

**MEMORANDUM OF UNDERSTANDING BETWEEN  
GRAND PRIX ASSOCIATION OF LONG BEACH AND CITY OF LONG BEACH**

This Memorandum of Understanding (the "Agreement") defines the terms and conditions for the shared use of a Portable Emergency Advisory Radio System ("PEARS") between the Grand Prix Association of Long Beach ("GPALB") and the City of Long Beach, Department of Disaster Preparedness and Emergency Communications ("DPEC").

The GPALB is located at 3000 Pacific Ave, Long Beach, CA 90806 and it is the owner of the PEARS equipment. The DPEC is located at 2990 Redondo Ave, Long Beach, CA 90806 and it is requesting permission to use the PEARS equipment.

**1. Term of the Agreement**

Both the GPALB and the DPEC have agreed to share use of the PEARS beginning on September 1, 2016, and ending on August 31, 2018. The Agreement may be terminated by either party, at any time, with thirty days written notice. This Agreement may be extended, by written agreement of both parties, for a period of two years past the end of the initial term.

**2. Equipment Included in PEARS**

The GPALB is the owner of PEARS. The PEARS includes:

- a. The broadcast unit to create a temporary AM Radio Station,
- b. The antenna to broadcast the signal,
- c. Software to program and operate the PEARS, and
- d. The FCC license governing the operation of this temporary radio station on the 1680 AM frequency. (See Appendix A for the list of PEARS equipment, Appendix A1 for the manufacturer's specifications, Appendix B for the FCC approved operating guidelines for this station, and Appendix C for the potential broadcast area.)

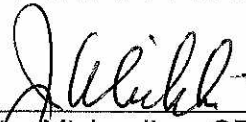
**3. Priority of Use**

Both the GPALB and the DPEC agree to follow a priority of use schedule. The priority of use is determined by the GPALB. The GPALB will require the exclusive use the PEARS from February 1 to April 30 of each calendar year. The DPEC will be allowed to use the PEARS from May 1 to the last day of January each calendar year. The GPALB will maintain the right to use the PEARS for any planned special event scheduled between May 1 and the last day of January unless DPEC is actively involved in an emergency response action at the time of the request.

**4. Storage of Equipment**

Storage of the PEARS will be managed with the following plan. The GPALB will control and store the PEARS from February 1 to April 30 each year. DPEC will control and store the PEARS from May 1 to the last day of January each year. DPEC agrees to store the equipment in a secure and safe location within the DPEC while in control of the equipment.

**GRAND PRIX ASSOCIATION OF LONG BEACH**

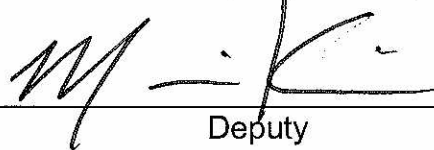
By:  Date: 2/2/17  
Jim Michaelian, CEO  
Grand Prix Association of Long Beach

**CITY OF LONG BEACH, a municipal corporation**

By:  Date: 2/14/17  
Patrick West, City Manager

This agreement is approved as to form on February 6, 2017.

CHARLES PARKIN, City Attorney

By   
Deputy

# Portable Emergency Advisory Radio Station

Appendix A

## 1. System Information

- RadioSTAT AEL/SEL Category 04AP-09-ALRT
- RadioSTAT is FCC-license WQVU503.
- The signal is broadcast over the AM band at 1680 khz.
- Travelers' Information Stations (TIS) are often referred to in general terms as "Information Radio Stations" or "Low Power AM Radio Stations." In specific applications, TISs are sometimes called "Emergency Advisory Radio Stations"

## 2. System Equipment

- a. The system includes the following items:
  - **TR6000 HQ5.0™ Transmitter / Message Player** in portable shock case, containing broadcast control electronics.
  - **PowerPlane™ Portable Antenna System** and stand with coaxial cable and stabilizing sand bags.
  - **Live Microphone and Cable.**
  - **Equipment Pouches and Stowing Bags** for mics, cables and antennas.
  - **Set-Up Tools.**
  - **Illustrated Instructions** and training CD.
- b. We will need to provide:
  - **Multiple Flash Drives** with the saved pre-vetted recorded messages in them (in carrying case).



