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STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE ADJUTANT GENERAL
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HONOLULU, HAWAII 96816-4495

December 5, 2016

Chief
Public Safety Homeland Security Bureau
Federal Communications Commission
445 12th Street SW
Washington, D.C. 20554

Re: Submission of Region 11 700 MHz Channel Plan for Approval by the FCC

To Whom It May Concern:

Region 11 hereby provides for your consideration and approval both its written plan and its allocation of 700 MHz General Use spectrum as agreed upon by its voting members on December 1, 2016.

Additionally, as indicated by Governor Ige in his letters to the Federal Communications Commission on January 15, 2016 (attachment E), the State of Hawaii governs the 700 MHz public safety narrowband spectrum through the Statewide Interoperability Executive Board (SIEB), a governance body organized to oversee public safety communications. The SIEB designated the 700 MHz Region 11 Regional Planning Committee (RPC) to coordinate and administer the 700 MHz interoperability channels and the 700 MHz air-ground channels (Attachment K). The RPC collaborates with State and County public safety stakeholder partners and reports back to the SIEB through its Chairperson, who is an appointed member of the SIEB.

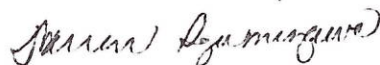
By this correspondence, both the Chairperson of the SIEB and Chairperson of the RPC submit this Plan to the FCC for approval.

If you have any questions, please contact our Statewide Interoperability Coordinator, Victoria Garcia. She is coordinating this effort with both the SIEB and the RPC. She can be reached at (808) 208-3606 or via email at Victoria.garcia@hawaii.gov.

Aloha,



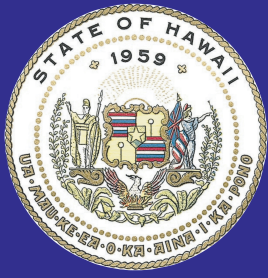
ARTHUR J. LOGAN
Major General
Hawaii Army National Guard
Adjutant General



Warren Izumigawa, Chairperson
Region 11 Regional Planning Committee

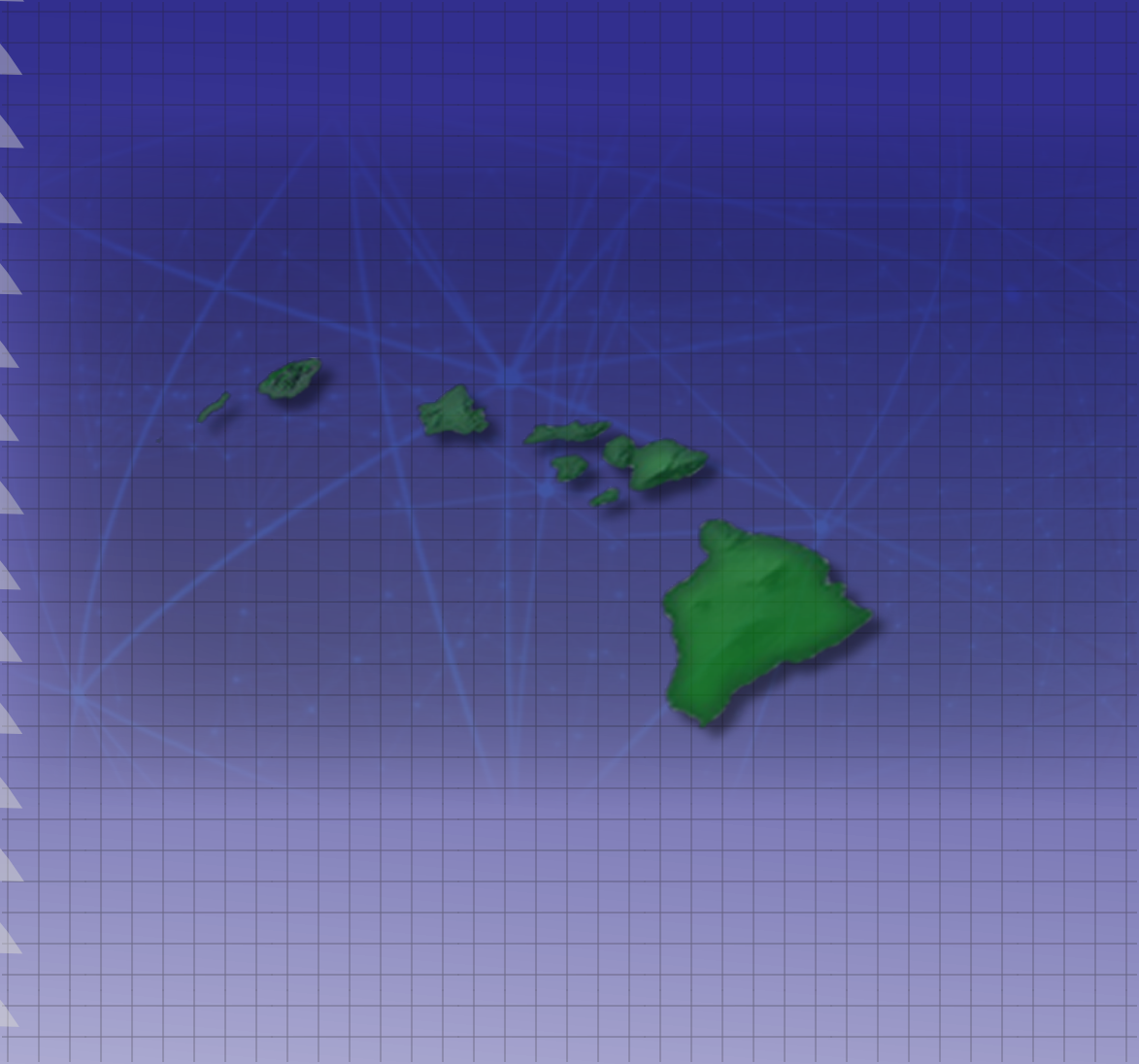
Attachment

cc: David Y. Ige, Governor, State of Hawaii
David Furth, Deputy Chief
John Evanoff, Attorney Advisor
Todd Nacapuy, CIO
Victoria Garcia, SWIC
Dolores Cook, Office of Homeland Security



State of Hawaii

Region 11 700 MHz Channel Plan



REGION 11
Public Safety 700 MHz Channel Plan

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- A Draft Channel Plan working group
- B. Statewide Interoperability Executive Board (SIEB) Membership List
- C. Region 11 Hawaii Statewide Interoperability Channels
- D. Letter from ICSD/DAGS to FCC – December 28, 2001
- E. Letter from Governor Ige Designating SIEB with authority to administer Interop Channels
- F RPC Bylaws, as amended 2016
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REGION 11 700 MHZ CHANNEL PLAN

Section 1 – SCOPE

1.1 Introduction

In order to alleviate major wireless radio congestion, the Federal Communications Commission (FCC) released 60 MHz of television broadcast spectrum – channels 60-69 (746-806 MHz) for use by land mobile radios. In addition to mitigating congestion for wireless radio systems, the FCC also desired to provide public safety access to new technologies that may require additional use of bandwidth and further promote interoperability. To accomplish these goals, the FCC allocated this spectrum as follows: 24 MHz for public safety, 30 MHz for commercial use, and 6 MHz for guard bands.

Within the 24 MHz of spectrum allocated for public safety, the following describes how this bandwidth can be used:

- 10 MHz allocated for Public Safety Broadband
- 2 MHz allocated for Internal Guard Band between Broadband and Narrowband
- 12 MHz allocated for Public Safety Narrowband (6.25 kHz increments, addressed as 12.5 kHz allocations in this plan)

The 12 MHz allocated for Public Safety Narrowband use consists of two (2) paired blocks of 6 MHz spectrum each. Of this spectrum, the FCC has assigned the following:

- 9 channel pairs for low-power on-scene incident response
- 3 channel pairs for itinerant low-power on-scene incident response
- 8 channel pairs for air-to-ground communication
- 6 channel pairs for deployable trunked radio system use
- 2 channel pairs for narrowband interoperability calling
- 28 channel pairs for narrowband interoperable communications use (trunking secondary to conventional)
- 2 channel pairs for narrowband data interoperability
- 4 channel pairs for vehicular repeater use
- 96 channel pairs for State agency use
- 322 channel pairs for general use

The Region 11 Regional Planning Committee (RPC) elected to allocate these 322 general use channel pair resources in 12.5 kHz blocks (two each 6.25 kHz channel pairs). This spectrum allocation is as follows (see also Attachment J):

- 48 channel pairs for the County of Kauai primary use
- 112 channel pairs for the City and County of Honolulu primary use
- 48 channel pairs for the County of Maui primary use
- 48 channel pairs for the County of Hawaii primary use
- 24 channel pairs for the County of Kauai, County of Maui and County of Hawaii as shared resources

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- 4 channel pairs for the County of Kauai use in Federal/Non-Government Organization partnerships
- 8 channel pairs for the City and County of Honolulu use in Federal/Non-Government Organization partnerships
- 4 channel pairs for the County of Maui use in Federal/Non-Government Organization partnerships
- 4 channel pairs for the County of Hawaii use in Federal/Non-Government Organization partnerships
- 2 channel pairs for simplex only use in the County of Kauai and County of Maui
- 2 channel pairs for simplex only use in the City and County of Honolulu and County of Hawaii
- 4 channel pairs for statewide simplex only by discipline
- 14 channel pairs “floating allotments” held for future assignment by the RPC

In the *FCC Report and Order* released on October 2014, *FCC 14-172*, the Commission implemented certain changes to the rules governing the 700 MHz public safety narrowband spectrum (769-775/799-805MHz) to, among other things, provide public safety with greater flexibility in determining optimal future use of the band. The technical rules were revised and updated to enhance interoperability and open up certain channels to new uses. The Commission also released reserve spectrum to provide additional capacity, particularly relevant for licensees relocating to the 700 MHz from the T-Band. It is the vision of the FCC that the rule changes will enhance the ability of public safety licensees to use this spectrum to protect the safety of life and property. (*Id.* at Paragraph I)

1.2. Region 11 700 MHz Channel Plan. Region 11 is defined as the entire state of Hawaii. The broad classifications of agencies/entities eligible to apply for spectrum are defined in accordance with CFR definitions, specifically *47 CFR Section 90.523. Eligibility*. That rule identifies those entities eligible to hold Commission authorization for operating in the 769-775/799-805MHz frequency bands. This Plan comports with the updated rules as published by the FCC in 2014.

The Chair of the RPC appointed a working group of the eligible members to develop a Draft Channel Plan for consideration by the membership. Their names, business addresses, business telephone numbers and organizational affiliations are included in Attachment A.

The major elements of the Plan include: 1) Governance; 2) Regional Planning Committee membership; 3) description of the region; 4) regional plan administration; 5) system design/efficiency requirements; 6) allocation of narrowband “general use” spectrum; 7) interoperability channels; 8) applicant requirements and evaluation; 9) intra-regional dispute resolution; and, 10) future planning.

1.3 Governance – Statewide Interoperability Executive Board (SIEB)

The Adjutant General of the Hawaii National Guard is also the Director of the Hawaii Department of Defense and Advisor to the Governor regarding Homeland Security. He is forming a policy entity comprised of government public safety policy makers to oversee public safety communications in the State of Hawaii. The membership includes cabinet level directors in state government and Mayors of each of the four counties, or the Mayors’ key staff. This group will guide the state and counties in efforts toward best practice policies and procedures that will enhance interoperable communications capabilities. Besides the major policy makers in the State and Counties, representation now includes the Chair of the 700 and 800 MHz Regional Planning Committees (RPC), the Chair of the E911 Board and, as

the group matures, membership will evolve. (Attachment B-SIEB Membership) The SIEB is the State, County and public safety stakeholder governance entity established to administer, through the RPC, the Region 11 Hawaii Statewide Interoperability Channel Plan channels (Attachment C) and the Region 11 700 MHz Radio Communications Plan (Attachment J). This entity succeeds the representations of the December 28, 2001 letter from the Department of Accounting and General Services/Information and Communications Services Division that DAGS/ICSD will administer the interoperability channels (Attachment D). A letter from the Governor of the State of Hawaii, dated January 15, 2015, designates the SIEB as the entity to administer the interoperability channels for Region 11 (Attachment E)

The SIEB oversees development and maintenance of interoperable communications systems and activities. The State of Hawaii will administer the 700 MHz interoperability channels through the Region 11 700 MHz Regional Planning Committee (RPC) using the National Coordinating Committee's (NCC) guidelines. As described *supra*, the RPC has representation on the SIEB through its Chairperson. If at any time, the RPC is unable to function in the role of administering the interoperability channels in the 700 MHz band, the SIEB will administer the 700 MHz interoperability channels in the interim until further discussion with the FCC as to where the responsibilities may best be reassigned. Should the FCC approve of the transfer of administrative duties to the SIEB, that Board will assume the role and notify the FCC, in writing, of its acceptance to the change of administrative duties.

The SIEB sees this Public Safety 700 MHz Radio Communications Plan for Region 11 (Plan) as representing a major planning thrust for Region 11 as it represents the State of Hawaii's Plan for administering the 700 MHz public safety band.

1.4 Purpose

The purpose of the Hawaii Plan is to ensure that maximum public benefit is derived from use of the 700 MHz spectrum by eligible entities in Region 11.

1.5 Regional Planning Committee Leadership

The officers of the RPC shall include a Chair, Vice Chair, Secretary, Treasurer and any other officer as the voting members may determine necessary. The Chair and Vice Chair must be voting members of the RPC and be a government employee or an employee of a public agency eligible to hold a license under 47 CFR 90.523. The Secretary and Treasurer may be either a voting or non-voting member of the RPC and need not fall under the eligibility rules of the CFR.

At the time of submission of this Plan to the FCC, the following individuals serve in leadership roles in the Region 11 RPC:

Chair:	Warren Izumigawa
	Honolulu Police Department
Address:	801 South Beretania Street
	Honolulu, HI 96813
Telephone:	808 723-8858
Email:	wizumigawa@honolulu.gov

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Vice Chair: Walter Pacheco, Communications Coordinator
Maui Police Department
Address: 55 Mahalani Street
Wailuku, HI 96793
Telephone: 808 270-6529
Email: wpacheco@mpd.net

Secretary: David Hafner, Planner
Hawaii Emergency Management Agency (HI EMA)
Address: 3949 Diamond Head Road
Honolulu, HI 95815
Telephone: 808 364-4260
Email: david.t.hafner@hawaii.gov

Treasurer: Vincent Krog, State Radio Engineer
Office of Enterprise Technology Services
Address: 1177 Alakea St., Room 201
Honolulu, HI 96813
Telephone: 808-586-1930 ext. 613
Email: vincent.e.krog@hawaii.gov

From time to time, as described in the By-Laws of the RPC (Attachment F), these positions are subject to election or re-election. At any such time as any of these positions change, the Chair is responsible to:

- Provide Notice to the SIEB
- Provide Notice to RPC eligible members
- Provide Notice to the FCC
- Provide Notice to the National Regional Planning Council (NRPC)

Such changes are not considered Plan modifications; thus, it will not require that the Plan be reissued to the FCC for public notice and comment.

Section 2 – REGIONAL PLANNING COMMITTEE MEMBERSHIP

Members: The RPC shall have two classes of members: 1) voting; 2) non-voting. Voting members are those eligible under the CFR, *supra*.

- a. State and local government entities, *Id* at (a)
- b. Non-governmental organizations (NGOs) that provide services, the sole or principal purpose of which is to protect the safety of life, health or property if, and only for so long as, the NGO has the on-going support of a state or local government entity whose mission is the oversight of or provision of services, the sole or principal purpose of which is to protect the safety of life, health or property (see *Id* at (b) (1-3))
- c. All NGO authorizations are conditional. *Id* at (c)

No commercial interest may be held in the Public Safety Broadband Licensee, *Id* at (e)(1)

Voting Members: Pursuant to the By-Laws of Region 11, Article II (A)(2), voting members shall be as follows:

There shall be a total of ten (10) voting members on the RPC. Two of those voting members shall represent the state agency(ies) from which s/he was appointed and the interest of the state public safety agencies at large. Each of the four counties shall have two (2) voting members. Such named members from both the state and counties shall provide the Chair of the RPC with written documentation of his/her appointment.

Section 3 – DESCRIPTION OF THE REGION

Hawaii's geography and environment creates unique and difficult challenges for maintaining communications infrastructure. Hawaii is a volcanic island state comprised of seven main populated islands (Niihau, Kauai, Oahu, Molokai, Lanai, Maui and Hawaii Island). It has a land mass of 6,422.6 which makes it the fourth smallest state in the nation. Located in the middle of the Pacific Ocean, it is the most isolated population center on the earth.

The State's six main populated islands are also separated by deep ocean channels of up to 75 miles in distance. This creates a challenge, particularly in responding to emergency situations. The State's geographic isolation creates expense, difficulties and delays in obtaining necessary supplies and equipment from outside the State. These issues are exacerbated when any interruption in transpacific transportation occurs, such as labor strikes affecting the airline and ocean shipping industries.

Hawaii's surface terrain also presents challenges in a variety of ways. Because the islands were formed by volcanoes, the islands have perhaps the most diverse conditions in the world in a relatively small set of land masses. Hawaii has several mountains that are between 10,000 and 14,000 feet high from the depths of the ocean (Haleakala, Maui – 10,023; Mauna Loa, Hawaii County – 13,678; Mauna Kea, Hawaii County – 13,796). The islands also have many gulches and valleys creating an uneven terrain that makes some areas inaccessible to land-based vehicles or restricts the size and weight of vehicles that may be used to transport people and materials to sites. Providers seeking to deploy and maintain infrastructure must deal with everything from rocky, moon-like landscapes to lush sub-tropical forests to lava flow. In some rural and remote areas of the islands, providers must also overcome the lack of commercial electricity.

Even the rain water, soil, and ground itself present unique challenges in Hawaii. Hawaii's low mineral content- "soft water"- and the chemical composition of the soil in some areas create conditions that make it difficult to ground equipment. In some cases, soil conditioning is required to create appropriate grounding conditions.

While lava flows are perhaps the most spectacular and most publicized threat, there are other threats, both big and small, that create issues for designing, deploying, and maintaining a communications infrastructure. Hawaii is subject to an annual hurricane season from June to November of each year. Hurricane Iwa passed through the islands of Niihau, Kaua'i, and O'ahu with wind gusts of over 100 mph in 1982. Ten years later, 1992, hurricane Iniki, the most powerful recorded hurricane to strike the

Hawaiian Islands caused nearly \$2B in damages. It was classified as a Category 4 hurricane with winds of up to 145 mph.

Hawaii has seen large scale damage and loss of life from tsunamis, six times since 1946. Massive earthquakes in other places raise the threat of tsunamis. Most recently, a 6.7 magnitude earthquake occurred on the west coast of the Hawaiian Islands in October 2006 which caused property damage and large scale power outages. The earthquakes that occurred in Chile (2010) and Japan (2011) posed huge threats to the islands' communities.

And finally, while salt water may not have the visual impact of lava flows and tsunamis, over time, its presence results in corrosion damage to galvanized equipment in locations near the ocean. Thus, these areas generally require the use of more costly equipment fabricated from stainless steel.

3.1 Population Demographics

The total population of Hawaii is 1,360,301, including approximately 100,000 military personnel. This population is highly concentrated on the island of O'ahu, where approximately 70% of the population resides. The remaining 30% of the population is spread throughout the rest of the state. Hawaii also has a large visitor population because of its significant tourism industry. The State's four counties include:

- County of Kauai (includes the islands of Kauai and Niihau)
- City and County of Honolulu (the island of Oahu)
- County of Maui (includes the islands of Maui, Molokai, Lanai)
- County of Hawaii (the island of Hawaii)

County and island	Resident population	Land Area (square miles)	Population Density (per sq. mile)
State Total	1,360,301	6,422.63	211.8
County			
Honolulu	953,207	600.74	1,586.7
Hawaii	185,079	4,028.42	45.9
Maui (3)	154,924	1,173.51	132.0
Kauai	67,091	619.96	108.2
Island			
Oahu	953,207	597.64	1,594.9
Hawaii	185,079	4,028.42	45.9
Maui	144,444	771.99	187.1
Lanai	3,135	141.07	22.2
Molokai	7,345	260.46	28.2
Kauai	66,921	552.35	121.2
Niihau	170	67.60	2.5

3.2 Brief Overview of Public Safety Entities in the Region

Federal: As this region is a key strategic location in the Pacific, there is a large military presence representing all branches in major military bases. Additionally, because Hawaii commerce is highly dependent upon ports, there are a number of international ports throughout the state. The major public safety branches of the federal government are represented by the Department of Homeland Security/FEMA, the Coast Guard, the Federal Bureau of Investigation, Immigration, Customs and Border Patrol, and the Department of Defense, to name a few. In emergencies, there is significant interaction between and among state/county and federal entities.

