			Distance: 150.00 km		

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AutoX v.11.25.2008.15.00

Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.94688	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95625	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAILABLE									
9999.99	773.96563	AVAILABLE ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.95625	AVAILABLE									
9999.99	773.95625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	773.94688	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95313	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.95938	AVAILABLE									
9999.99	773.96250	AVAILABLE									
9999.99	773.96563	AVAILABLE ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy	
Search Name: CH 793 773.95625 Wilton 31					<input checked="" type="checkbox"/> Show Lat/Lon in
Lo:	<input type="text" value="773.95625"/>	MHz	Hi:	<input type="text" value="773.95625"/>	MHz
<input type="checkbox"/> Canadian 800MHz			Latitude: N41-10-21.30		
<input type="checkbox"/> Mexican 800MHz			Longitude: W073-26-03.40		
<input type="checkbox"/> 90.261			Distance: 150.00 km		

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AutoX v.11.25.2008.15.00

Closest Stations

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20625	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAILABLE									
9999.99	774.21563	AVAIL ARI F									

Co-Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.20625	AVAILABLE									
9999.99	774.20625	AVAILABLE									

Adjacent Channel

Call Sign	Entity	SC	FAC #	Grant Date	Exp Date						
AVAILABLE											
Dist	Freq	Call Sign	SC	Class	Latitude	Longitude	Elev	HAAT	Pwr	ERP	Entity
9999.99	774.19688	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20313	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.20938	AVAILABLE									
9999.99	774.21250	AVAIL ARI F									

Search Criteria	Offsets	Filters	Log	ComStudy	
Search Name: CH 833 774.206250 Wilton 31					
Lo:	774.20625	MHz	Hi:	774.20625	MHz
<input type="checkbox"/> Canadian 800MHz			<input checked="" type="checkbox"/> Show Lat/Lon in		
<input type="checkbox"/> Mexican 800MHz			Latitude: N41-10-21.30		
<input type="checkbox"/> 90.261			Longitude: W073-26-03.40		
			Distance: 150.00 km		

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SECTION SEVEN

MOTOROLA MOBILE OVERLAY CONTOUR WITH STAMFORD LANDMARK SITE

MOTOROLA MOBILE OVERLAY CONTOUR WITH WESTPORT SITE

95% area mobile outbound overlay (Blue shade)

95% area mobile inbound overlay (Green shade)

CSP FAIRFIELD COUNTY SEVEN (7) SITE DISPLAY

CSP FAIRFIELD COUNTY COMPOSITE CONTOUR SEVEN (7) SITE DISPLAY

BLUE 65dBu, GREEN 40dBu, RED 5dBu

Please note Stamford site is worst case

Antenna will have five (5) degrees of down-tilt

INDIVIDULE SITE CONTOURS SEVEN (7)

BLUE 65dBu, GREEN 40dBu, RED 5dBu

WESTPORT 32

REDDING 69

WILTON 31

BRIDGEPORT 33

GREENWICH 74

SHELTON 29

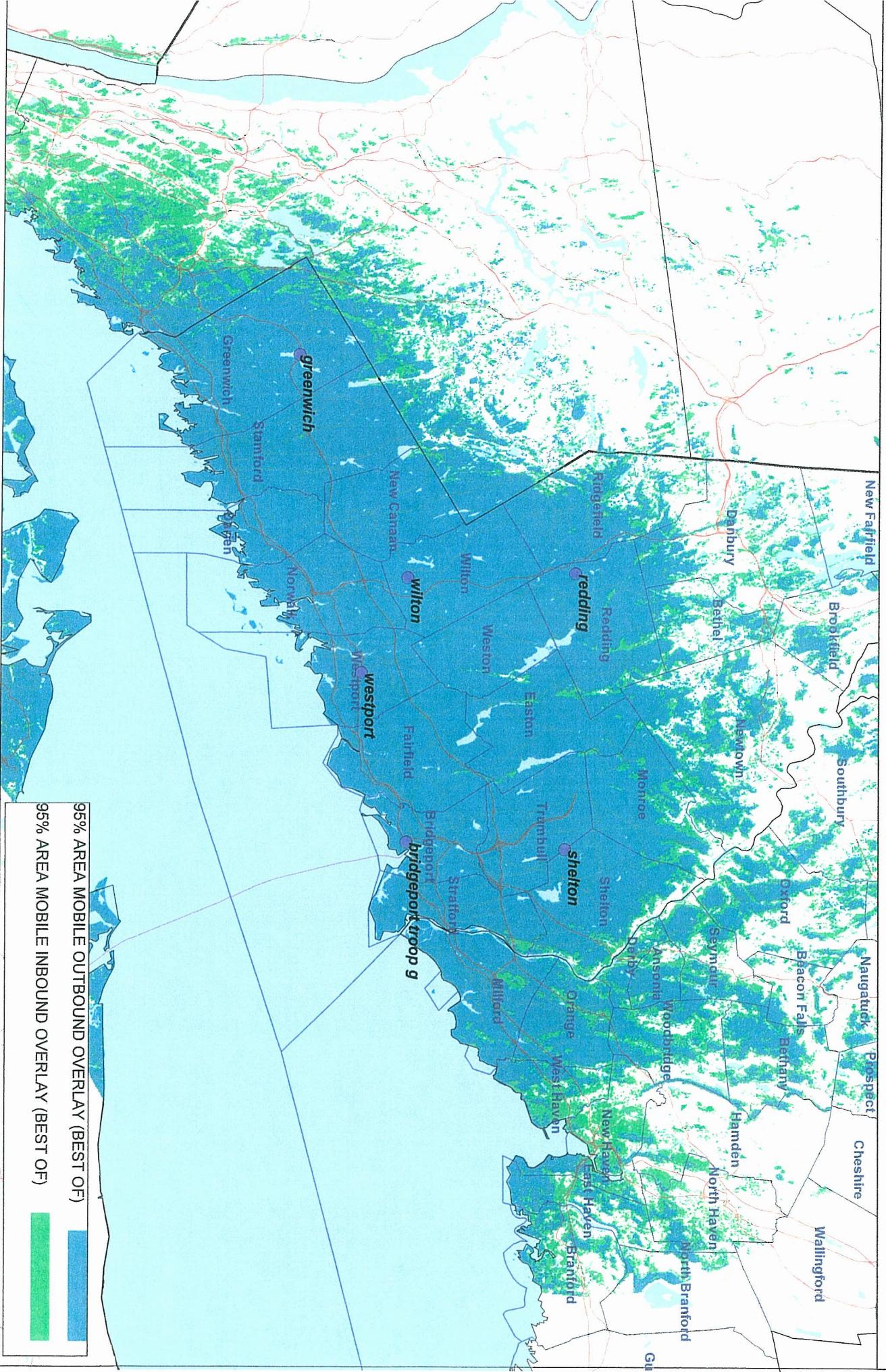
STANFORD LANDMARK



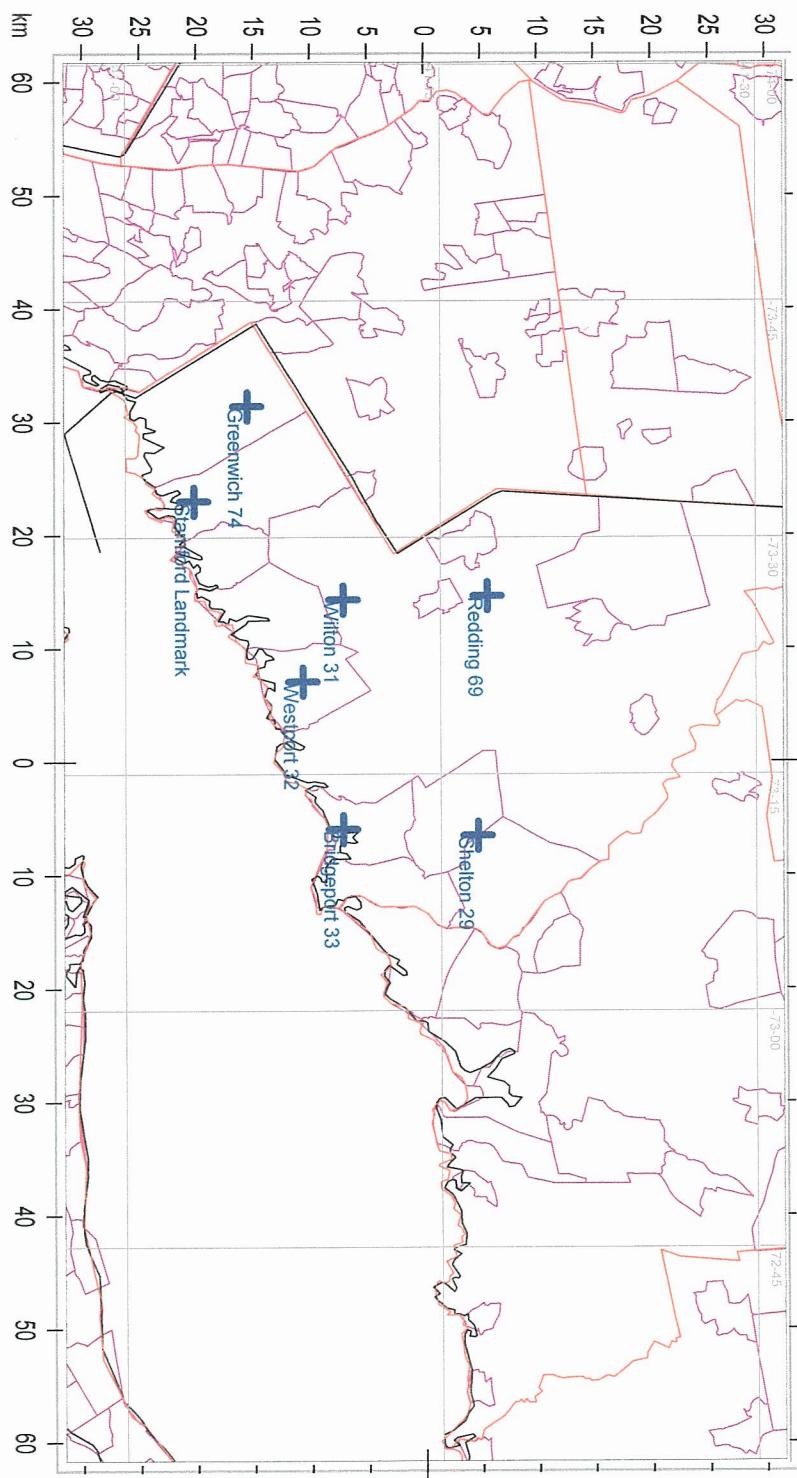
MOTOROLA

CDR Region 1 /uv MHz 6 Site Simulcast / voting ASTRO LSW
Coverage, On Street

FOR REFERENCE ONLY - This map will be tested to
only if this alternate site configuration is implemented



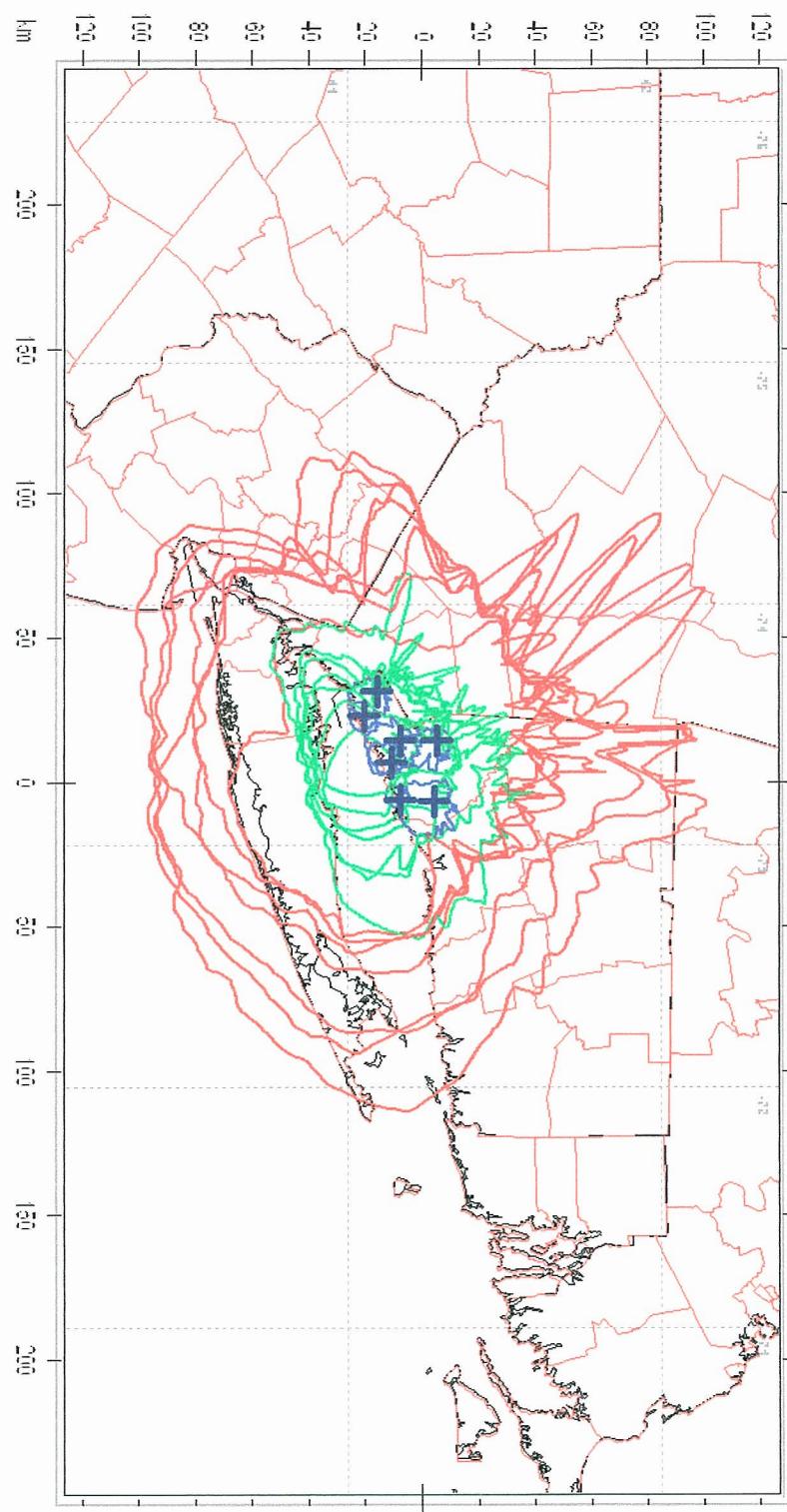
CSP Fairfield County Seven (7) Site Display



Blue-65dBu Green-40dBu Red-5dBu

- County Borders
- State Borders
- City Borders
- Lat/Lon Grid

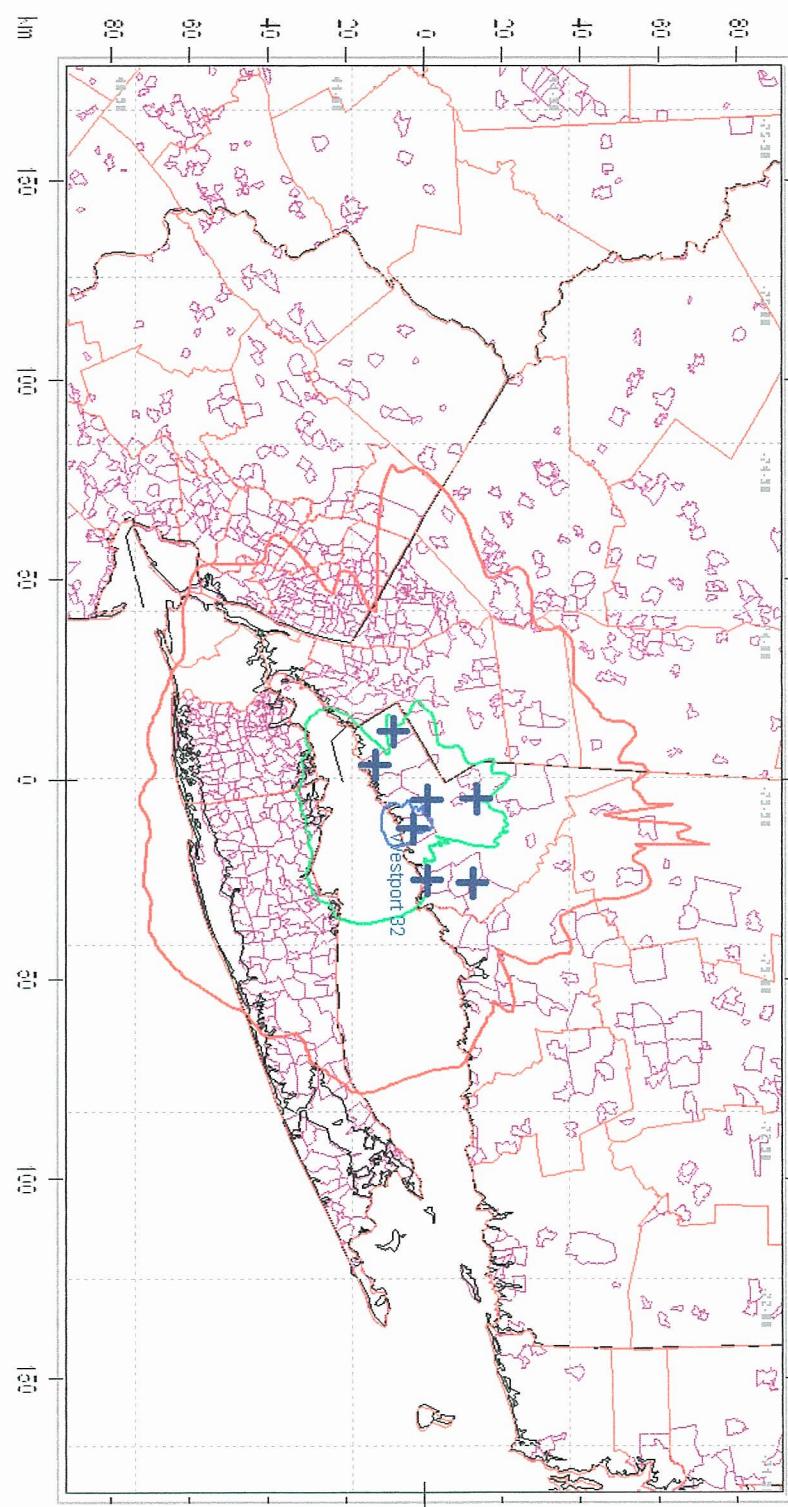
CFP Fairfield County Composite (even), Site Display



Blue-Green-Green-Blue-Red-Green

- County Borders
- State Borders
- Lat/Lon Grid

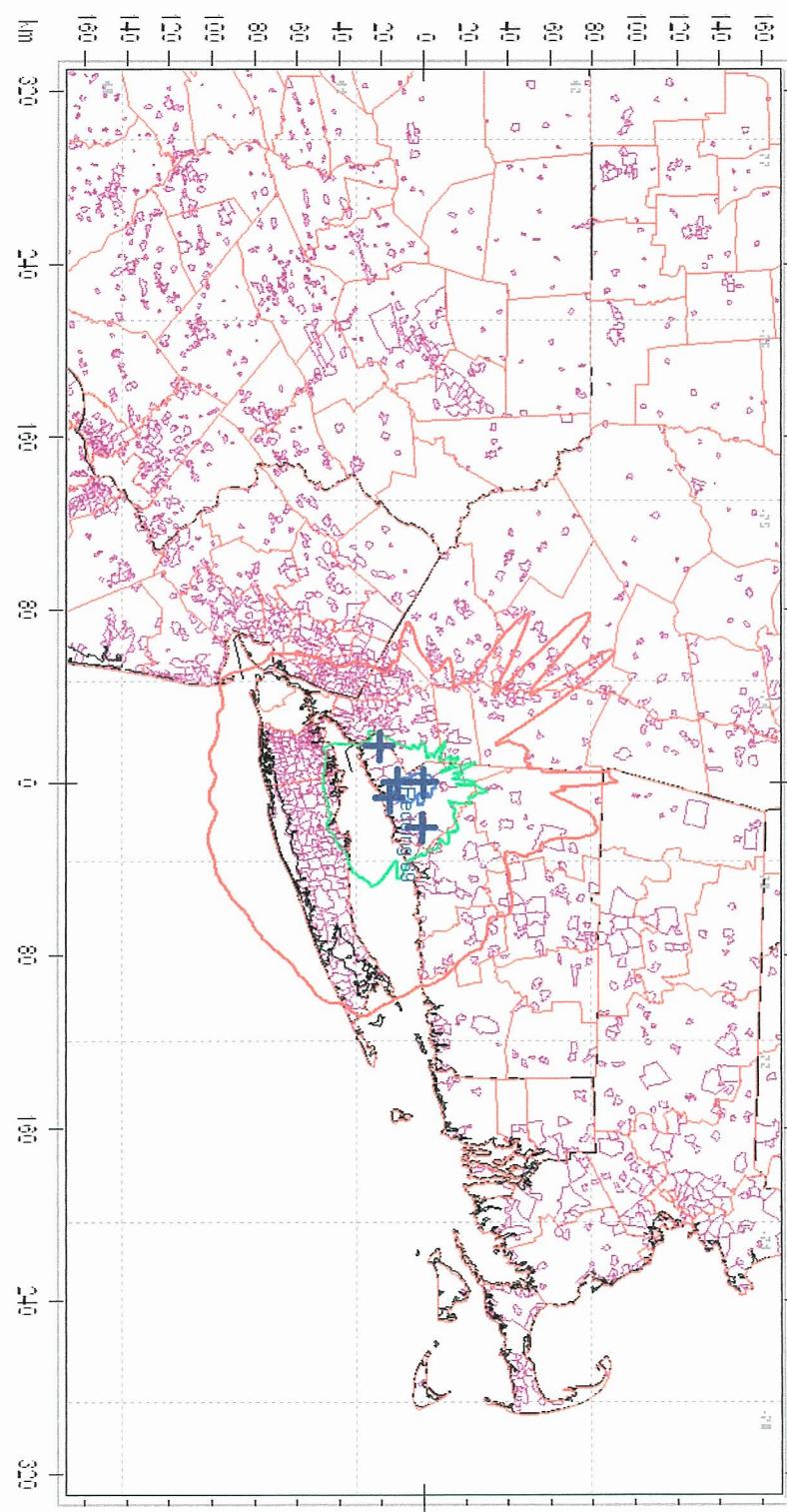
CEP Fairfield County 700 MHz Westport 32