## 3. Operating Parameters

- a. The signal is broadcast over the AM band at 1680 khz.
- b. Radio broadcast signal will cover an area approximately 3 to 5 miles from the broadcast point.
- c. The city can broadcast information consistent with the **TIDE** guidelines; **T**ravel, **I**mmminent **D**anger or **E**mergencies
- d. You are required to broadcast your station's seven-character call sign at least every 30 minutes. (i.e. This is WQVU503, your City of Long Beach Emergency Information Radio Station on AM 1680.)
- e. Notification signage and other messaging will be needed to announce broadcasts. Most operators position their "tune-to" signs within a 3-mile distance.
- f. We will need pre-recorded general messages and templates or scripts for situation response messages

#### **4. Operating Constraints**

- a. This system is meant to be a “temporary” emergency broadcast system.
- b. Specific content that we are not allowed to broadcast includes:
  - i. Music, Specific Business Names, and Commercial Messages/Content Items (Not **T**ravel, **I**mmminent **D**anger or **E**mergency Related)
  - ii. Routine Weather Forecasts
  - iii. General Safety and Emergency Preparedness Messages, Health and Terrorist Information during Non-Emergency Periods (\*\*\*\*)
- c. Reception is best in vehicles. Even though AM signals are delivered to virtually all homes, businesses and vehicles within the 3-5 mile radius of the antenna, reception will almost always be highest in vehicles. Why, antennas and shielding
- d. Signal strength and range can vary. Though the signal can usually be heard 5-10 miles away over open country, the strongest signal area is normally 3-5 miles. Most operators position their "tune-to" signs within a 3-mile distance.
- e. Signal distances can be less in areas due to topography (Signal Hill), where interference is present, high voltage power lines, and building construction materials.
- f. Not allowed to install antenna on rooftops or otherwise within 50 feet of buildings or other locations that contain telecom/AV systems because of the potential for interference.



## Information Station Specialists

www.theRADIOsource.com

Appendix  
A1



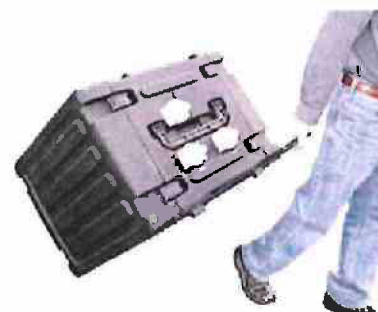
### RadioSTAT™

#### Portable Emergency Advisory Radio Station

AEL/SEL Category 04AP-09-ALRT

During public health and safety emergencies, take a RadioSTAT Portable Emergency Advisory Radio Station into critical areas and speak directly to citizens via standard radio receivers. RadioSTAT can be a lifesaver, allowing the broadcast of critical instructions and information regarding, for example...

- + Disasters and Evacuations.
- + Medical Emergencies (hospital surge, points of distribution field information, quarantine isolation, decontamination).
- + Terrorist/Shooter Incidents.
- + HAZMAT and Traffic Information.
- + Critical Public Safety Instructions.
- + Road Construction and Infrastructure Failures.
- + AMBER Alerts



Built for speed and portability, RadioSTAT electronics are housed in high-impact, weather-resistant cases. The quick-erect antenna system folds up, allowing the entire station to be set up in 10 minutes by one person.

RadioSTAT is FCC-licensed. The signal is typically announced to the public by FASTrack or other portable signs, positioned at the periphery of the coverage area. Motorists receive broadcasts on standard vehicle radios, over 25-75 square miles.

The stations are priced affordably so multiple units can be deployed simultaneously at different locations during an emergency as required.