State: State agencies which have significant roles in providing public safety include: the Governor's office, State of Hawaii Department of Defense includes National Guard, Office of Homeland Security and Hawaii Emergency Management Agency, Department of General Services (DAGS), State Chief Information Officer/Enterprise Technology Services, Department of Land and Natural Resources (DLNR); Department of Public Safety (DPS), Department of Health (DOH, Department of Transportation; Department of Commerce and Cultural Affairs (DCCA), Department of Business and Economic Development (DBED), Department of the Attorney General, Chair-E911 Board, Chair Region 11 700 MHz Planning Committee.

Counties: County Civil Defense-Emergency Management Agencies, County Police departments, Fire departments, Emergency Medical Services, Ocean Safety, County Departments of Transportation, County Boards of water supply.

E-911 and PSAPs: The State has a very active E911 Board with representatives from major state and county public safety agencies/entities. For the counties, representatives from the major PSAPs are included. E911 has a seat, through its chairperson, on the governing body, SIEB, to work with the state and counties to coordinate strategic public safety communications initiatives.

Public Utilities: Public utilities provide critical utility services to the public and they are key to maintaining the safety of the community during emergencies.

3.3 Adjacent regions

There are no adjacent regions to Region 11.

Section 4 – INFORMATION AND NOTIFICATION PROCESS FOR REGION 11 PLAN

The Region 11 RPC held a meeting on January 15 to elect a new Chairperson and slate of officers. The meeting was noticed through email and through the FCC Notice process. The email list was updated by the newly elected Secretary who shall maintain and update such list on behalf of the RPC. Attachment G provides the RPC meeting date and location, including attendance through VTC. Minutes are also included.

The Plan promulgated and now presented to the FCC is new. A subcommittee of public safety subject matter experts from each county and the state developed a draft plan for presentation to the membership for review and comment. The Draft plan was sent to the membership whose names appear on the updated email list; the Chair then scheduled meetings to discuss, comment and approve a final draft version for submission to the full membership. The final draft version was presented at

meetings of the RPC and newly appointed voting members named by their eligible entities. It was also shared at a meeting of the Statewide Communications Interoperability Plan (SCIP) meeting of stakeholders, briefed to the SIEB and upon its approval, the final stakeholder approved Plan was submitted to the FCC for publication of Notice and comment to obtain any final comments. All relevant comments were incorporated into the Plan upon agreement by the stakeholder members. Attachment H provides a list of individuals who participated in comments to the Plan prior to submission to the FCC for final approval. Minutes of the meetings are contained in Attachment I.

Section 5 – REGIONAL PLAN SUMMARY

The key goal of Region 11 is to demonstrate a clear Plan for administration of the interoperability channels in the State of Hawaii and provide a guide to the application process to eligible agencies/entities in this Region. It establishes guidelines and processes for deployment of interoperability functionality consistent with national and state level guidelines. The Plan also provides an equitable means of settling disputes that may arise concerning frequency allocations.

Section 6 – REGIONAL PLAN ADMINISTRATION

Upon approval of the Region 11 Plan by the FCC, the RPC will announce to the stakeholders that the 700 MHz public safety channels are available in the Region and that channels have been assigned to the Counties pursuant to consensus among the counties and the state.

Region 11 supports the National Coordination Committee (NCC) and will consider these guidelines when determining if an application submitted to the RPC meets regional planning standards. It is recommended that applicants familiarize themselves with these recommendations prior to submitting applications in Region 11.

6.1 Operations of the Regional Planning Committee

6.1.1 Introduction: Collaboration.

The State of Hawaii and the four major counties worked collaboratively to determine the allocation of general channels. The attached 700 MHz Narrowband Channel Plan for Region 11 represents agreement among the stakeholders (Attachment J). The allocation represents consideration of jurisdictional as well as geographical differences and needs as expressed by stakeholders.

6.1.2 RPC Generally.

The RPC shall conduct public meetings and publish notice of such meetings, with an agenda, as defined in the by-laws. Public meetings are open to all interested parties with time allocated for public input, as appropriate, at such meetings.

6.1.3 Task Groups.

The Chair may form task groups as identified and needed to work on specific issues. For initial planning, two task groups were formed: 1) writing/drafting group; 2) spectrum planning group. Task groups function to seek details on specific issues which may be raised at the RPC meeting; the group shall make recommendations to the Chair as to a proposed outcome. The Chair will then bring the matter back to

the full committee for a vote, if needed. Any changes to the Plan itself must be voted upon and approved by the full RPC. Task groups are open to any stakeholder who may want to participate. The Chair of the RPC shall appoint the chair of any task group created.

6.1.4 Committee Considerations for determining Spectrum Allocation

The RPC will consider the following when determining the priority of an application:

- Users involved in the protection of life and property;
- Multi-agency shared systems where multiple agencies agree to construct a common infrastructure (e.g., state, counties);
- Large agencies with multiple divisions constructing a common system for use by all (e.g., a large agency or county with multiple divisions touching public safety interoperable communications);
- Trunked use of the frequencies;
- Spectrally efficient use of frequencies (6.25 kHz equivalent operation or other technologies);
- Approved funding to construct the system using the requested 700 MHz frequencies;
- A statement of future intent by an applicant that any recently licensed channels will be replaced by a new 700 MHz system, and how such action may benefit other agencies in the Region when such channels are released back to the public safety pool.

6.1.5 Procedure for Requesting Frequency Allocation

Applicants must submit a copy of the FCC application and supporting documents to the RPC Chair. The Chair will distribute the application to the impacted agencies/entities for their review and electronic approval or disapproval. An interference map(s) *may* be needed in the application documentation. If such map(s) is required, TIA/EIA TSB 88-A (or the latest version) should be used to produce the interference map(s). Such map(s) must show all interference predicted using TSB 88-A guidelines. Any agency with co-channel or adjacent channel allotments may request field tests of signal levels to verify interference signal levels. Applicants must be prepared to conduct those field tests if a request is made and applicant shall bear the cost of such field tests. Prior to submitting an application to the FCC recognized frequency coordinator, the application will be reviewed to ensure it comports with all the elements of the Region 11 plan. Such review is *not* a review to ensure the application form meets FCC requirements for filing.

When meetings are held to review applications, the Chair of the RPC shall provide at least 10 days' Notice of such meeting to the FCC certified coordinator. Absent a protest, the RPC will approve the application and submit to the identified FCC coordinator.

6.1.6 Region 11 Administration of Reserve Channels

Region 11 utilizes the following channel plan for administration of the former Reserve Channels:

- a. Add channels:
37-38, 61-62, 117-118, 141-142, 883-884, and 939-940

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These channels, to be used as Nationwide Deployable Trunked Channels, are consistent with the NPSTC/NRPC recommendation to the FCC and use the recommended system and unit identifiers from NPSTC/NRPC.

- b. Add channels:
77-78 and 157-158

These channels to be used as 2 watt vehicular repeater frequencies (MO3). Channels will be coordinated with and specifically used for 800 MHz systems in the Region due to the necessary separation between these frequencies and those used by public safety in the 800 MHz band.

- c. Add channels:
859-860 and 923-924

These channels to be used as 2 watt non-800 MHz vehicular repeater frequencies (MO3) to be coordinated for use with other systems in the region.

The Region 11 700 MHz Plan will use the remaining channels as “floating allotments” to supplement the existing General Use allotments: 197-198, 221-222, 237-238, 277-278, 301-302, 317-318, 643-644, 683-684, 699-700, 723-724, 763-764, 779-780, 803-804, 843-844. Such use of these remaining channels will promote maximum flexibility of the use of these channels in Region 11.

Region 11 will use the same coordination protocol as described in Section 6.1.5.

6.1.7 Air to Ground Channels

The FCC redesignated 700 MHz Secondary Trunked channels 21-22, 101-102, 181-182, 261-262, 659-656, 739-740, 819-820 and 899-900, and reserved them for specific Air to Ground communications between low altitude aircraft and associated ground stations. The secondary channels are the most suitable channels for this specific Air to Ground purpose as they have no incumbents and little risk of co-channel interference since there are no current Secondary Trunked licensees.

The FCC also adopted two (2) watt ERP limit for the use of those channels in addition to restricting airborne use of these channels to altitudes below 1500 feet Above Ground Level (AGL) in order to limit the area impacted by the airborne operations. Given the proximity of these Secondary Trunking Channels to the designated interoperability channels in the 700 MHz band immediately adjacent, the FCC assigned responsibility for coordinating these channels to each state while permitting aircraft use on both the upper and lower portion of each Secondary Trunked Channel pair.

The State of Hawaii, through the SIEB, delegates responsibility for coordinating Air to Ground Channels to the Region 11 RPC (Attachment K). The State has requested, in writing to the FCC, that this responsibility be reassigned to the Region 11 RPC.

Thus, applications for such channels shall be submitted to the RPC. The RPC will review and make initial recommendations for approval or disapproval to the SIEB, as the State governance entity, for concurrence. (Attachment L List of Air to Ground Channels)

6.1.8 Adjacent Region Allocation and Coordination:

Region 11 has no adjacent regions.

Mexican Border Issues: N/A

Canadian Border Issues: N/A

6.2 Regional Plan Update

In instances where actions taken by the Region 11 RPC or the FCC necessitate a change to the Regional Plan, such changes shall be presented to and voted upon by the membership of the RPC. Notice of such changes will be accomplished through publication in state and local newspapers, identified public safety websites and other mechanisms as recommended and agreed upon by the membership. Upon agreement by the Region as to any updates that may be needed, such changes will be submitted to the FCC pursuant to Docket 02-378.

Section 7 – SYSTEM DESIGN/EFFICIENCY REQUIREMENTS

7.1 Interference Protection

The frequency allotment list is based on an assumption that systems are engineered on an interference limited basis, not a noise floor-limited basis. Agencies/entities should design their systems for maximum signal levels within their particular coverage area and minimum levels in the coverage area of other co-channel users. Coverage area is considered the geographical boundaries of the agency/entity served plus an area three to five miles beyond.

Systems should be designed for minimum signal strength of 40 dBμ in the system coverage area while minimizing signal power out of the coverage area. TIA/EIA TSB88-A (or the latest version) will be used to determine harmful interference assuming 40 dBμ, or greater, signal in all systems coverage areas. The service may require patterned antennas or extra sites on a non-interfering basis.

7.2 Spectrum Efficiency Standards

Initial allotments may be made on the basis of 12.5 KHz channels. To maximize spectrum utilization, prudent engineering practices and receivers of the highest quality must be used in all systems. Given a choice of radius in a given technology family, agencies/entities should use the units with the best specifications. This Regional plan will not protect agencies/entities from interference if their systems are under constructed (e.g., areas within the established service area having minimum signal strength below 40 dBμ), or the systems utilize low quality receivers. The applicant's implementation of prudent engineering practices is at all times encouraged by the RPC.

When applying for channels within Region 11, applicants should know the Region has discretion to enforce channel bandwidth and voice efficiency requirements.

Region 11 encourages small agencies/entities to partner with other agencies/entities in multi-agency systems as such partnering promotes spectrum efficiency and both small and large agency capacity

needs can be met. Loading criteria can also be achieved in multi-agency systems that allows greater throughput for all agencies involved.

7.3 Orphaned Channels

The narrowband pool allotments in Region 11 have a channel bandwidth of 12.5 kHz. These 12.5 kHz allotments have been characterized as “Technology Neutral” with enough flexibility to accommodate multiple technologies utilizing multiple bandwidths. If agencies/entities choose a technology that requires less than 12.5 kHz channel bandwidth for their system, there is the potential for residual or “orphaned channels”.

An orphan channel may be used at another location within the county area where it was originally approved if it meets co- and adjacent channel interference criteria. Region 11 will utilize “county areas” as guidelines for channel implementation within Region 11. The definition of “county area” in this plan is the geographical/political boundaries of a given county plus a distance of up to 10 miles outside the county.

When in the best interest of public safety communications and efficient spectrum use within the Region, the RPC shall have the authority to move orphan channel allotments, and/or co-adjacent channel allotments affected by the movement of orphan channels, within its “county areas” which is defined *supra*. Such movement will retain spectrum efficiency and/or minimize co-channel or adjacent channel interferences between existing allotments within the region utilizing disparate bandwidths and technologies.

Section 8 – ALLOCATION OF NARROWBAND “GENERAL USE” SPECTRUM

8.1 Introduction

The Region 11 RPC recommends that allotments be made on the basis of one 12.5 KHz channel for each narrowband voice or data channel request. All agencies/entities requesting spectrum during the initial filing window (see Section 10.3) will be allocated channels if the Plan requirements are met. Agencies/entities using Frequency Division Multiplexing (FDMA) are expected to maintain 12.5 KHz equivalency when developing systems.

8.2 Shared Channels

Within the recommended allotments in the “General Use” channels, the Region 11 RPC identified channels to be set aside for shared use. These shared used channels are identified by the following designations and for the purposes described below:

8.2.1 Kauai, Maui and Hawaii Share – Channel numbers 353-354, 359-360, 393-394, 399-400, 433-434, 439-440, 473-474, 479-480, 513-514, 519-520, 553-554, 559-560, 593-594, 599-600, 633-634, 639-640, 673-674, 679-680, 719-720, 759-760, 799-800, 839-840, 905-906 and 945-946 are set aside to augment the allotments for these Counties through cooperative use of these channels on a *not to interfere* basis. Use of these channels will require demonstration of non-interference with, and the concurrence of the other Counties through the RPC. Use of these shared channels should be considered in locations where terrain shielding limits the potential interference with another County’s use.

8.2.2 City and County of Honolulu, Federal, Non-governmental Organization (NGO) Share – Channel numbers 713-714, 753-754, 793-794, 829-830, 833-834, 869-870, 873-874 and 909-910 are set aside to encourage the City and County of Honolulu to form partnerships with Federal agencies and NGOs to use the City and County of Honolulu’s multi-agency public safety trunked radio system. Such entities shall have the common objectives of protection of life and property and be allowed under the rules governing eligible entities, *see 47 CFR Section 90.523*. Use of these channels will require the documentation of such agreement in the form of a Memorandum of Agreement (MOA) with the Federal and/or NGO agency(ies).

8.2.3 Hawaii County, Federal, NGO Share – Channel numbers 349-350, 389-390, 741-742 and 781-782 are set aside to encourage forming partnerships with Federal agencies and NGOs which have the common objectives of the protection of life and property and are allowed use of the County of Hawaii’s multi-agency public safety trunked radio system under *47 CFR Section 90.523*. Use of these channels will require the documentation of such agreement in the form of an MOA with the Federal and/or NGO agency(ies).

8.2.4 Kauai, Federal, NGO Share – Channel numbers 345-346, 385-386, 425-426 and 465-466 are set aside to encourage forming partnerships with Federal and NGOs with common protection of life and property objectives to participate in the use of the County of Kauai’s multi-agency public safety trunked radio system under *47 CFR Section 90.523*. Use of these channels will require documentation of such agreement in the form of an MOA with the Federal and/or NGO agency(ies).

8.2.5 Maui, Federal, NGO Share – Channel numbers 429-430, 469-470, 821-822 and 861-862 are set aside to encourage forming partnerships with Federal agencies and NGOs which have the common objectives of the protection of life and property and are allowed use of Maui County’s multi-agency public safety trunked radio system under *47 CFR Section 90.523*. Use of these channels will require the documentation of such agreement in the form of an MOA with the Federal and or NGO agency(ies).

8.3 Low Power Secondary Operations

To facilitate portable operation by any licensee and to provide channels for such operation without impacting the use of primary channels, certain low power secondary use will be permitted. Any public safety agency/entity otherwise licensed to use one or more channels under this Plan may receive authorization to license any additional channel for secondary use, subject to the following criteria:

- Operation of all such units on authorized channels shall be considered secondary to other licenses on both co-channel and adjacent channels;
- No channels on, or adjacent to, those designated in the Plan for wide area operation and/or mutual aid use will be authorized;
- Channels are authorized for use in specific areas only, such areas to be within the licensees authorized operational area;
- Maximum power is limited to 6 watts ERP;
- Use aboard aircraft is prohibited;
- Applications for channels may be submitted for consideration at any time and must be accompanied by a showing of need. The RPC may select and authorize licensing of these secondary use channels after consideration of potential interference to co-channel and

adjacent channel allotments, allocations and licensees. Authorization may be granted for use of any suitable channel, without prior allotment or allocation to the requesting agency/entity.

In the event the channels authorized for low power secondary operation are needed by others during any window for reassignment, no protection will be afforded to the licensed secondary user, and that user may be required to change frequencies or surrender licenses to prevent interference to primary use channels.

8.4 Low Power Channels

The FCC, in the 700 MHz band plan, set aside channels 1-8 paired with 961-968, channels 949-958 paired with 1909-1918 for low power use for on-scene incident response purposes using mobiles and portables subject to Commission approved regional approved Plans. Transmitter power must not exceed 2 watts (ERP).

Channels 9-12 paired with 969-972 and 959-960 paired with 1919-1920 are licensed nationwide for itinerant operation. Transmitter power must not exceed 2 watts (ERP).

These channels may operate using analog operation. On scene temporary base and mobile relay stations are allowed (to the extent FCC rules allow) an antenna height limit of 6.1 meters (20 feet) above the ground. However, users are encouraged to operate in simplex mode whenever possible. This Region 11 Plan does not limit use to only analog operations; these channels are intended for use in a wide variety of applications that may require digital modulation types.

The RPC recommends the following regarding assignments:

- Channel numbers 1-4 and 949-952 are set aside as generic channels for use by public safety agencies operating within Region 11, and the complementary channel numbers 961-964 and 1909-1912 are set aside as generic channels also for use by public safety agencies/entities including GPS differential correction telemetry for channels 961-964 and 1909-1912 likewise operating within Region 11.
- Channel numbers 5-8 are designated as Fire Protection channels for licensing and for exclusive use by the Fire Protection discipline; the complementary channel numbers 965-968 are set aside as Law Enforcement channels and for licensing and exclusive use by the Law Enforcement discipline.
- Channel numbers 955-956 are set aside as Fire Protection channels for licensing and exclusive use by the Fire Protection discipline; the complementary channel numbers 1915-1916 are set aside as Law Enforcement channels, also for licensing and exclusive use by the Law Enforcement discipline.
- Channel numbers 957-958 are set aside as Fire Protection/Law Enforcement channels for licensing and use by the Fire Protection and Law Enforcement disciplines, and the complementary channel numbers 1917-1918 are set aside as Fire Protection/Law Enforcement.

Simplex operations may occur on either the base or mobile channels. Users are cautioned to coordinate on scene use among all agencies involved. Users should license multiple channels and be prepared to operate on alternate channels at any given operational area.

8.5 Channel Loading- Recommendations

The RPC recognizes the FCC's increased focus on spectral efficiency standards versus absolute loading of each 700 MHz frequency assignment. It is also the goal of the RPC to encourage efficient utilization of each frequency channel irrespective of bandwidth; it therefore provides the following channel loading recommendations:

- Each applicant for a 700 MHz trunked system should design their system for a minimum of 70 radios, for each 12.5 kHz voice channel that will be placed in service within five (5) years of the initial plan approval date.
- Single conventional channels should be designed for a minimum load of 70 radios per 12.5 kHz channel. Mobile, portable, data, and control stations will all be considered within this count.
- Regional discretion on channel loading and bandwidth is directly proportional to channel availability and need.

8.6 Other Future Considerations

Upon review, the RPC may consider other options for optimizing spectrum, including the possibility of future broadband use. The RPC acknowledges that incentives to develop broadband applications in this band could change over time, particularly as the nationwide public safety broadband network is built out in the adjacent spectrum band, and as LTE progresses toward development of mission-critical voice capability. The RPC will monitor development of trends in broadband technology that could support proposals for flexible use of the 700 MHz narrowband spectrum; if such a proposal is determined as relevant for Region 11, the RPC would submit such proposal to the FCC for approval consideration. (see FCC 14-172 Report and Order, October 17, 2014 at Paragraph 11)

Section 9 – INTEROPERABILITY CHANNELS

9.1 Introduction

Agencies/entities ability to effectively respond to mutual aid requests directly depends on their ability to communicate with each other. Region 11 is subject to many natural disasters and mutual aid is common among agencies/entities. This Plan shall facilitate the interoperable communications necessary for effective mutual aid.