Blue+5dB Green+5dB Red+5dB

— County Borders
— State Borders
— City Borders
— Local Land Grid

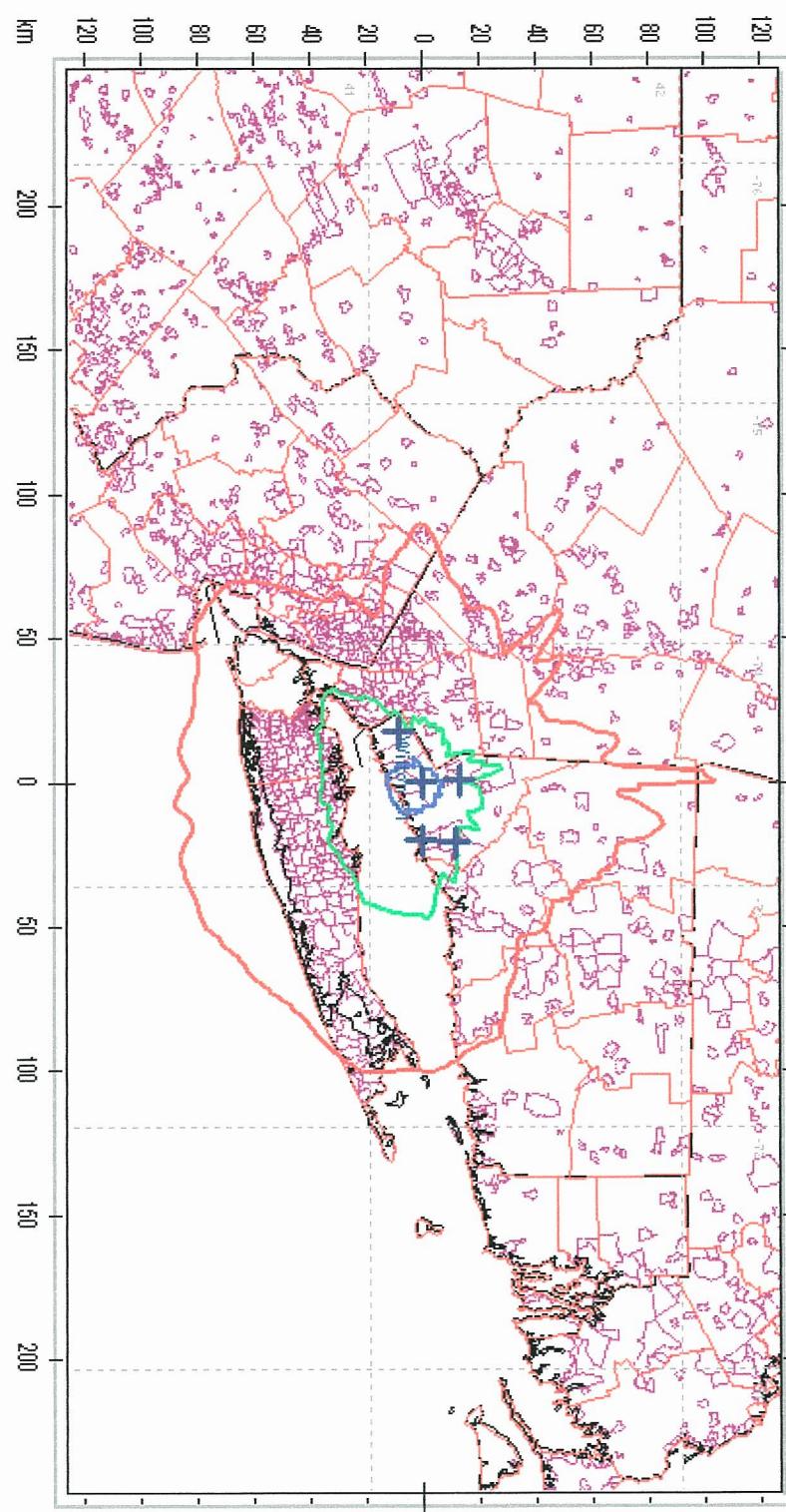
GOF Fairfield County 700-14Hz Feeding off



Fluc-5dFu Green-4dFu Fed-5dFu

- County Borders
- State Borders
- City Borders
- Lst Lst Grid

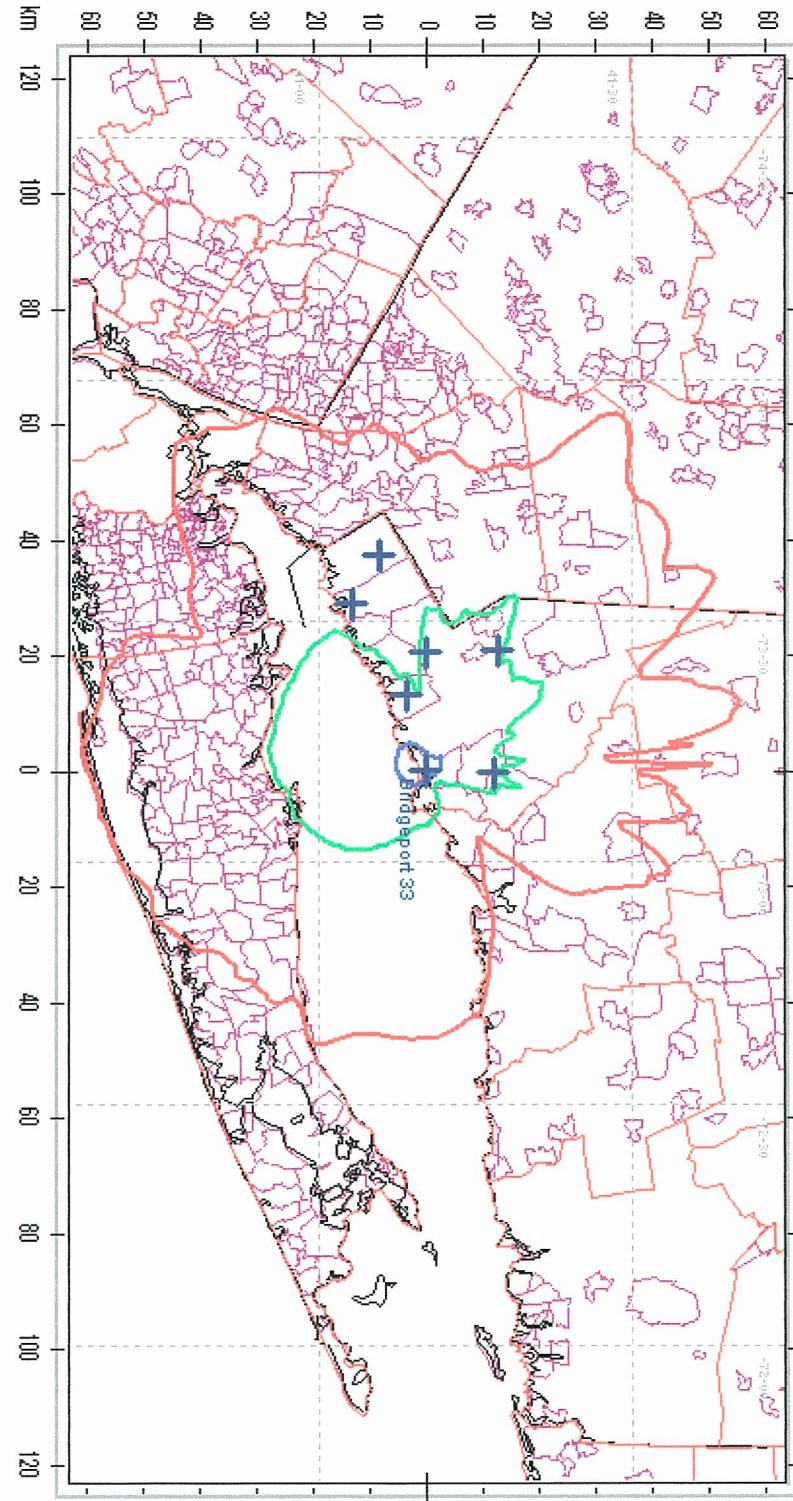
CSP Fairfield County 700 MHz Wilton 31



Blue -65dBm Green -40dBm Red -5dBm

- County Borders
- State Borders
- City Borders
- Lat/Lon Grid

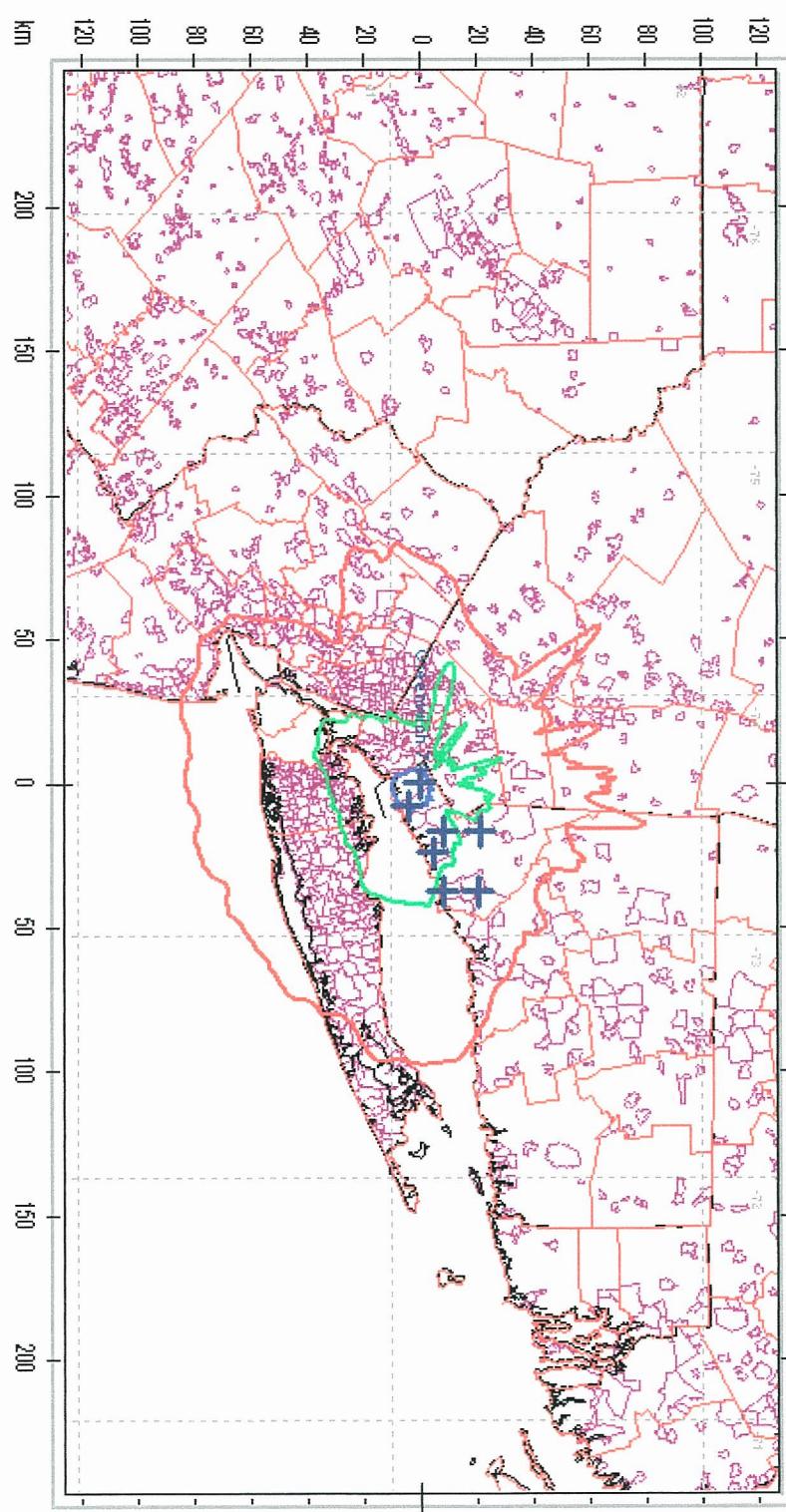
CSP Fairfield County 700 MHz Bridgeport 33



Blue 65dBu Green 40dBu Red 35dBu

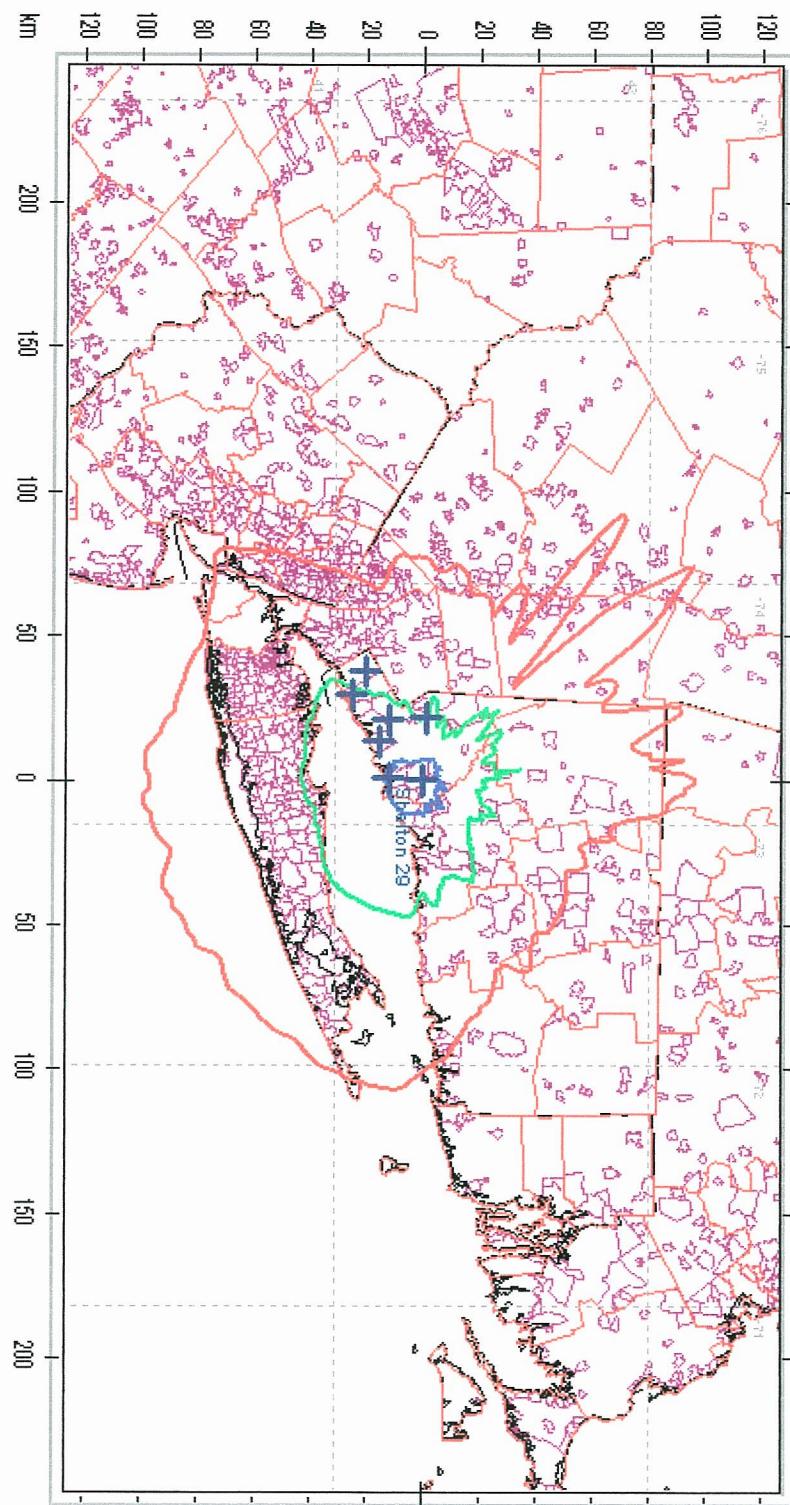
- County Borders
- State Borders
- City Borders
- Lat/Lon Grid

CSP Fairfield County 700 MHz Greenwich 74



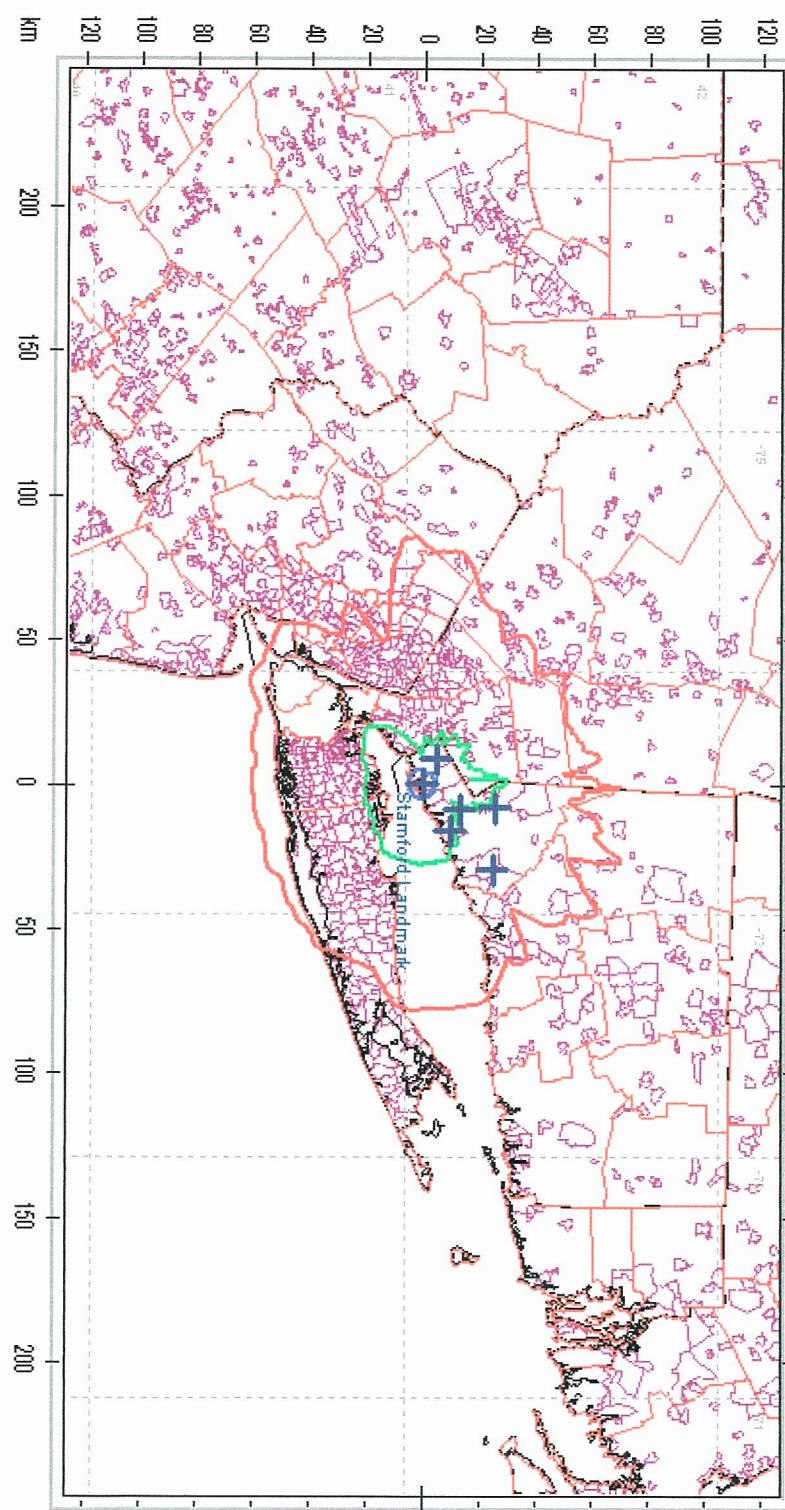
- County Borders
- State Borders
- City Borders
- Lat/Lon Grid