***"Deployment went quickly and was completed in about 20 minutes. The coverage was phenomenal and absolutely unbelievable that a 10-watt station could be heard nearly 6 miles away in an urban environment with many tall buildings. Overall, the system was an excellent investment."***

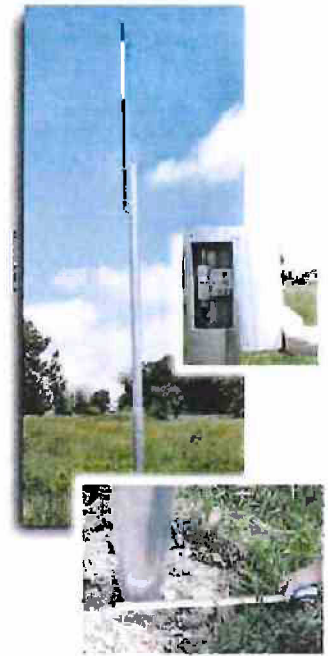
***John Black***  
***Wireless Communications Manager City of Long Beach, CA***

Portability becomes an instant asset during emergencies, allowing re-establishment of the signal from a new location quickly.

Portability also makes RadioSTAT especially useful at large public gatherings for broadcasting key information, *i.e.*, schedules, traffic, parking, safety and critical instructions for patrons approaching or exiting.

Programming may be controlled using flash drives through a USB port and may also be uploaded via Ethernet from a network or a laptop computer. If you operate RadioSTAT at a fixed location, when it is not required in the field, the network capability makes this asset all the more valuable.

During non-emergency times, officials often operate from a fixed location via the patented VP9000™ Vertical Profile Antenna. This helps familiarize citizens with the frequency. Regular FCC-allowed messages may be broadcast during those times. See more about permitted content at [theRADIOsource.com](http://theRADIOsource.com), under the Resources drop-down menu.



*The VP9000 Antenna is designed to withstand hurricanes, fit in small spaces, discourage vandalism in unattended areas.*

## Key Advantages

1. Third-party companies are not needed for continuing service, carrier or activation fees, and, therefore, do not need to be relied upon during emergencies.
2. When the AC grid goes down, RadioSTAT still works if operated on a generator or battery pack; and receivers are in vehicles. AM radio methodology has been active for 80 years and is not likely to be supplanted anytime soon.
3. Citizens do not need to purchase special devices to receive RadioSTAT messages.
4. RadioSTAT stations allow public officials to speak directly to drivers without distracting text messages on portable devices.
5. Radio messages vastly supersede text services in the sheer amount of information and level of detail that may be delivered efficiently.
6. This aural medium also allows officials to speak to the public in a natural, person-to-person way that might be calming during an emergency.
7. RadioSTAT comes in an easy-to-go format but may be used in a fixed location when not needed on the road.
8. Its low price makes it accessible, so communities can afford more than one to cover their areas.

*PIO Dave Zaski (left) & Thomas Cravener at North Tahoe, CA, Fire Protection District train personnel. The District's 3 units are used to allay fear and route residents safely away from terrifying wildfire danger.*



*At our website [theRADIOsource.com](http://theRADIOsource.com), see case studies and a listing of Emergency Advisory Radio Stations across America.*

## **Who Uses RadioSTAT Stations**

**County Public Health:** Los Angeles County has a station, deployable anywhere within its populous area on a moment's notice for motorists queuing at vaccine distribution points. Bucks County PA, Williamson County TX and Worcester County MA have multiple units. Allen County IN emergency director Brad Witte explains, "We will use RadioSTAT to provide citizens instructions to field clinics, how to proceed thru the clinics and what to expect after they get there ...."

**Emergency Medical Services:** Hospitals such as Porter Health in Indiana and Southwest Texas Regional Advisory Council.

**County Emergency Management:** Counties in several states have units to set up in emergencies, and a number of them have several. Sweetwater County WY with an 11,000-square-mile district uses 3 units to reach motorists who might otherwise be missed. Says coordinator Judy Valentine, "We will provide updated information; ... in addition, will deploy them when we activate our mobile command post or CERT animal rescue, shelter or other volunteer teams. We also plan to use them for civic and public health events, disaster exercises and a multitude of other activities."

**State Agencies:** ND Emergency Management owns 3 RadioSTAT units that can be deployed anywhere in the State at a moment's notice. In other states, county-owned units are licensed with statewide operating territories so counties can share the resource.