9.2 Tactical Channels

Region 11 will not set aside additional channels for interoperability use within the Region. It is anticipated the thirty-two FCC designated interoperability channels (12.5 kHz) will be sufficient to provide interoperability (voice and data) within Region 11.

All mobile and portable units operating under this Plan and utilizing 700 MHz channels *must* be programmed with the minimum number of channels required under the Hawaii State Plan (Attachment C, Hawaii Statewide Interoperability Channel Plan). The channel display on these radios shall be in accord with the NCC guidelines to have common alphanumeric nomenclature in order to avoid any misinterpretation of use within Region 11.

9.3 Deployable Systems

This Plan strongly supports use of deployable systems, both conventional and trunked. Deployable systems are prepackaged systems that can deploy to an incident by ground or air to provide additional coverage and capacity on interoperability channels. This additional coverage and capacity will minimize the expense of installing extensive fixed infrastructure and recognizes the difficulty of providing complete coverage of the region due to environmental constraints.

Agencies/entities should consider conventional and trunked deployable systems capable of operating on the interoperability tactical channels. The Region 11 RPC, in collaboration with the SIEB, will develop the operational details for deploying such systems. It is expected that the tactical channels set aside for trunked operation will be heavily used by deployable systems. Please refer to section 6.1.6 of this Plan. The RPC will use these as air to ground channels.

9.4 Monitoring of Calling Channels

The 700 MHz licensees shall monitor interoperable calling channels to the extent that calling channels on the air are monitored to ensure field unit calls receive a response.

Section 10 – APPLICANT REQUIREMENTS AND EVALUATION

10.1 Introduction

The applicant evaluation criteria, as established in the NCC process and as further defined in this Plan, will be followed. In cases where specific frequency allotments are required by numerous applicants at the same time, the applicant evaluation matrix point system will be used to determine the successful applicant. In all cases, coverage area, technical requirements and channel loading criteria will be considered.

10.2 Generally

Each applicant for a trunked system should review and follow the recommendations provided in this Plan under Paragraph 8.4.

10.3 Application Filing windows

For consideration by the RPC at a pending scheduled meeting, entities/agencies should file their applications no less than two (2) weeks prior to that scheduled RPC meeting. Applications should be sent to the Chair of the RPC.

10.4 Application Requirements

All applicants must include the following in their application:

- FCC Form 601 Form(s);
- Description of the future growth of the system(s) for all agencies/entities which are a part of the system, including how the system will be loaded and what equipment type and quantity is planned for purchase to load the system;
- Description of the budget commitment for the proposed system from the requesting agency/entity;
- State of Compliance from applicant's agency/entity that the applicant will conform to the interoperability requirements of the Plan;
- Documentation that identifies radio channels the agency/entity will abandon, using the FCC licensing processes, once full beneficial system use of allocated 700 MHz channels is in place; such documentation is intended for informational use only to the possible benefit of other agencies/entities with Region 11;
- Any relevant documentation that will assist in the clear evaluation of the application using the Point Matrix system identified below;

Following the review and approval of the application by the RPC, the Chair will then forward the application to the FCC approved frequency coordinator (see 47 CFR 90.175). Upon approval by the coordinator the Applicant may submit to the FCC for frequency assignment. If any conflicts are encountered during the licensing process, following RPC approval, that application will be returned to the RPC for resolution with the applicant.

10.4.1 Exceptions: Exceptions to the process described may apply upon documentation of unique circumstances by the applicant and after review and approval by the RPC. Deviations from the FCC rules will not be considered unless a fully justified waiver request has been submitted to and approved by the FCC. If approved, applicant shall forward such request and FCC approval (or disapproval) to the RPC.

10.4.2 Timing for Evaluation of Applications: The RPC will evaluate and process applications within 60 days following receipt of an application.

10.5 Evaluation Matrix Point System

An Application will be rated on its proposed *actual* ability to communicate with different levels of government and services during times of emergency. When determining the priority of competing applications from entities in the Region eligible to hold authorizations in the 700 MHz frequency band, the RPC will use the following point system for evaluation:

Users involved in the protection of life and property.	50 points
Multi-agency shared systems where multiple agencies agree to construct a common infrastructure. <ul style="list-style-type: none">• The evaluation of the proposed system will only evaluate the efficiency of the system for which the application is being submitted against the areas required for communication support; such evaluation will be based on system user requirements or	50 points

other agency/entity systems licensed or for which it applied.	
Large agencies with multiple divisions constructing a common system for use by all (e.g., a large agency or countywide system with multiple divisions touching public safety interoperable communications).	30 points
Trunked use of the frequencies.	30 points
Spectrally efficient use of frequencies (6.25 kHz equivalent operation or other technologies). <ul style="list-style-type: none"> The applicant will be scored on the degree of spectrum efficient technology demonstrated by the proposed system. A trunked system will be considered spectrum efficient technology as well as any technological systems feature designed to enhance the efficiency of the system and improve the efficient use of spectrum. 	20 points
Approved funding to construct the system using the requested 700 MHz frequencies.	20 points
A statement of future intent by an applicant that any recently licensed channels will be replaced by a new 700 MHz system, and how such action may benefit other agencies in the Region when such channels are released back to the public safety pool. <ul style="list-style-type: none"> Applicant's submitted documentation must include commitment from the appropriate governing entity that demonstrates the financial commitment to complete the project; such documentation may include, but not restricted to, resolutions, legislation or other such official support. 	20 points

The applications receiving the highest point total will receive approval for the channels.

The matrix is provided to enable consistency in the evaluation of plans and applications. Variations within the parameters of this Plan and applications and/or submitted plans from applicants may require more extensive evaluation. It is the duty of the RPC to evaluate each application on its own merit.

10.6 Implementation Oversight

After allocation of channels, the agency/entity must release a system RFP and sign a contract with its selected vendor within three (3) years of the channel allocation. Pursuant to the Plan, an agency/entity may request a request for extension to the RPC which may more may not be approved. If the agency/entity does not implement in the timetable specified in its plan, that agency/entity channel plan allocation may be removed from the allotment list.

System implementation will be monitored by the RPC. The RPC will ask that each approved applicant provide periodic updates as to the status of implementation. Such reports back may be once per year or more often if the project is not moving forward. Agreement by the applicant to providing Reports to the RPC will be a condition of approval by the RPC, which is the body responsible for determining how much progress is being made on the implementation plan for an approved system. If progress is timely made and the system is implemented on schedule, the system can be determined "complete." If progress is not made, the licensee will be advised in writing that it is in default of its submitted plan as presented and approved by the RPC and there may be consequences as a result of the lack of progress. The RPC will inform the FCC frequency coordinator of the situation.

The RPC will continue to monitor the progress of any system determined in default and if progress is still not being made, the RPC may inform the FCC of the lack of progress. The licensee in default can appeal

this action or can allow the license to be withdrawn. If the authorized frequencies are withdrawn, those frequencies will be returned to the frequency allotment pool for future use.

10.7 Extension of time for implementation

An agency/entity may file a request with the RPC Chair for an extension of time to implement the system if an RFP has not been issued and a contract signed. Should system implementation not begin within three (3) years from the time of allocation and grant of license, the channels will be returned to the Region for consideration of re-allotment to other applicants. A one (1) year extension for implementation may be supported by the RPC if it can be shown that circumstances beyond the control of the applicant occurred. The applicant is responsible for contacting the FCC to request an extension of time for implementation from the time of the original approval. Applicants must be acting to the extent of their power and authority to make such request.

The RPC Chair will Notice such request and set a date for the full committee to vote on the request. If no request for extension is received or the Committee votes not to extend the implementation deadline, the Chair will Notice this action and set a filing window to give other agencies/entities an opportunity to request an allotment of that spectrum.

Section 11 – INTRA-REGIONAL DISPUTE RESOLUTION

The RPC has delegated authority from the SIEB to evaluate applications for public safety uses of the spectrum allocated under the FCC. Appeals from decisions made with respect to a variety of matters overseen by the RPC will be heard.

To ensure the appeal process is open and understandable to the public, the RPC developed the procedure. Those involved in the appeal process can expect the RPC and its members to follow the procedures outlines in this Plan. Where a matter arises during the course of an appeal that is not dealt with in this document, the RPC will take whatever steps necessary to enable a fair, effective and complete adjudication of the appeal. As the RPC gains experience, it will refine and, if necessary, changes its policies. Any changes made to the procedure will require a modification to the Plan and those changes will be noticed to the public. The RPC will make every effort to process appeals in a timely fashion and issue decisions expeditiously. The formal requirements of the appeal process are set out below.

11.1 Appeal Subcommittee Appointed

11.1.1 Members:

The Chair may organize subcommittees as needed. The Appeals subcommittee is one which may be needed. Where an appeal is scheduled to be heard by this Subcommittee, the chair of the subcommittee will be determined as follows:

- a) If the RPC chair is on the subcommittee, s/he shall be chair;
- b) If the RPC chair is not on the subcommittee, but the vice-chair is, the vice-chair will be the chair of this subcommittee;
- c) If neither the Chair or vice-chair is on the subcommittee, the RPC Chair will designate one of the subcommittee members to be the chair.

11.1.2 Withdrawal or Disqualification of a Subcommittee Member on grounds of bias

If the Subcommittee chair or a member becomes aware of any facts that would lead an informed person, viewing the matter reasonably and practically, to conclude that a member, whether consciously or unconsciously, would not decide a matter fairly, the member will be prohibited from conducting the appeal unless consent is obtained from all parties to continue. Additionally, any party to an appeal may challenge a member on the basis of real or a reasonable apprehension of bias.

11.2 Correspondence with the Subcommittee

To ensure an open and fair appeal process for all participants, any correspondence to the subcommittee must be sent to the subcommittee chair and copied to all other subcommittee members and other parties to the appeal, if applicable. Subcommittee members will not contact a party on any matter relevant to the merits of the appeal unless that member puts all other parties on notice and gives them opportunity to participate. The appeal process is public in nature and all meetings regarding the appeal will be open to the public.

11.3 The Appeal Process

11.3.1 What can be appealed

The subcommittee hears appeals from a determination or allocation by the RPC and shall include the following: number of channels assigned, ranking in the assignment matrix, interference, or any other criteria the region shall establish.

11.3.2 Who can appeal

An official of the entity/agency who filed the original application to the RPC must be the person who files the appeal on behalf of the agency/entity.

11.3.3 How to appeal

A notice of appeal must be served upon the RPC in accordance with the filing window policy in this Plan. The notice of appeal may be delivered by mail, courier, email, or hand delivered to the Chair and Vice Chair of the RPC. Appeal must be on the appealing entity's official letterhead and include the originator's signature. The Chair or Vice Chair will, in turn, transmit notice of appeal to the RPC members within 10 working days of receipt.

To be accepted for consideration of appeal, the Notice of Appeal **must** include:

1. The name and address of the appellant;
2. The name of the person, if any, making the request for an appeal on behalf of the appellant;
3. The address for service of the appellant;
4. The grounds for appeal (a detailed explanation of the appellant's objections to the determination—describe errors in the decision);
5. A description of the relief requested (what the appellant wants the RPC to do at the end of the appeal);
6. The signature of the appellant or the appellant's representative.

11.3.4 Time limit for filing the appeal

To appeal a determination or allocation in which the entity/agency questions the determination, the agency/entity must file a notice of appeal **within twenty-one (21) calendar days** after receiving the decision. If a notice of appeal is not filed with the RPC within the time required, the right to appeal is lost. However, the RPC is allowed, with a determination of good cause, to extend the deadline.

11.3.5 Extension of time to appeal

The RPC has the discretion to extend the time to appeal either before or after the twenty-one (21) calendar day deadline. A request for an extension should be made to the RPC, in writing, and include the reasons for the delay in filing the notice of appeal and any other reasons which the requester believes support the granting of an extension of time to file the appeal. A request for an extension should accompany the notice of appeal.

In deciding whether to grant an extension, the RPC will consider whether fairness requires an extension. The RPC will take into account the length of the delay, the adequacy of the reasons for the delay, the prejudice to those affected by the delay and any impacts that may result from an extension. Other factors not identified could be relevant depending on the circumstances of the particular case.

11.3.6 Rejection of a notice to appeal

The RPC may reject a notice of appeal if:

- a) It is determined that the appellant does not have standing to appeal; or
- b) The RPC does not have jurisdiction over the subject matter or the remedy sought.

Before a notice of appeal is rejected, the RPC will inform the appellant, in writing, of the decision. The RPC will provide its reasons for the rejection and give the appellant twenty-one (21) calendar day opportunity to make submissions. Any potential parties affected by the appeal will also be provided an opportunity to respond during this timeframe.

11.3.7 Adding parties to the appeal

The RPC has the discretion to add any other person or entity that may be affected by the appeal as a party to the appeal. Anyone wanting to obtain party status should make a written request to the RPC as early as possible. The written request must be submitted to the RPC on official letterhead of the filing agency in accord with the filing window described in this Plan and must contain the following information:

- a) The name, address, telephone number and email address of the person submitting the request;
- b) A detailed description of how the person is affected by the notice of appeal;
- c) The reasons why the person should be included in the appeal; and
- d) The signature of the person submitting the request.

11.3.8 Type of appeal

An appeal will be conducted by way of written submissions and oral hearing. The Subcommittee will normally conduct an oral hearing as part of the normally scheduled Region 11 RPC meeting.

11.3.9 Notification of expert evidence

Any party that intends to present expert evidence at a hearing will be required to provide the Subcommittee, and all other parties to the appeal, with reasonable advance notice that an expert will be called to give an opinion. The notice should include a brief statement of the expert's qualifications and areas of expertise.

If a party intends to produce at a hearing, a written statement or report prepared by an expert, a copy of the statement or report should be provided to the Subcommittee and all parties to the appeal within a reasonable time before the statement or report is given in evidence. Unless there are compelling reasons for later admission, expert reports should be distributed twenty-one (21) calendar days prior to the hearing date.

11.3.10 Documents

If a party will be referring to a document that was not provided to the Subcommittee and all parties prior to the hearing, sufficient copies of the document(s) must be brought to the hearing for distribution to the Subcommittee and all other parties.

11.4 Appealing the Appeals Subcommittee's Decision

If a party is not satisfied with the decision of the Appeal Subcommittee, he or she can appeal that decision directly to the FCC.

Section 12 – FUTURE PLANNING

12.1 Database Maintenance

12.1a Since each county has been granted an allocation of general use frequencies, it is the responsibility of each county representative who serves on the RPC to track used channels and provide an annual report of the channels used to the Chair of the RPC. The Chair shall then update the SIEB. Such report will be due no later than January 31 of each new year. If the report is not filed in a timely manner, the SIEB shall inform the Director or Mayor who oversees such entity. That individual shall provide their representative 10 days to comply.

State and Counties representatives shall track such frequencies in an excel worksheet in a form and/or format prescribed by the RPC. Such information is required to be maintained by each county's representative and be available to the Chair of the RPC and SIEB.

12.1 b Based upon the recommendation of the voting members, after exploring the use of alternative databases for use by Region 11, the Region will use the CASM database, rather than the excel worksheet referenced in paragraph 12.1a. CASM will document the Region 11 use in the 700 MHz narrowband public safety band (769-775 MHz and 799-805 MHz). This

database will contain frequency availability in Region 11 and can be used to view pending allotments for the Region.

The FCC's designated public safety frequency advisors may use the CASM database during the application process (pre-coordination). Frequency advisors, as well as RPCs, are required to maintain the CASM or other database as the applications are processed and granted by the Commission.

12.2 How will Region Plan for the Future

Region 11 RPC collaborates with its stakeholders to determine wherein all its plan documents, by-laws, meeting schedules, meeting minutes and application filing procedures will be maintained. The RPC anticipates there may be two types of Plan modifications: administrative changes that do not alter spectrum allocations in the Plan, and spectrum changes that do alter spectrum allocations in the Plan. Each of these types of changes require different processes.

12.3 Administrative Plan Changes

As the RPC evolves, it may need to make changes to the Plan or bylaws of the organization that are purely administrative in nature and do not alter spectrum allocations. Examples include changes in officers, changes in meetings schedules, among other issues.

Administrative changes to the Plan or bylaws will be offered to the RPC at a properly scheduled meeting and adopted at that meeting, if possible. At the will of the RPC, the change may be held over for subsequent meetings to allow further information to be collected or further debate to occur. Once the change is adopted by the RPC, the amended Plan or bylaws will be filed with the FCC for formal ratification.

12.4 Spectrum Allocation Changes

From time to time, the RPC may need to make changes to the Plan that alters the initial allocation of channels. For example, situations where one county area has fully exhausted its initial allocation and needs further spectrum to meet public safety needs and neighboring jurisdictions have demonstrated no interest to plan for or fund use of the spectrum.

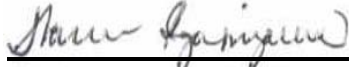
Changes of this nature will be offered to the RPC at a properly scheduled meeting and discussed and debated at that meeting and at least one subsequent meeting. Once the change is approved by the RPC, notification of the change will be sent to the SIEB and state and county partners for coordination and concurrence. Comments from agencies/entities will be requested to provide comments and concerns, or consent, within 45 calendar days of receiving notice of the change.

Once comments or consent is received, or following the 45 calendar day comment period, the RPC will again consider the changes at the next scheduled meeting, incorporate any further changes needed, and vote to approve the change and submit it to the FCC for ratification.

Section 13 – CERTIFICATION

Public Safety 700 MHz Communications Plan – Region 11

I hereby certify that all planning committee meetings, including subcommittee or executive committee meetings were open to the public. A summary of the deliberations of the Committee pursuant to adopting this Plan can be found in Attachment I, Meeting attendance, agendas, and other events.



Warren Izumigawa,
Chairperson, Region 11 RPC

ATTACHMENT A
Draft Channel Plan Working Group

ATTACHMENT A

Region 11 RPC Working Group Members

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GENERAL DESCRIPTION OF HOW ELIGIBLE ENTITIES PARTICIPATED IN THE PLANNING PROCESS

Overview:

This group of subject matter experts identified in Attachment A represent eligible State and County jurisdictions within the Region. Members participated either by telephone or in person to develop the Draft 700 MHz Channel Plan for the State of Hawaii.

Channel Plan:

As described by the working group, the Channel plan seeks to address several concerns:

- Ensure equitable distribution of channels for each of the four (4) Counties
- Ensure the City and County of Honolulu receives a large allocation
- Ensure the Counties of Hawaii, Kauai and Maui have an adequate allocation
- o That there exists equal amounts of exclusive use channels
- o That there shall be shared channels with use to be agreed upon by the Counties.

The 616 General Use Channels are divided as follows:

- **City and County of Honolulu**
 - o Allocated 224 exclusive use channels (36.36% of total available)
 - o Allocated an additional 32 channels for use when partnerships with Federal and NGO users are formed (5.19%) and eligibility is met
- **Hawaii County:**
 - o Allocated 96 exclusive use channels (15.58%)
 - o Allocated an additional 8 channels for use when partnerships with Federal and NGO users are formed (1.29%) and eligibility is met
- **Kauai County:**
 - o Allocated 96 exclusive use channels (15.58%)
 - o Allocated an additional 8 channels for use when partnerships with Federal and NGO users are formed (1.29%) and eligibility is met
- **Maui County:**
 - o Allocated 96 exclusive use channels (15.58%)
 - o Allocated an additional 8 channels for use when partnerships with Federal and NGO users are formed (1.29%) and eligibility is met
- **Hawaii, Kauai and Maui Counties** share an additional 48 channels (7.79%) taken from their lines in the channel matrix. The use of these channels will be negotiated among the three (3) Counties.

Draft Written Plan:

The Notice to all eligible members for review and comment of the Draft Plan was published and sent to known members at the direction of the Chair. As described above, the draft technical allocation of General Use channels was developed by consensus among all the counties with agreement by the State (attachment J).