CSP Fairfield County 700 MHz Shelton 29



Blue-65dBu Green-40dBu Red-5dBu

CSP Fairfield County 700 MHz Stamford Landmark



Blue >6dBm Green >40dBm Red <-5dBm

County Borders State Borders City Borders Lat/Lon Grid

SECTION EIGHT

ANTENNA TYPE and LOCATIONS

ANTENNA SPECIFICATIONS

**State of Connecticut - Department of Public Safety - State Police
700 MHz Frequency Application**

May 2009 Application Window

CSP DEMHS REGION 1

ANTENNA SELECTION

SITE	TRANSMIT ANTENNA		TRANSMIT ERP (Watts)	RECEIVE ANTENNA	RECEIVE ANTENNA HEIGHT (Feet)	RECEIVE ANTENNA AZIMUTH (Degrees)	DIVERSITY ANTENNA	DIVERSITY ANTENNA HEIGHT (Feet)	DIVERSITY ANTENNA AZIMUTH (Degrees)
	TRANSMIT ANTENNA HEIGHT (Feet)	TRANSMIT AZIMUTH (Degrees)							
Bridgeport	Sinclair SE419-SF3PALDF, 11.5 dBd Offset w/ 130 deg HBW, 746-869 MHz	150	235	Sinclair SE419-SF3PALDF(), 11.5 dBd Offset w/130 deg HBW, 746-869 MHz, Inverted	130	235	Sinclair SE419-SF3PALDF(), 11.5 dBd Offset w/130 deg HBW, 746-869 MHz, Inverted	130	235
Greenwich	Sinclair SC479-HF1LDF(E5608-I), 9 dBd Omni Antenna, 746-869 MHz TxRx CC806-09-T5, 7 dBd Omni, 5 deg DT, 746-870 MHz	160	N/A	Sinclair SC479-HF1LDF(E5608-I), 9 dBd Omni Antenna, 746-869 MHz, Inverted	140	N/A	Sinclair SC479-HF1LDF(E5608-I), 9 dBd Omni Antenna, 746-869 MHz, Inverted	140	N/A
Landmark	Sinclair SE419-SF3P4LDF, 10 dBd Offset w/ 180 deg HBW, 746-869 MHz	280	N/A	TxRx CC806-09-T5, 7 dBd Omni, 5 deg DT, 746-870 MHz	280	N/A	TxRx CC806-09-T5, 7 dBd Omni, 5 deg DT, 746-870 MHz	280	N/A
Redding	Sinclair SE419-SF3P4LDF(), 10 dBd Offset w/180 deg HBW, 746-869 MHz	110	135	Sinclair SE419-SF3P4LDF(), 10 dBd Offset w/180 deg HBW, 746-869 MHz, Inverted	90	135	Sinclair SE419-SF3P4LDF(), 10 dBd Offset w/180 deg HBW, 746-869 MHz, Inverted	90	135
Shelton	TxRx 101-83b-09003n, 9 dBd omni, 746-869 MHz	160	N/A	TxRx 101-83b-09003n, 9 dBd omni, 746-869 MHz, Inverted	140	N/A	TxRx 101-83b-09003n, 9 dBd omni, 746-869 MHz, Inverted	140	N/A
Westport	Sinclair SE419-SF3PALDF, 10.5 dBd Offset w/ 160 deg HBW, 746-869 MHz	160	235	Sinclair SE419-SF3PALDF(), 10.5 dBd Offset w/160 deg HBW, 746-869 MHz, Inverted	140	235	Sinclair SE419-SF3PALDF(), 10.5 dBd Offset w/160 deg HBW, 746-869 MHz, Inverted	140	235
Wilton	TxRx 101-83b-09003n, 9 dBd omni, 746-869 MHz	160	N/A	TxRx 101-83b-09003n, 9 dBd omni, 746-869 MHz, Inverted	140	N/A	TxRx 101-83b-09003n, 9 dBd omni, 746-869 MHz, Inverted	140	N/A



Antennas
700-1000 MHz Antennas
SC479 - PIM Certified Series

SC479-HF1LDF(E5608) Collinear omni antenna, 9 dBD gain, HD, 746-869 MHz

- Covers the 746-869 MHz frequency range
- Higher power handling capability
- Optimized null fill for close-in coverage enhancement
- Recommend using the SMK-325-A3 side mounting kit

This broadband, heavy duty, omni-directional antenna covers the entire 746-869 MHz frequency range. It is constructed to minimize intermodulation products in multi-carrier systems. It is ideal for applications requiring a broad band antenna with limited tower space.



Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 288 2763	International: +44 (0) 1223 42 03 03	International: +1 305 235 2706	Canada: 1 800 263 3238 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

Product Specification Sheet
EPR 000000

SC479-HF1LDF(E5608)

Issue: 21

Dated: 09-01-09
Dated: 28-10-08

Sinclair's commitment to product leadership may result in improvement or change to this product
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Page 1/2

Electrical Specifications

Bandwidth	MHz	123	
Frequency Range 1 (F1)	MHz	746 to 869	
Polarization		vertical	
Gain (nominal)	dBd (dBi)	9 (11.1)	
Electrical tilt (available)		1, 3, 5	*1
Impedance	Ω	50	
Null fill	%	25	
Lightning protection		DC ground	
Passive intermod. (2x20W, 3rd ord.)	dBc	-150	
Pattern		Omni-directional	
Vertical beamwidth	degrees	5.7	
Average power input (max)	W	500	

Notes

*1 : Other down tilt available up request

*2 : Recommend #6C Clamp

Ordering Information

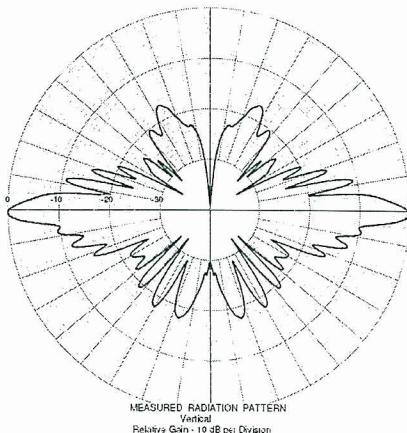
Upside mount only. Recommend using the SMK-325-A3 side mounting kit.

Mechanical Specifications

Width	in (mm)	3.5 (89)	
Depth	in (mm)	3.5 (89)	
Shipping dimensions	in (mm)	192x6.5x6.5 (4877x165x165)	
Weight	lbs (kg)	34 (15.4)	
Shipping weight	lbs (kg)	76 (34.5)	
Length	in (mm)	172.5 (4382)	
Connector		7/16 DIN (female)	
Weight iced	lbs (kg)	66 (30)	
Base pipe diameter	in (mm)	3.5 (89)	
Mounting hardware		clamps not supplied	*2

Environmental Specifications

Rated wind velocity (1/2" radial ice)	mph (km/h)	155 (250)	
Rated wind velocity (no ice)	mph (km/h)	170 (274)	
Temperature range	°F (°C)	-40 to +140 (-40 to +60)	
Tip deflection	degrees	1.5	
Projected area (Flat Plate Equivalent)	ft² (m²)	2.46 (0.23)	
Projected area (ice)	ft² (m²)	3.25 (0.3)	
Lateral thrust (100mph)	lbs (N)	97 (431.5)	
Bending moment	ft-lbs (Nm)	520 (702)	





Antennas

700-1000 MHz Antennas

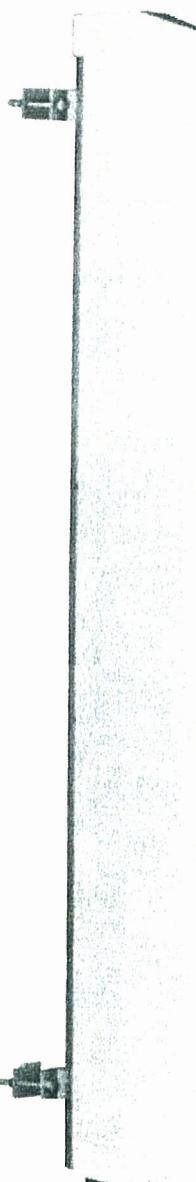
SE419-L - PIM Certified Series

SE419-SF3P4LDF

Enclosed 9 dipole directional, 10 dBd gain, low PIM, 746-869 MHz

- Excellent IM performance.
 - Particularly suited to communications systems requiring a specific coverage pattern.
 - Durable design.

Sinclair's SE419 series of enclosed dipole arrays offers excellent IM performance in the 746-960 MHz band. These highly versatile antennas are particularly well suited to communications systems where a specific coverage pattern is required. These include cellular systems, trunked radio, paging, and data transmission, where predictable and highly reliable performance is a must. The SE419 series is also available with field adjustable reflectors that provide horizontal beamwidths between 60 and 160 degrees (see SE419-A). The creative design and construction permits excellent pattern control, greater efficiency and a high front-to-back ratio. Electrical downtilt and inverted versions are also available. Intermodulation levels remain low due to the unique design and innovative manufacturing qualities built into these antennas. The binary feed harness and other internal components are isolated, rigidly mounted, and sealed with a durable ABS radome that ensures excellent protection from the elements. The SE419 series of antennas are manufactured without the use of rivets, metallic screws and non-compatible metal contacts thus reducing the problems associated with intermodulation.



Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
Telephone	USA: 1 800 263 3275	International: +44 (0) 1223 42 03 03	International: +1 905 726 7676	Canada: 1 800 263 3275 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

Electrical Specifications

Bandwidth	MHz	123	
Frequency Range	MHz	746 to 869	
Polarization		vertical	
Gain (nominal)	dBd (dBi)	10 (12.1)	
Electrical tilt (available)		0,2,4,6	
Lightning protection		DC ground	
Passive intermod. (2x20W, 3rd ord.)	dBc	-150	*1
Pattern		Directional	
Input VSWR (max)		1.5:1	
Horizontal beamwidth	degrees	180	
Vertical beamwidth	degrees	7.5	
Front to back ratio	dB	8	
Average power input (max)	W	500	

Notes

- *1 : 7/16 DIN(female) models only.
- *2 : Clamps not included in measurement.
- *3 : Clamps not included in measurement.
- *4 : Flat plate equivalent.
- *5 : Value based on 100mph and 0 inches of ice.
- *6 : Value based on 100mph and 0 inches of ice.

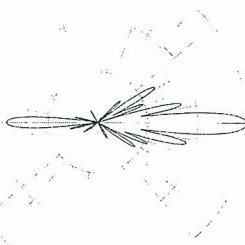
Ordering Information

Specify band of operation and connector option.

Mechanical Specifications

Length/ Height	in (mm)	103 (2616)	
Width	in (mm)	2.9 (73)	*2
Depth	in (mm)	8.5 (216)	*3
Shipping dimensions	in (mm)	109x12x0.6 (2769x305x15)	
Weight	lbs (kg)	24 (10.9)	
Actual Shipping weight	lbs (kg)	34 (15.4)	
Connector		7/16 DIN (female)	
Weight iced	lbs (kg)	61 (27.7)	
Mounting hardware		#130 clamp	

SINCLAIR TECHNOLOGIES



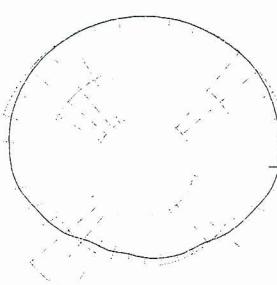
MEASURED RADIATION PATTERN
VERTICAL POLARIZATION

Elevation
Relative Gain - 10 dB per Division

Environmental Specifications

Rated wind velocity (1/2" radial ice)	mph (km/h)	115 (185)	
Rated wind velocity (no ice)	mph (km/h)	140 (225)	
Projected area (Flat Plate Equivalent)	ft ² (m ²)	5.96 (0.55)	
Projected area (ice)	ft ² (m ²)	6.13 (0.57)	*4
Lateral thrust (100mph)	lbs (N)	228 (1014.1)	*5
Torsional moment	ft-lbs (Nm)	89 (120.2)	*6

SINCLAIR TECHNOLOGIES



MEASURED RADIATION PATTERN
VERTICAL POLARIZATION

Azimuth
Relative Gain - 10 dB per Division



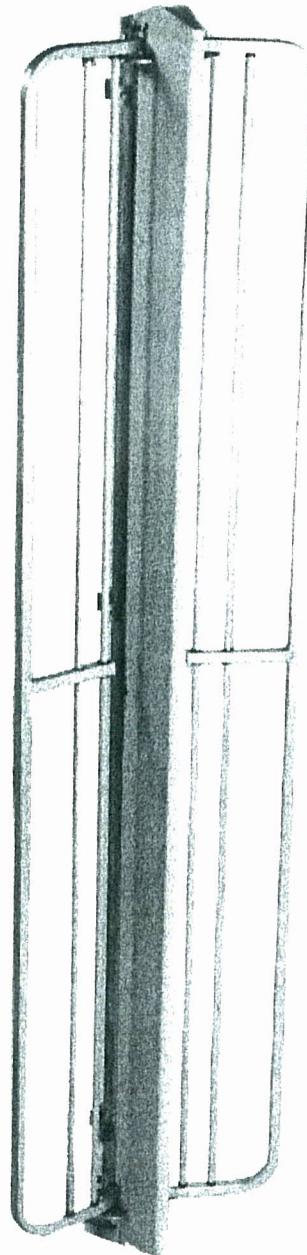
Antennas
700-1000 MHz Antennas
SE419-AL - PIM Certified Series

SE419-SF3PALDF
(SRL411C9RXD*3)

Enclosed 9 dipole array, 10.5-13 dBd gain, low PIM, 746-869 MHz

- Excellent intermod performance.
- Horizontal beamwidth adjustable between 60/90/105/130/160 degrees with gain varies between 15/13/12.5/11.5/10.5 dBd
- Durable design.

Excellent intermod performance.
Particularly suited to communications systems requiring a specific coverage pattern.
Durable design.



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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

Electrical Specifications

Bandwidth	MHz	123	
Frequency Range	MHz	746 to 869	
Polarization		vertical	
Gain (nominal)	dBd (dBi)	10.5 (12.6)	*1
Electrical tilt (available)		0,2,4,6	
Lightning protection		DC ground	
Passive intermod. (2x20W, 3rd ord.)	dBc	-150	*2
Pattern		Directional and Adjustable	
Input VSWR (max)		1.5:1	
Vertical beamwidth	degrees	8	
Average power input (max)	W	600	

Mechanical Specifications

Length/ Height	in (mm)	103 (2616)	
Width	in (mm)	25 (635)	*3
Depth	in (mm)	9.5 (241)	*4
Shipping dimensions		118x14x17 (2997x356x432)	
Weight	lbs (kg)	36 (16.3)	
Actual Shipping weight	lbs (kg)	50 (22.7)	
Connector		7/16 DIN (female)	
Base pipe diameter	in (mm)	2.9 (73)	*5
Base pipe mounting length	in (mm)	86 (2183)	
Mounting hardware		#130 clamp	*6

Environmental Specifications

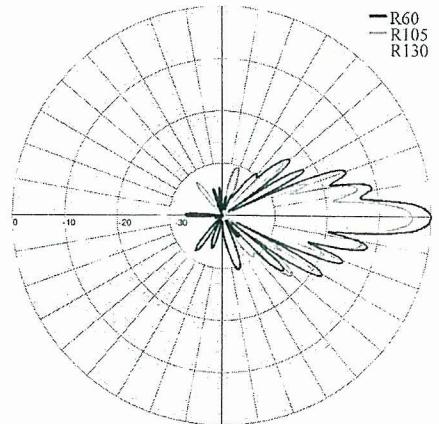
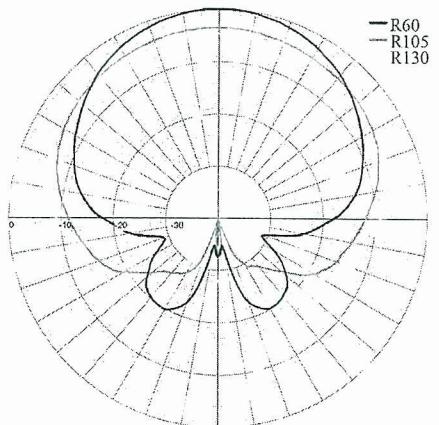
Rated wind velocity (1/2" radial ice)	mph (km/h)	120 (193)	
Rated wind velocity (no ice)	mph (km/h)	135 (217)	
Projected area (Flat Plate Equivalent)	ft ² (m ²)	7.93 (0.74)	*7
Projected area (ice)	ft ² (m ²)	11.1 (1.03)	*8
Lateral thrust (100mph)	lbs (N)	265 (1178.7)	*9
Torsional moment	ft-lbs (Nm)	141 (190.4)	*10

Notes

- *1 : Adjustable: 15, 13, 12.5, 11.5, 10.5 dBd
- *2 : 7/16 DIN(female) models only.
- *3 : 90° beamwidth configuration
- *4 : 90° beamwidth configuration
- *5 : Ref. Clamp Maximum
- *6 : Back 1/2 of clamp is welded to antenna
- *7 : Flat Plate Equivalent
- *8 : Flat Plate Equivalent
- *9 : Values based on 100mph with 0 inches of ice
- *10: Values based on 100mph with 0 inches of ice

Ordering Information

Available in 2, 4, 6 degree downtilts- order times may vary, please contact Sinclair customer service.





Antennas

700-1000 MHz Antennas

SC479 - PIM Certified Series

SC479-HF1LDF(E5608) Collinear omni antenna, 9 dBD gain, HD, 746-869 MHz

- Covers the 746-869 MHz frequency range
 - Higher power handling capability
 - Optimized null fill for close-in coverage enhancement
 - Recommend using the SMK-325-A3 side mounting kit

This broadband, heavy duty, omni-directional antenna covers the entire 746-869 MHz frequency range. It is constructed to minimize intermodulation products in multi-carrier systems. It is ideal for applications requiring a broad band antenna with limited tower space.

This broadband, heavy duty, omni-directional antenna covers the entire 746-869 MHz frequency range. It is constructed to minimize intermodulation products in multi-carrier systems. It is ideal for applications requiring a broad band antenna with limited tower space.

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Telephone	USA: 1 800 288 2763	International: +44 (0) 1223 42 03 03	International: +1 305 235 2706	Canada: 1 800 263 3238 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com
Product Specification Sheet		SC479-HE11 DE(F5608)	Issue: 21	Dated: 09/01/00

Electrical Specifications

Bandwidth	MHz	123	
Frequency Range 1 (F1)	MHz	746 to 869	
Polarization		vertical	
Gain (nominal)	dBd (dBi)	9 (11.1)	
Electrical tilt (available)		1,3,5	*1
Impedance	Ω	50	
Null fill	%	25	
Lightning protection		DC ground	
Passive intermod. (2x20W, 3rd ord.)	dBc	-150	
Pattern		Omni-directional	
Vertical beamwidth	degrees	5.7	
Average power input (max)	W	500	

Notes

*1 : Other down tilt available up request

*2 : Recommend #6C Clamp

Mechanical Specifications

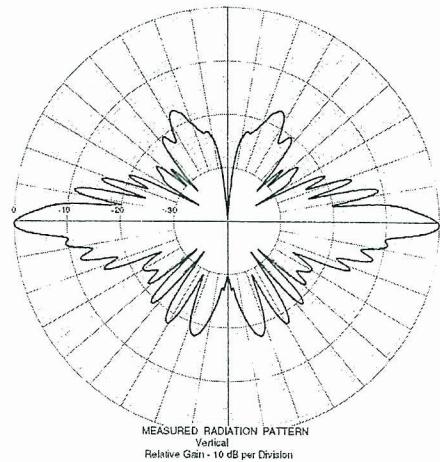
Width	in (mm)	3.5 (89)	
Depth	in (mm)	3.5 (89)	
Circling dimensions	in (mm)	192x6.5x6.5 (4877x165x165)	
Weight	lbs (kg)	34 (15.4)	
Shipping weight	lbs (kg)	76 (34.5)	
Length	in (mm)	172.5 (4382)	
Connector		7/16 DIN (female)	
Weight iced	lbs (kg)	66 (30)	
Base pipe diameter	in (mm)	3.5 (89)	
Mounting hardware		clamps not supplied	*2

Ordering Information

Upside mount only. Recommend using the SMK-325-A3 side mounting kit.

Environmental Specifications

Rated wind velocity (1/2" radial ice)	mph (km/h)	155 (250)	
Rated wind velocity (no ice)	mph (km/h)	170 (274)	
Temperature range	°F (°C)	-40 to +140 (-40 to +60)	
Tip deflection	degrees	1.5	
Projected area (Flat Plate Equivalent)	ft ² (m ²)	2.46 (0.23)	
Projected area (ice)	ft ² (m ²)	3.25 (0.3)	
Lateral thrust (100mph)	lbs (N)	97 (431.5)	
Bending moment	ft-lbs (Nm)	520 (702)	

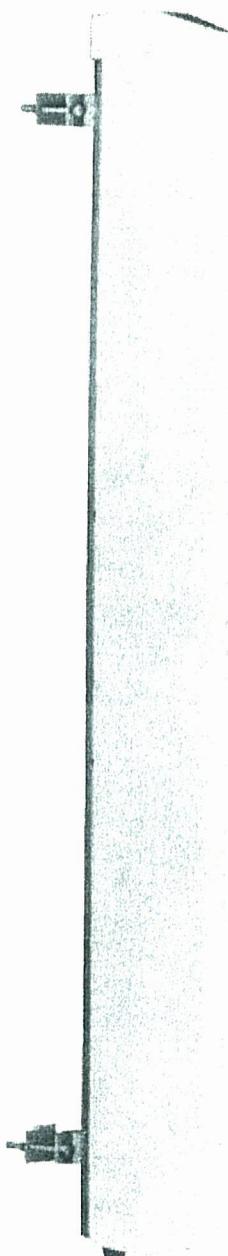


SE419-SF3P4LDF

Enclosed 9 dipole directional, 10 dBd gain, low PIM, 746-869 MHz

- Excellent IM performance.
- Particularly suited to communications systems requiring a specific coverage pattern.
- Durable design.