**Communities:** Many operate RadioSTAT from fixed locations with the expectation of deployment when needed.

**Fire Districts:** Yosemite National Park and the USDA use RadioSTAT for Utah fires.

## Basic Equipment Package

- + TR6000 HQ5.0™ Transmitter/Message Player in portable shock case with broadcast control electronics.
- + PowerPlane™ Portable Antenna System.
- + Flash Drives.
- + Live Mic & Cable.
- + Equipment Pouches & Stowing Bags.
- + Customizable Equipment Tags.
- + Set-Up Tools.
- + Illustrated Instructions.
- + System Engineering & Planning.
- + Lifetime Potential Interference Notification Service.
- + Lifetime Remote Tech Support, 24/7.

## Options

- + PowerSTAT™ Portable Power Source.
- + Audio Management Software, Recording Headset & Mic.
- + Fixed VP9000™ Vertical Profile Antenna.
- + Antenna Height Extender.
- + 2X Signal Booster.
- + Signal Measurement Radio™ Receiver.
- + FASTrack™ Signs.
- + Lightning CMS™ Ultra-Portable Changeable Message Signs.
- + IP-Based Audio Control.
- + HearMoreInfo StreamCasts™.
- + Message Recording Services.
- + FCC Licensing Services.



## Planning and Pricing

We will help you plan your station, select options and provide a formal quote. RadioSTAT Stations may be purchased "sole source" and qualify for government lease-to-own programs as well as our own similar program. Contact info is below.



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Web [theRADIOsource.com](http://theRADIOsource.com)



Federal Communications Commission  
Washington, D.C. 20554

Appendix B

May 13, 2014

DA 14-651

## Small Entity Compliance Guide

**Travelers' Information Stations;  
American Association of Information Radio Operators Petition for Ruling on  
Travelers' Information Station Rules;  
Highway Information Systems, Inc. Petition for Rulemaking;  
American Association of State Highway and Transportation Officials Petition  
for Rulemaking**

*Report and Order and Further Notice of Proposed Rulemaking*

FCC 13-98

PS Docket No. 09-19, RM-11514, RM-11531

Released July 23, 2013

This Guide is prepared in accordance with the requirements of Section 212 of the Small Business Regulatory Enforcement Fairness Act of 1996. It is intended to help small entities—small businesses, small organizations (non-profits), and small governmental jurisdictions—comply with the new rules adopted in the above-referenced FCC rulemaking docket(s). This Guide is not intended to replace the rules and, therefore, final authority rests solely with the rules. Although we have attempted to cover all parts of the rules that might be especially important to small entities, the coverage may not be exhaustive. This Guide may, perhaps, not apply in a particular situation based upon the circumstances, and the FCC retains the discretion to adopt approaches on a case-by-case basis that may differ from this Guide, where appropriate. Any decisions regarding a particular small entity will be based on the statute and regulations.

In any civil or administrative action against a small entity for a violation of rules, the content of the Small Entity Compliance Guide may be considered as evidence of the reasonableness or appropriateness of proposed fines, penalties or damages. Interested parties are free to file comments regarding this Guide and the appropriateness of its application to a particular situation; the FCC will consider whether the recommendations or interpretations in the Guide are appropriate in that situation. The FCC may decide to revise this Guide without public notice to reflect changes in the FCC's approach to implementing a rule, or to clarify or update the text of the Guide. Direct your comments and recommendations, or calls for further assistance, to the FCC's Consumer Center:

1-888-CALL-FCC (1-888-225-5322)  
TTY: 1-888-TELL-FCC (1-888-835-5322)  
Fax: 1-866-418-0232

[fccinfo@fcc.gov](mailto:fccinfo@fcc.gov)

## **Key Definitions**

*Travelers' Information Station.* A base station in the Public Safety Pool used to transmit non-commercial, voice information pertaining to traffic and road conditions, traffic hazard and traveler advisories, directions, availability of lodging, rest stops, and service stations, and descriptions of local points of interest.

*511 service.* A nationwide telephone service for traveler information.

## **Background**

The Commission authorizes Public Safety Pool-eligible entities such as state and local governments to use Travelers Information Stations (TIS) to transmit noncommercial, travel-related information over AM band frequencies to motorists on a localized basis. In 2010, the Commission sought comment on a variety of issues, primarily, the expansion of permissible TIS broadcast content. Except for one decision, the decisions of the *Report and Order* have no new compliance requirements as described below.