The Statewide Interoperability Executive Board (SIEB) Chairperson asked the SWIC to work with the RPC to create the written portion of the Plan upon which the subject matter experts could respond. In first drafts, active participants included the City and County of Honolulu, the State of Hawaii Office of Enterprise Technology Services (ETS), the County of Maui, the County of Kaua'i and the County of Hawaii. Upon agreement, the group met in person on October 15, 2015 to go through the draft, discuss and make edits. Once the recommended edits were made by the SWIC, the draft document was again sent to subject matter experts for comments and edits before being sent to the full membership. The final Draft of the Plan was accepted by the Chair and Noticed publicly 60 days preceding the meetings to review the draft Plan.

The Chair also formed a working group to review and update the By-Laws of the Region 11 RPC. That draft was reviewed and discussed, edited and then approved by the voting members at a meeting prior to the discussion of the Draft Plan. The by-laws working group included the Chair and Maui County representative with draft written by the SWIC.

ATTACHMENT B
Statewide Interoperability Executive Board (SIEB)
Membership List

STATEWIDE INTEROPERABILITY EXECUTIVE BOARD

MEMBERSHIP ROSTER

2016

ORGANIZATION	MEMBER	REPRESENTATIVE
Office of the Governor	Chief of Staff	Deputy Chief of Staff
Department of Defense	Adjutant General	
Enterprise Technology Services	State CIO	
Dept. Land & Natural Resources	Director	
Dept. Public Safety	Director	Deputy Director
Department of Health	Director	Deputy
Dept. of Transportation	Director	Deputy
Dept. Commerce & Consumer Affairs	Director	Deputy
Dept. Accounting & General Services	Comptroller	
Attorney General's Office	Attorney General	
Office of Mayor C&C Honolulu	Mayor	Deputy A.G.
Office of Mayor County of Hawai'i	Mayor	Chief of Staff
Office of Mayor County of Maui	Mayor	Managing Director, CIO
Office of Mayor County of Kaua'i	Mayor	Managing Director
Fire Chiefs Association	President	Managing Director
E-911 Board	Chairperson	
Region 11 700 Mhz Channel Plan Committee	Chairperson	Executive Director
Statewide Interoperability Coordinator (SWIC)		
DOD Office of Homeland Security	Administrator	

ATTACHMENT C

Region 11 Hawaii Statewide Interoperability Channels



STATE OF HAWAI'I
Information and Communications Services Division

Category	Radio	Title	Hawai'i Statewide Interoperability Channel Plan
Document:	ICSD-10.R01	Revision:	2011.03.01
Posted URL:	http://icsd.higov.net/policies-procedures		
Status	Adopted	Revised on:	March 1, 2011
Authority:	See http://icsd.higov.net/policies-procedures/governing-statutes	Exceptions:	Temporary Allowed
Applicability	<input checked="" type="checkbox"/> State Government Agencies <input checked="" type="checkbox"/> All Policy <input type="checkbox"/> Excluding Not Applicable <input type="checkbox"/> Including: Not Applicable <input checked="" type="checkbox"/> State Funded Entities Policy <input checked="" type="checkbox"/> Other: All others allowed on State Channels Policy		

Hawai'i Statewide Interoperability Channel Plan

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I. PURPOSE

Public Safety Interoperability Channels¹: 150 MHz – 869 MHz

Developed with assistance of the Hawai‘i Statewide Communications Interoperability Plan (SCIP) Committee.²

This Channel Plan describes conditions and guidelines for use of FCC designated and state-licensed interoperability channels by various Responsible Organizations:

- Local government jurisdictions and their associated organizations
- State agencies in Hawai‘i and their associated organizations
- Federal agency local units in Hawai‘i and their associated organizations
- Private sector emergency response organizations licensed or otherwise entitled to operate in the Public Safety Pool as defined in Part 90 of the FCC Rules (sections 90.15-90.20) and those defined as non-governmental organizations (NGOs) in the Hawai‘i Statewide Communications Interoperability Plan (SCIP)

The State of Hawai‘i Department of Accounting and General Services (DAGS) has notified or will notify Responsible Organizations in writing that it has conditionally extended privileges to them for the use of frequencies included in the licenses specified in this plan. This satisfies Federal Communications Commission Part 90 rules for extending license privileges to others by agreement.

These licenses provide for:

- Operation of VHF, UHF, 700 MHz band, and 800 MHz band radio equipment on interoperability channels within Hawai‘i.
- Operation of mobile, portable, temporary base, temporary repeater/mobile relay and control station (6.1 meter rule applies) radios only.
- Operation of permanently installed repeaters (aka mobile relays) and fixed base stations, such as dispatch points, PSAP’s, offices, etc... with the above radios. **Any of these permanently installed radios must be separately licensed by the operating organization.**

¹ As designated by the FCC or licensed by the State of Hawai‘i.

² And thanks to the Texas Statewide Interoperability Executive Committee for providing the excellent template that was used as a basis for this document.

The State of Hawai‘i has acquired the following licenses for interoperability purposes in Hawai‘i:

Channel Band	FCC License
VHF (150-170 MHz) Narrowband	WQMM331
UHF (450 to 470 MHz) Narrowband	WQMM356
800 MHz	WQMM833
700 MHz	None ³

Responsible Organizations that have had the license privileges detailed in this Channel Plan extended to them may sub-assign the privileges to other entities. Any entity accepting such a sub-assignment must be listed in at least one of the Regional Tactical Interoperable Communications Plans (TIC Plans). The Hawai‘i, Maui, O‘ahu, and Kaua‘i Regional Planning Zones (RPZ) have developed TIC Plans to coordinate interoperable communications in their regions. That sub-assignment will only apply to the area of that RPZ. If an entity needs to operate in multiple RPZs they will need other sub-assignments or a statewide assignment from the State. When the State issues statewide assignments and/or special assignments, all RPZ coordinators will be notified. The entity will be directed to coordinate with the RPZs on the operations and use in each RPZ. Any sub-assignment issued by the Responsible Organization must be in writing (e-mail is acceptable) to a specific entity and a copy of that written document must be provided to the State of Hawai‘i Department of Accounting and General Services. A sub-assignment will not be considered valid until it is recorded by DAGS and such recording is acknowledged to the original Responsible Organization. The Responsible Organization will ensure that the sub-assigned entity is provided a copy of this channel plan and understands that it is responsible for adherence to it. The sub-assignment must include the number of each type of radio the entity will be allowed to use under this channel plan. DAGS will use these numbers to ensure that the FCC licenses remain up to date.

Note that federal government agencies do not normally use the frequencies associated with this channel plan. Many federal agencies are a vital part of the public safety community in Hawai‘i; therefore they may have license privileges extended to them in accordance with 47 CFR 2.102 (c) & 2.103 and Part 7.12 of the NTIA Manual.

Should a Responsible Organization elect to no longer participate in the use of these interoperability channels, notice shall be given by mail to: State of Hawai‘i Department of Accounting and General Services; Information and Communications Services Division; P.O. Box 119; Honolulu, HI 96810-0119.

³ 700 MHz channels referenced in this plan are all national channels and need no license for mobile, portable, temporary base, temporary repeater/mobile relay or control station radios used by authorized entities.

II. SCOPE

Governance

In 2007 the Director of Hawai'i State Civil Defense stood up a SCIP committee under the governance of the Hawai'i Wireless Interoperability Network (HWIN) Executive Committee to develop and maintain the statewide strategic plan to enhance statewide voice and data interoperability.

SCIP Representation:

- Federal Department of Defense's (DOD) PACOM designee
- Federal Department of Homeland Security's (DHS) (United States Coast Guard District Fourteen) designee
- State Civil Defense Telecommunications Manager
- State Department of Accounting and General Services (DAGS) designee
- Hawai'i National Guard designee
- Hawai'i County regional coordinator
- Maui County regional coordinator
- Kaua'i County regional coordinator
- City and County of Honolulu regional coordinator
- Non-government agency representative

A key responsibility of the SCIP committee is to establish interoperability standards and agreements. The Hawai'i Statewide Interoperability Channel Plan provides an essential standard for interoperable radio communications using VHF, UHF, 700 MHz, and 800 MHz radio equipment for interagency coordination, en-route travel, or on-incident communications.

III. TERMS AND DEFINITIONS

CAI or Common Air Interface – CAI is the part of the P25 standard used to specify the type of digital radio signals transmitted by P25 compliant radios.

Control Station – In this plan a control station is a fixed radio used to transmit to mobile radios only through a repeater. The FCC Station Class Code is FX1.

Channel – A frequency or pair of frequencies (transmit and receive). A channel is not a talk-group. Operating on a single channel usually implies conventional operation. Trunking radio sites use multiple channels and assign active channels to talk groups on an as needed basis.

CTCSS or Continuous Toned-Coded Squelch System – On analog radio systems a CTCSS tone is used to allow different groups to share the same channel by only passing transmissions with the correct tone to the user’s receiver. Also known as tone squelch, CG (Channel Guard), or marketed by Motorola as PL (Private Line) codes. CDCSS or DCS refers to Digital Coded Squelch, which is similar to CTCSS in function, but utilizes digital tones (also marketed by Motorola as DPL codes).

DAGS or Department of Accounting and General Services – The Department of the State of Hawai‘i government that maintains this plan.

Direct – A direct radio to radio conversation does not use a repeater. The transmit and receive signal use the same frequency, often the repeater transmit (or output) side of the channel pair. This is also referred to as a simplex channel, or a talk-around channel.

Frequency – The FCC assigns all frequencies used in this plan. Each channel in this plan is assigned at least one distinct frequency.

FCC or Federal Communications Commission – The FCC issues all state and local licenses for use of radio frequencies in this plan. The NTIA regulates the use of frequencies for military and federal agency use. No NTIA frequencies are included in this plan.

HWIN or Hawai‘i Wireless Interoperability Network – An informal committee representing all the local, state and federal government agencies in the state. The HWIN acts as the overall governance body responsible for interoperable communications in Hawai‘i.

ICS or Incident Command System – All jurisdictions in Hawai‘i use the national ICS to manage events and incidents. The ICS is a component of the NIMS.

ICSD or Information and Communications Services Division – The specific division of the DAGS that maintains this plan.

Must-carry – All jurisdictions in Hawai‘i have agreed that in order to conduct interoperable communications all public safety radio users need a common set of channels. In the VHF, UHF and 800 MHz bands this plan designates those channels. Any public safety user in Hawai‘i with a radio in any of these bands “Must-carry” these frequencies in that band on their radios.

NAC or Network Access Code – On digital radio systems a NAC is used to allow different groups to share the same channel (in a manner similar to a CTCSS or CDCSS tone in an analog system) and to control access to trunking system resources.

Narrowband – For VHF and UHF frequency bands in this plan, narrowband operation implies that the signal occupies a bandwidth less than or equal to 12.5 kHz. No 6.25 kHz channels (the future narrowband proposal) are used in this plan.

NGO or Non-Governmental Organization – A private entity with a public safety or disaster response/recovery role defined in national, state or RPZ plans.

NIMS or National Incident Management System – The State of Hawai‘i and each of its four counties have adopted and use NIMS for emergency response operations.

NPSTC or National Public Safety Telecommunications Council – A non-governmental body comprised of numerous organizations working to improve public safety communications. NPSTC has proposed a naming standard for national interoperability frequencies. Hawai‘i has not agreed to adopt this standard.

NTIA – National Telecommunications and Information Administration

P25 or Project 25 – Project 25 refers to a suite of standards for digital radio communications for use by federal, state and local public safety agencies in the U.S. to enable them to communicate with other agencies and mutual aid response teams in emergencies.

Repeater – In this plan a repeater is used to relay transmissions from one mobile radio to another. The official FCC name for this type of repeater is a Mobile Relay. FCC Station Class Codes for the types of repeaters in this plan are FB2 and FB2T.

RPZ or Regional Planning Zone – There are four RPZs in Hawai‘i: Hawai‘i, Kaua‘i, Maui and O‘ahu.

SCIP or Statewide Communications Interoperability Plan – The Hawai‘i SCIP committee acts as the interoperability governance body for public safety organizations throughout the state. The SCIP committee is organized under the HWIN.

Station Class – The FCC licenses transmitter frequencies based on an FCC Station Class. Station Classes associated with this plan:

FB: Base	FBT: Base – Temporary
FB2: Mobile Relay (fixed repeater)	FB2T: Mobile Relay – Temporary
FX1: Control	
MO: Mobile (portables and mobiles)	
MO3: Mobile/Vehicular Repeater	

STR or Strategic Reserve – Using federal grant funds, the State of Hawai‘i has established an STR of cache radios for major incidents. This STR includes the TRIC packages.

Subscriber Radio – A radio carried by a subscriber to a system. Generally this refers to mobile or portable radios.

Talk Group – An assigned “channel-like” or pseudo channel in a trunked radio system. A talk group does not have a permanent frequency, but uses one of a set of frequencies assigned to the trunked system and selected for use by the trunking system controller as a call is initiated. A talk group is not a channel.

TIC Plan – Tactical Interoperable Communications Plan, sometimes referred to as a TICP. Each RPZ has its own TIC Plan.

TRIC or Transportable Repeater for Interoperable Communications – The State and counties have acquired TRIC packages to facilitate cross-band communications using the channels in this plan. The TRIC packages are part of Hawai‘i’s strategic reserve (STR).

Wideband – For VHF and UHF frequency bands in this plan, wideband is a frequency bandwidth greater than 12.5 kHz.

UHF or Ultra High Frequency – In this plan UHF frequencies are between 450 and 470 MHz.

VHF or Very High Frequency – In this plan VHF frequencies are between 150 and 174 MHz.

700 MHz – In this plan 700 MHz frequencies are between 769 and 805 MHz.

800 MHz – In this plan 800 MHz frequencies are between 806 and 869 MHz.

IV. POLICY

Any State of Hawai‘i public safety agency using radios will implement this plan. By accepting the license privileges associated with the ***Hawai‘i Statewide Interoperability Channel Plan***, each Responsible Organization agrees to abide by the conditions and operating procedures in this plan.

V. STANDARDS

Background

Narrowbanding Mandate

Nation-wide, public safety communication is in a period of great change driven by FCC regulatory changes, by new technology, and by federal requirements.

Long-used VHF and UHF wideband radio channels with 15 / 25 kHz spacing are being replaced with narrowband radio channels (less than 12.5 kHz bandwidth). This will create more communications channels for public safety users. Unfortunately, the new narrowband channels are fitted within and between the old wideband channels, which will result in interference

between wideband and narrowband users. This Plan does not consider any use of wideband channels below 512 MHz⁴; however the FCC licenses may allow some use until 2013.

Generally, radios manufactured after 2000 are capable of operation on both wideband and narrowband channels. Due to interference, narrowband channels cannot be used effectively if a wideband co-channel or a wideband adjacent channel is being used within the operational range of either user.

The Federal Communications Commission has established a deadline for wideband system conversion to narrowband by January 1, 2013, even though many wideband licenses expire after this date. After January 1, 2013, all wideband operation below 512 MHz must cease (with very few exceptions, which do not generally affect any users in Hawai‘i). This plan addresses these problems by only allowing use of narrowband interoperability channels below 512 MHz.

P25 or Project 25

Both wideband and narrowband communications radios have traditionally used analog modulation to convey voice. Beginning in 2005, equipment capable of either analog or digital modulation began to become widely available, most built to be compliant with the Project 25 specifications (often designated "P25").

There is currently no regulatory requirement or deadline to change from analog modulation to digital modulation on VHF, UHF, and 800 MHz bands. Therefore, this plan presumes that some public safety users may not immediately purchase digital-capable radio equipment, and for that reason all interoperability channels (except 700 MHz) are defined to use analog modulation.

The Statewide Communications Interoperability Plan committee anticipates that all federal grants will soon require that grant funds be spent only for P25 compliant digital-capable equipment and advises all organizations to purchase P25 compliant equipment. At some point the SCIP committee will most likely require that all communications using interoperability channels in Hawai‘i must use compliant P25 Phase 1 (CAI) digital modulation. Organizations are urged to plan accordingly.

Data

At the time of issue, there are no interoperable data standards established in the State of Hawai‘i. As data standards mature, this document will add them.

⁴ There are two exceptions in the VHF band: VINT1 in Hawai‘i County, and VHF COM on O‘ahu. Details are in the Specific Guidelines – VHF 150 MHz Narrowband Channels section.

Channel Naming

Hurricane Katrina re-emphasized the need for common interoperability channels in public safety radios. Also highlighted was the need for public safety radio users to have common labels for these channels. Various common naming plans have been drafted for use in all jurisdictions within the United States. The names from some of these drafts are reflected in this document. Where needed, a crosswalk table of Hawai'i channel names to national names has been included.

General Conditions for Use of State Licensed Interoperability Channels

By accepting the license privileges associated with the *Hawai'i Statewide Interoperability Channel Plan*, each Responsible Organization agrees to abide by the following general conditions:

Operational

Mobile, portable, temporary base, temporary repeater/mobile relay, and control station transmitters will be configured with the appropriate Must-Carry channels (i.e. in-band interoperability frequencies) and CTCSS tones or NAC codes as found in the Hawai'i Statewide Interoperability Channel Plan. This means that, as a minimum, the Must-Carry channels will be added to the day-to-day subscriber radios used by each entity.⁵

Interoperability frequencies will be used for their intended purpose of coordination between response agencies and resources. Such coordination may occur during interagency operations, en-route travel, or on-incident.

The interoperability channels are not to be used for routine dispatch operations, but may be used by dispatchers for communications with personnel in the field, in accordance with RPZ and local policies and procedures. The interoperability tactical channels may be used for day-to-day emergency operations in the absence of higher priority events.

Use of the interoperability channels shall be prioritized as follows:

1. Emergency or urgent operation involving imminent danger to life or property
2. Disaster or extreme emergency operation requiring extensive interoperability and inter-agency communications
3. Special events, generally of a pre-planned nature
4. Joint training exercises

⁵ Some systems may be limited in channel capacity. In this case the entity will not be required to program all the Must-Carry channels in every radio.

5. Inter-agency and en-route communications in accordance with RPZ and local policies and procedures.
6. Day-to-day tactical communications on scene

Use of the interoperability channels for on-incident communications shall be in accordance with an Incident Communications Plan (ICS-205) established by the on-scene incident commander. The controlling agency for an incident shall, through its Incident Commander, assign and/or reassign interoperability channels for each operational period as required to support incident operations.

Radio communications procedures on the interoperability channels must be consistent with the National Incident Management System (NIMS) and Incident Command System (ICS) including:

- The use of “plain language” without 10-codes or agency-specific codes/jargon.
- Standard calling protocol: "Agency-Unit #, this is Agency-Unit #", rather than "Unit # to Unit #".

(Examples: *"Honolulu Fire 8, this is Federal Fire 6"* or *"Mokulele Incident Command, this is US Coast Guard 4135"*)

Interoperability channels may be used only for voice traffic. Paging, alert tones, and SCADA operations are not permitted on interoperability calling or tactical channels. User-initiated telephone interconnect, e.g. phone patch, is not permitted on the interoperability channels.

All mobile and portable radio equipment should employ a time-out timer set to limit transmission duration to a period of no greater than 120 seconds (2 minutes).

To alleviate confusion, the standard channel names listed in this plan should be used in all equipment to refer to individual channels. Previously used mutual-aid channel designations ("Mutual Aid 1, VTAC1, etc.), are no longer valid, and should be removed from equipment in the field. Any interoperability talk groups on existing local systems will be renamed to indicate the operating agency (Interoperability 1 becomes Honolulu Interoperability 1; Mutual Aid 7 becomes Hawai'i County Mutual Aid 7 ...)⁶.

Radios not capable of displaying alphanumeric channel labels should have placards attached or issued with the radios to indicate the channel names and their corresponding positions on the radio's channel selector switch.

⁶ This renaming may require major subscriber radio programming for widely deployed systems. It is understood that it may take several years before all agencies can comply with this requirement on all radios/systems.

Co-Channel and Adjacent Channel Interference

The statewide interoperability channels and associated tones/codes in this plan are allowed to be used by multiple entities statewide, therefore co-channel interference between radios used in simultaneous incidents is possible. Given adequate geographic separation, coordinated co-channel operations at separate incidents and venues may be conducted if effective radiated power (ERP) is limited to the minimum level required to maintain reliable communications at each incident.

Because the FCC has established new narrowband channels within and adjacent to existing wideband channels below 512 MHz⁷, interference to and with these properly-licensed wideband channel users is expected to occur until 1 January 2013, when all channels will be narrowband only.

Many different users and organizations will be using these common frequencies throughout the state. Users will use reasonable care to minimize interference with other legitimate users. All users are reminded that non-emergency communications is always secondary to emergency traffic.