Sinclair's SE419 series of enclosed dipole arrays offers excellent IM performance in the 746-960 MHz band. These highly versatile antennas are particularly well suited to communications systems where a specific coverage pattern is required. These include cellular systems, trunked radio, paging, and data transmission, where predictable and highly reliable performance is a must. The SE419 series is also available with field adjustable reflectors that provide horizontal beamwidths between 60 and 160 degrees (see SE419-A). The creative design and construction permits excellent pattern control, greater efficiency and a high front-to-back ratio. Electrical downtilt and inverted versions are also available. Intermodulation levels remain low due to the unique design and innovative manufacturing qualities built into these antennas. The binary feed harness and other internal components are isolated, rigidly mounted, and sealed with a durable ABS radome that ensures excellent protection from the elements. The SE419 series of antennas are manufactured without the use of rivets, metallic screws and non-compatible metal contacts thus reducing the problems associated with intermodulation.



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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com

Electrical Specifications

Bandwidth	MHz	123
Frequency Range	MHz	746 to 869
Polarization		vertical
Gain (nominal)	dBd (dBi)	10 (12.1)
Electrical tilt (available)		0,2,4,6
Lightning protection		DC ground
Passive intermod. (2x20W, 3rd ord.)	dBc	-150
Pattern		Directional
Input VSWR (max)		1.5:1
Horizontal beamwidth	degrees	180
Vertical beamwidth	degrees	7.5
Front to back ratio	dB	8
Average power input (max)	W	500

Notes

*1 : 7/16 DIN(female) models only.

*2 : Clamps not included in measurement.

*3 : Clamps not included in measurement.

*4 : Flat plate equivalent.

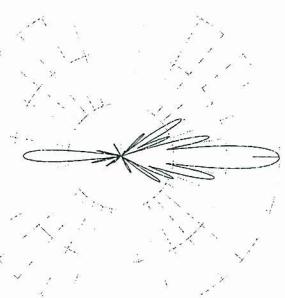
*5 : Value based on 100mph and 0 inches of ice.

*6 : Value based on 100mph and 0 inches of ice.

Mechanical Specifications

Length/ Height	in (mm)	103 (2616)
Width	in (mm)	2.9 (73)
Depth	in (mm)	8.5 (216)
Shipping dimensions	in (mm)	109x12x0.6 (2769x305x15)
Weight	lbs (kg)	24 (10.9)
Actual Shipping weight	lbs (kg)	34 (15.4)
Connector		7/16 DIN (female)
Weight iced	lbs (kg)	61 (27.7)
Mounting hardware		#130 clamp

SINCLAIR TECHNOLOGIES



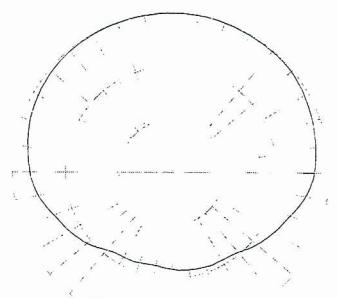
MEASURED RADIATION PATTERN
VERTICAL POLARIZATION

Elevation
Relative Gain - 10 dB per Division

Environmental Specifications

Rated wind velocity (1/2" radial ice)	mph (km/h)	115 (185)
Rated wind velocity (no ice)	mph (km/h)	140 (225)
Projected area (Flat Plate Equivalent)	ft ² (m ²)	5.96 (0.55)
Projected area (ice)	ft ² (m ²)	6.13 (0.57)
Lateral thrust (100mph)	lbs (N)	228 (1014.1)
Torsional moment	ft-lbs (Nm)	89 (120.2)

SINCLAIR TECHNOLOGIES



MEASURED RADIATION PATTERN
VERTICAL POLARIZATION

Azimuth
Relative Gain - 10 dB per Division



Superior then, Superior now.

Antennas

700-1000 MHz Antennas

SE419-AL - PIM Certified Series

SE419-SF3PALDF

(SRL411C9RXD*3)

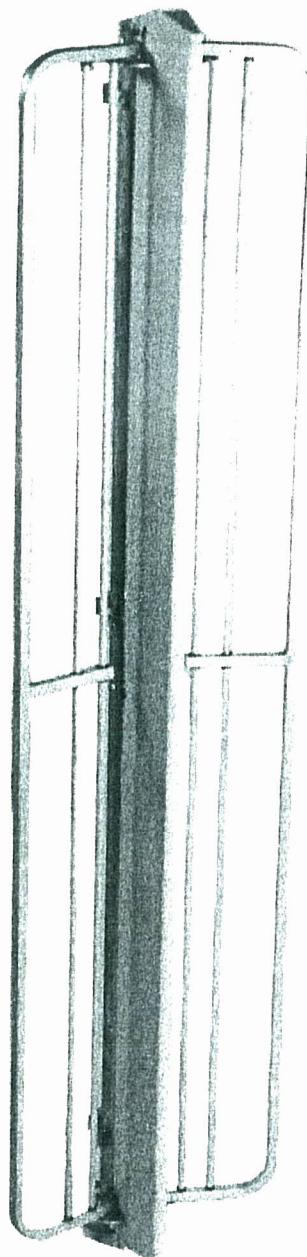
Enclosed 9 dipole array, 10.5-13 dBd gain, low PIM, 746-869 MHz

- Excellent intermod performance.
 - Horizontal beamwidth adjustable between 60/90/105/130/160 degrees with gain varies between 15/13/12.5/11.5/10.5 dBd
 - Durable design.

Excellent intermod performance.

Particularly suited to communications systems requiring a specific coverage pattern.

Durable design.



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E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salesla@sinctech.com	salescan@sinctech.com
Product Specification Sheet		SE419-SF3PALDF	Issue: 59	Dated: 14-07-09

Electrical Specifications

Bandwidth	MHz	123	
Frequency Range	MHz	746 to 869	
Polarization		vertical	
Gain (nominal)	dBd (dBi)	10.5 (12.6)	*1
Electrical tilt (available)		0, 2, 4, 6	
Lightning protection		DC ground	
Passive intermod. (2x20W, 3rd ord.)	dBc	-150	*2
Pattern		Directional and Adjustable	
Input VSWR (max)		1.5:1	
Vertical beamwidth	degrees	8	
Average power input (max)	W	600	

Notes

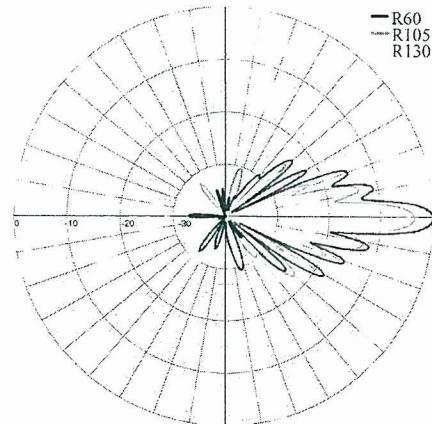
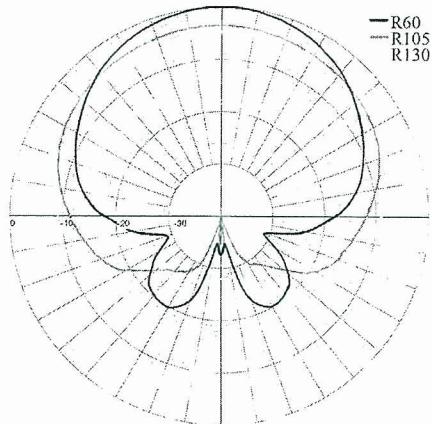
- *1 : Adjustable: 15, 13, 12.5, 11.5, 10.5 dBd
- *2 : 7/16 DIN(female) models only.
- *3 : 90° beamwidth configuration
- *4 : 90° beamwidth configuration
- *5 : Ref. Clamp Maximum
- *6 : Back 1/2 of clamp is welded to antenna
- *7 : Flat Plate Equivalent
- *8 : Flat Plate Equivalent
- *9 : Values based on 100mph with 0 inches of ice
- *10: Values based on 100mph with 0 inches of ice

Mechanical Specifications

Length/ Height	in (mm)	103 (2616)	
Width	in (mm)	25 (635)	*3
Depth	in (mm)	9.5 (241)	*4
Shipping dimensions	in (mm)	118x14x17 (2997x356x432)	
Weight	lbs (kg)	36 (16.3)	
Actual Shipping weight	lbs (kg)	50 (22.7)	
Connector		7/16 DIN (female)	
Base pipe diameter	in (mm)	2.9 (73)	*5
Base pipe mounting length	in (mm)	86 (2183)	
Mounting hardware		#130 clamp	*6

Ordering Information

Available in 2, 4, 6 degree downtilts- order times may vary, please contact Sinclair customer service.





CC806 Series

700MHz/800MHz Corporate Collinear

746 - 870 MHz

These industry leading low PIM collinear arrays allow site operators to combine, with complete integrity, a large number of communications services into a single, low profile collinear antenna array.

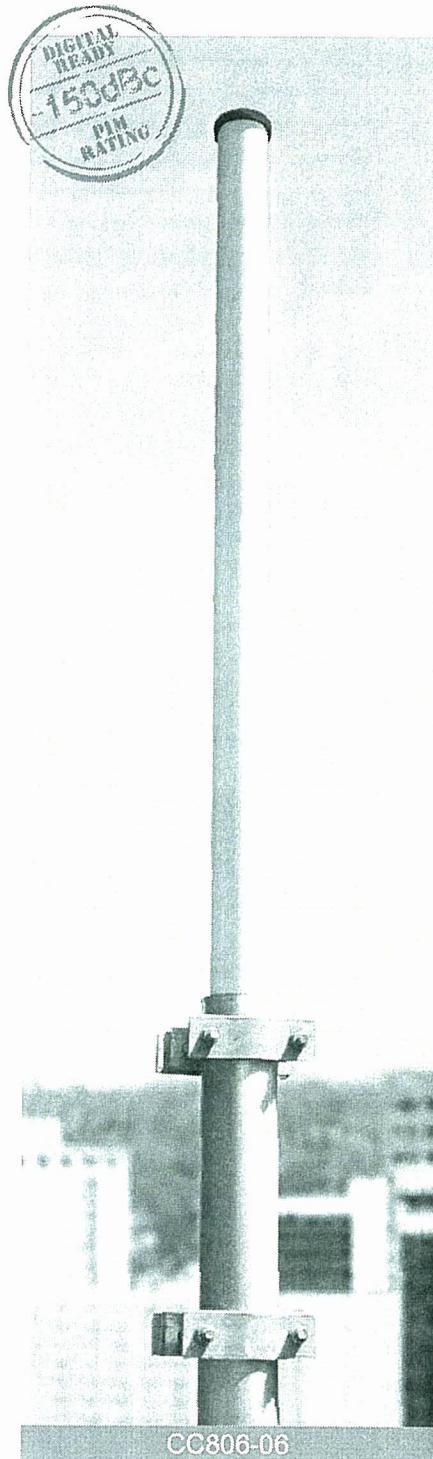
The true corporate feed of these arrays maintains total pattern integrity over a very broad operating bandwidth, similar to that previously available only in exposed dipole configurations. This is now achieved in the preferred form factor of a fully enclosed fiberglass radome.

Like exposed arrays, the corporate collinear is a series of internally harnessed dipole sections but the corporate phasing does more than simply allow the antenna to be stable across the band. Precise control of the placement of the elements ensures phase purity. With every element placed physically and electrically at a theoretically perfect point, gain is maximized and side lobes reduced dramatically.

In a patent pending design approach the individual dipole elements are fabricated entirely of a flexible circuit board. Each dipole element, complete with its impedance matching network, is integrated onto a single PCB ensuring precise circuit and dimensional control, the lowest possible radiation resistance and negligible weight. The dipole elements are soldered to a brass support pipe which contains the inter-element harnesses and is directly connected to the mounting tube and the lightning spike at the top of the antenna.

The result of this unique, incredibly strong design is:

- Extraordinary bandwidth characteristics with superior pattern control over an extended band coverage
- Strong vertical pattern beamwidth, with minor lobes >10dB down on primary lobe at all frequencies
- Light weight dipole construction with low center of gravity reducing tip deflection and sway
- **Industry leading PIM specifications maintained over the service life of the antenna**
- Attractive, low profile appearance antennas which are an immediate substitute for sites where wind loading or aesthetics make exposed dipole arrays less attractive
- Supremely strong radome and mounting tube construction to ensure low tower loadings even with radial ice
- DIN connectors standard with N type offered
- Sealed PTFE insulated cables in harnessing ensure high power capability



International Patents Pending

US39223-4



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CC806 Series

700MHz/800MHz Corporate Collinear

746 - 870 MHz

Electrical Specifications

Model Number	CC806-03	CC806-06	CC806-06-T5	CC806-66	CC806-09	CC806-09-T5	CC806-12
Nominal Gain dBd	2.5	5	5	2 x 5 746 - 870	7	7	10
Frequency MHz				Entire Band			
Tuned Bandwidth				<1.5:1 (14dB)			
VSWR (Return Loss)				50			
Nominal Impedance Ω							
Vertical Beamwidth	28°	17°	17°	17°	9°	9°	4°
Downtilt	0°	0°	5°	0°	0°	5°	0°
Horizontal Beamwidth				Omni +/- 0.5dB			
Input Power (Watts)				500			
Passive IM 3rd order (2x20W) dBc				150			

Mechanical Specifications

Model Number	CC806-03	CC806-06	CC806-06-T5	CC806-66	CC806-09	CC806-09-T5	CC806-12
Construction & Configuration							
Length inches	51	73			115		209
Radome Diameter inches	3	3			3		3
Weight lbs	9	16			25		49
Shipping Weight lbs	32	45			56		96
Shipping Dimensions inches	H 6 W 6 L 59	79			138		220
Termination		7/16 DIN female flange mount		2 x 7/16 DIN female on 20" tail		7/16 DIN female flange mount	
Mounting Area			20" x 3.5" diam. Aluminum				30" x 3.5" diam. Aluminum
Suggested Clamps (not included)				91-00-111			91-00-111
Projected Area ft ²	No ice 0.9 With ice 1.2	1.4 1.8			2.5 3.1		4.9 6.2
Lateral Thrust @ 100mph lbs	23	36			62		121
Wind Gust Rating mph				149			
Torque @100 mph ft-lbs	15	54			205		874

Typical isolation on dual antenna (CC806-66) is 25dB.

RoHS Compliant

International Patents Pending



US39223-4

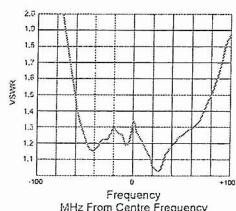
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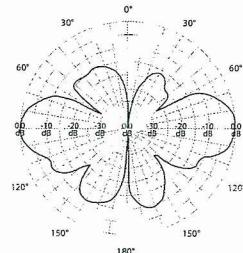


CC806 Series
700MHz/800MHz Corporate Collinear
746 - 870 MHz

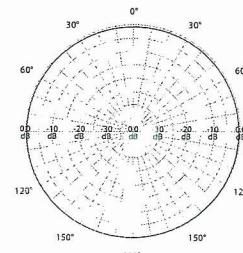
Typical VSWR response (CC806-03)



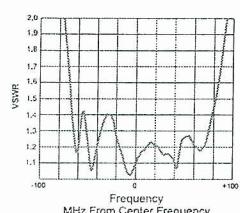
CC806-03 - E Plane



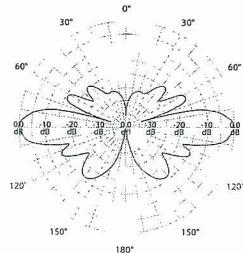
CC806-03 - H Plane



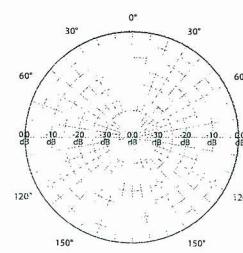
Typical VSWR response (CC806-06)



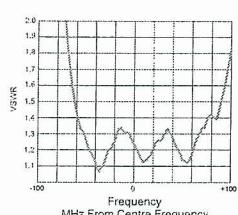
CC806-06 - E Plane



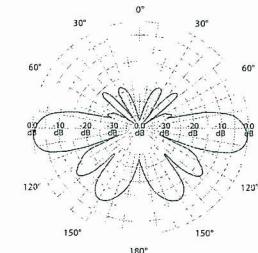
CC806-06 - H Plane



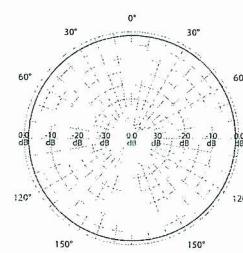
Typical VSWR response (CC806-06-T5)



CC806-06-T5 - E Plane



CC806-06-T5 - H Plane



International Patents Pending



US39223-4



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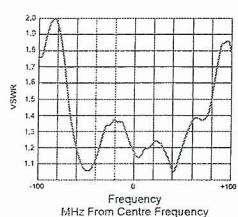


CC806 Series

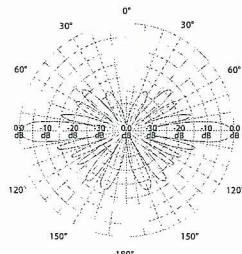
700MHz/800MHz Corporate Collinear

746 - 870 MHz

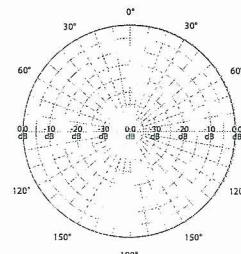
Typical VSWR response (CC806-09)



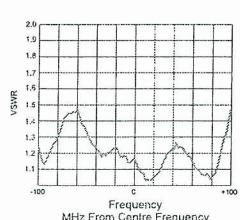
CC806-09 - E Plane



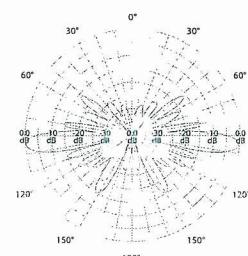
CC806-09 - H Plane



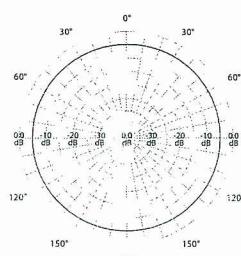
Typical VSWR response (CC806-09-T5)



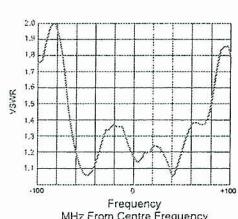
CC806-09-T5 - E Plane



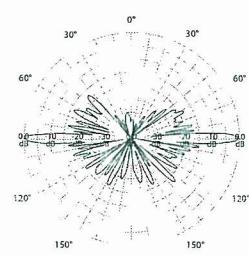
CC806-09-T5 - H Plane



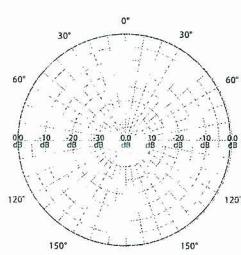
Typical VSWR response (CC806-12)



CC806-12 - E Plane



CC806-12 - H Plane



International Patents Pending



US39223-4



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 Phone: 440.519.2050
 FAX: 440.248.3790
 Email: sales@bird-technologies.com
 Website: www.bird-technologies.com

All Categories > Antennas > 746-960 MHz Antennas > Item # 101-83B-09-0

Item # 101-83B-09-0 746-896 MHz, Omnidirectional Broadband Antenna, 9 dBd



746-896 MHz, Omnidirectional Broadband Antenna, 9 dBd

101-83B-09-0

This is a series of robust, high-power broadband omnidirectional antennas were designed to complement our widebandwidth multicoupling systems covering the frequency range of 450-512 MHz. Through a true corporate feed design, equal in-phase power is distributed to each radiating element. This method insures excellent vertical pattern control and shaping, low loss, and beam-tilt that does not vary over the operating bandwidth of the antenna. This patented design was achieved through the use of a 5-chamber extrusion which acts as the central core of the antenna and provides a low impedance direct ground for lightning protection. The rugged fiberglass radome and its interface to the mounting tube have survived extensive wind-tunnel testing at wind velocities exceeding category 5 hurricane forces. Antenna data files are available in TIA-IS-804 format for inclusion in popular commercial propagation analysis programs.