## **Summary of Compliance Requirements Discussed in the Report and Order**

### **Removal of Certain Restrictions on Use of "Ribbon" Networks**

- The Commission amended the rules to provide TIS licensees with the flexibility to operate so-called "ribbon" networks of TIS transmitters (*i.e.*, systems that employ multiple simulcasting transmitters), to the extent the information transmitted over such networks is limited to travel and emergency information that is relevant to travelers in the vicinity of each transmitter in the network. The TIS license holders are charged with the responsibility to determine such relevancy in the first instance, by using their best judgment to make sure that transmitted travel-related information is applicable to the locations of all the simulcast transmitters, rather than specific to only a single transmitter or subset of transmitters in the simulcast ribbon network. This requirement is designed to avoid causing the confusion that might otherwise ensue if a traveler were to receive a simulcast transmission of information unrelated to that traveler's current location.

## **Summary of Decisions in this Report and Order with No New Compliance Requirements**

- The Commission noted and clarified that current Section 90.242 already permits transmission of weather alerts regarding difficult or hazardous conditions, as well as information regarding motor vehicle crashes, emergency points of assembly, road closures and construction, parking, current driving travel times, air flight status, truck weigh stations, driver rest areas, locations of truck services, and road closures.
- The Commission clarified that information on the availability of 511 service is already allowed under our TIS rules, because such information directly relates to the provision of travel-related information.
- The Commission amended Section 90.242(a)(7) to cross-reference Sections 90.405(a)(1) and 90.407 of the Commission's rules, which respectively allow the use of all Part 90 facilities, including TIS, for the transmission of "any communications related directly to the imminent safety-of-life or property," and for emergency communications "during a period of emergency in which the normal communication facilities are disrupted as a result of hurricane, flood, earthquake or similar disaster." While the Commission concluded that the TIS licensees – which consist of various local authorities that have intimate knowledge of local conditions – are in the

best position to make determinations in the first instance of what information qualifies for carriage on a TIS, the Commission emphasized that their discretion to make these determinations is limited by the Part 90 rules, and their operation of these stations must comply with these rules.