Co-channel and adjacent channel interference issues during an incident or event must be resolved by the on-scene incident commander. Hawai'i State Civil Defense should immediately be notified of unresolved interference to the interoperability channels in order to assist in resolution of the problem.

Calling Channels

Initial radio contact during travel to, or arrival at an emergency incident may be established on an appropriate interoperability calling channel. Calling channels designated as VCALL, UCALL, ICALL, 7CALL50 and 7CALL70 are intended to provide for local and itinerant-user communications with local public safety dispatchers. Additionally, the calling channels may be used by en-route emergency resources seeking to make contact with the Incident Command Post or staging area(s) at a large-scale incident.

Interoperability calling channels must be monitored at the Incident Command Post on major incidents requiring significant aid from agencies beyond routine local interoperability. Monitoring shall include one or more of the following:

- ICALL(8CALL90), national 800 MHz calling channel
- VCALL (VCALL10), national narrowband VHF calling channel
- UCALL (UCALL40), national narrowband UHF calling channel

⁷ Throughout this document the terms narrowband channels and wideband channels will refer to voice channels with emission bandwidths below 12.5 kHz and above 12.5 kHz respectively.

- 7CALL50 or 7CALL70, national digital narrowband P25 700 MHz calling channels

Calling channel communications will use non-encrypted analog FM emissions. Exception: All 700 MHz radios must use Project 25 Phase 1 CAI digital modulation with the appropriate NAC.

- If a county has primarily VHF users, VCALL (VCALL10) will be continually monitored by public safety dispatch points within the county.
- If a county has primarily UHF users, UCALL (UCALL40) will be continually monitored by public safety dispatch points within the county (No counties in Hawai‘i presently use a UHF dispatch system).
- If a county has primarily 700 MHz band users, the channel 7CALL50 will be continually monitored by appropriate dispatch points within the county (No counties in Hawai‘i presently use a 700 MHz dispatch system).
- If a county has primarily 800 MHz band users, the 800 MHz channel ICALL(8CALL90) will be continually monitored by appropriate dispatch points within the county.

Many public safety radio users located in the various counties operate in other radio bands than the counties’ systems. RPZ TIC plans should recognize and address the monitoring capabilities that will be needed within their jurisdictions in order to assure interoperability among public safety users. For some RPZs, monitoring VHF and 800 MHz calling channels may be adequate. Others may need to monitor additional calling channels in order to assure that interoperability is achieved.

Cross-band patching of calling channels to calling channels in other bands is permitted. Patching of calling channels to any channel other than VCALL (VCALL10), UCALL (UCALL40), 7CALL50, 7CALL70 or ICALL (8CALL90) is strictly prohibited. To maximize the coverage of calling channels in all bands they may be patched together for routine day-to-day operations. When an Incident Commander stands up a command center the calling channels should generally not be cross patched, but should be answered individually if feasible. Throughout the incident, at least one member of each unit or team should monitor the appropriate calling channel (as designated in the incident’s ICS-205 form).

CTCSS and NAC Coded Squelch

Continuous Tone Coded Squelch System (CTCSS) tones and/or digital Network Access Codes (NAC) shall be used on the interoperability calling and tactical channels to mask interference, in accordance with the figures listed in this plan.

Receivers may be set for carrier squelch operation unless conditions in the area require the use of tone protection to mitigate the effects of adjacent channel interference, or interference from intermodulation products.

Subject to approval from applicable RPZ planning committees, mobile relay stations (aka repeaters) that are part of a RPZ or statewide interoperability plan may be equipped with a second receive CTCSS tone to provide local (in cabinet) relay operation, provided:

- The relay transmitter continues to transmit the CTCSS tone of 156.7 Hz or appropriate 800 MHz tone so that all users within range of the station are aware the station is in use; and
- The relay will accept the CTCSS tone of 156.7 Hz or appropriate 800 MHz tone and present the audio accompanying the CTCSS encoded transmission to either the associated network or a live operator at the appropriate controlling dispatch facility; and
- The operational configuration of the repeater/mobile relay station is published in the applicable interoperability resource tracking documents (SCIP, TIC Plan, and/or FCC approved Regional Planning Committee plan) and databases (CAPRAD and/or CASM).

The Network Access Code (NAC) \$293 hex (659 decimal) is required for all P25 digital operations on the interoperability channels. At this point in time for this plan, only the 700 MHz channels use P25 digital standards.

Subject to approval from applicable RPZ planning committees, repeater/mobile relay stations that are part of a RPZ or statewide interoperability plan may be equipped with a second receive NAC to provide local (in cabinet) relay operation, provided:

- The relay transmitter continues to transmit the \$293 hex or 659 decimal NAC so that all users within range of the station are aware the station is in use;
- The relay will accept the \$293 hex (659 decimal) NAC and present the audio to either the associated network or a live operator at the appropriate controlling dispatch facility; and
- The operational configuration of the repeater/mobile relay station is published in the applicable interoperability resource tracking documents (SCIP, TIC Plan, and/or FCC approved Regional Planning Committee plan) and databases (CAPRAD and/or CASM).

Only the CTCSS tones and NAC Codes identified in this channel plan are allowed on the interoperability channels within the state except as noted above. These tones and codes shall not be changed nor others added by an individual agency, communications vendor, or maintenance service provider.⁸

⁸ VHF COM may continue to use the CDCSS of 364 on O'ahu only. Hawai'i County may use additional tones on VINT1 in that county.

Modulation and Encryption

This plan identifies allowable modulation and encryption on calling and tactical channels:

Calling Channels: Analog modulation is mandatory on all calling channels to facilitate interoperability with legacy radio equipment being used in the field. Exception: Communications on 700 MHz interoperability channels must always use P25 Phase 1 CAI digital modulation.

Tactical Channels: Analog modulation is preferred on all interoperability tactical channels to facilitate interoperability with legacy radio equipment in the field. Exception: Communications on 700 MHz interoperability channels must always use P25 Phase 1 CAI digital modulation.

Local agencies may use interoperability tactical channels for day-to-day public safety related purposes not requiring communications with emergency resources from other jurisdictions. In such events, non-encrypted digital modulation is authorized on tactical interoperability channels in all bands. When used, digital modulation for interoperability channels shall be P25 Phase 1 CAI compliant and shall use the following configuration criteria:

- Network access code shall be \$293 hex (659 decimal)
- Talk group ID shall be 0001 (hex or decimal)
- Manufacturer's ID shall be 00 (hex or decimal)
- Message Indicator shall be \$0000000000 hex

For occasional pre-planned events where communications security is an issue, encrypted P25 Phase 1 CAI modes are authorized on tactical channels. Specific encryption algorithms and encryption keys shall be as defined by the event Incident Commander.

Temporary Base (FBT), Temporary Repeater/Mobile relay (FB2T) and Control Stations (FX1)

Temporary base stations, temporary repeater/mobile relay stations and control stations are permitted by the licenses associated with this channel plan, with the following conditions or restrictions:

- Antennas used for temporary base stations and temporary repeaters/mobile relays may not exceed 12.2 meters (40 feet) above ground.
- Temporary base stations, temporary repeaters/mobile relays and control stations that are deployed under this plan may not exceed FCC licensed limitation of 100 Watts transmitter power and 100 Watts Effective Radiated Power (ERP).⁹

⁹ Lower power limitations listed in Specific Guidelines and Channel Tables apply regardless of the licensed power limit.

- Temporary base, temporary repeater/mobile relay and control stations shall have an automatic time-out timer limiting transmit duration to no greater than 120 seconds (2 minutes).
- Temporary base and temporary repeater/mobile relay stations when operating in the repeater mode shall be configured to immediately drop transmit carrier upon cessation of input signal (zero “hang time”). Reasonable squelch hang time for weak received signals or signals that have achieved a critical bit error rate (BER) is permitted.
- Temporary base stations and temporary repeaters/mobile relays must utilize manual switching or dedicated RF control links, wire line, microwave, fiber or satellite circuits as a means of primary control. Interoperability channels shall not be enabled, disabled or muted by any over-the-air signaling device (selective or DTMF signaling, etc) as a primary means of control.
- Temporary base and temporary repeater/mobile relay stations shall not be left in permanent operation and must be disabled upon conclusion of an incident or exercise. Permanently installed standby repeaters/mobile relays must be separately licensed. Contact the State Department of Accounting and General Services for assistance.
- Fixed Control Stations (FX1s) may be established on a permanent or temporary basis statewide using interoperability channels. The antennas of these control stations must adhere to the 6.1 meter rule detailed in Section 90.119 of the FCC Rules. Specifically the height of the control station antenna must not exceed 6.1 meters (20 feet) above ground or an existing man-made structure. An antenna structure (e.g. a radio tower) is not included in this exemption for a man-made structure. Therefore the limit of 6.1 meters above ground still stands when attaching the antenna to an antenna structure.
- End-of-transmission “courtesy tones” or “beeps” are not allowed on any interoperability channel.

Specific Guidelines – VHF 150 MHz Narrowband Channels

Note: This plan does not recognize or identify VHF or UHF wideband (above 12.5 kHz bandwidth) channels.

For VHF interoperability, the five national direct channels described in Figure 1 (VCALL through VTAC4) will be used. In addition there are five Region 11 (Hawai‘i) repeater channels, four low-level tactical repeater channels and three national direct tactical channels that are described in Figure 1 below. Note that wherever channels are assigned as a pair, the portable/mobile transmit frequency will usually be more than 5 MHz higher than the receive frequency.

All VHF radio using public safety agencies and users of VHF frequencies associated with this plan “Must-Carry” the channels listed in Figure 1 (exceptions for VFIREDD, VMEDDD, VLAWDD, COMML, VCOMMLD and VHF COM are noted in the figure) in their VHF subscriber radios.¹⁰

Note the following:

- The FCC has identified VHF interoperability channels that can be used throughout the United States (VCALL, VTAC1 – VTAC4, VFIREDD, VMEDDD and VLAWDD). Region 11 has identified VRs (Regional Tactical Interoperability Channels) and VINTs (Low Level Tactical Interoperability Channels) for use within Hawai‘i. Some of these interoperable channels may already be licensed by multiple agencies for interoperability use throughout the state.
- The national channel VCALL is designated as a multi-discipline, multi-agency public safety interoperability calling channel for all public safety agencies and other users of the frequencies associated with this channel plan. This channel is designated for interoperable VHF communications between mobile/portable radios and base stations, temporary base stations and an on-scene incident commander. Note that VCALL is a direct or simplex only channel.¹¹
- The national tactical direct channels VTAC1, VTAC2, VTAC3 and VTAC4 should be assigned on incident by the incident commander. Note that local naming convention usually adds the D suffix to each name to indicate direct mode (simplex). Although simplex use is specified in the national plan, it omits the D suffix and we also omit it for these unique VHF channels.¹²

¹⁰ Some systems may be limited in channel capacity. In this case the entity will not be required to program all the Must-Carry channels in every radio.

¹¹ The national interoperability calling channel VCALL is different from the calling channels in the other bands. It only has a single channel assigned instead of a pair of channels.

¹² The national interoperability tactical channels VTAC1, VTAC2, VTAC3 and VTAC4 are different from the tactical channels in the other bands. They only have a single channel assigned instead of a pair of channels.

- The tactical direct channels VFIRE, VMEDD and VLAWD will never be repeated and are to be used in direct (simplex) mode only. VFIRE is only for Fire/EMS use, VMEDD is only for Fire/EMS use and VLAWD is only for Law Enforcement use. VMEDD is also intended for ground to air use during medical incidents.
- Gateways, patching or cross-band repeating of the VHF calling channel is only allowed to calling channels in other bands. Gateways, patching or cross-band repeating of VCALL to any channels other than ICALL, UCALL, 7CALL50 or 7CALL70 is not permitted.
- Patching to/between interoperability tactical channels is permitted during emergency situations if so directed by the incident commander.
- There is a 15 Watt maximum ERP limit on VINT1 through VINT4. This limit is for any transmission including portables, mobiles, base stations, temporary repeaters/mobile relays or fixed repeaters/mobile relays. There is however, an exception for Hawai'i County. Hawai'i County may use VINT1 on high power at their licensed fixed repeater/mobile relay sites. In addition, Hawai'i County may use VINT1 on bandwidths up to 25.0 kHz until December 31, 2012. On January 1, 2013 all users (including Hawai'i County) must use it with narrowband emissions only.
- High Site, High Power Installation of VTAC1, VTAC2, VTAC3, and VTAC4 is prohibited in the State of Hawai'i. Instead, these assets are designated for use within more limited regional footprints to enable on-site interoperable communications between multiple agencies for incident support.
- The VRs may be installed at fixed, high Site, high power repeaters/mobile relays as follows: VR5 & 7 may be installed at repeaters/mobile relays in Kaua'i & Maui counties; VR6¹³ & 8 may be installed at repeaters/mobile relays in Honolulu and Hawai'i counties. Any fixed repeaters/mobile relays will require separate licenses acquired by their operators.
- VR9 is a special channel designated for cross-band repeat, primarily on deployable repeaters/mobile relays.
- Note that the use of P25 compliant radios may become mandatory for public safety users in Region 11 at some point in the future. Until that point all radios will use the CTCSS codes designated in Figure 1.
- The channels described in Figure 1 are to be used in accordance with this plan as narrowband channels only.¹⁴ However, users should recognize that in-coming resources from out-of-region might not be equipped with all of these channels, or may have some of them installed in wideband radios.

¹³ VR6 shares frequencies with VHF COM on O'ahu. Contact the O'ahu RPZ to use this channel on O'ahu.

¹⁴ With the noted exceptions for VINT1 by Hawai'i County and VHF COM on O'ahu.

- Mobile Command Posts should be equipped with temporary transmitters as follows:
 - VCALL Base, dedicated to monitoring at all times (station class FBT)
 - Interoperability direct channel base stations (station class FBT)
 - Interoperability repeater/mobile relay control stations (station class FX1)
 - Temporary repeater/mobile relay stations (Station Class FB2T) may also be deployed
- The City and County of Honolulu has licensed and maintains a wideband (bandwidth over 12.5 kHz) simulcast repeater system named VHF COM (VHF Common) on the island of O‘ahu. They have allowed the VHF COM frequencies to be shared statewide as VR6. VHF COM will likely remain as a wideband channel until December 31, 2012. Organizations using VR6 on O‘ahu should contact the O‘ahu RPZ committee for information on how to best use this channel.
- The VCOML channel may only be used by a certified Communications Unit Leader (COML) in support of incident operation or exercise communications in Hawai‘i County. The COML may only program this channel into temporary bases, temporary repeaters/mobile relays, mobiles and control stations that are under the direct control of members of the Communications Unit. Emission and power limits must adhere to the license (WQMM331). The COML will assign the CTCSS tones for use during an incident/exercise. In the absence of a tone assignment, all radios will use carrier squelch only (CSQ) to transmit and receive.
- Note that some older (estimated pre 2000) radios claiming to be capable of using a narrowband mode (less than 12.5 kHz) may not accommodate all frequencies below 12.5 kHz. VTAC2 (154.4525 MHz) is an example of one frequency that may not function on these radios. Users must replace these radios if they have this issue.

Figure 1 - VHF 150 MHz Narrowband Interoperability Channels

Emission Designator: 11K0F3E

Mobile and Portable Configuration						
Label	Direct Label	Receive (Rx)	Trans (Tx)	Station Class¹⁵	CTCSS RX/TX	Usage
	VCALL	155.7525	155.7525	FBT / MO	CSQ/156.7	Calling Channel
	VTAC1	151.1375	151.1375	FBT / MO	CSQ/156.7	Tactical (direct)
	VTAC2	154.4525	154.4525	FBT / MO	CSQ/156.7	Tactical (direct)
	VTAC3	158.7375	158.7375	FBT / MO	CSQ/156.7	Tactical (direct)
	VTAC4	159.4725	159.4725	FBT / MO	CSQ/156.7	Tactical (direct)
VR5		150.995	158.91	FB2T/MO/FX1	156.7	Tactical – High site/Power Repeat only in Kaua‘i and Maui
	VR5D	150.995	150.995	FBT / MO	156.7	
VR6		154.28	153.77	FB2T/MO/FX1	156.7	Tactical – High site/Power Repeat only in O‘ahu and Hawai‘i (aka Honolulu VHF COM)
	VR6D	154.28	154.28	FBT / MO	156.7	
VR7		151.07	158.97	FB2T/MO/FX1	156.7	Tactical – High site/Power Repeat only in Kaua‘i and Maui
	VR7D	151.07	151.07	FBT / MO	156.7	
VR8		151.04	158.985	FB2T/MO/FX1	156.7	Tactical – High site/Power Repeat only in O‘ahu and Hawai‘i
	VR8D	151.04	151.04	FBT / MO	156.7	
VR9		151.22	159.045	FB2T/MO/FX1	156.7	Special – Default use is for cross-banding repeat in any RPZ
	VR9D	151.22	151.22	FBT / MO	156.7	
VINT1 ¹⁶		151.25	159.12	FB2T/MO/FX1	156.7	Tactical-Low Level Repeat only (Less than 15 Watts ERP)
	VINT1D	151.25	151.25	FBT / MO	156.7	
VINT2		151.28	159.15	FB2T/MO/FX1	156.7	Tactical-Low Level Repeat only (Less than 15 Watts ERP)
	VINT2D	151.28	151.28	FBT / MO	156.7	
VINT3		151.325	159.1725	FB2T/MO/FX1	156.7	Tactical-Low Level Repeat only

¹⁵ FB2T (temporary repeater/mobile relay) is only licensed for the Receive (Rx) and FX1 (Control) is only licensed for the Transmit (Tx) frequency. MO (mobile or portable) is licensed for both.

¹⁶ Hawai‘i County may use VINT1 on high power with a wideband emission and other CTCSS tones at their licensed fixed repeater/mobile relay sites.

Mobile and Portable Configuration						
Label	Direct Label	Receive (Rx)	Trans (Tx)	Station Class ¹⁵	CTCSS RX/TX	Usage
						(Less than 15 Watts ERP)
	VINT3D	151.325	151.325	FBT / MO	156.7	
VINT4		151.355	159.2175	FB2T/MO/FX1	156.7	Tactical-Low Level Repeat only (Less than 15 Watts ERP)
	VINT4D	151.355	151.355	FBT / MO	156.7	
	VFIRED	154.3025	154.3025	FBT/MO	CSQ/156.7	Tactical (direct) FIRE/EMS (Less than 15 Watts ERP)
	VMEDD	155.3400	155.3400	FBT/MO	CSQ/156.7	Tactical (direct) FIRE/EMS (Also for ground to air use) (Less than 15 Watts ERP)
	VLAWD	155.4750	155.4750	FBT/MO	CSQ/156.7	Tactical (direct) Law Enforcement (Less than 15 Watts ERP)
VCOML		154.34	159.315	FB2T/MO/FX1	COML Assigned	Communications Leader (COML) use on Hawai'i County incident only
	VCOMLD	154.34	154.34	FBT/MO	COML Assigned	Communications Leader (COML) use on Hawai'i County incident only
VHF COM		154.28 wideband	153.77 wideband	FB2T/MO/FX1	CSQ/D364	O'ahu only. Contact O'ahu RPZ for details on proper use. Aka VR6

VHF Channel Name Cross Reference

This channel plan establishes specific labels for VHF channels to assure consistent use throughout the state. These labels are listed below and all participating agencies should use them if possible. Alphanumeric radio displays should be consistent with the examples listed below depending on each radio's capability. Any reference to previous identifiers (for example "VHF mutual aid") should be removed from the radio display. The NPSTC Labels may be added to radios as an extra channel group for VCALL and VTAC frequencies, but they may not be used in place of the standard Hawai'i labels. The Transportable Repeater for Interoperable Communications (TRIC) channel labels only apply to the Hawai'i Strategic Reserve temporary repeaters/mobile relays. As with any repeater/mobile relay, users should take care to note that the Tx and Rx frequencies are an inverse¹⁷ of the Tx and Rx frequencies listed in the channel figures for mobile and portable configurations.

¹⁷ The mobile Tx frequency is the repeater Rx frequency and the mobile Rx frequency is the repeater Tx frequency.