[larger image](#)

Notes: #Add INV to Downtilt Designator for Inverted Mount Model (e.g. 101-68-10-3INV-03)
 * Add Suffix N to Model Number for N Connector (e.g. 101-68-10-0-03N)

Specifications

PIM Rated	No
Gain (dB)	9
Frequency Band (MHz)	746-869
Bandwidth (MHz)	123
VSWR (Return Loss)	1.5:1
Impedance (Ω)	50
Vertical Beamwidth	$10^\circ \pm 1^\circ$
Downtilt	0°
Horizontal Beamwidth	360°
Input Power (Watts)	1000 (DIN) 500 (N)

Radome Diameter (inches)	3.57
Weight (lbs.)	45
Termination	7/16 DIN or N*
Suggested Clamps	91-00-101 (Included)
Polarization	Vertical
Lightning Protection	Direct Ground
Length (feet)	10
Support Pipe (inches)	4" diameter
Support Pipe Mounting Area (inches)	23.75
Rated Wind Velocity (mph)	No ice - 225 With 0.5" radial ice - 200
Equivalent Flat Area (ft²)	No ice - 2.0 With 0.5" radial ice - 2.56

[Print](#) [Back](#)

SECTION NINE

ASTRO 25 7.7 SYSTEM BLOCK DIAGRAM

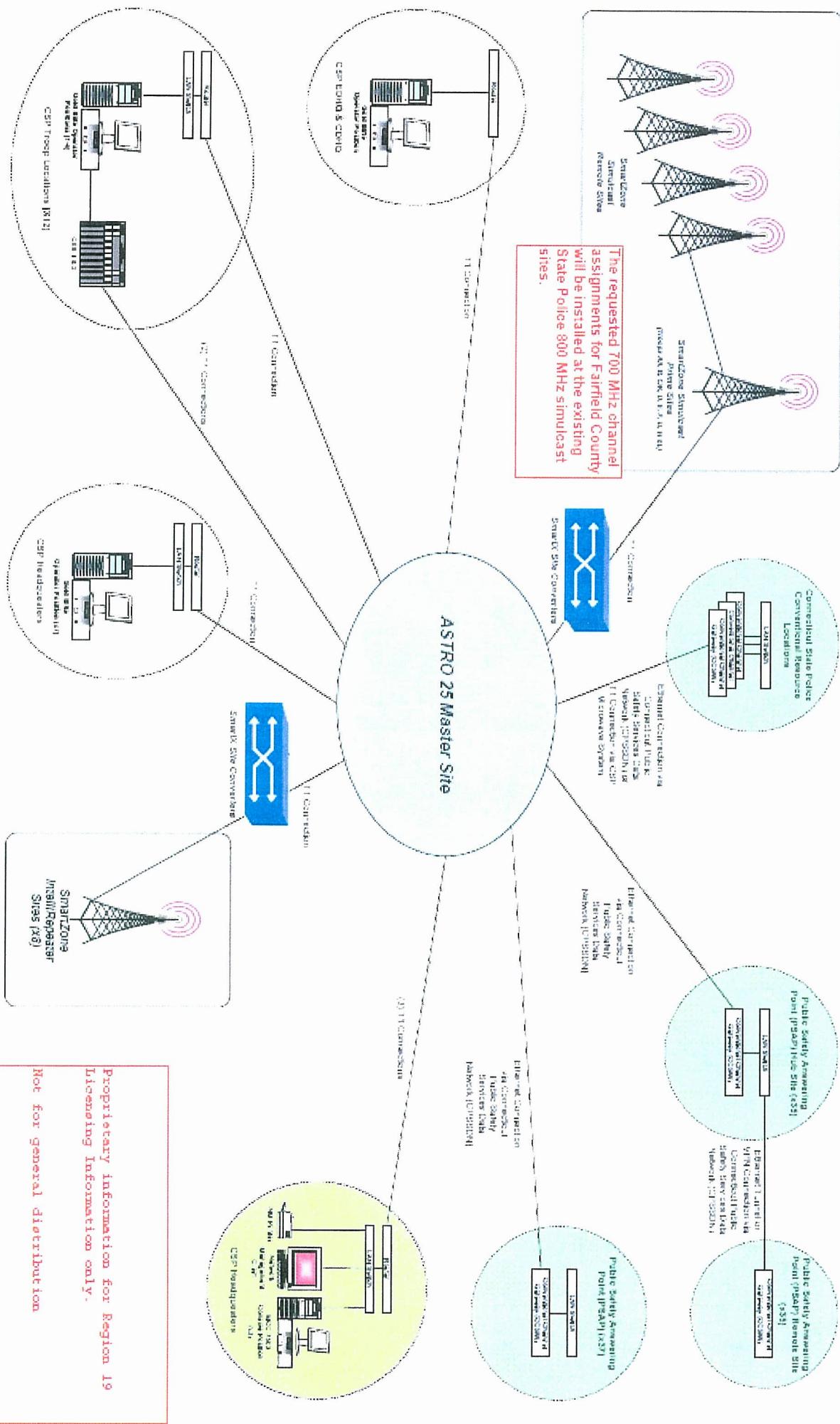
MASTER SITE BLOCK DIAGRAM

**State of Connecticut - Department of Public Safety - State Police
700 MHz Frequency Application**

May 2009 Application Window

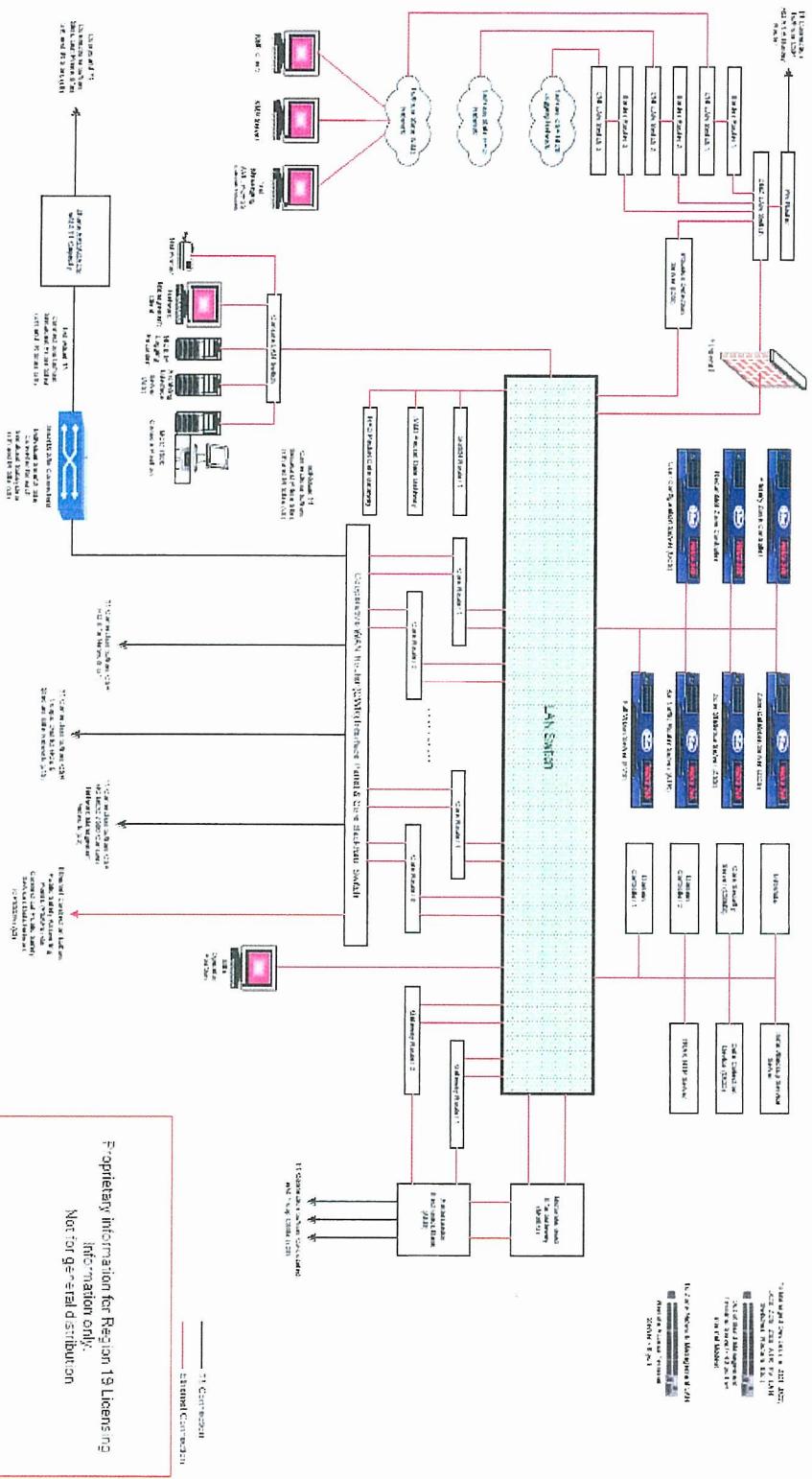
Connecticut State Police

ASTRO 25 TT System Block Diagram



Connecticut State Police
Master Site Block Diagram

Master Site Block Diagram



SECTION TEN

**2008 STATE OF CONNECTICUT
DEPARTMENT OF EMERGENCY MANAGEMENT
AND HOMELAND SECURITY
NOTICE OF GRANT AWARD
008U135A**

**2009 STATE OF CONNECTICUT
DEPARTMENT OF EMERGENCY MANAGEMENT
AND HOMELAND SECURITY
NOTICE OF GRANT AWARD
009A135A**



STATE OF CONNECTICUT

DEPARTMENT OF EMERGENCY MANAGEMENT & HOMELAND SECURITY

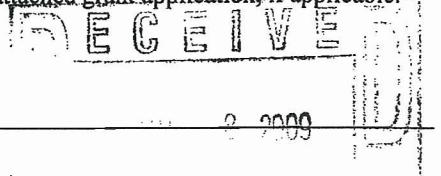
Division of Strategic Planning & Grant Administration
25 Sigourney Street, 6th Floor
Hartford, CT 06106-5042



NOTICE OF GRANT AWARD

The Department of Emergency Management & Homeland Security hereby makes the following grant award in accordance with the Consolidated Appropriations Act, 2008, and in accordance with the grant solicitation and the attached grant application, if applicable.

Grantee: City of Stamford
Address: 888 Washington Boulevard, P.O. Box 10152
City/State/Zip: Stamford, CT 06904-2152



Town Code:
State Agency Code:
Federal Employer ID No.: 06-600-1897

DEMHS Grant No.:	<u>008U135A</u>
Project Title:	<u>FY 2008 Bridgeport-Area UASI</u>
Date of Award:	<u>June 1, 2009</u>
Period of Award:	From: <u>9/1/2008</u> To: <u>2/1/2011</u>
Amount Of Award:	Federal: <u>\$1,937,495</u> State Match: <u>\$0</u> Interest: <u>\$0</u> Other: Specify <u>\$0</u>
Total Budget:	<u>\$1,937,495</u>

Fed Grant No.: 2008-GE-T8-0004 **CFDA No.:** 97.067

Grantee Fiscal Year **From:** July 1 **To:** June 30

My signature below, for and on behalf of the above named grantee, indicates acceptance of the above referenced award and further certifies that:

1. I have the authority to execute this agreement on behalf of the grantee; and
2. The grantee will comply with all attached Grant Conditions.

By: Dannel P. Malloy
 Signature of Authorized Official

6/3/09

Date

Dannel P. Malloy, Mayor

Typed Name and Title of Authorized Official

FOR THE DEPARTMENT OF EMERGENCY MANAGEMENT & HOMELAND SECURITY

By: James M. Thomas
 Signature of Authorized Official

June 9, 2009

Date

James M. Thomas, Commissioner

Typed Name and Title of Authorized Official

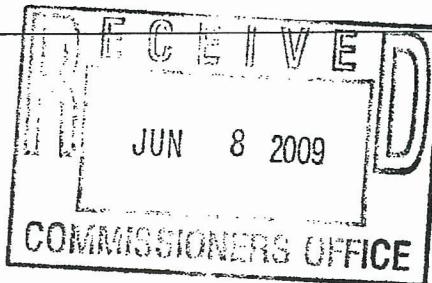
SUMMARY DESCRIPTION OF FUNDING

Through this accord, the City of Stamford will use grant funding in the amount of \$1,937,495 from the FY 2008 Homeland Security Grant Program-Urban Area Security Initiative for costs related to preparedness activities associated with implementing the Connecticut Homeland Security Strategy and the Investments identified during the application period. This program provides an integrated mechanism to enhance the coordination of State and National Priority efforts to prevent, respond to, and recover from terrorist attacks, major disasters, and other emergencies.

Approved as to Form
Corporation Counsel

By BK

Date 6-2-09





State Of Connecticut
Department Of Emergency Management & Homeland Security
Division of Strategic Planning & Grant Administration



GENERAL GRANT CONDITIONS

SECTION 1: Use of Grant Funds.

The grantee agrees to expend the grant funds awarded pursuant to this agreement for allowable purposes only and to comply with all of the terms and conditions of the grant award and any related documents that set forth its obligations as grantee. Grant funds shall not, without advance written approval by DEMHS, be obligated prior to the starting date or subsequent to the termination date of the grant period.

SECTION 2: Fiscal Control.

The grantee shall maintain accounting records and establish policies and provide procedures to assure sound fiscal control, effective management, and efficient use of grant funds. The grantee shall establish fiscal control and accounting procedures to assure proper disbursement of, and accounting for, grant funds. Accounting procedures must provide for the accurate and timely recording of receipt of funds by source, expenditures made from such funds, and unexpended balances. Controls must be adequate to insure that expenditures charged to grant activities are made for allowable purposes only.

SECTION 3: Retention of Records and Records Accessibility.

- 3.1. Financial records, supporting documents, statistical records, and all other records pertaining to this grant shall be retained for a period of three years starting from the date of the submission of the final expenditure report, with the following qualifications.
- 3.2. If any litigation, claim or audit is started before the expiration date of the three-year period, the records shall be retained until all litigation, claims or audit findings involving the records have been resolved.
- 3.3. Records for the purchase of equipment (i.e., non-expendable, tangible personal property) acquired with grant funds shall be retained for three years after the final disposition of said property.
- 3.4. The State or its representatives shall have the right at reasonable hours to examine any books, records and other documents of the grantee or its subcontractors or subgrantees pertaining to work performed under this agreement. The State will give grantee or such subcontractor or sub-grantee at least twenty-four hour's notice of such intended examination. At the State's request, the grantee shall provide the State with hard copies of or magnetic tape containing any data or information relating to the State's business, which data or information is in the possession or control of the grantee. The grantee shall incorporate this paragraph verbatim into any agreement it enters into with any subcontractor or sub-grantee relating to this grant.

SECTION 4: Insurance.

The grantee agrees that while performing any service specified in this grant, the grantee shall maintain sufficient insurance (liability and/or other), according to the nature of the service to be performed, so as to "save harmless" the State of Connecticut from any insurable cause whatsoever. If requested, certificates of insurance shall be filed with the Department of Emergency Management and Homeland Security prior to the performance of services.

SECTION 5: Conflict of Interest.

No person who is an officer, employee, consultant or review board member of the grantee shall participate in the selection, award or administration of a contract, subcontract, subgrant or agreement or in the selection and supervision of an employee if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when the officer, employee, consultant or review board member or any member of his/her immediate family, or his/her partner, or an organization which employs, or is about to employ any of the above has a financial interest in the entity or firm selected for the contract, subcontract, or subgrant or when the individual employed is related to any of the foregoing persons.

SECTION 6: Reports.

The grantee shall submit such reports as the Department of Emergency Management and Homeland Security shall reasonably request and shall comply with all provisions regarding the submission of such reports. Reports shall include, but not be limited to, revised project narratives, revised budgets and budget narratives, progress reports, financial reports, cash requests, grantee affirmative action packets, and sub-grantee packets and budgets. Cash requests may be withheld by the Department of Emergency Management and Homeland Security until complete and timely reports are received and approved.

SECTION 7: Funding Limitation.

Funding of this project in no way obligates the Department of Emergency Management and Homeland Security to fund the project in excess of this grant, beyond the period of this grant, or in future years.



SECTION 8: Revised Budget.

If the grant amount and/or the distribution of funds between categories of funds, as identified on the Notice of Grant Award, is different from the amount and/or the distribution in the grant application budget, the grantee agrees to submit to the Department of Emergency Management and Homeland Security a revised budget and budget narrative equal to and in the same distribution as the grant award not later than 30 days after signing of the grant. Cash requests will be withheld until the revision is received and approved.

SECTION 9: Audits.

- 9.1. In accordance with the following conditions, the grantee agrees to conduct and submit to the Department of Emergency Management and Homeland Security a completed audit package with management letters and corrective action plans for audits of each of the fiscal years included in the period of this grant and any amendments thereto.
- 9.2. If the grantee meets the requirements of the State Single Audit Act, Sections 4-230 through 4-236, as amended, of the Connecticut General Statutes (C.G.S.), the grantee is required to submit a State Single Audit Report to the Office of Policy and Management. C.G.S. Section 4-231 requires those non-state entities which expended a total amount of State Financial Assistance equal to or in excess of \$100,000 in any fiscal year to have either a single audit or a program-specific audit conducted for such fiscal year. A program-specific audit may be conducted if the grantee received State Financial Assistance from the Department of Emergency Management and Homeland Security for this grant and it is the only State Financial Assistance that the grantee has received during this fiscal period. The State Single Audit Report should be filed with the Office of Policy and Management no later than six months after the end of the audit period.
- 9.3. If the grantee receives any federal funds in this grant as identified on the Notice of Grant Award, and meets the requirements of OMB Circular A-133, Audits of State and Local Governments and Non Profit Organizations, the grantee is required to submit an audit conducted in accordance with Generally Accepted Accounting Principles (GAAP) and/or Generally Accepted Governmental Auditing Standards (GAGAS) issued by the Comptroller General of the United States, as well as OMB Circular A-133. This circular requires those state and local governments and non profit organizations which expended a total amount of Federal Financial Assistance equal to or in excess of \$300,000 in any fiscal year to have a federal single audit or a program-specific audit conducted for such fiscal year. A program-specific audit may be conducted if the grantee receives Financial Assistance under only one Federal program. For audit purposes, State or grantee match funds as identified on the Notice of Grant Award, are subject to the same requirements as the federal monies. OMB Circular A-133 requires that the audit report be submitted by the earlier of 30 days after the date of receipt of the auditor's report(s), or 9 months after the end of the audit period.

SECTION 10: Unexpended Funds and/or Disallowed Costs.

If project costs are less than the grant, and/or any project costs have been disallowed, the grantee agrees to return the unexpended/disallowed funds to Department of Emergency Management and Homeland Security not later than 60 days following closeout of the grant.

SECTION 11: Nondiscrimination and Affirmative Action.

- 11.1. The grantee agrees and warrants that in the performance of the grant such grantee will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation or physical disability, including, but not limited to, blindness, unless it is shown by such grantee that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut.
- 11.2. The grantee agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation, or physical disability, including, but not limited to, blindness, unless it is shown by such grantee that such disability prevents performance of the work involved.
- 11.3. The grantee agrees, in all solicitations or advertisements for employees placed by or on behalf of the grantee, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the State Commission on Human Rights and Opportunities.
- 11.4. The grantee agrees and warrants that in the performance of the grant such grantee will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the State of Connecticut, and that employees are treated when employed without regard to their sexual orientation.
- 11.5. The grantee agrees to provide each labor union or representative of workers with which such grantee has a collective bargaining agreement or other contract or understanding and each vendor with which such grantee has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the grantee's commitments under this



- section, and to post copies of the notice in conspicuous places available to employees and applicants for employment.
- 11.6. The grantee agrees to comply with each provision of this section and Connecticut General Statute sections 46a-68e and 46a-68f and with each regulation or relevant order issued by the Commission on Human Rights and Opportunities pursuant to Connecticut General Statute sections 46a-56, 46a-68e and 46a-68f.
 - 11.7. The grantee agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the grantee which relate to the provisions of this section and Connecticut General Statute section 46a-56.
 - 11.8. If the grant is a public works contract, the grantee agrees and warrants that the grantee will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project.
 - 11.9. Determination of the grantee's good faith efforts shall include but shall not be limited to the following factors: The grantee's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission on Human Rights and Opportunities may prescribe that are designed to ensure the participation of minority business enterprises in public works projects. The grantee shall develop and maintain adequate documentation, in a manner prescribed by the Commission, of its good faith efforts. For the purposes of this paragraph, "minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons who are active in the daily affairs of the enterprise, who have the power to direct the management and policies of the enterprise and who are members of a minority, as such term is defined in subsection (a) of Connecticut General Statute section 32-9n; "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations; "good faith efforts" includes, but is not limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements; and "public works contract" means any agreement between any individual, firm or corporation and the State or any political subdivision of the State other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the State, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.
 - 11.10. The grantee shall include the provisions of subsections 11.1 to 11.8, inclusive, in every subcontract or purchase order entered into in order to fulfill any obligation of a grant with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. The grantee shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statute section 46a-56; provided, if such grantee becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the grantee may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

SECTION 12: Executive Orders.

- 12.1. This Agreement is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill regarding nondiscrimination promulgated June 16, 1971, and such Executive Order is incorporated herein by reference and made a part thereof. The parties agree to abide by said Executive Order and agree that the State Labor Commissioner shall have continuing jurisdiction in respect to contract performance in regard to nondiscrimination until the Agreement is completed or terminated prior to completion. This Agreement may be canceled, terminated or suspended by the State Labor Commissioner for violation of or noncompliance with said Executive Order or any state or federal law concerning nondiscrimination, notwithstanding that the Labor Commissioner is not a party to this Agreement.
- 12.2. This Agreement is subject to the provisions of Executive Order No. Seventeen of Governor Thomas J. Meskill promulgated February 15, 1973, requiring contractors and subcontractors to list employment openings with the Connecticut State Employment Service and such Executive Order is incorporated herein by reference and made a part thereof. The parties agree to abide by said Executive Order and agree that the granting agency and the State Labor Commissioner shall have joint and several continuing jurisdiction in respect to performance in regard to listing all employment openings with the Connecticut State Employment Service. This Agreement may be canceled, terminated, or suspended by the granting agency or the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Seventeen, notwithstanding that the Labor Commissioner is not a party to this Agreement.
- 12.3. This Agreement is subject to the provisions of Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, regarding Violence in the Workforce Prevention and, such Executive Order is

incorporated herein by reference and made a part thereof. This agreement may be canceled, terminated, or suspended by the State for violation of or noncompliance with said Executive Order No. Sixteen.

SECTION 13: Americans with Disabilities Act.

This section applies to those grantees, which are or will become responsible for compliance with the terms of the Americans with Disabilities Act of 1990 during the period of award of the grant. The grantee represents that it is familiar with the terms of this Act and that it is in compliance with the law. Failure of the grantee to satisfy this standard either now or during the period of the grant as it may be amended will render the grant voidable at the option of the State upon notice to the grantee. The grantee warrants that it will hold the State harmless from any liability, which may be imposed upon the State as a result of any failure of the grantee to be in compliance with this Act.

SECTION 14: Independent Contractor.

The grantee shall act as an independent contractor in performing this agreement, maintaining complete control over its employees and all of its subcontractors. Before hiring outside consultants or entering into contractual agreements with persons, partnerships or companies, the grantee will notify the Department of Emergency Management and Homeland Security of the contractor's identity.