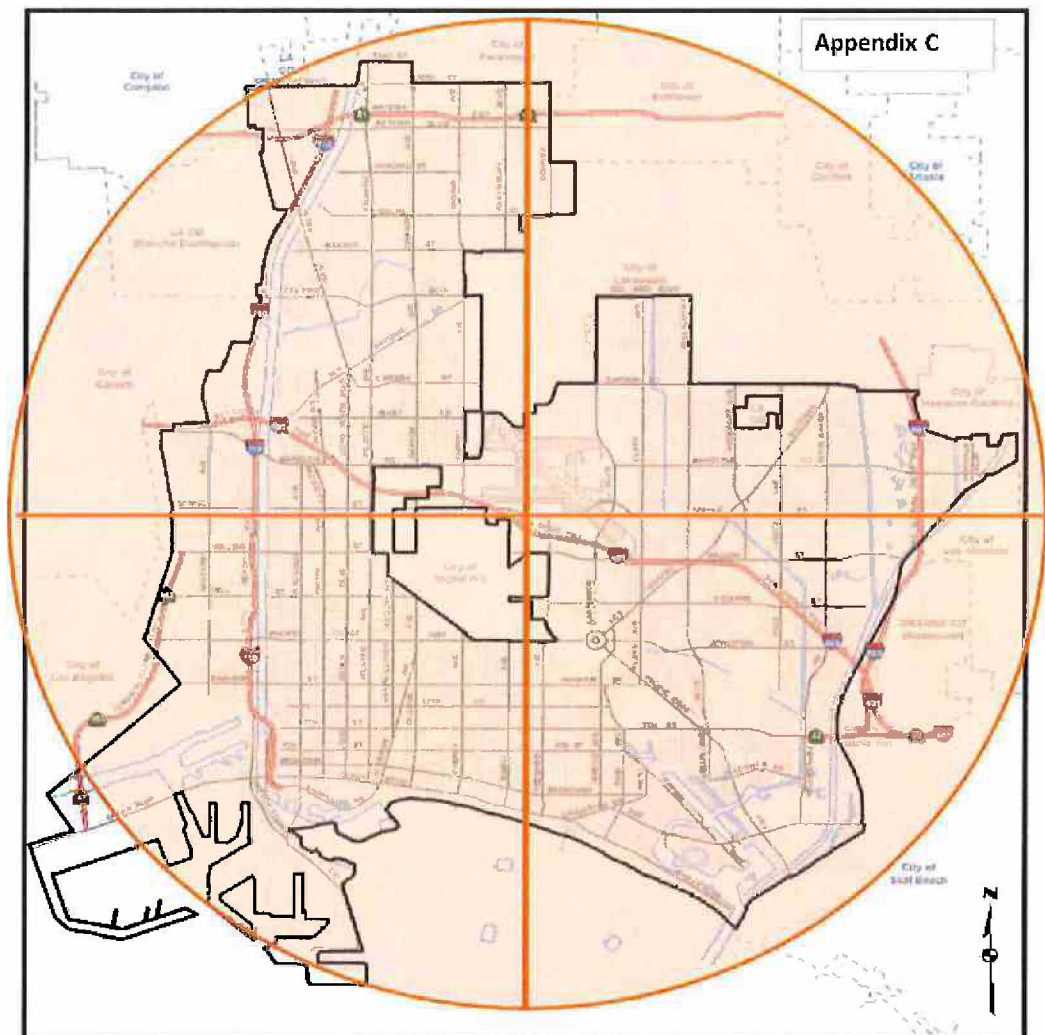
- The Commission declined to expand the TIS rules to allow the transmission of other noncommercial content, including non-emergency, non-travel-related information, because it would dilute the effectiveness of TIS in assisting travelers and providing geographically focused emergency information.
- The Commission declined to allow the routine retransmission of NOAA weather radio broadcasts, noting that routine weather information is widely available on commercial radio stations and increasingly available over cell phone, mobile internet, automobile based information systems, and satellite radio. While motorists should not access weather information from cell phones and the mobile internet while driving, they may safely do so through the other foregoing means. By limiting TIS weather information to potentially hazardous conditions, drivers and other travelers will know immediately that they are receiving non-routine weather information that could negatively impact driving conditions.
- The Commission declined to change the field strength limit of 2 microvolts per meter when measured with a standard field strength meter at a distance of 1.5 kilometers from the transmitting antenna system. The Commission encouraged licensees to continue to work together to resolve interference issues that occur under the existing technical rules, noting that the Commission may modify a TIS authorization if a legally-operating TIS station causes interference.
- The Commission declined to lift current site location restrictions. The current restriction is “the immediate vicinity of the following specified areas: Air, train, and bus transportation terminals, public parks and historical sites, bridges, tunnels, and any intersection of a Federal Interstate Highway with any other Interstate, Federal, State, or local highway.”
- The Commission declined to adopt “Local Government Radio Service” as a new service name for TIS and updated the definition of TIS in Section 90.7 to replace the reference to the former “Local Government Radio Service” with a reference to the “Public Safety Pool.” The revised definition of TIS reads: “A base station in the Public Safety Pool used to transmit non-commercial, voice information pertaining to traffic and road conditions, traffic hazard and traveler advisories, directions, availability of lodging, rest stops, and service stations, and descriptions of local points of interest.”

### **Dates**

The above-summarized rules that the Commission adopted in the *Report and Order* were published in the Federal Register on August 19, 2013 and became effective on September 18, 2013.

### **Internet Links**

- Travelers’ Information Stations; American Association of Information Radio Operators Petition for Ruling on Travelers’ Information Station Rules; Highway Information Systems, Inc. Petition for Rulemaking; American Association of State Highway and Transportation Officials Petition for Rulemaking, *Report and Order and Further Notice of Proposed Rulemaking*, FCC 13-98 (released July 23, 2013).  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-13-98A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-13-98A1.doc)  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-13-98A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-13-98A1.pdf)  
[http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-13-98A1.txt](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-13-98A1.txt)



Department of  
Technology Services GIS

# City of Long Beach, California PEARS Broadcast Coverage Map

As of July 2012

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