VHF Channel Name Cross Reference			
Channel Name / Label	NPSTC Recommended Name / Label	Recommended 3-Digit Name / Label	TRIC Channel Label
VCALL	VCALL10	10	
VTAC1	VTAC11	11	
VTAC2	VTAC12	12	
VTAC3	VTAC13	13	
VTAC4	VTAC14	14	
VR5		VR5	
VR5D		V5D	
VR6		VR6	
VR6D		V6D	
VR7		VR7	
VR7D		V7D	
VR8		VR8	
VR8D		V8D	
VR9		VR9	
VR9D		V9D	
VINT1		21	A - Red
VINT1D		21D	
VINT2		22	B - Red
VINT2D		22D	
VINT3		23	C - Red
VINT3D		23D	
VINT4		24	
VINT4D		24D	
VFIRED	VFIRE26	26D	
VMEDD	VMED28	28D	
VLAWD	VLAW31	31D	
VCOML		39	
VCOMLD		39D	

Specific Guidelines – UHF 450 MHz Narrowband Channels

Note: This plan does not recognize or identify VHF or UHF wideband (above 12.5 kHz bandwidth) channels.

For UHF interoperability, the four national channels described in Figure 2 (UCALL through UTAC3) will be used. In addition there are four Region 11 (Hawai‘i) repeater channels, two low-level tactical repeater channels and three direct tactical channels that are described in Figure 2. Note that wherever channels are assigned as a pair, the portable/mobile transmit frequency is exactly 5 MHz higher than the receive frequency.

All UHF radio using public safety agencies and users of the frequencies associated with this plan “Must-Carry” the channels listed in Figure 2 (exceptions for ULOW4D and ULOW5D are noted in the figure) in their UHF subscriber radios.¹⁸

Note the following:

- The FCC has identified UHF interoperability channels that can be used throughout the United States (UCALL & UTAC1 – UTAC3). Region 11 has identified URs (Regional Tactical Interoperability Channels) and ULOWs (Low Level Tactical Interoperability Channels) for use within Hawai‘i. Some of these interoperable channels may already be licensed by multiple agencies for interoperability use throughout the state.
- The national channel UCALL is designated as a multi-discipline, multi-agency public safety interoperability calling channel for all public safety agencies and other users of the frequencies associated with this channel plan. This channel is designated for interoperable UHF communications between mobile/portable radios and base stations, temporary base stations and an on-incident incident commander.
- The national tactical interoperability channels UTAC1, UTAC2 and UTAC3 may be operated as repeated channels, or as direct (simplex) channels UTAC1D, UTAC2D and UTAC3D. They should be assigned on incident by the incident commander (Note that the D is appended when using in direct or talk around mode).
- The three Low Level Tactical Interoperability Channels ULOW53D, ULOW54D and ULOW55D will never be repeated and are to be used in direct (simplex) mode only. ULOW54D is only for Fire/EMS use, and ULOW55D is only for Law Enforcement use.
- Gateways, patching or cross-band repeating of the UHF calling channel is only allowed to calling channels in other bands. Gateways, patching or cross-band repeating of UCALL to any channels other than ICALL, VCALL, 7CALL50 or 7CALL70 is not permitted.
- Patching to/between interoperability tactical channels is permitted during emergency situations if so directed by the incident commander.

¹⁸ Some systems may be limited in channel capacity. In this case the entity will not be required to program all the Must-Carry channels in every radio.

- There is a 15 Watt maximum ERP limit on all five ULOW channels. This limit is for any transmission including portables, mobiles, base stations, portable repeaters/mobile relays or fixed repeaters/mobile relays.
- High Site, High Power Installation of UTAC1, UTAC2 or UTAC3 is prohibited in the State of Hawai‘i. Instead, these assets are designated for use within more limited regional footprints to enable on-site interoperable communications between multiple agencies for incident support.
- The URs may be installed at fixed, high Site, high power repeaters/mobile relays as follows: UR5 & 7 may be installed at repeaters/mobile relays in Kaua‘i & Maui RPZs; UR6 & 8 may be installed at repeaters/mobile relays in Honolulu and Hawai‘i RPZs. Any fixed repeaters/mobile relays will require separate licenses acquired by their operators.
- Note that the use of P25 compliant radios may become mandatory for public safety users in Region 11 at some point in the future. Until that point all radios will use the CTCSS codes designated in figure 1.
- The channels described in Figure 2 are to be used in accordance with this plan as narrowband channels only. However, users should recognize that in-coming resources from out-of-region might not be equipped with all of these channels, or may have some of them installed in wideband radios.
- Mobile Command Posts should be equipped with temporary transmitters as follows:
 - UCALL Base, dedicated to monitoring at all times (station class FBT)
 - Interoperability direct channel base stations (station class FBT)
 - Interoperability repeater/mobile relay control stations (station class FX1)
 - Temporary repeater/mobile relay stations (Station Class FB2T) may also be deployed

Figure 2 - UHF 450 MHz Narrowband Interoperability Channels

Emission Designator: 11K0F3E

Mobile and Portable Configuration						
Label	Direct Label	Receive (Rx)	Trans (Tx)	Station Class¹⁹	CTCSS RX/TX	Usage
UCALL		453.2125	458.2125	FB2T/MO/ FX1	CSQ /156.7	Calling Channel (Repeater)
	UCALLD	453.2125	453.2125	FBT / MO	CSQ /156.7	Calling Channel (direct)
UTAC1		453.4625	458.4625	FB2T/MO/ FX1	CSQ /156.7	Tactical (Repeater) (high site/power prohibited)
	UTAC1D	453.4625	453.4625	FBT / MO	CSQ /156.7	Tactical (direct)
UTAC2		453.7125	458.7125	FB2T/MO/ FX1	CSQ /156.7	Tactical (Repeater) (high site/power prohibited)
	UTAC2D	453.7125	453.7125	FBT / MO	CSQ /156.7	Tactical (direct)
UTAC3		453.8625	458.8625	FB2T/MO/ FX1	CSQ /156.7	Tactical (Repeater) (high site/power prohibited)
	UTAC3D	453.8625	453.8625	FBT / MO	CSQ /156.7	Tactical (direct)
UR5		453.275	458.275	FB2T/MO/ FX1	156.7	Tactical – High site/power Repeat only in Kaua‘i & Maui . May experience interference near downtown Honolulu. ²⁰
	UR5D	453.275	453.275	FBT / MO	156.7	
UR6		453.125	458.125	FB2T/MO/ FX1	156.7	Tactical – High site/power Repeat only in O‘ahu and Hawai‘i
	UR6D	453.125	453.125	FBT / MO	156.7	
UR7		453.775	458.775	FB2T/MO/ FX1	156.7	Tactical – High site/power Repeat only in Kaua‘i and Maui
	UR7D	453.775	453.775	FBT / MO	156.7	
UR8		460.425	465.425	FB2T/MO/ FX1	156.7	Tactical – High site/power Repeat only in O‘ahu and Hawai‘i ²¹
	UR8D	460.425	460.425	FBT / MO	156.7	
ULOW51		460.200	465.200	FB2T/MO/ FX1	156.7	Tactical-Low Level Repeat only (Less than 15 Watts ERP)
	ULOW51D	460.200	460.200	FBT / MO	156.7	

¹⁹ FB2T (temporary repeater/mobile relay) is only licensed for the Receive (Rx) and FX1 (Control) is only licensed for the Transmit (Tx) frequency. MO (mobile or portable) is licensed for both.

²⁰ Frequency is also licensed by the State on a repeater at Kuhio Park Terrace

²¹ Also licensed by the Honolulu Police Department

Mobile and Portable Configuration						
Label	Direct Label	Receive (Rx)	Trans (Tx)	Station Class ¹⁹	CTCSS RX/TX	Usage
ULOW52		460.625	465.625	FB2T/MO/FX1	156.7	Tactical-Low Level Repeat only (Less than 15 Watts ERP)
	ULOW52D	460.625	460.625	FBT / MO	156.7	
	ULOW53D	453.3125	453.3125	FBT/MO	156.7	Tactical (direct) - Anyone (Less than 15 Watts ERP)
	ULOW54D	453.8125	453.8125	FBT/MO	156.7	Tactical (direct) - FIRE/EMS (Less than 15 Watts ERP)
	ULOW55D	460.2375	460.2375	FBT/MO	156.7	Tactical (direct) - Law Enforcement (Less than 15 Watts ERP)

UHF Channel Name Cross Reference

This channel plan establishes specific labels for UHF channels to assure consistent use throughout the state. These labels are listed below and all participating agencies should use them if possible. Alphanumeric radio displays should be consistent with the examples listed below depending on each radio's capability. Any reference to previous identifiers (for example "UHF common") should be removed from the radio display. The NPSTC Labels may be added to radios as an extra channel group for UCALL and UTAC frequencies, but they may not be used in place of the standard Hawai'i labels. The TRIC channel labels only apply to the Hawai'i Strategic Reserve temporary repeaters/mobile relays. As with any repeater/mobile relay, users should take care to note that the Tx and Rx frequencies are an inverse²² of the Tx and Rx frequencies listed in the channel figures for mobile and portable configurations.

²² The mobile Tx frequency is the repeater Rx frequency and the mobile Rx frequency is the repeater Tx frequency.

UHF Channel Name Cross Reference			
Channel Name / Label	NPSTC Recommended Name / Label	Recommended 3-Digit Name / Label	TRIC Channel Label
UCALL	UCALL40	40	
UCALLD	UCALL40D	40D	
UTAC1	UTAC41	41	A - White
UTAC1D	UTAC41D	41D	
UTAC2	UTAC42	42	B - White
UTAC2D	UTAC42D	42D	
UTAC3	UTAC43	43	C - White
UTAC3D	UTAC43D	43D	
UR5		UR5	
UR5D		U5D	
UR6		UR6	
UR6D		U6D	
UR7		UR7	
UR7D		U7D	
UR8		UR8	
UR8D		U8D	
ULOW51		51	
ULOW51D		51D	
ULOW52		52	
ULOW52D		52D	
ULOW53D		53D	
ULOW54D		54D	
ULOW55D		55D	

Specific Guidelines – Optional 700 MHz Channels

For 700 MHz interoperability, the national channels described in Figure 3 below may be used.

Any 700 MHz radio using public safety agencies and other users of the frequencies associated with this plan may carry the channels listed in Figure 3 in their 700 MHz subscriber radios. Unlike the VHF, UHF and 800 MHz interoperability channels, the use of these channels is not mandatory, and therefore these are NOT “Must-Carry” channels. Every radio that has 700 MHz capability will also have 800 MHz capability (as of the issue date of this document). The channels are listed in this section to increase the total number of available interoperability channels in the 700/800 MHz bands for those that wish to implement them.

Note the following:

- The FCC has identified many 700 MHz interoperability channels that can be used throughout the United States. Region 11 has emphasized the channels in Figure 3 for use within Hawai‘i. Some of these interoperable channels may already be licensed by multiple agencies for interoperability use throughout the state.
- The national channel 7CALL50 and 7CALL70 are designated as a multi-discipline, multi-agency public safety interoperability calling channels for all public safety agencies and other users of the frequencies associated with this channel plan. These channels are designated for interoperable 700 MHz communications between mobile/portable radios and base stations, temporary base stations and an on-incident incident commander.
- The tactical repeater/mobile relay channels 7TAC55, 7TAC56, 7TAC71, 7TAC72, 7TAC73, 7TAC74, 7TAC75, and 7TAC76 should be assigned on incident by the incident commander (Note that the D is appended when using in direct or talk around mode).
- Gateways, patching or cross-band repeating of the 700 calling channels are only allowed to each other and to calling channels in other bands. Gateways, patching or cross-band repeating of the 700 calling channels to any channels other than VCALL, UCALL, ICALL, 7CALL50 or 7CALL70 is not permitted.
- Patching to/between interoperability tactical channels is permitted during emergency situations if so directed by the incident commander.
- High Site, High Power Installation of 7TAC55, 7TAC56, 7TAC71, 7TAC72, 7TAC73, 7TAC74, 7TAC75, or 7TAC76 is prohibited in the State of Hawai‘i.
- Communications on 700 MHz interoperability channels must always use P25 Phase 1 CAI digital modulation with an NAC of \$293.
- The 700 MHz channels described in Figure 3 may be used in accordance with this plan. However, users should recognize that in-coming resources from out-of-region might not yet be equipped with any of these channels.

- Mobile Command Posts should be equipped with temporary transmitters as follows:
 - 7CALL50 Base, dedicated to monitoring at all times (station class FBT)
 - 7CALL70 Base, dedicated to monitoring at all times (station class FBT)
 - Interoperability direct channel base stations (station class FBT)
 - Interoperability repeater/mobile relay control stations (station class FX1)
 - Temporary repeater/mobile relay stations (Station Class FB2T) may also be deployed

Figure 3 - 700 MHz Interoperability Channels

Emission Designator: 11K2G2E

Mobile and Portable Configuration						
Label	Direct Label	Receive (Rx)	Trans (Tx)	Station Class²³	P25 NAC Hex/Dec	Usage
7CALL50		769.24375	799.24375	FB2T/MO/FX1	\$293 / 659	Calling Channel
	7CALL50D	769.24375	769.24375	FBT / MO	\$293 / 659	Calling Channel (direct)
7CALL70		773.25625	803.25625	FB2T/MO/FX1	\$293 / 659	Calling Channel
	7CALL70D	773.25625	773.25625	FBT / MO	\$293 / 659	Calling Channel (direct)
7TAC55		769.74375	799.74375	FB2T/MO/FX1	\$293 / 659	Tactical Repeater Channel
	7TAC55D	769.74375	769.74375	FBT / MO	\$293 / 659	Tactical Channel (Direct)
7TAC56		770.24375	800.24375	FB2T/MO/FX1	\$293 / 659	Tactical Repeater Channel
	7TAC56D	770.24375	770.24375	FBT / MO	\$293 / 659	Tactical Channel (Direct)
7TAC71		773.10625	803.10625	FB2T/MO/FX1	\$293 / 659	Tactical Repeater Channel
	7TAC71D	773.10625	773.10625	FBT / MO	\$293 / 659	Tactical Channel (Direct)
7TAC72		773.60625	803.60625	FB2T/MO/FX1	\$293 / 659	Tactical Repeater Channel
	7TAC72D	773.60625	773.60625	FBT / MO	\$293 / 659	Tactical Channel (Direct)
7TAC73		774.10625	804.10625	FB2T/MO/FX1	\$293 / 659	Tactical Repeater Channel
	7TAC73D	774.10625	774.10625	FBT / MO	\$293 / 659	Tactical Channel (Direct)
7TAC74		774.60625	804.60625	FB2T/MO/FX1	\$293 / 659	Tactical Repeater Channel
	7TAC74D	774.60625	774.60625	FBT / MO	\$293 / 659	Tactical Channel (Direct)
7TAC75		773.75625	803.75625	FB2T/MO/FX1	\$293 / 659	Tactical Repeater Channel
	7TAC75D	773.75625	773.75625	FBT / MO	\$293 / 659	Tactical Channel

²³ FB2T (temporary repeater/mobile relay) is only used for the Receive (Rx) and FX1 (Control) is only used for the Transmit (Tx) frequency. MO (mobile or portable) is used for both.

Mobile and Portable Configuration						
Label	Direct Label	Receive (Rx)	Trans (Tx)	Station Class ²³	P25 NAC Hex/Dec	Usage
						(Direct)
7TAC76		774.25625	804.25625	FB2T/MO/FX1	\$293 / 659	Tactical Repeater Channel
	7TAC76D	774.25625	774.25625	FBT / MO	\$293 / 659	Tactical Channel (Direct)
7LAW61		770.39375	800.39375	FB2T/MO/FX1	\$293 / 659	Tactical Repeat – Law Enforcement Only
	7LAW61D	770.39375	770.39375	FBT / MO	\$293 / 659	Tactical Repeat (Direct) – Law Enforcement Only
7FIRE63		769.89375	799.89375	FB2T/MO/FX1	\$293 / 659	Tactical Repeat – Fire/EMS Only
	7FIRE63D	769.89375	769.89375	FBT / MO	\$293 / 659	Tactical Repeat (Direct) – Fire/EMS Only
7MED65		769.39375	799.39375	FB2T/MO/FX1	\$293 / 659	Tactical Repeat – Fire/EMS Only
	7MED65D	769.39375	769.39375	FBT / MO	\$293 / 659	Tactical Repeat (Direct) – Fire/EMS Only
7MOB79		774.50625	804.50625	MO3/MO/FX1	\$293 / 659	Mobile Repeater Use (MO3) Only
	7MOB79D	774.50625	774.50625	FBT / MO	\$293 / 659	Mobile Repeat Channel (Direct)

700 MHz Channel Name Cross Reference

Hawai‘i uses the NPSTC Recommended Naming Convention for 700 MHz interoperability channels. There are no 700 MHz channels programmed into the TRICs.

Specific Guidelines – 800 MHz Channels

For 800 MHz interoperability, the five national channels (with direct) described in Figure 4 will be used. In addition, there are five Region 11 (Hawai‘i) channels, four low-level tactical channels, and three direct tactical channels. Note that in the 800 MHz band, all channels are assigned as a pair of frequencies with the mobile/portable transmit frequency 45 MHz lower than the receive frequency.

All 800 MHz radio using public safety agencies and other users of the frequencies associated with this plan “Must-Carry” the channels listed in Figure 4 (exceptions for TAC86D, TAC87D, COML and COMLD are noted in the figure) in their 800 MHz subscriber radios.

Note the following:

- The FCC has identified national 800 MHz interoperability channels that can be used throughout the United States (ICALL & ITACs 1 through 4). The Region 11 RPC (Regional Planning Committee) has also identified RTAC (Regional Tactical Interoperability Channels) and TAC (Low Level Tactical Interoperability Channels) for use within Hawai‘i.
- The national channel ICALL is designated as a multi-discipline, multi-agency public safety interoperability calling channel for all public safety agencies and other users of the frequencies associated with this channel plan. This channel is designated for interoperable 800 MHz communications between mobile/portable radios and base stations, temporary base stations and an on-incident incident commander.
- The Low Level Tactical Interoperability Channels TAC81, TAC82, TAC83, TAC84 may be operated as repeated channels, or as direct (simplex) channels (TAC81D, TAC82D, TAC83D and TAC84D), and should be assigned on incident by the incident commander (Note that the D is appended when using in direct/simplex or talk around mode).
- The three Low Level Tactical Interoperability Channels TAC85D, TAC86D and TAC87D will never be repeated and are to be used in direct mode only. TAC 86D is only for Fire/EMS use and TAC87D is only for Law Enforcement use.
- Gateways, patching or cross-band repeating of the 800 calling channel is only allowed to calling channels in other bands. Gateways, patching or cross-band repeating of the 800 channel to any channels other than VCALL, UCALL, 7CALL50 or 7CALL70 is not permitted.
- Patching to/between interoperability tactical channels is permitted during emergency situations if so directed by the incident commander.
- There is a 15 Watt maximum ERP limit on all TAC8x (81-87) channels in repeat or direct mode. This limit is for any transmission including portables, mobiles, base stations, portable repeaters/mobile relays, or fixed repeaters/mobile relays.

- High Site, High Power Installation of ITAC1, ITAC2, ITAC3, and ITAC4 in base, repeat or remote base mode is prohibited in the State of Hawai‘i. Instead, these assets are designated for use within more limited regional footprints to enable on-site interoperable communications between multiple agencies for incident support.
- The RTACs may be installed at fixed, high site, high power repeaters/mobile relays as follows: RTAC 5 & 7 may be installed at repeaters/mobile relays in Kaua‘i & Maui counties; RTAC 6 & 8 may be installed at repeaters/mobile relays in Honolulu and Hawai‘i counties. Any fixed repeaters/mobile relays will require separate licenses acquired by their operators.
- RTAC9 is a special channel designated for cross-band repeat, primarily on deployable repeaters/mobile relays.
- Note that the use of P25 compliant radios may become mandatory for public safety users in Region 11 at some point in the future. Until that point all radios will use the CTCSS codes designated in Figure 4.
- The channels described in Figure 4 are to be used in accordance with this plan. However, users should recognize that in-coming resources from out-of-region might not be equipped with all of these channels, or may have some of them installed with different names.
- Mobile Command Posts should be equipped with temporary transmitters as follows:
 - ICALL Base, dedicated to monitoring at all times (station class FBT)
 - Interoperability direct channel base stations (station class FBT)
 - Interoperability repeater/mobile relay control stations (station class FX1)
 - Temporary repeater/mobile relay stations (Station Class FB2T) may also be deployed
- The COML channel may only be used by a certified Communications Unit Leader (COML) in support of incident operations or exercises. The COML may only program this channel into temporary bases, temporary repeaters/mobile relays, mobiles and control stations that are under the direct control of members of the Communications Unit. Emission and power limits must adhere to the license (WQMM833). The COML will assign the CTCSS tones for use on an incident/exercise. In the absence of a tone assignment all radios will use carrier squelch only (CSQ) for transmit and receive.