SECTION 15: Federal Compliance and Assurances.

If the grantee receives any federal funds in this grant as identified on the Notice of Grant Award, the grantee and all its subgrantees will comply with the nondiscrimination requirement of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973 as amended, and the Age Discrimination Act of 1975 to the effect that, no person shall, on the grounds of race, color, national origin, age, sex, or disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under, or denied employment in connection with any program or activity funded in whole or in part with funds made available in this grant.

SECTION 16: Non-Supplanting.

- 16.1. If the grantee receives any federal funds in this grant as identified on the Notice of Grant Award, the grantee agrees that these grant funds will be used so as to supplement and increase, but not supplant, the level of state, local, private and federal funds that would otherwise be made available for this project and to serve this target population, and will in no event replace such state, local, private and federal funds.
- 16.2. The grantee shall not use state funds conveyed by the grant to supplant any local funds, if a municipality, or other state funds, if a state agency, which were budgeted for purposes analogous to that of the state grant funds. Department of Emergency Management and Homeland Security may waive this provision upon request and for good cause shown, when it is satisfied that the reduction in local funds or other state funds, as the case may be, is due to circumstances not related to the grant.

SECTION 17: Additional Federal Conditions.

If the grantee receives any federal funds in this grant as identified on the Notice of Grant Award, the grantee agrees to comply with the attached Additional Federal Conditions which have been issued by the federal grantor agency to the Department of Emergency Management and Homeland Security and which are hereby made a part of this grant award.

SECTION 18: Indemnification.

The grantee shall indemnify, defend and hold harmless the State and its successors and assigns from and against any and all (1) actions, suits, claims, investigations and legal, administrative or arbitration proceedings pending or threatened, whether mature, un-matured, contingent, known or unknown, at law or in equity, in any forum (collectively, "Claims") arising in connection with this Agreement including, but not limited to, acts of commission or omission (collectively, the "Acts") by the grantee or any of its members, directors, officers, shareholders, representatives, agents, servants, consultants, employees or any other person or entity with whom the grantee is in privity of oral or written contract; (2) liabilities arising in connection with this Agreement, out of the Grantee's Acts concerning its or their duties and obligations as set forth in this Agreement; and (3) all damages, losses, costs and expenses, including but not limited to, attorneys' and other professionals' fees, that may arise out of such Claims and/or liabilities for bodily injury, death and/or property damages. The Grantee shall reimburse the State, for any and all damages to the real or personal property of the State caused by the Acts of the Grantee. The State shall give to the grantee reasonable notice of any such Claim. The Grantee shall also use counsel reasonably acceptable to the State in carrying out its obligations under this section. This Section shall survive the expiration or early termination of this Agreement, and shall not be limited by reason of any insurance coverage.

SECTION 19: Special Grant Conditions.

The grantee agrees to comply with the attached Special Grant Conditions, which have been issued in connection with this specific program, and which are hereby made a part of this award.





State Of Connecticut
Department Of Emergency Management & Homeland Security
Division of Strategic Planning & Grant Administration



SPECIAL GRANT CONDITIONS

Check applicable box, if required

- 1. The grantee agrees to complete and submit to DEMHS a revised project narrative not later than thirty (30) days after signing this grant award. The grantee must contact DEMHS program staff at ___, regarding the required revisions.
- 2. Specific funding limitations have been applied to this grant. Please contact DEMHS program staff at 860-256-0900 for further details on these funding restrictions.
 - a) Based on federal Department of Homeland Security Program Guidance, no more 25% of the FY 2007 LETPP awards may be used for operational activities including DHS-declared Orange Alerts.
 - b) The grantee will complete the Interoperable Communications Request Form and submit it for approval in advance of any purchase of interoperable radio communications equipment. The grantee's proposal will be considered and voted upon by the Interoperable Communications Subcommittee of the Emergency Management & Homeland Security Coordinating Council; no funds may be expended until that approval has been secured.
- 3. The grantee is required to participate in training session(s) on ___. The grantee must contact ___ to schedule training and determine if there are other technical assistance opportunities.
- 4. The grantee must submit to DEMHS for review and approval a revised budget itemization for any proposed change 1) which will alter a budget category by more than 10% of the budget category or by more than \$500, whichever is greater; or 2) which places resources in a budget category not previously funded. Significant changes in the use of funds within a budget category, while not requiring a formal budget revision, should be reported to DEMHS by letter.
- 5. The grantee, including all other recipients of assistance under the grant, whether by contract, subcontract, or subgrant, upon request, agrees to cooperate with research and evaluation efforts of DEMHS or any party designate by DEMHS for such purpose. The grantee further agrees that such cooperation includes but is not limited to: 1) collecting and maintaining project data, including client data, 2) supplying project data to DEMHS or its designee; and 3) permitting access by DEMHS or its designee to any and all project information whether stored by manual or electronic means.
- 6. All training events, seminars, and conferences must be approved by DEMHS prior to submitting registration for the event. Requests to attend training events must include names of staff, purpose of training, justification/need for training, location, dates, and costs. Staff attending training events may be required to present a summary of the training to DEMHS and/or other grantees.
- 7. It will be the sole responsibility of the grantee, and its staff, to insure that any report, article, computer program, database, or other product or publication, whether oral or in writing resulting from the performance of duties pursuant to this grant application and grant award, protects the privacy of confidential information and complies with confidentiality and privacy rights and obligations created by any federal and state law, court rules, or rules of professional conduct applicable to the work performed by the grantee.
- 8. The grantee shall comply with the following statutes and regulations:
 - Section 3789d(c), Omnibus Crime Control and Safe Streets Act of 1968, as amended;
 - Title VI of the Civil Rights Act of 1964, as amended;
 - 28 C.F.R. Part 42, Subparts C, D, E;
 - Section 504, Rehabilitation Act of 1973, as amended (28 C.F.R. Part 42, Subpart G);
 - Title II of the Americans with Disabilities Act, (28 C.F.R. Part 35);
 - Title IX of the Education Amendments of 1972, (28 C.F.R. Part 54);
 - The Age Discrimination Act of 1975, (28 C.F.R. Part 24, Subpart I).

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9. a) The grantee must obtain DEMHS Training Coordinator approval for all grant-funded training. The DEMHS Training Coordinator, Mr. David Brown, can be reached at 860-256-0849. DEMHS training approval and all related documentation for participating staff, including training certificates and time and attendance records must be retained by the sub-grantee in the grant file.
- b) The grantee agrees that all publications created with funding under this grant shall prominently contain the following statement: "This document was prepared under a grant from FEMA's national Preparedness Directorate, U.S. Department of Homeland Security. Points of view or opinions expressed in this document are those of the authors and do not necessarily represent the official position or policies of FEMA's National Preparedness Directorate or the U.S. Department of Homeland Security." The recipient also agrees that, when practicable, any equipment purchased with grant funding shall be prominently marked as follows: "Purchased with funds provided by the U.S. Department of Homeland Security."
- c) The grantee agrees to comply with DEMHS Grant Policy #1 regarding the use of grant funds for overtime and backfill reimbursement, which are limited to the maximum payment of \$200 per person per day.
- d) The grantee agrees to submit to DEMHS upon request project deliverables including but not limited to: plans, evaluations, reports, and research results.
- e) The grantee agrees to submit a copy of the scope of work for the proposed grant-funded Project Manager and Technical Consultant. In addition, upon selection of providers, the grantee agrees to submit to DEMHS a copy of the providers' credentials and resume.
- f) The grantee agrees to administer this grant consistent with the FFY 2008 UASI Grant Application submitted to and approved by the UASI Working Group and the Department of Homeland Security.

Please initial here to indicate that you have read and understand these conditions
DEMHS Special Conditions





**UNITED STATES
DEPARTMENT OF HOMELAND SECURITY
State Homeland Security Grant Program**

1. The grantee and any subgrantee shall comply with all applicable laws, regulations and program guidance. A non-exclusive list of regulations commonly applicable to DHS grants are listed below, including the guidance:
 - A. **Administrative Requirements**
 1. OMB Circular A-102, State and Local Governments (10/07/94, amended 8/29/07) (44 CFR Part 13)
 2. OMB Circular A-110, Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (11/19/93, amended 09/30/99) (2 CFR Part 215)
 - B. **Cost Principals**
 1. OMB Circular A-87, State and Local Governments (05/10/04)
 2. OMB Circular A-21, Education Institutions (5/10/04)
 3. OMB Circular A-122, Non-Profit Organizations (5/10/04)
 - C. **Audit Requirements**
 1. OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations (6/24/97, includes revisions published in the Federal Register 6/27/03)
2. Recipient understands and agrees that it cannot use any federal funds, either directly or indirectly, in support of the enactment, repeal, modification, or adoption of any law regulation or policy, at any level of government, without the express prior written approval of GPD.
3. The grantee and subgrantee must comply with FEMA's codified regulation 44 CFR Part 13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.
4. The grantee and subgrantee must comply with the most recent version of the Administrative Requirements, Cost Principals, and Audit Requirements.
5. When implementing GPD-funded activities, the recipient must comply with all federal civil rights laws, to include Title VI of the Civil Rights Act, as amended.
6. The recipient acknowledges that GPD reserves a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use, and authorize others to use, for Federal government purposes: (a) the copyright in any work developed under an award of sub-award; and (b) any rights of copyright to which a recipient or sub-recipient purchases ownership with Federal support. The recipient agrees to consult with GPD regarding the allocation of any patent rights that arise from, or are purchased with, this funding.
7. The recipient agrees that all publications created with funding under this grant shall prominently contain the following statement: "This document was prepared under a grant from FEMA's Grant Programs Directorate, U.S. Department of Homeland Security. Points of view or opinions expressed in this document are those of the authors and do not necessarily represent the official position or policies of FEMA's Grant Programs Directorate of the U.S. Department of Homeland Security." The recipient also agrees that, when practicable, any equipment purchased with grant funding shall be prominently marked as follows: "Purchased with funds provided by the U.S. Department of Homeland Security."
8. The recipient agrees to cooperate with any assessments, national evaluation efforts, or information or data collection requests, including but not limited to, the provision of any information required for the assessment or evaluation of any activities within this agreement.
9. The recipient agrees that federal funds under this award will be used to supplement, but not supplant, state or local funds for the same purposes.
10. The recipient agrees to submit quarterly financial reports on Standard Form SF 269A. These reports will be submitted within 30 days after the end of the calendar quarter, with a final report due 90 days following the end of the award period. The report shall be submitted in the Payment and Reporting System (PARS).

In accordance with Treasury regulations at 31 CFR Part 205, the Grantee shall maintain procedures to

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minimize the time elapsing between the transfer of funds and the disbursement of said funds. See 44 CFR, Part 13.21(i) regarding payment of interest earned on advances.

11. To the extent that recipients of a grant uses contractors or subcontractors, such recipients shall use small, minority, women-owned or disadvantaged business concerns and contractors or subcontractors to the extent practicable.
12. As required by 2 CFR 215.25, the recipient shall notify GPD's program office of developments that have a significant impact on award-supported activities, including changes in key project staff. If key project staff has not been designated in the recipients approved application, recipient must request approval prior to hiring.
13. The recipient shall comply with all applicable Federal, State, and local environmental and historic preservation (EHP) requirements and shall provide any information requested by FEMA to ensure compliance with applicable laws including: national Environmental Policy Act, National Historic Preservation Act, Endangered Species Act, and Executive Orders on Floodplains (11988), Wetlands (11990) and Environmental Justice (12898). Failure of the recipient to meet Federal, State, and local EHP requirements and obtain applicable permits may jeopardize Federal funding. Recipient shall not undertake any project having the potential to impact EHP resources without the prior approval of FEMA, including but not limited to communications towers, physical security enhancements, new construction, and modifications to buildings that are 50 years old or greater. Recipient must comply with all conditions placed on the project as the result of the EHP review. Any change to the approved project scope of work will require re-evaluation for compliance with these EHP requirements. If ground disturbing activities occur during project implementation, the recipient must ensure monitoring of ground disturbance and if any potential archeological resources are discovered, the recipient will immediately cease construction in that area and notify FEMA and the appropriate State Historic Preservation Office. Any construction activities that have been initiated prior to the full environmental and historic preservation review will result in a non-compliance finding.
14. The recipient agrees that all allocations and use of funds under this grant will be in accordance with the FY 2008 Homeland Security Grant Program Guidance and Application Kit. The recipient agrees that all allocations and use of funds under this grant will be in accordance with the Allocations and use of grant funding must support the goals and objectives included in the State and/or Urban Area Homeland Security Strategies. Allocations and use of grant funding must also support the Investments identified in the Investment Justifications which were submitted as part of the FY 2008 Homeland Security Grant Program application.
15. The recipient may only fund Investments that were included in the FY 2008 Investment Justification that was submitted to DHS/FEMA and evaluated through the peer review process.
16. The recipient must submit to GPD within 45 days of the grant award through the Initial Strategy Implementation Plan the funding to be allocated per Investment based upon the final grant award amounts and a certification that funds have been obligated to local units of government (to include the identification of sub-grantees and sub-award amounts). Failure to provide this information within 45 days may result in GPD withholding grant funds from further draw down. The recipient thereafter must update and submit this information to GPD on a semi-annual basis.
17. The recipient is prohibited from transferring funds between programs (State Homeland Security Program, Urban Area Security Initiative, Citizen Corps Program, and Metropolitan Medical Response System).
18. The recipient agrees that funds utilized to establish or enhance state and local fusion centers must support the development of a statewide fusion process that corresponds with the Global Justice/Homeland Security Advisory Council (HSAC) Fusion Center Guidelines and achievement of a baseline level of capability as defined by the Fusion Capability Planning Tool.
19. The recipient agrees to fund any multi-state or multi-urban area Investments that were included in the FY 2008 Investment Justification that was submitted to GPC and received a bonus in the effectiveness analysis.

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Federal Special Conditions

MAYOR
DANIEL P. MALLOY



DIRECTOR OF ADMINISTRATION
SANDRA L. DENNIES

Tel: (203) 977-4182
Fax: (203) 977-5657
Email: sdennies@ci.stamford.ct.us

CITY OF STAMFORD
OFFICE OF ADMINISTRATION
888 WASHINGTON BOULEVARD
P.O. BOX 10152
STAMFORD, CT 06904 - 2152

June 5, 2009

Deanna Chaparro
Connecticut Department of Emergency Management & Homeland Security
Strategic Planning & Grant Administration
25 Sigourney Street, 6th Floor
Hartford, CT 06106-5042

Dear Ms. Chaparro:

Enclosed is the signed FY 2008 UASI sub-award document from the City of Stamford.

Please contact me at (203) 977-5709 or via email at kcammarota@ci.stamford.ct.us if you will need any additional information.

Sincerely,

A handwritten signature in black ink that reads "Karen Cammarota".

Karen Cammarota
Grants Officer



Peter J. Boynton
Commissioner

STATE OF CONNECTICUT
DEPARTMENT OF
EMERGENCY MANAGEMENT AND HOMELAND SECURITY



November 23, 2009

The Honorable Dannel P. Malloy
Mayor
City of Stamford
888 Washington Boulevard
Stamford, CT 06904

Dear Mayor Malloy:

I am pleased to forward for your signature the FFY 2009 Homeland Security Grant Program sub-grant award 009A135A for Region 1 UASI -- Interoperable Communications in the amount of \$2,765,240.

Please review the award carefully and pay particular attention to the general and special grant conditions. Afterwards, sign and date the award and return it to:

Department of Emergency Management & Homeland Security
25 Sigourney Street, 6th Floor
Hartford, CT 06106-5042
Attention: Strategic Planning and Grant Administration

Also enclosed are the related reporting compliance documents, which are available electronically at <http://www.ct.gov/demhs>, including:

- DEMHS General and Special Grant Conditions,
- Federal Special Grant Conditions,
- Standard Reporting Schedule,
- Financial Report (This form must be completed quarterly for each funded project and submitted along with the Reimbursement Request Form or Cash Advance Form),
- Progress Report,
- Reimbursement Request Form (which is due monthly or quarterly as desired),
- Cash Advance Request Form for Grantees, and
- Property Inventory Report, which is due at the conclusion of the award period.

Please feel free to contact DEMHS Strategic Planning and Grants Administration staff at 860-256-0900 if you have any questions. Otherwise, simply return the signed grant award and certifications at your earliest convenience. You will be sent a fully executed copy for your files. DEMHS is pleased to join you in securing and protecting Connecticut's citizens and resources.

Sincerely,

Peter J. Boynton
Commissioner

Enclosure

CC: Mr. William Callion Jr., Point of Contact
Mr. Peter F. Privitera, Financial Officer
Ms. Karen Cammarotta, Grant Administrator
Mr. Robert Kenney, Region 1 Coordinator



STATE OF CONNECTICUT
DEPARTMENT OF EMERGENCY MANAGEMENT & HOMELAND SECURITY
Division of Strategic Planning & Grant Administration
25 Sigourney Street, 6th Floor
Hartford, CT 06106-5042



NOTICE OF GRANT AWARD

The Department of Emergency Management & Homeland Security hereby makes the following grant award in accordance with the Consolidated Security, Disaster Assistance, and Continuing Appropriations Act, 2009, P.L. No. 110-329, and in accordance with the grant solicitation and the attached grant application, if applicable.

Grantee: City of Stamford
Address: 888 Washington Boulevard
City/State/Zip: Stamford, CT 06904

Town Code: _____
State Agency Code: _____
Federal Employer ID No.: 06-6001897

DEMHS Grant No.: 009A135A
Project Title: Region 1 UASI -- Interoperable Communications
Date of Award: November 23, 2009
Period of Award: From: 11/1/2009 To: 3/31/2012
Amount Of Award: Federal: \$2,765,240 State: \$ 0
State Match: \$ 0 Grantee Match: \$ 0
Interest: \$ 0 Other: _____ Specify \$ 0
Total Budget: \$2,765,240

Fed Grant No.: 2009-SS-T9-0087 CFDA No.: 97.067

Grantee Fiscal Year From: July 1 To: June 30

My signature below, for and on behalf of the above named grantee, indicates acceptance of the above referenced award and further certifies that:

1. I have the authority to execute this agreement on behalf of the grantee; and
 2. The grantee will comply with all attached Grant Conditions.

By:

Date

Typed Name and Title of Authorized Official

FOR THE DEPARTMENT OF EMERGENCY MANAGEMENT & HOMELAND SECURITY

By:

Data

Signature of Authorized Official

Peter J. Boynton, Commissioner

SUMMARY DESCRIPTION OF FUNDING

Through this accord, the City of Stamford will use grant funding in the amount of \$2,765,240 from the FFY 2009 Homeland Security Grant Program – Bridgeport Urban Area Security Initiative for costs related to preparedness activities associated with implementing the Bridgeport UASI Strategy and the Connecticut Homeland Security Strategy and the Investments identified during the application period. This program provides an integrated mechanism to enhance the coordination of State and National Priority efforts to prevent, respond to, and recover from terrorist attacks, major disasters, and other emergencies.



State Of Connecticut
Department Of Emergency Management & Homeland Security
Division of Strategic Planning & Grant Administration



GENERAL GRANT CONDITIONS

SECTION 1: Use of Grant Funds.

The grantee agrees to expend the grant funds awarded pursuant to this agreement for allowable purposes only and to comply with all of the terms and conditions of the grant award and any related documents that set forth its obligations as grantee. Grant funds shall not, without advance written approval by DEMHS, be obligated prior to the starting date or subsequent to the termination date of the grant period.

SECTION 2: Fiscal Control.

The grantee shall maintain accounting records and establish policies and provide procedures to assure sound fiscal control, effective management, and efficient use of grant funds. The grantee shall establish fiscal control and accounting procedures to assure proper disbursement of, and accounting for, grant funds. Accounting procedures must provide for the accurate and timely recording of receipt of funds by source, expenditures made from such funds, and unexpended balances. Controls must be adequate to insure that expenditures charged to grant activities are made for allowable purposes only.

SECTION 3: Retention of Records and Records Accessibility.

- 3.1. Financial records, supporting documents, statistical records, and all other records pertaining to this grant shall be retained for a period of three years starting from the date of the submission of the final expenditure report, with the following qualifications.
- 3.2. If any litigation, claim or audit is started before the expiration date of the three-year period, the records shall be retained until all litigation, claims or audit findings involving the records have been resolved.
- 3.3. Records for the purchase of equipment (i.e., non-expendable, tangible personal property) acquired with grant funds shall be retained for three years after the final disposition of said property.
- 3.4. The State or its representatives shall have the right at reasonable hours to examine any books, records and other documents of the grantee or its subcontractors or subgrantees pertaining to work performed under this agreement. The State will give grantee or such subcontractor or sub-grantee at least twenty-four hour's notice of such intended examination. At the State's request, the grantee shall provide the State with hard copies of or magnetic tape containing any data or information relating to the State's business, which data or information is in the possession or control of the grantee. The grantee shall incorporate this paragraph verbatim into any agreement it enters into with any subcontractor or sub-grantee relating to this grant.

SECTION 4: Insurance.

The grantee agrees that while performing any service specified in this grant, the grantee shall maintain sufficient insurance (liability and/or other), according to the nature of the service to be performed, so as to "save harmless" the State of Connecticut from any insurable cause whatsoever. If requested, certificates of insurance shall be filed with the Department of Emergency Management and Homeland Security prior to the performance of services.

SECTION 5: Conflict of Interest.

No person who is an officer, employee, consultant or review board member of the grantee shall participate in the selection, award or administration of a contract, subcontract, subgrant or agreement or in the selection and supervision of an employee if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when the officer, employee, consultant or review board member or any member of his/her immediate family, or his/her partner, or an organization which employs, or is about to employ any of the above has a financial interest in the entity or firm selected for the contract, subcontract, or subgrant or when the individual employed is related to any of the foregoing persons.