Figure 4 - 800 MHz Interoperability Channels

Emission Designators: 14K0F3E²⁴, 20K0F3E²⁵

Mobile and Portable Configuration						
Label	Direct Label	Receive (Rx)	Trans (Tx)	Station Class ²⁶	CTCSS RX/TX	Usage
ICALL		851.0125	806.0125	FB2T/MO/FX1	CSQ/156.7	Calling Channel (repeater)
	ICALLD	851.0125	851.0125	FBT / MO	CSQ/156.7	Calling Channel (direct)
ITAC1		851.5125	806.5125	FB2T/MO/FX1	CSQ/156.7	Tactical (repeater) High site/power prohibited
	ITAC1D	851.5125	851.5125	FBT / MO	CSQ/156.7	Tactical (direct)
ITAC2		852.0125	807.0125	FB2T/MO/FX1	CSQ/156.7	Tactical (repeater) High site/power prohibited
	ITAC2D	852.0125	852.0125	FBT / MO	CSQ/156.7	Tactical (direct)
ITAC3		852.5125	807.5125	FB2T/MO/FX1	CSQ/156.7	Tactical (repeater) High site/power prohibited
	ITAC3D	852.5125	852.5125	FBT / MO	CSQ/156.7	Tactical (direct)
ITAC4		853.0125	808.0125	FB2T/MO/FX1	CSQ/156.7	Tactical (repeater) High site/power prohibited
	ITAC4D	853.0125	853.0125	FBT / MO	CSQ/156.7	Tactical (direct)
RTAC5		851.9875	806.9875	FB2T/MO/FX1	146.2	Tactical – High site/power repeat only in Kaua‘i and Maui RPZ
	RTAC5D	851.9875	851.9875	FBT / MO	146.2	
RTAC6		851.4875	806.4875	FB2T/MO/FX1	146.2	Tactical – High site/power repeat only in O‘ahu and Hawai‘i RPZ
	RTAC6D	851.4875	851.4875	FBT / MO	146.2	
RTAC7		852.9875	807.9875	FB2T/MO/FX1	146.2	Tactical – High site/power repeat only in Kaua‘i and Maui RPZ
	RTAC7D	852.9875	852.9875	FBT / MO	146.2	
RTAC8		852.4875	807.4875	FB2T/MO/FX1	146.2	Tactical – High site/power repeat only in O‘ahu and Hawai‘i RPZ
	RTAC8D	852.4875	852.4875	FBT / MO	146.2	
RTAC9		853.4875	808.4875	FB2T/MO/FX1	146.2	Special – Default use is for cross-banding repeat in any RPZ
	RTAC9D	853.4875	853.4875	FBT / MO	146.2	Tactical (direct)
TAC81		851.2750	806.2750	FB2T/MO/FX1	136.5	Tactical-Low Level Repeater only (less than 15 Watts ERP)
	TAC81D	851.2750	851.2750	FBT / MO	136.5	

²⁴ 14K0F3E (14 kHz bandwidth) is to be used for all except the national channels of ICALL, ITAC1, ITAC2, ITAC3, ITAC4 and their corresponding Direct or “D” Channels.

²⁵ 20K0F3E (20 kHz bandwidth) is to be used for the national channels of ICALL, ITAC1, ITAC2, ITAC3, ITAC4 and their corresponding Direct or “D” Channels.

²⁶ FB2T (temporary repeater/mobile relay) is only licensed for the Receive (Rx) and FX1 (Control) is only licensed for the Transmit (Tx) frequency. MO (mobile or portable) is licensed for both.

Mobile and Portable Configuration						
Label	Direct Label	Receive (Rx)	Trans (Tx)	Station Class ²⁶	CTCSS RX/TX	Usage
TAC82		851.7750	806.7750	FB2T/MO/FX1	136.5	Tactical-Low Level Repeater only (less than 15 Watts ERP)
	TAC82D	851.7750	851.7750	FBT/MO	136.5	
TAC83		852.2750	807.2750	FB2T/MO/FX1	136.5	Tactical-Low Level Repeater only (less than 15 Watts ERP)
	TAC83D	852.2750	852.2750	FBT/MO	136.5	
TAC84		852.7750	807.7750	FB2T/MO/FX1	136.5	Tactical-Low Level Repeater only (less than 15 Watts ERP)
	TAC84D	852.7750	852.7750	FBT / MO	136.5	
	TAC85D	853.2750	853.2750	FBT / MO	136.5	Tactical (direct) – Anyone may use (less than 15 Watts ERP)
	TAC86D	853.5250	853.5250	FBT / MO	136.5	Tactical (direct) – Fire/EMS (less than 15 Watts ERP)
	TAC87D	853.7750	853.7750	FBT / MO	136.5	Tactical (direct) – Law Enforcement (less than 15 Watts ERP)
COML		858.2625	813.2625	FB2T/MO/FX1	COML Assigned	Communications Leader (COML) use only
	COMLD	858.2625	858.2625	FBT/MO	COML Assigned	Communications Leader (COML) use only

800 MHz Channel Name Cross Reference

This channel plan establishes specific labels for 800 MHz channels to assure consistent use throughout the state. These labels are listed below and all participating agencies should use them if possible. Alphanumeric radio displays should be consistent with the examples listed below depending on each radio's capability. Any reference to previous identifiers (for example "800 common") should be removed from the radio display. The NPSTC Labels may be added to radios as an extra channel group for ICALL and ITAC frequencies, but they may not be used in place of the standard Region 11 labels. The TRIC channel labels only apply to the Hawai'i Strategic Reserve temporary repeaters/mobile relays. As with any repeater/mobile relay, users should take care to note that the Tx and Rx frequencies are an inverse²⁷ of the Tx and Rx frequencies listed in the channel figures for mobile and portable configurations.

²⁷ The mobile Tx frequency is the repeater Rx frequency and the mobile Rx frequency is the repeater Tx frequency.

800 MHz Channel Name Cross Reference			
Channel Name / Label	NPSTC Recommended Name / Label	Recommended 3-Digit Name / Label	TRIC Channel Label
ICALL	8CALL90	90	
ICALLD	8CALL90D	90D	
ITAC1	8TAC91	91	A - Yellow
ITAC1D	8TAC91D	91D	
ITAC2	8TAC92	92	B - Yellow
ITAC2D	8TAC92D	92D	
ITAC3	8TAC93	93	C - Yellow
ITAC3D	8TAC93D	93D	
ITAC4	8TAC94	94	
ITAC4D	8TAC94D	94D	
RTAC5		R5	
RTAC5D		R5D	
RTAC6		R6	
RTAC6D		R6D	
RTAC7		R7	
RTAC7D		R7D	
RTAC8		R8	
RTAC8D		R8D	
RTAC9		R9	
RTAC9D		R9D	
TAC81		81	A - Blue
TAC81D		81D	
TAC82		82	B - Blue
TAC82D		82D	
TAC83		83	C - Blue
TAC83D		83D	
TAC84		84	
TAC84D		84D	
TAC85D		85D	
TAC86D		86D	
TAC87D		87D	
COML		99	
COMLD		99D	

P25/Project 25 Standard ID Allocations

Many organizations within the State of Hawai‘i are contemplating the use of P25 systems or radios. In order to effectively use P25 across jurisdictions certain standards for selection of identification codes have been implemented for P25 systems, especially P25 trunked systems. The statewide interoperability coordinator, which in Hawai‘i is presently the SCIP (Statewide Communications Interoperability Plan) committee, will work with each organization to ensure that the IDs are properly implemented and recorded. Any public safety organization contemplating the acquisition of a P25 system must contact the SCIP for guidance and ID assignments.

The following identification codes (IDs) will be used when placing P25 systems or radios into operation within the State of Hawai‘i:

Talk Group IDs

Five Digits: 00000 to 65,535²⁸

00000 = reserved by system; 00001 = default value, 65,535 = all call; 10,000 to 65,534 are not to be used

Format: 0JDxx -- Leading zero; J = Jurisdiction; D = Discipline; xx = agency assigned, 00 to 99

0	J – Jurisdictions		D – Disciplines		00 - 99
0	0	SCIP Assigned	1	Law Enforcement	xx
0	1	County of Kaua‘i	2	Law Enforcement	xx
0	2	City and County of Honolulu	3	Law Enforcement	xx
0	3	City and County of Honolulu	4	EMS	xx
0	4	Reserved	5	Fire/LNR/Ocean	xx
0	5	County of Maui	6	Fire	xx
0	6	County of Hawai‘i	7	Civil Defense/Critical Infrastructure	xx
0	7	State of Hawai‘i	8	Transportation	xx
0	8	Other	9	Other/Cross Discipline (System Common)	xx
0	9	Reserved	0	Reserved	xx

Example: The Talk Group ID - 07582 represents a talk group controlled by the State of Hawai‘i, used in the Fire/Land and Natural Resources/Ocean Safety discipline, with a locally assigned ID of 82.

²⁸ All IDs listed here are in decimal format although in other documents they may also appear in hexadecimal format. A hexadecimal number is usually preceded by a \$ sign, as in the NAC code of \$293.

Unit IDs

Eight decimal digits: 00000000 to 16,777,214

00000000 = reserved by system; 16,777,215 = reserved by system - used when implementing a group call with a talk group ID; 10,000,000 to 16,777,214 are system special purpose IDs

Format: 08JJDyyy

Leading 08 throughout Hawai'i; JJ = Jurisdiction; D = Discipline; yyy = agency assigned, 000 to 999

08	JJ - Jurisdictions		D - Disciplines		000 - 999
08	00 to 09	SCIP assigned	1	Law Enforcement	yyy
08	10 to 19	County of Kaua'i	2	Law Enforcement	yyy
08	20 to 29	City & County of Honolulu	3	Law Enforcement	yyy
08	30 to 39	City & County of Honolulu	4	Fire	yyy
08	40 to 49	Reserved	5	Fire/LNR/Ocean	yyy
08	50 to 59	County of Maui	6	EMS	yyy
08	60 to 69	County of Hawai'i	7	Civil Defense/Critical Infrastructure	yyy
08	70 to 79	State of Hawai'i	8	Transportation	yyy
08	80 to 89	Other	9	Other/Cross Discipline (System Common)	yyy
08	90 to 99	Reserved	0	Reserved	yyy

Example: The Unit ID - 08534555 represents a unit in Hawai'i, controlled by the County of Maui, used in the Fire discipline, with a locally assigned ID of 555.

Site IDs

As organizations deploy P25 systems that may interconnect through interfaces or directly with other P25 systems the sites that they use throughout Hawai‘i will need unique identifiers. An organization will almost certainly have its own name or number for a site in addition to this P25 site ID. Organizations assigning a P25 site ID in Hawai‘i will assign it according to the county in which it is physically located.

Allocation by county in which the site is physically located:

Starting Site IDs	Ending Site ID	County
0	15	Unused
16	31	Kaua‘i
32	47	Honolulu
48	63	Honolulu
64	79	Honolulu
80	95	Honolulu
96	111	Honolulu
112	127	Honolulu
128	143	Maui
144	159	Maui
160	175	Maui
176	191	Maui
192	207	Hawai‘i
208	223	Hawai‘i
224	239	Hawai‘i
240	255	Spare

Example: The County of Hawai‘i has installed a P25 site at Haleakala. They may be assigned the Site ID of 190 since the site is physically within the boundaries of Maui County.

Summary

By agreeing to the conditions of this Channel Plan public safety entities throughout Hawai‘i will significantly strengthen interoperable communications amongst themselves. The plan is not meant as a stand-alone document, but instead is part of a broader suite of interoperability efforts and documents created by the state’s interoperability governance bodies.

The policies and procedures detailed in the plan touch upon all the elements of the U.S. Department of Homeland Security’s Interoperability Continuum. Integration of the Channel Plan with the Hawai‘i Statewide Communications Interoperability Plan and the TIC Plans from each of the Hawai‘i RPZs satisfies the highest level of the Governance Element. The Channel Plan itself serves as a broad Standard Operating Procedure for interoperable use of radios. The Technology element is met by the establishment of standard frequencies, CTCSS tones and frequencies on multiple radio spectrum bands. The plan further allows for and encourages daily use of the interoperability channels as required in the Usage element. And finally, every user of this plan must include the use of these channels in their training and exercises as is emphasized in the Continuum’s Training and Exercise element.

The Hawai‘i Statewide Interoperability Channel Plan is meant to be a relevant document for the near term and for many years in the future. Please make sure that you discover its strengths and weaknesses and help the State keep it current. The Department of Accounting and General Services is committed to updating this plan as often as is necessary to maintain its usefulness in promoting interoperable communications in Hawai‘i.

This Channel Plan is consistent with current regulatory requirements, technical standards, and grant guidelines as they are understood at the time of issue.

VI. MONITORING

Any State of Hawai‘i agency using these channels and all Responsible Organizations that have been allowed to use these channels will monitor the effectiveness of this plan. All users will observe and measure the use of the interoperability channels and recommend adjustments in assignments or procedures. Recommended changes may be submitted directly to ICSD (contact information is contained in Section IX), or may address them to the HWIN or SCIP committee.

VII. ENFORCEMENT

Every user of this channel plan and its assigned channels is responsible for enforcement of the provisions of the plan. If any abuse, misuse or alteration to these operating procedures is observed, action must be taken. Users that observe the problem should immediately try to correct it. If that is not possible, a report should be made to HWIN, the SCIP committee, ICSD, State Civil Defense, or directly to the FCC.

VIII. REFERENCES AND ATTACHMENTS

Statewide Communications Interoperability Plan; State of Hawai‘i

Part 90 of the Rules of the FCC (Part 90 of Title 47 of the Code of Federal Regulations)

47 CFR Part 2 (Part 2 of Title 47 of the Code of Federal Regulations)

The NTIA Manual (Manual of Regulations and Procedures for Federal Radio Frequency Management)

NPSTC Standard Channel Nomenclature for the Public Safety Interoperability Channels

Maui RPZ TIC Plan

Kaua‘i RPZ TIC Plan

O‘ahu RPZ TIC Plan

Hawai‘i RPZ TIC Plan

No Attachments

IX. COMMENTS AND SUGGESTIONS

Comments, recommendations, proposals, or suggestions regarding the contents of this document may be sent either via email to icsd.admin.ppmo@hawaii.gov or in writing to:

Information and Communication Services Division
Telecommunications Services Branch
1151 Punchbowl Street, Room B10
Honolulu, HI 96813

X. REVISION HISTORY

Creation Date:		Date Last Updated	Date last reviewed
March 1, 2011		March 1, 2011	March 1, 2011
Revision History			
Revision date	Revision		Author
March 1, 2011	Initial Release		ICSD / SCIP

ATTACHMENT D

Letter from ICSD/DAGS to FCC – December 28, 2001

BENJAMIN J. CAYETANO
GOVERNOR



GLENN M. OKIMOTO
Comptroller

MARY ALICE EVANS
Deputy Comptroller

STATE OF HAWAII
DEPARTMENT OF ACCOUNTING
AND GENERAL SERVICES
P.O. BOX 119
HONOLULU, HAWAII 96810-0119

December 28, 2001

Ms. D'wana Terry
Chief Public Safety and Private Wireless Division
Wireless Telecommunications Bureau
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Dear Ms. Terry:

In accordance with WT Docket 96-86, Fourth Report and Order, released January 17, 2001, the State of Hawaii has elected to administer the 2.6 MHz of Interoperability spectrum within the public safety 700 MHz band.

The Information and Communications Services Division of the Department of Accounting and General Services will establish a State Interoperability Executive Committee to administer the Interoperability channels.

Should you have any questions, please contact me at (808) 586-1910.

Sincerely,

A handwritten signature in dark ink, appearing to read "Lester M. Nakamura", written over a horizontal line.

LESTER M. NAKAMURA, Administrator
Information and Communication
Services Division

ATTACHMENT E
Letter from Governor Ige Designating SIEB
With Authority to Administer Interop Channels



EXECUTIVE CHAMBERS
HONOLULU

DAVID Y. IGE
GOVERNOR

January 15, 2016

Admiral David G. Simpson
Chief
Public Safety & Homeland Security Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Admiral Simpson:

Reference letter dated December 28, 2001 (attached) related to Hawai'i Administration of the 700 MHz band. By this letter I am providing the FCC Notice as of January 2016 the governance of the interoperability channels has changed.

Pursuant to the Federal Communications Commission Report and Order released October 2014, FCC 14-172, the State of Hawai'i will govern the 700 MHz public safety narrowband spectrum through the SIEB, the governance body organized to oversee public safety communications. Major General Arthur J. Logan, Adjutant General and Homeland Security Advisor is the Chair of the SIEB. The SIEB designated the 700 MHz Region 11 Regional Planning Committee (RPC) to coordinate and administer the interoperability channels. The RPC will collaborate with State and County public safety stakeholder partners and report back to the SIEB through its Chairperson, Warren Izumigawa, who is an appointed member of the SIEB.

It is our intent to more fully engage in this very important part of managing public safety communications in our State. Both the SIEB and RPC include policy and provider members to ensure planning is dynamic and transparent.

If you have any questions, please have your staff contact our Statewide Interoperability Coordinator, Victoria Garcia. She is working closely with Major General Logan in this matter. She can be reached at (808) 208-3606, or via email at victoria.garcia@hawaii.gov.

With warmest regards,

David Y. Ige
Governor, State of Hawai'i

Attachment

c: David Furth, Deputy Chief, Homeland Security Bureau, FCC
John Evanoff, Attorney Advisor, FCC
Major General Arthur J. Logan, Adjutant General
Douglas Murdock, Comptroller, State of Hawai'i, DAGS
Todd Nacapuy, CIO, ETS
Victoria Garcia, Coordinator, SWIC
Dolores Cook, Office of Homeland Security

ATTACHMENT F
RPC Bylaws, as amended 2016

Attachment F

BY LAWS OF THE

REGION 11

700 MHz REGIONAL PLANNING COMMITTEE

Revised October 31, 2016

BYLAWS OF THE REGION 11 700 MHZ REGIONAL PLANNING COMMITTEE

ARTICLE I NAME AND PURPOSE

The name of this regional planning committee shall be: The Region 11 700 MHz Regional Planning Committee, hereinafter referred to as the RPC.

The purpose of the RPC is to collaboratively develop, implement, maintain and administer the frequency usage plan for the Hawaii General Use channels within the narrowband portion of the 700 MHz public safety band. The 700 MHz Public Safety Band is composed of the narrowband spectrum frequencies 769-775/799-805. Such purpose promotes the design of systems to achieve interoperability among the public safety services providers in the state and counties of Region 11.

ARTICLE II MEMBERS

Membership in the RPC is open to interested stakeholders and includes both voting and non-voting members as defined under 47 CFR Section 9—523 (a-e) *Eligibility*.

A1. **Members:**

- a. State and local government entities, *Id* at (a)
- b. Non-governmental organizations (NGOs) that provide services, the sole or principal purpose of which is to protect the safety of life, health or property if, and only for so long as, the NGO has the on-going support of a state or local government entity whose mission is the oversight of or provision of services, the sole or principal purpose of which is to protect the safety of life, health or property (see *Id* at (b) (1-3))
- c. All NGO authorizations are conditional. *Id* at (c)
- d. No commercial interest may be held in the Public Safety Broadband Licensee, *Id* at (e)(1)

- A2. **Voting Members:** There shall be a total of 10 (10) voting members on the RPC. two (2) of those voting members shall represent the state agency(ies) from which s/he was appointed and the interests of the state public safety agencies at large. Each of the four counties shall have one (2) voting members. Such named members from both the State and Counties shall provide the Chair of the RPC with written documentation of his/her appointment. Each representative is entitled to one (1) vote each.