SECTION 6: Reports.

The grantee shall submit such reports as the Department of Emergency Management and Homeland Security shall reasonably request and shall comply with all provisions regarding the submission of such reports. Reports shall include, but not be limited to, revised project narratives, revised budgets and budget narratives, progress reports, financial reports, cash requests, grantee affirmative action packets, and sub-grantee packets and budgets. Cash requests may be withheld by the Department of Emergency Management and Homeland Security until complete and timely reports are received and approved.

SECTION 7: Funding Limitation.

Funding of this project in no way obligates the Department of Emergency Management and Homeland Security to fund the project in excess of this grant, beyond the period of this grant, or in future years.

SECTION 8: Revised Budget.

If the grant amount and/or the distribution of funds between categories of funds, as identified on the Notice of Grant Award, is different from the amount and/or the distribution in the grant application budget, the grantee agrees to submit to the Department of Emergency Management and Homeland Security a revised budget and budget narrative equal to and in the same distribution as the grant award not later than 30 days after signing of the grant. Cash requests will be withheld until the revision is received and approved.

SECTION 9: Audits.

- 9.1. In accordance with the following conditions, the grantee agrees to conduct and submit to the Department of Emergency Management and Homeland Security a completed audit package with management letters and corrective action plans for audits of each of the fiscal years included in the period of this grant and any amendments thereto.
- 9.2. If the grantee meets the requirements of the State Single Audit Act, Sections 4-230 through 4-236, as amended, of the Connecticut General Statutes (C.G.S.), the grantee is required to submit a State Single Audit Report to the Office of Policy and Management. C.G.S. Section 4-231 requires those non-state entities which expended a total amount of State Financial Assistance equal to or in excess of \$100,000 in any fiscal year to have either a single audit or a program-specific audit conducted for such fiscal year. A program-specific audit may be conducted if the grantee received State Financial Assistance from the Department of Emergency Management and Homeland Security for this grant and it is the only State Financial Assistance that the grantee has received during this fiscal period. The State Single Audit Report should be filed with the Office of Policy and Management no later than six months after the end of the audit period.
- 9.3. If the grantee receives any federal funds in this grant as identified on the Notice of Grant Award, and meets the requirements of OMB Circular A-133, Audits of State and Local Governments and Non Profit Organizations, the grantee is required to submit an audit conducted in accordance with Generally Accepted Accounting Principles (GAAP) and/or Generally Accepted Governmental Auditing Standards (GAGAS) issued by the Comptroller General of the United States, as well as OMB Circular A-133. This circular requires those state and local governments and non profit organizations which expended a total amount of Federal Financial Assistance equal to or in excess of \$300,000 in any fiscal year to have a federal single audit or a program-specific audit conducted for such fiscal year. A program-specific audit may be conducted if the grantee receives Financial Assistance under only one Federal program. For audit purposes, State or grantee match funds as identified on the Notice of Grant Award, are subject to the same requirements as the federal monies. OMB Circular A-133 requires that the audit report be submitted by the earlier of 30 days after the date of receipt of the auditor's report(s), or 9 months after the end of the audit period.

SECTION 10: Unexpended Funds and/or Disallowed Costs.

If project costs are less than the grant, and/or any project costs have been disallowed, the grantee agrees to return the unexpended/disallowed funds to Department of Emergency Management and Homeland Security not later than 60 days following closeout of the grant.

SECTION 11: Nondiscrimination and Affirmative Action.

- 11.1. The grantee agrees and warrants that in the performance of the grant such grantee will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation or physical disability, including, but not limited to, blindness, unless it is shown by such grantee that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut.
- 11.2. The grantee agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, mental retardation, or physical disability, including, but not limited to, blindness, unless it is shown by such grantee that such disability prevents performance of the work involved.
- 11.3. The grantee agrees, in all solicitations or advertisements for employees placed by or on behalf of the grantee, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the State Commission on Human Rights and Opportunities.
- 11.4. The grantee agrees and warrants that in the performance of the grant such grantee will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or of the State of Connecticut, and that employees are treated when employed without regard to their sexual orientation.
- 11.5. The grantee agrees to provide each labor union or representative of workers with which such grantee has a collective bargaining agreement or other contract or understanding and each vendor with which such grantee has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the grantee's commitments under this

- section, and to post copies of the notice in conspicuous places available to employees and applicants for employment.
- 11.6. The grantee agrees to comply with each provision of this section and Connecticut General Statute sections 46a-68e and 46a-68f and with each regulation or relevant order issued by the Commission on Human Rights and Opportunities pursuant to Connecticut General Statute sections 46a-56, 46a-68e and 46a-68f.
 - 11.7. The grantee agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the grantee which relate to the provisions of this section and Connecticut General Statute section 46a-56.
 - 11.8. If the grant is a public works contract, the grantee agrees and warrants that the grantee will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works project.
 - 11.9. Determination of the grantee's good faith efforts shall include but shall not be limited to the following factors: The grantee's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission on Human Rights and Opportunities may prescribe that are designed to ensure the participation of minority business enterprises in public works projects. The grantee shall develop and maintain adequate documentation, in a manner prescribed by the Commission, of its good faith efforts. For the purposes of this paragraph, "minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons who are active in the daily affairs of the enterprise, who have the power to direct the management and policies of the enterprise and who are members of a minority, as such term is defined in subsection (a) of Connecticut General Statute section 32-9n; "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations; "good faith efforts" includes, but is not limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements; and "public works contract" means any agreement between any individual, firm or corporation and the State or any political subdivision of the State other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the State, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.
 - 11.10. The grantee shall include the provisions of subsections 11.1 to 11.8, inclusive, in every subcontract or purchase order entered into in order to fulfill any obligation of a grant with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. The grantee shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statute section 46a-56; provided, if such grantee becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the grantee may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

SECTION 12: Executive Orders

- 12.1. This Agreement is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill regarding nondiscrimination promulgated June 16, 1971, and such Executive Order is incorporated herein by reference and made a part thereof. The parties agree to abide by said Executive Order and agree that the State Labor Commissioner shall have continuing jurisdiction in respect to contract performance in regard to nondiscrimination until the Agreement is completed or terminated prior to completion. This Agreement may be canceled, terminated or suspended by the State Labor Commissioner for violation of or noncompliance with said Executive Order or any state or federal law concerning nondiscrimination, notwithstanding that the Labor Commissioner is not a party to this Agreement.
- 12.2. This Agreement is subject to the provisions of Executive Order No. Seventeen of Governor Thomas J. Meskill promulgated February 15, 1973, requiring contractors and subcontractors to list employment openings with the Connecticut State Employment Service and such Executive Order is incorporated herein by reference and made a part thereof. The parties agree to abide by said Executive Order and agree that the granting agency and the State Labor Commissioner shall have joint and several continuing jurisdiction in respect to performance in regard to listing all employment openings with the Connecticut State Employment Service. This Agreement may be canceled, terminated, or suspended by the granting agency or the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Seventeen, notwithstanding that the Labor Commissioner is not a party to this Agreement.
- 12.3. This Agreement is subject to the provisions of Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, regarding Violence in the Workforce Prevention and, such Executive Order is

incorporated herein by reference and made a part thereof. This agreement may be canceled, terminated, or suspended by the State for violation of or noncompliance with said Executive Order No. Sixteen.

SECTION 13: Americans with Disabilities Act.

This section applies to those grantees, which are or will become responsible for compliance with the terms of the Americans with Disabilities Act of 1990 during the period of award of the grant. The grantee represents that it is familiar with the terms of this Act and that it is in compliance with the law. Failure of the grantee to satisfy this standard either now or during the period of the grant as it may be amended will render the grant voidable at the option of the State upon notice to the grantee. The grantee warrants that it will hold the State harmless from any liability, which may be imposed upon the State as a result of any failure of the grantee to be in compliance with this Act.

SECTION 14: Independent Contractor.

The grantee shall act as an independent contractor in performing this agreement, maintaining complete control over its employees and all of its subcontractors. Before hiring outside consultants or entering into contractual agreements with persons, partnerships or companies, the grantee will notify the Department of Emergency Management and Homeland Security of the contractor's identity.

SECTION 15: Federal Compliance and Assurances.

If the grantee receives any federal funds in this grant as identified on the Notice of Grant Award, the grantee and all its subgrantees will comply with the nondiscrimination requirement of Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973 as amended, and the Age Discrimination Act of 1975 to the effect that, no person shall, on the grounds of race, color, national origin, age, sex, or disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under, or denied employment in connection with any program or activity funded in whole or in part with funds made available in this grant.

SECTION 16: Non-Supplanting.

- 16.1. If the grantee receives any federal funds in this grant as identified on the Notice of Grant Award, the grantee agrees that these grant funds will be used so as to supplement and increase, but not supplant, the level of state, local, private and federal funds that would otherwise be made available for this project and to serve this target population, and will in no event replace such state, local, private and federal funds.
- 16.2. The grantee shall not use state funds conveyed by the grant to supplant any local funds, if a municipality, or other state funds, if a state agency, which were budgeted for purposes analogous to that of the state grant funds. Department of Emergency Management and Homeland Security may waive this provision upon request and for good cause shown, when it is satisfied that the reduction in local funds or other state funds, as the case may be, is due to circumstances not related to the grant.

SECTION 17: Additional Federal Conditions.

If the grantee receives any federal funds in this grant as identified on the Notice of Grant Award, the grantee agrees to comply with the attached Additional Federal Conditions which have been issued by the federal grantor agency to the Department of Emergency Management and Homeland Security and which are hereby made a part of this grant award.

SECTION 18: Indemnification.

The grantee shall indemnify, defend and hold harmless the State and its successors and assigns from and against any and all (1) actions, suits, claims, investigations and legal, administrative or arbitration proceedings pending or threatened, whether mature, un-matured, contingent, known or unknown, at law or in equity, in any forum (collectively, "Claims") arising in connection with this Agreement including, but not limited to, acts of commission or omission (collectively , the "Acts") by the grantee or any of its members, directors, officers, shareholders, representatives, agents, servants, consultants, employees or any other person or entity with whom the grantee is in privity of oral or written contract; (2) liabilities arising in connection with this Agreement, out of the Grantee's Acts concerning its or their duties and obligations as set forth in this Agreement; and (3) all damages, losses, costs and expenses, including but not limited to, attorneys' and other professionals' fees, that may arise out of such Claims and/or liabilities for bodily injury, death and/or property damages. The Grantee shall reimburse the State, for any and all damages to the real or personal property of the State caused by the Acts of the Grantee. The State shall give to the grantee reasonable notice of any such Claim. The Grantee shall also use counsel reasonably acceptable to the State in carrying out its obligations under this section. This Section shall survive the expiration or early termination of this Agreement, and shall not be limited by reason of any insurance coverage.

SECTION 19: Special Grant Conditions.

The grantee agrees to comply with the attached Special Grant Conditions, which have been issued in connection with this specific program, and which are hereby made a part of this award.



State Of Connecticut
Department Of Emergency Management & Homeland Security
Division of Strategic Planning & Grant Administration



SPECIAL GRANT CONDITIONS

Check applicable box, if required

1. The grantee agrees to complete and submit to DEMHS a revised project narrative not later than thirty (30) days after signing this grant award. The grantee must contact DEMHS program staff at ___, regarding the required revisions.
2. Specific funding limitations have been applied to this grant. Please contact DEMHS program staff at **860-256-0900** for further details on these funding restrictions.
- a) Based on federal Department of Homeland Security Program Guidance, no more 25% of the FY 2007 LETPP awards may be used for operational activities including DHS-declared Orange Alerts.
 - b) The grantee will complete the Interoperable Communications Request Form and submit it for approval in advance of any purchase of interoperable radio communications equipment. The grantee's proposal will be considered in July 2008 and voted upon by the Interoperable Communications Subcommittee of the Emergency Management & Homeland Security Coordinating Council; no funds may be expended until that approval has been secured.
3. The grantee is required to participate in training session(s) on ___. The grantee must contact ___ to schedule training and determine if there are other technical assistance opportunities.
4. The grantee must submit to DEMHS for review and approval a revised budget itemization for any proposed change 1) which will alter a budget category by more than 10% of the budget category or by more than \$500, whichever is greater; or 2) which places resources in a budget category not previously funded. Significant changes in the use of funds within a budget category, while not requiring a formal budget revision, should be reported to DEMHS by letter.
5. The grantee, including all other recipients of assistance under the grant, whether by contract, subcontract, or subgrant, upon request, agrees to cooperate with research and evaluation efforts of DEMHS or any party designate by DEMHS for such purpose. The grantee further agrees that such cooperation includes but is not limited to: 1) collecting and maintaining project data, including client data, 2) supplying project data to DEMHS or its designee; and 3) permitting access by DEMHS or its designee to any and all project information whether stored by manual or electronic means.
6. All training events, seminars, and conferences must be approved by DEMHS prior to submitting registration for the event. Requests to attend training events must include names of staff, purpose of training, justification/need for training, location, dates, and costs. Staff attending training events may be required to present a summary of the training to DEMHS and/or other grantees.
7. It will be the sole responsibility of the grantee, and its staff, to insure that any report, article, computer program, database, or other product or publication, whether oral or in writing resulting from the performance of duties pursuant to this grant application and grant award, protects the privacy of confidential information and complies with confidentiality and privacy rights and obligations created by any federal and state law, court rules, or rules of professional conduct applicable to the work performed by the grantee.
8. The grantee shall comply with the following statutes and regulations:
- Section 3789d(c), Omnibus Crime Control and Safe Streets Act of 1968, as amended;
 - Title VI of the Civil Rights Act of 1964, as amended;
 - 28 C.F.R. Part 42, Subparts C, D, E;
 - Section 504, Rehabilitation Act of 1973, as amended (28 C.F.R. Part 42, Subpart G);
 - Title II of the Americans with Disabilities Act, (28 C.F.R. Part 35);
 - Title IX of the Education Amendments of 1972, (28 C.F.R. Part 54);
 - The Age Discrimination Act of 1975, (28 C.F.R. Part 24, Subpart I).

9. a) The grantee must obtain DEMHS Training Coordinator approval for all grant-funded training. The DEMHS Training Coordinator, Mr. David Brown, can be reached at 860-256-0849. DEMHS training approval and all related documentation for participating staff, including training certificates and time and attendance records must be retained by the sub-grantee in the grant file.
- b) The grantee agrees that all publications created with funding under this grant shall prominently contain the following statement: "This document was prepared under a grant from FEMA's national Preparedness Directorate, U.S. Department of Homeland Security. Points of view or opinions expressed in this document are those of the authors and do not necessarily represent the official position or policies of FEMA's National Preparedness Directorate or the U.S. Department of Homeland Security." The recipient also agrees that, when practicable, any equipment purchased with grant funding shall be prominently marked as follows: "Purchased with funds provided by the U.S. Department of Homeland Security."
- c) The grantee agrees to comply with DEMHS Grant Policy #1 regarding the use of grant funds for overtime and backfill reimbursement, which are limited to the maximum payment of \$200 per person per day.
- d) The grantee agrees to submit to DEMHS upon request project deliverables including but not limited to: plans, evaluations, reports, and research results.



**UNITED STATES
DEPARTMENT OF HOMELAND SECURITY
State Homeland Security Grant Program**

Special Conditions

1. The grantee and any subgrantee shall comply with the most recent version of the Administrative Requirements, Cost Principles, and Audit Requirements. A non-exclusive list of regulations commonly applicable to DHS grants are listed below:
 - A. Administrative Requirements
 1. 44 CFR Part 13, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments
 2. 2 CFR Part 215, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations (OMB Circular A-110)
 - B. Cost Principles
 1. 2 CFR Part 225, Cost Principles for State, Local and Indian Tribal Governments (OMB Circular A-87)
 2. 2 CFR Part 220, Cost Principles for Educational Institutions (OMB Circular A-21)
 3. 2 CFR Part 230, Cost Principles for Non-Profit Organizations (OMB Circular A-122)
 4. Federal Acquisition Regulations (FAR), Part 31.2 Contract Cost Principles and Procedures, Contracts with Commercial Organizations.
 - C. Audit Requirements
 1. OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations
 2. Recipient understands and agrees that it cannot use any federal funds, either directly or indirectly, in support of the enactment, repeal, modification, or adoption of any law, regulation or policy, at any level of government, without the express prior written approval of FEMA.
 3. The recipient agrees that all allocations and use of funds under this grant will be in accordance with the FY 2009 Homeland Security Grant Program guidance and application kit.
 4. The recipient shall not undertake any project having the potential to impact Environmental or Historical Preservation (EHP) resources without the prior approval of FEMA, including but not limited to communications towers, physical security enhancements, new construction, and modifications to buildings, structures and objects that are 50 years old or greater. Recipient must comply with all conditions placed on the project as the result of the EHP review. Any change to the approved project scope of work will require re-evaluation for compliance with these EHP requirements. If ground disturbing activities occur during project implementation, the recipient must ensure monitoring of ground disturbance, and if any potential archeological resources are discovered, the recipient will immediately cease construction in that area and notify FEMA and the appropriate State Historic

Please initial here to indicate that you have read and understand these conditions _____
Federal Special Conditions

Preservation Office. Any construction activities that have been initiated without the necessary EHP review and approval will result in a non-compliance finding and will not be eligible for FEMA funding.

5. This special condition is released through Grant Adjustment Notice #2 on October 14, 2009.



State Of Connecticut
Department Of Emergency Management & Homeland Security
Division of Strategic Planning & Grant Administration



Standard Reporting Schedule for Homeland Security Sub-grantees
(Revised 11/8/06)

1. Financial Reports, Reimbursement or Cash Advance requests are due either:

- The first day of each month, or
- Quarterly, 30 days after the calendar quarter ends

For the quarter ending 3/31	are due 4/30
For the quarter ending 6/30	are due 7/30
For the quarter ending 9/30	are due 10/31
For the quarter ending 12/31	are due 1/31

2. Progress Reports are due quarterly, 30 days after the calendar quarter ends (please see above).

3. Property Inventory Report is due 30 days after conclusion of the project.



State Of Connecticut
Department Of Emergency Management & Homeland Security
Division of Strategic Planning & Grant Administration



Quarterly Progress Report

Sub-Grant No.:

Sub-Grant Title:

Sub-Grantee:

Address:

Telephone:

Report Date:

Report Prepared by:

Period Covered: ____ to

Signature:

Project Director or Financial Officer of Record for the Sub-Grantee

1. Briefly summarize project activities for this quarter. Please include supporting statistical information, for example, the number of staff trained, the number and type of exercises conducted, the number and type of equipment purchased, etc.

2. Is the project on schedule? Yes. No.

If not, why?

3. Is the project fully staffed? Yes. No.

If not, why?

4. Are there any new approaches or strategies being considered or implemented?

Yes. No.

If so, explain:



State of Connecticut
Department of Emergency Management & Homeland Security
Strategic Planning & Grant Administration Unit



Reimbursement Request
(Revised September 2008)

(For use by State Agencies and All DEMHS Sub-Grantees)

This is an electronic form. It must be completed on the computer and then printed for signatures.

Municipality (Subgrantee):

Remittance Address:

FEIN # (Mandatory)

Contact Phone Number:

Grant Award Number:

DEMHS USE ONLY
PC1#: EHS99530-09-
PO#:

**Original Signature is required.
Fax Copies will not be accepted.**

For sub-grantees, a separate reimbursement request is required for each project.

Please select appropriate response from the five (5) required categories below:

- | |
|--|
| 1. Funding Year: Click Here |
| 2. Funding source supporting activity: Click Here |
| 3. Project best reflecting activity: 7. Est./Enhance/Equip. Emerg. Mgmt Preparedness Prog. 20130 |
| 4. Solution area activity is attributed to: Click Here |
| 5. Discipline area activity benefits: Click Here |

Mandatory: Please describe project activities that were completed for which reimbursement is requested:

*** If this request is a result of Training, Backfill or Overtime, please refer to the DEMHS Coordinating Council Grant Policy #1, relating to \$200.00 per day limitation and approved ODP class restrictions.*

Amount seeking reimbursement . Attach required supporting documentation (invoice, proof of payment, packing slips and training cert. (Time & attendance sheets in cases of OT or Backfill reimbursement.).

Mandatory: Please describe the overall success of your project and/or achievement toward project goals. Be sure to include a statement indicating to what extent the project enhances the emergency management, prevention, response or mitigation capabilities in your jurisdiction.

Reimbursements will be payable directly to the municipality and mailed to the finance office address on record or the office of the chief elected official.

Signatures required:

Point of Contact or Sub-Grant Project Director
(Sign & Print)

Chief Elected Official
(Sign Only)

Date

FOR DEMHS USE ONLY – DO NOT COMPLETE BEYOND THIS POINT

DEMHS Emergency Preparedness Specialist certifies the following:

- This form has been verified to have original signatures
- The FEIN Number is identified as required on the front
- Up to date DEMHS Financial Report is on file has been reviewed
- Up to date DEMHS Progress Report is on file has been reviewed
- If final, a completed DEMHS Inventory Report is on file
- Selected for On-Site Financial Monitoring Visit – Date Scheduled _____

Date	Signature of EPPS		
------	-------------------	--	--

Date	Grant Unit Manager Approval			Date to Fiscal Unit	Fiscal Unit Approval & Date of Approval		
Business Unit	Fund	Department	SID	Program	Account	Budget Ref.	Budget Period
EHSM1	12060	99530					2009
EHSM1	12060	99530					2009
Project	Chartfield 1	Chartfield 2		Amount			
EHS-							
EHS-							

Please mail this form to:

(Original signature required – faxed copies will not be accepted)

Department of Emergency Management & Homeland Security
Attention: Strategic Planning & Grant Administration Unit
25 Sigourney Street, 6th Floor
Hartford, CT 06106-5042



State of Connecticut
Department of Emergency Management & Homeland Security
Strategic Planning and Grant Administration
25 Sigourney Street, 6th Floor, Hartford, CT 06106-5042
(860) 256-0900

INSTRUCTIONS FOR CASH ADVANCE REQUESTS

All jurisdictions will submit one copy of the Cash Advance Request when requesting funds. This form is to be filled in and submitted only when funds are being requested. Failure to submit these requests on a timely basis may result in denial of the request.

1. Name and address of the jurisdiction (where the check should be mailed).
2. Enter grant number
3. Enter project title from grant budget
4. Select appropriate source from pull-down menu.
5. Total amount of grant allocation for this funding source.
6. Total amount of funds expended to date for this funding source.
7. Balance of funds available for this funding source (line 5 minus line 6).
8. Amount of cash requested for advance per this request. Must not exceed the balance of funds available for this funding source (line 7).
9. Enter the date you are requesting cash advance in block one. Block two should be no more than 120 days after the date in block one.
10. Describe the proposed project activities in the fill-in block.
11. Describe anticipated benefit of the proposed project activities.

*****NOTE: Except for the first cash advance request, this form will not be processed unless a current Financial Report and Progress Report is submitted with this form or is on file at SPGA/DEMHS offices.***

Please submit this signed request to:

Department of Emergency Management & Homeland Security
ATTN: Strategic Planning and Grants Administration
25 Sigourney Street, 6th Floor
Hartford, CT 06106-5042

Original Signature Required - Fax copies will not be accepted.

(September 2008)



State of Connecticut
Department of Emergency Management & Homeland Security
Strategic Planning and Grant Administration
25 Sigourney Street, 6th Floor, Hartford, CT 06106
(860) 256-0900

Cash Advance Request Form for Grantees

(September 2008)

1. Name and Address of Jurisdiction:

DEMHS USE ONLY
PC1 # EHS99530-09-
PO #

2. Grant No.:
3. Project Title:
4. Check appropriate source: [CLICK HERE](#)
5. Amount of allocation:
6. Total expended to date:
7. Balance of funds available:
8. **Amount of cash requested: \$** (Cannot exceed Balance of funds available on line 7)
9. Cash Request for the period of through (not to exceed 120 days)
10. Proposed project activities for which funds are requested.
11. Anticipated benefit of proposed project activities. Be sure to include a statement indicating what extent the project enhances the emergency management, prevention, response or mitigation capabilities in your jurisdiction.

Submitted by:

Signature of Project Director or Financial Officer of Record for the Grant

Date

Typed Name of Project Director or Financial Officer of Record for the Grant

DEMHS USE ONLY	Federal Cash Drawn to Date:	\$							
Special conditional and reporting requirements have been met.									
\$ Federal dollars approved for cash advance.									
Comments:									
<i>Signature of SPGA Accountant</i>	<i>Date</i>								
<i>Signature of SPGA Manager</i>	<i>Date</i>								
MY SIGNATURE ABOVE AUTHORIZES PAYMENT IN THE AMOUNT SHOWN AND CERTIFIES THAT PROPOSED USE OF ADVANCE FUNDS IS CONSISTENT WITH GRANT PROGRAM PARAMETERS.									
AMOUNT	FUND	DEPT	SID	PROG	ACCT	BUD REF	PROJECT	CHTFLD 1	CHTFLD 2
	12060	99530					10000		
<i>Signature of FAM</i>						<i>Date</i>			



**Department of Emergency Management and Homeland Security
Division of Strategic Planning and Grant Administration**
25 Sigourney Street, 6th Floor
Hartford, CT 06106-5042

EQUIPMENT/PROPERTY INVENTORY REPORT

1. Sub-Grantee/Custodial Owner:

2. Sub-Grant Number:

3. Project Title:

4. Period of Award:

5. Date of Report:

6. Preparer: NAME, PHONE

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15. With the completion of this project, I certify that the property described above will remain in the emergency management and homeland security system for purposes consistent with those objectives authorized for support by the state or for other activities currently or previously supported by a Federal agency. When the property is no longer needed as outlined above, I agree to the following disposition procedures: (1) items with a current per unit fair market value of less than \$5,000 may be retained, sold, or otherwise disposed of with no further obligation to the awarding agency; (2) items with a current per unit fair market value in excess of \$5,000 may be retained or sold, and the awarding agency shall have a right to an amount calculated by multiplying the current market value or proceeds from sale by the awarding agency's share of the equipment. Seller is also eligible for sale costs; (3) in cases where a grantee or sub-grantee fails to take appropriate disposition actions; the awarding agency may direct the grantee or sub-grantee to take other disposition actions.

Signature:

Project Director or Financial Officer of Record for the Sub-Grantee

Date

DIRECTIONS FOR THE PROPERTY INVENTORY REPORT

1. Sub-grantee – municipality, regional planning agency, or state agency.
2. Number on the sub-grant award notice.
3. Short or abbreviated title of the project.
4. Beginning and ending dates of the period of award of the grant, as amended (MM/DD/YYYY).
5. Date this form was completed (MM/DD/YYYY).
6. Name and phone number of the person who prepared this report.
7. Inventory number assigned by implementing agency.
8. Company or person who sold you the equipment. Equipment is defined as assets with a value of \$1,000 or more at the time of acquisition.
9. Description of equipment.
10. Serial number assigned to the equipment by the manufacturer, if applicable.
11. Where the equipment is physically located.
12. The cost of the equipment.
13. Date the equipment was purchased.
14. Signature of Project Director or Financial Officer of Record.

***THIS FEDERALLY REQUIRED FORM MUST BE SUBMITTED AT THE CONCLUSION OF THE GRANT AWARD PERIOD.
PLEASE FORWARD THE COMPLETED REPORT TO:***

Department of Emergency Management & Homeland Security

25 Sigourney Street, 6th Floor

Hartford, CT 06106-5042

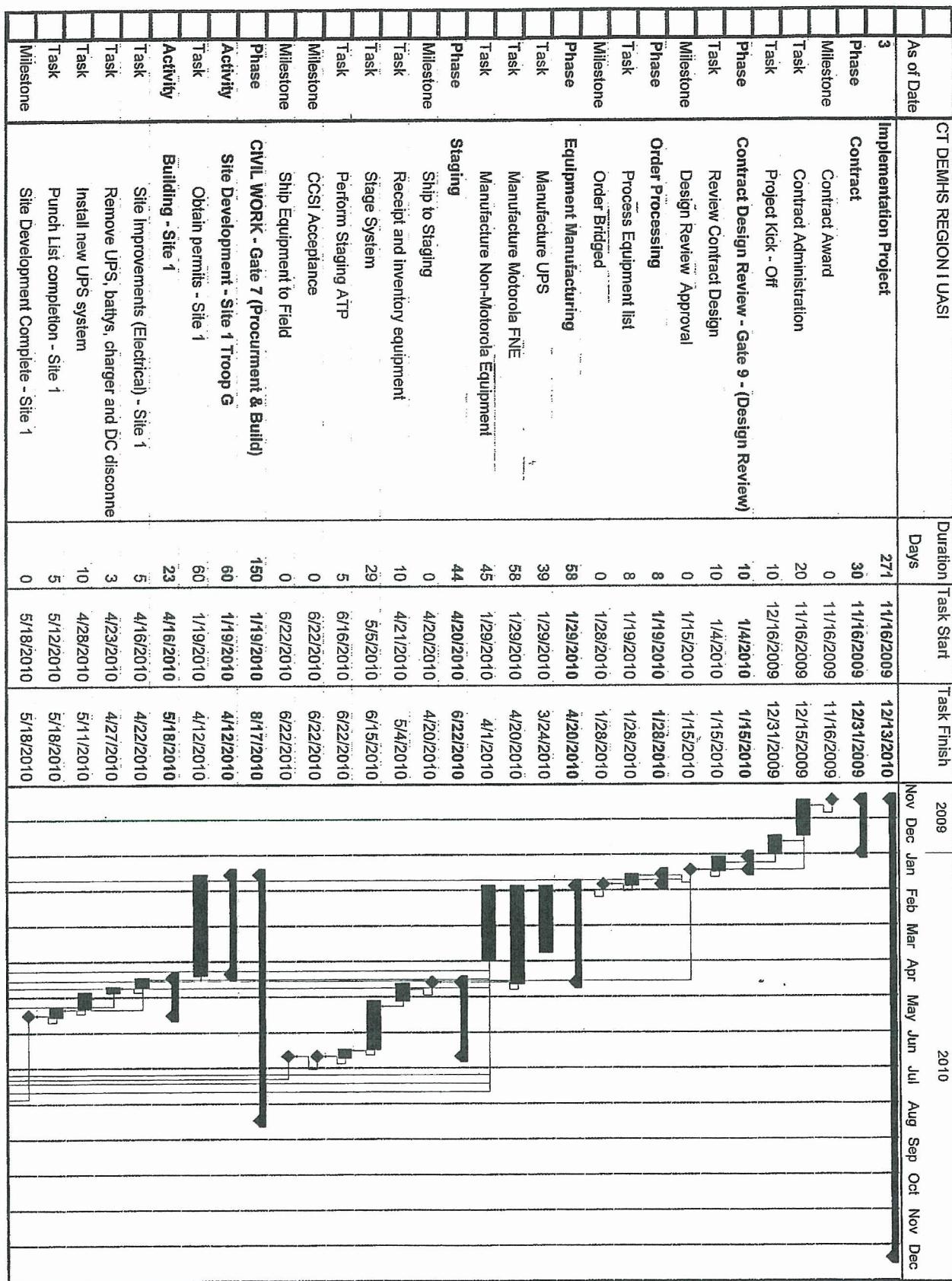
Attention: Strategic Planning & Grant Administration

SECTION ELEVEN

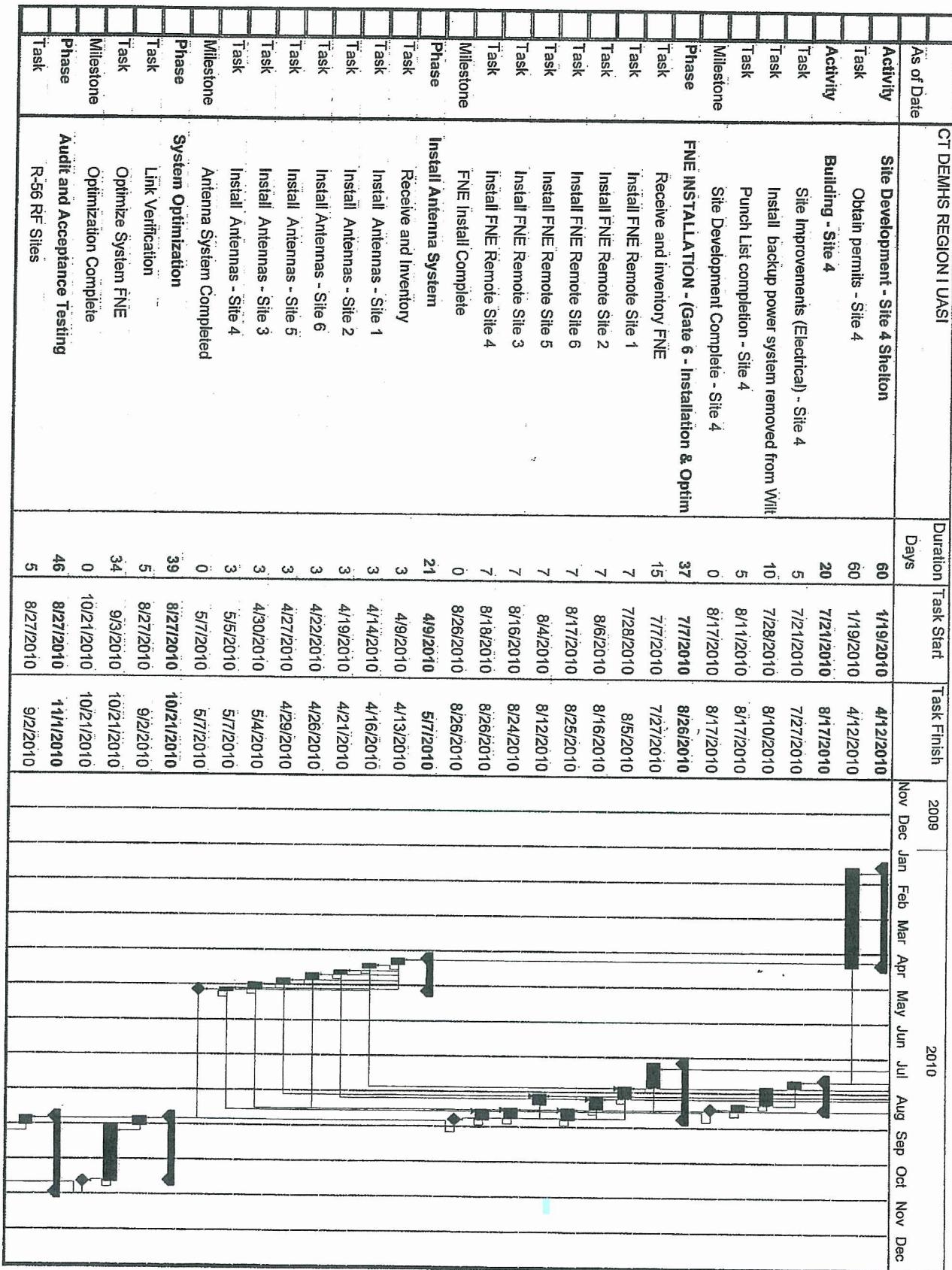
CONSTRUCTION SCHEDULE

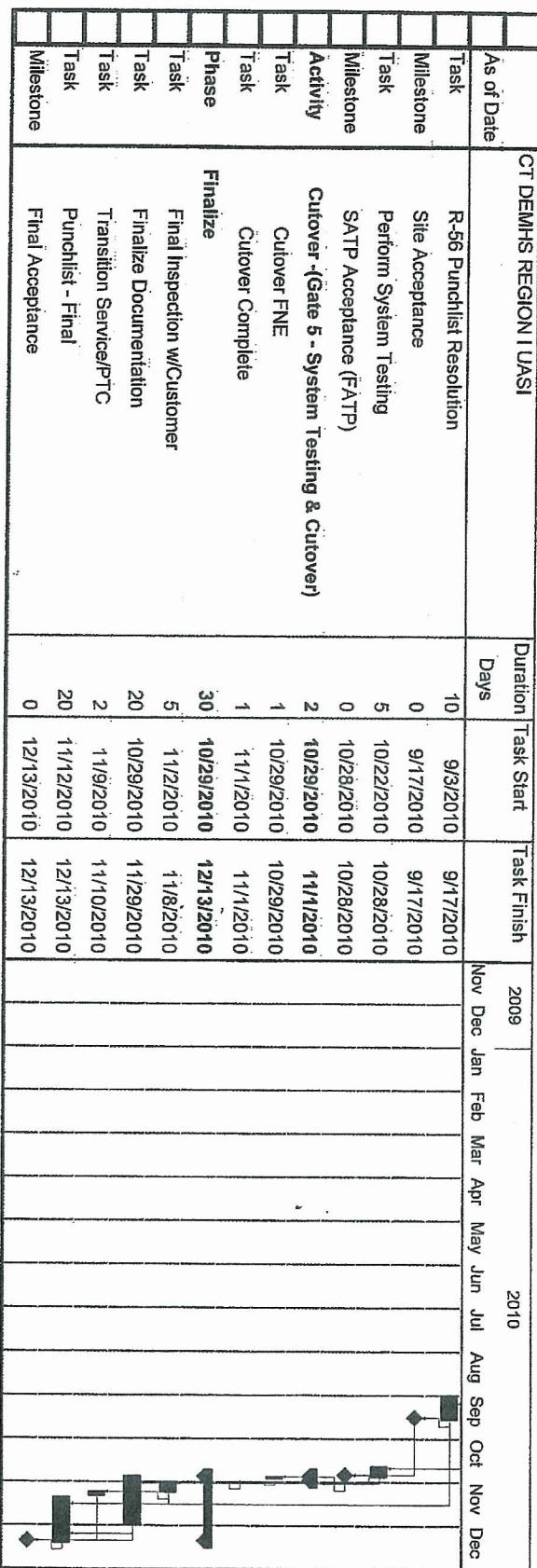
**State of Connecticut - Department of Public Safety - State Police
700 MHz Frequency Application**

May 2009 Application Window



As of Date	CT DEMHS REGION I UASI	Duration Days	Task Start	Task Finish	2009		2010										
					Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Activity	Site Development - Site 2 Greenwich	60	1/19/2010	4/12/2010													
Task	Obtain permits - Site 2	60	1/19/2010	4/12/2010													
Activity	Building - Site 2	23	4/23/2010	5/25/2010													
Task	Site Improvements (Electrical) - Site 2	5	4/23/2010	4/29/2010													
Task	Remove UPS, battys, charger and DC disconne	3	4/30/2010	5/4/2010													
Task	Install backup power system removed from Tro	10	5/5/2010	5/18/2010													
Task	Punch List completion - Site 2	5	5/19/2010	5/25/2010													
Milestone	Site Development Complete - Site 2	0	5/25/2010	5/25/2010													
Activity	Site Development - Site 6 Redding	60	1/19/2010	4/12/2010													
Task	Obtain permits - Site 6	60	1/19/2010	4/12/2010													
Activity	Building - Site 6 Redding	20	4/30/2010	5/27/2010													
Task	Site Improvements (Electrical) - Site 6	5	4/30/2010	5/6/2010													
Task	Install backup power system removed from Gre	10	5/7/2010	5/20/2010													
Task	Punch List completion - Site 6	5	5/21/2010	5/27/2010													
Milestone	Site Development Complete - Site 6	0	5/27/2010	5/27/2010													
Activity	Site Development - Site 5 Landmark	60	1/19/2010	4/12/2010													
Task	Obtain permits - Site 5	60	1/19/2010	4/12/2010													
Activity	Building - Site 5	80	4/13/2010	8/3/2010													
Task	Eqpt Room Renovations - Site 5	60	4/13/2010	7/6/2010													
Task	Site Improvements (Electrical) - Site 5	5	7/7/2010	7/13/2010													
Task	Instal new UPS system	10	7/14/2010	7/27/2010													
Task	Punch List completion - Site 5	5	7/28/2010	8/3/2010													
Milestone	Site Development Complete - Site 5	0	8/3/2010	8/3/2010													
Activity	Site Development - Site 3 Wilton	60	1/19/2010	4/12/2010													
Task	Obtain permits - Site 3	60	1/19/2010	4/12/2010													
Activity	Building - Site 3	23	7/14/2010	8/13/2010													
Task	Site Improvements (Electrical) - Site 3	5	7/14/2010	7/20/2010													
Task	Remove UPS, battys, charger and DC disconne	3	7/21/2010	7/23/2010													
Task	Install new UPS system	10	7/26/2010	8/6/2010													
Task	Punch List completion - Site 3	5	8/9/2010	8/13/2010													
Milestone	Site Development Complete - Site 3	0	8/13/2010	8/13/2010													





SECTION TWELVE

APCO LICENSE FUNDS

**State of Connecticut - Department of Public Safety - State Police
700 MHz Frequency Application**

May 2009 Application Window

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC SAFETY

395183

REQUEST FOR GOODS OR SERVICES

DATE 9/30/09	FROM TROOP OR DIVISION CTS, 2 - S	DEPT CODE: 32626	P.O. NO. _____ SP-10 NO. _____ DOIT-10 NO. _____ POSTED _____	
NAME OF VENDOR	APPROVED 			
ADDRESS	TROOP/UNIT C.O. _____			
	Associated Public-Safety Communication Officials, Inc. 351 N. Williamson Blvd. Daytona Beach, FL	32114-1112	BUREAU/DISTRICT C.O. _____	
FEIN	630 461 885	FISCAL/GRANTS		
	DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL
	Fees required by APCO for 700 MHz Frequency Coordination for six (6) channel pairs at seven (7) sites	1	\$2,520.00	\$2,520.00

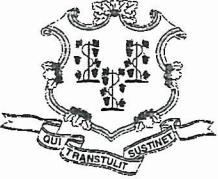
TO BE FILLED IN BY BUSINESS OFFICE

SECTION THIRTEEN

SIEC APPROVAL LETTER

**State of Connecticut - Department of Public Safety - State Police
700 MHz Frequency Application**

May 2009 Application Window



STATE OF CONNECTICUT
DEPARTMENT OF
EMERGENCY MANAGEMENT AND HOMELAND SECURITY



Connecticut State Public Safety Interoperable Communications
Executive Committee

October 22, 2009

Mr. Jerry Zarwanski
Chairman
FCC Region 19 700 Mhz Regional Planning Committee
1111 Country Club Road
Middletown, Connecticut, 06457

RE: City of Stamford Application for 700 MHz Channels

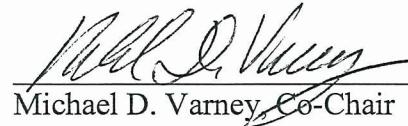
Dear Mr. Zarwanski:

At its regular monthly meeting on October 20, 2009 the Connecticut State Public Safety Interoperable Communications Executive Committee., reviewed the above cited application and finds that it is in compliance with the Connecticut State Communications Interoperability Plan and the State of Connecticut 700 MHz Spectrum Allocation Plan.

Sincerely,



William J. Hackett, Co-Chair



Michael D. Varney, Co-Chair

25 Sigourney Street, 6th Floor
Hartford, CT 06106-5042

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