- a. **Alternates:** Agencies/entities may select one (1) alternate. Alternates may only vote when the primary representative is unavailable or unable to be present for a vote.
 - b. **Proxies:** If the primary and the alternate designated representatives are unavailable to vote, a proxy member may represent their agency/entity and vote provided s/he has an approved proxy letter from the primary or alternate designated representative voting member.
- A3. **Term:**
 - a. **Voting Members:** Each appointed member shall fill a term of two years from the date of appointment. Alternates shall fill the same term as the representative for whom s/he was appointed as alternate.
 - b. **Non-voting Members:** Non-voting members have no time restrictions for service with the RPC.
- A4. **Suspensions and/or Removal:** The RPC may recommend to the appointing agency/entity that a voting member be suspended or removed for cause which may include, but not be limited to, failure to attend 50% of calendared meetings for which Notice is served. The member may appeal to the RPC and provided the opportunity to be heard before a final recommendation from the RPC is sent to the appointing agency. If the RPC determines the recommended suspension is still valid, but the appointing agency/entity does not agree, such decision may be appealed to the Statewide Interoperability Executive Board (SIEB). The decision of that Board is final.
- A5. **Resignation:** A voting member may resign upon giving ten (10) days Notice to his/her appointing authority and the RPC Chair.
- A6. **Jurisdictions:** Each of the following stakeholder agencies/entities shall be entitled to select voting representatives from their respective public safety stakeholders:
 - a. State of Hawaii public safety related departments (2 voting members total)
 - b. Each County: City and County of Honolulu, Maui, Kauai, County of Hawaii. (2 voting members per county; 1 alternate per County)
- A7. **Non-voting Members:**
 - a. No Commercial Interest(s) stakeholders
 - b. NGOs with no principal purpose of protecting the safety of life, health or property.

ARTICLE III VOTING

- A. Voting Members:** Each of the ten (10) voting members on the RPC, identified in Article II (A)(2) *above*, is entitled to one (1) vote each.
- B. Quorum** Quorum is reached by the presence of two-thirds of the voting members or his/her alternate, for any action in which a vote is required, unless otherwise provided by law or these bylaws. If no quorum is available, any meeting may be adjourned and rescheduled to such date not more than sixty days following the meeting that was adjourned for lack of quorum.
- C. Voting:** Motions carried to a vote shall pass with two-thirds of the voting members present voting in the affirmative.
- D. Business conducted electronically:** Business of the RPC may be conducted electronically, provided all email communications is facilitated by the Chair or Vice-Chair and monitored and documented by the Secretary. If a vote is needed and a voting member makes a motion electronically, s/he must copy the Executive Committee and such electronic vote will be sent to all voting members; the results will be recorded for presentation at the next regularly scheduled meeting of the RPC. If a voting member does not send in his/her vote within five (5) days (or other Chair specified time period), the vote shall be recorded as a “no”.
- E. Votes by Proxy:** In the event both the primary and alternate voting members are unavailable for a scheduled meeting, the primary voting member may cast his/her vote by proxy. Such proxy shall be provided to the Chair, in writing, with the date no less than one (1) month prior to the scheduled meeting. The Secretary shall file such proxy upon receipt from the Chair and it shall be recorded as part of the minutes. Unless otherwise specifically limited by his or her term, such proxy is valid only for the specific meeting for which s/he filed the proxy.
- F. Conflict of Interest:**
1. No voting member shall vote on a matter in which the entity s/he represents has an interest. S/he shall disclose the conflict to the Chair and abstain from casting a vote on that particular matter.
 2. No voting member shall have a commercial interest in any of the application(s) generated from his/her jurisdiction.
- G.** Any conflict which may arise between the interoperability rules and the RPC’s guidelines and rules as approved by the SIEB, shall favor first the Region 11 RPC rules unless they are found to be arbitrary and capricious.

ARTICLE IV OFFICERS

The RPC shall have the following officers: Chair, Vice-Chair, Secretary and Treasurer. The Officers shall be voting members of the RPC and shall also be called the “Executive Committee”.

- A. **Elections:** Officers shall be elected by voting members at the first annual meeting and, thereafter, following the end of his/her term.
- B. **Chairperson:** The Chair shall be the Chief Officer and shall be the representative of the RPC on the Statewide Interoperability Executive Board (SIEB). S/he shall have general charge and has the authority to assign task groups to research issues which may arise and report back to the RPC voting members for discussion and, if appropriate, take action by a vote.
- C. **Vice Chairperson:** The vice-chair person shall act on behalf of the chair in the event the Chairperson is unavailable for or unable to chair scheduled meetings or special meetings which may be called.
- D. **Secretary:** The Secretary shall ensure proper Notice of meetings is published, keep a record of the actions in a meeting; keep updated record of membership; keep a record of all matters pertaining to the RPC in a manner agreed upon by the officers and members of the RPC.
- E. **Treasurer:** Any money which may be allocated to the RPC, in any form, shall be managed by the Treasurer with financial reports due to the Chair and membership. The SIEB shall receive a copy of any documents that may be generated by any funds that may become available for the work of the RPC, if such money is necessary and available.
- F. **Term; retention:** Officers shall be elected for a period of two years and be eligible for re-election for up to two additional two year terms for a total of six years.
- G. **Resignation or removal; special meeting:** If an officer resigns or is removed from office pursuant to the bylaws, a special meeting of the RPC voting members may be called by the Chair (or the officer in charge) with nominations accepted from the floor and a vote taken at such meeting. The individual will complete the remainder of the term of office of the individual who resigned or was removed and shall stand for election at the first annual meeting following his/her appointment at the special meeting.

Article V MEETINGS

- A. **Regular Meetings:** Regular meetings of the RPC shall be scheduled twice per year, February and July.
- B. **Annual Meeting:** The Annual meeting of the RPC shall be held at the first scheduled meeting of the RPC in February.
 - 1. In the event the annual meeting cannot be held in February the Chair of the RPC will provide fifteen (15) days notice to the membership. A special meeting will be proposed which shall be no later than 15 days following the cancellation of the originally scheduled meeting.
- C. **Special Meetings:** Special meetings of the members may be held at any time and place as identified by the Chair. Special meeting(s) may be called by the Chair, Vice Chair or upon application to the Chair by two or more voting members. If a special meeting is called, the Chair shall provide at least 10 working days Notice to the Members.
- D. **Virtual Meetings:** Members may remotely attend a meeting of the RPC. The Chair will work with members to coordinate locations wherein members may attend virtually. Members in each county shall provide the Chair, and copy the Secretary, with information regarding locations where members may attend remotely.
- E. **Electronic:** See Article III (B)
- F. **Notice:** Except as otherwise specified under the rules, the Chair shall provide email notice to members at least thirty (30) days before the meeting. Notice shall be sent via email. It is the responsibility of the members to ensure s/he has provided a current email address to the Secretary; if at any time during his/her tenure that email changes, s/he must provide such change to the Secretary within 5 days of such change.

Article VI DATABASE MANAGEMENT

- A. The Chair will assign a Task Group to explore use of CASM as the database in which assigned channels will be entered for both the State and Counties.
- B. The State entities and Counties shall identify a stakeholder representative from his/her respective jurisdiction who shall be charged with entering the data for that jurisdiction into CASM or whatever database system is selected by the RPC. S/he shall be identified by the jurisdiction and the name shall be provided to the Chair

and Secretary. The database shall be managed by the Secretary and no changes to the database shall be made unless authorized by the voting members. If CASM is selected for use by the RPC, the Chair will work with the Regional Administrator of CASM to ensure training on the system is provided to the RPC members and those assigned to keep the database, in particular.

Article VII FUTURE PLANNING AND/OR AMENDMENTS TO THE BYLAWS

- A. At any time that the RPC may find it appropriate to modify its Regional Plan, as approved by the FCC, such modifications/changes (which are substantive) shall be through action taken at a regularly scheduled or specially scheduled meeting of the voting members of the RPC. Such changes shall be discussed and, if agreed upon, shall be memorialized and submitted for approval to the SIEB and then to the FCC.
- B. If at any time the Bylaws must be amended, the Chair shall take recommended changes and send them to the voting members for discussion and submission to the general membership, if recommended by the Executive Board. Final amendments to the Bylaws, if agreed upon by the Members, shall be submitted to the SIEB and the FCC.

Article VIII STATEWIDE INTEROPERABILITY EXECUTIVE BOARD (SIEB)

- A. **Authority:** The SIEB shall be the arbiter of any conflicts that may arise from the business of the RPC.
- B. **Delegation of authority:** The SIEB, a governance entity composed of state and county public safety stakeholder policy makers, has identified the RPC as the entity to administer and manage the 700 MHz spectrum in the State of Hawaii.
- C. **Air to Ground Channels:** The SIEB has delegated authority to the RPC to coordinate the Air to Ground Channels designated by the FCC. Such delegation is confirmed by letter from the Governor to the FCC.
- D. **Membership on the SIEB from RPC:** The RPC shall be represented on the SIEB by the Chair, or in his/her absence, by the Vice Chair.

RESPECTFULLY SUBMITTED:

Warren Izumigawa, Chairperson

October 31, 2016 Final

ATTACHMENT G
RPC Meeting Dates

ATTACHMENT G

Dates of Meetings of the Region 11 700 MHz RPC

January 2015

May 2016

July 2016

October 2016

November 2016

December 2016

ATTACHMENT H

List of Individuals who drafted and participated in Comments to the
Plan prior to submission

ATTACHMENT H

List of Individuals who participated in drafting and commenting on the Region 11 700 MHz Plan prior to submission:

State of Hawaii, Office of Enterprise Technology Services

Vince Krog	Radio Engineer (RPC Treasurer)
Joshua Brandt	Radio Technician
Les Nakamura	Spectrum Coordinator

State of Hawaii, Department of Defense

Victoria Garcia,	Statewide Interoperability Coordinator, Office of Homeland Security(Scribe/Alternate)
David Hafner,	Planner, Hawaii Emergency Management Agency

City and County of Honolulu

Warren Izumigawa	Honolulu Police Department, Communications (Chairperson)
Alvin Sunahara	Department of Information Technology (DIT) (Retired)
Joshua Prager	Engineer (DIT)

Maui County

Walter Pacheco	Communications Coordinator, Maui County Police Department (Vice Chair)
Kaipo Kahai	Captain, Maui Fire Department
Keanu Lau Hee	Staff Specialist, Maui Civil Defense Agency

Kauai County

David Miyasaki	Telecommunications Officer, Kauai Civil Defense Agency
Richard Rosa	Acting Assistant Chief of Police, Kauai Police Department
Gordon Tamura	Captain, Kauai Fire Department

Hawaii County

Don Jacobs	Chief Information Officer, County of Hawaii
John Drummond	Radio Engineer, Hawaii County Civil Defense

ATTACHMENT I
Agendas and Minutes of RPC Meetings

Region 11, Hawaii, 700 MHz PSRPC - Meeting 13 January 2015 at 9:13 AM

Index	Government or Entity	Name	Organization	Status	Present	Voting	Venue	Motion # 1		Motion #2	
								Move Sec	Vote	Move Sec	Vote
	County of Kauai										
1		David Miyasaki	KCDA/KEMA	Primary							
2		Elton Ushio	KCDA/KEMA	Alternate	X	X	K-EOC		Y		Y
3		Gordon Tamura	KFD	Primary							
4		none designated	KFD	Alternate							
5		Alejandro Quibilan	KPD	Primary							
6		none designated	KPD	Alternate							
	City and County of Honolulu										
7		Alvin Sunahara	Honolulu DIT	Primary	X	X	KB		Y	S	Y
8		Gary Isono	Honolulu DIT	Alternate							
9		Russell Kaneakua	Honolulu FD	Primary	X	X	Hono-EOC		Y		Y
10		Gary Lum	Honolulu FD	Alternate							
11		Warren Izumigawa	Honolulu PD	Primary	X	X	KB		Y		Y
12		Allan Nagata	Honolulu PD	Alternate	X		KB				
	County of Maui										
13		Anna Foust	MCDA	Primary							
14		Keanu Lau Hee	MCDA	Alternate	X	X	M-EOC		Y		Y
15		Walter Pacheco	MPD	Primary	X	X	M-EOC		Y		Y
16		David Crowell	MPD	Alternate							
17		Leomer Domingo	MFD	Primary							
18		Kaipo Kahe	MFD	Alternate							
	County of Hawaii										
19		Quince Mento	Hawaii CD	Primary							
20		John Drummond	Hawaii CD	Alternate							
21		Mike Gahan	Hawaii FD	Primary							
22		Paulino Austria	Hawaii FD	Alternate							
23		Larry Weber	Hawaii PD	Primary							
24		James Kiley	Hawaii Data	Alternate							
	State of Hawaii										
25		Robert Hlivak	DAGS/ICSD	Primary	X	X	KB		Y		Y
26		Vincent Krog	DAGS/ICSD	Alternate							
27		David Hafner	DoD/HI-EMA	Primary	X	X	Birk	M	Y	M	Y
28		Ryan Hirae	DoD/HI-EMA	Alternate							
29		Marc Woodward	Public Safety Division	Primary	X	X	Birk	S	Y		Y
30		Robin Nagamine	Public Safety Division	Alternate							

Non-voting attendees:

31		Lester Nakamura	State OIMT				KB
32		Teejay Nguyen	Alster Communications				KB
33		Ryan Yamasaki	State AG				KB
34		Dave Swirsky	Scientel Wireless				KB
35		Joshua Priger	?				KB
36		Red Green	KPD				K-EOC
37		Harold Buckle	Honolulu DEM				Hono-EOC
38		William Heckler	US Coast Guard				Hono-EOC
39		John Eastman	US Coast Guard				Hono-EOC
40		Eric Chang	US Coast Guard				Hono-EOC

Summary: The meeting was called to order at 9:13 AM HST by chair Robert Hlivak; no other officers were present. A total of ten (9) eligible voting or alternate members were present providing a quorum. Motion #1 – The minutes of the 18 November 2014 were accepted by unanimous vote. Motion #2 also passed by unanimous consent, electing the following officers: Chairman – Warren Izumigawa; Vice-Chairman – Alvin Sunahara; Secretary – David Hafner; and Treasurer Marc Woodward. The meeting adjourned at 9:40 AM HST.

700 MHz Regional Planning Committee

Meeting Minutes

1. May 19, 2016 Meeting Announcement and Agenda
2. May 19, 2016 Meeting Minutes
3. October 31, 2016 Meeting Announcement and Agenda
4. October 31, 2016 Meeting Minutes
5. November 10, 2016 Meeting Announcement and Agenda
6. November 10, 2016 Meeting Minutes
7. December 1, 2016 Meeting Announcement and Agenda
8. December 1 Meeting Minutes

Hafner, David T

From: Hafner, David T
Sent: Monday, May 02, 2016 10:55 AM
To: Memembership

Subject: 700 MHz RPC Special Meeting May 19, 2016
Attachments: R11 Bylaws for 700MHz RPC 9 June 2009.pdf; PROPOSED
AMENDMENTSRPCBylawsFinal20160310.pdf

Dear 700 RPC MHz Members,

NOTICE OF SPECIAL MEETING – May 19, 2016 Hilton Waikiki, 2500 Kuhio Road, Honolulu HI

This is to notify you pursuant to the bylaws that the Chair has officially called for a Special Meeting of the 700 MHz RPC on May 19, 2016 1:00 PM to 3:00 PM. A detailed agenda will follow. The main purpose of the Special Meeting will be to discuss proposed amendments to the 700 RPC Bylaws which are attached to this email.

While we encourage everyone to attend in-person if you are unable to travel and would like to attend via e-mail pursuant to para. 2.8 of the Bylaws please contact my office.

Regards,

700 MHz RPC Secretary

David T. Hafner, Jr.
Telecommunication Planner
Hawaii Emergency Management Agency
3949 Diamond Head Rd, Honolulu HI 96816-4495
(808)354-4260

700 MHz Regional Planning Committee

Meeting Minutes 19-May-2016

Members Present

W. Izumigawa*	C&C
D. Hafner*	State
D. Miyasaki*	Kauai
Elton Ushio	Kauai
Gordon Tamura*	Kauai
Richard Rosa*	Kauai
A. Foust*	Maui
W. Pacheco*	Maui
Kapena Segunda*	Maui
Kaipo Kahai	Maui
Gary Lum	C&C
Vincent Krog*	State
Ryan Hirae	State

(*Voting member)

1. A Special Meeting of the 700 MHz RPC was convened at 1:30 PM
2. The Secretary confirmed that a quorum of nine (50% or eight voting members) was present to conduct business
3. Opening remarks by the Chair Warren
 - a. Review of the PRC background
 - b. Need to adopt the Draft plan
 - c. Presentation of the proposed Bylaw changes
4. Motion to adopt proposed changes as a formal proposal to amend the Bylaws to the Committee
 - a. Moved by D. Hafner
 - b. Seconded by W. Pacheco
 - c. Discussion
 - d. Motion passes 9 to 0
5. Amendment proposed to require a defined process for becoming a non-voting member
 - a. Moved by A. Foust
 - b. Seconded by K. Kahai
 - c. Discussion

- d. Motion passes 9 to 0
6. Amendment proposed to reduce the State membership from two to one
- a. Moved by D. Miyasaki
 - b. Seconded by A. Foust
 - c. Discussion
 - d. Motion passes 5 to 4
7. Amendment proposed to require the listing of alternates in order of precedence if voting member is unable to attend
- a. Moved by D. Miyaski
 - b. Seconded by G. Lum
 - c. Discussion
 - d. Motion passes 9 to 0
8. Amendment proposed to require that a voting member recuse themselves voting on items in which they have a personal financial interest
- a. Moved by W. Paccheo
 - b. Seconded by
 - c. Discussion
 - d. Motion passes 9 to 0
9. Question Called on the Main Motion to adopt proposed Bylaw changes as amended as a formal proposal to the Committee
- a. The Main Motion fails due to a lack of a quorum with only six voting members present due to early departures.
10. Meeting adjourned at 3:30 PM

Submitted by:

RPC Secretary – David Hafner

Hafner, David T

From: Hafner, David T
Sent: Thursday, October 27, 2016 3:41 PM
To: Membership

Cc:
Subject: Upcoming 700 MHz Regional Planning Committee meeting
Attachments: R11 Bylaws for 700MHz RPC 9 June 2009.pdf; PROPOSED AMENDMENTSRPCBylawsrevV32016.docx; 700 MHz Regional Planning Committee 19-May-2016.pdf

Dear RPC members,

This is a reminder that there are three critical upcoming 700 MHz Regional Planning Committee meetings on the following dates and times:

- Monday October 31, 2016 1300 (1:00 PM) to 1500 (3:00 PM)
- Thursday November 10, 2016 0900 (9:00 AM) to 1200 (12:00 PM)
- Thursday December 1 2016 0900 (9:00 AM) to 1200 (12:00 PM)

The meeting will be conducted via VTC at the following locations:

- Kalanimoku State VCC (will act as the originator)
- HI-EMA State EOC
- Hawaii County EOC
- Maui County EOC
- Honolulu EOC

ETS VTC will originate the video calls from the Kalanimoku facility. Please arrange to schedule the availability of your EOC for the meeting.

Please review the attached documents

- R11 Bylaws for the 700 MHz RPC 9 June 2009.pdf – The Current Bylaws
- PROPOSED AMENDMENTSRPCBylawsrevV32016.docx – The proposed amendments to the Bylaws
- Meeting Minutes May 19, 2016

Note that for the purposes of this meeting under the current bylaws a quorum consists of a majority of the officers and a minimum of 50% of the voting members (eight). Additionally, a vote to amend and/or repeal the bylaws requires a two-thirds majority or ten affirmative. As there are currently only ten voting member it is critical that all attend.

Regards,

David T. Hafner, Jr.
Telecommunication Planner
Hawaii Emergency Management Agency
3949 Diamond Head Rd, Honolulu HI 96816-4495
(808)354-4260

700 MHz Regional Planning Committee

Meeting Minutes 31-October-2016

Members Present

David Miyaski – Kauai

Russell Kaneakau – C&C
Tony Velasco* – C&C
Warren Izumigawa – C&C

Kaipo Kahai – Maui
Walt Pacheco – Maui

Don Jacobs – Hawaii

David Hafner – State
Vince Krog – State
Victoria Garcia* - State

*Alternate Member

Members Absent

Gordon Tamura – Kauai
Richard Rosa* - Kauai

Keanu Lau Hee* - Maui
Anna Froust* - Maui

John Drumond – Hawaii
Gavin DeMello* - Hawaii

1. A Special Meeting of the 700 MHz RPC was convened at 1300
2. The Secretary confirmed that a quorum was present to conduct business
3. Motion to adopt the minutes from the prior 19-May-2016
 - a. Moved by W. Izumigawa
 - b. Seconded by D. Hafner
 - c. Motion passes 8-0
4. Motion to adopt the Revised By-laws
 - a. Moved by W. Pacheco
 - b. Seconded by K. Kaipo Kahai
 - c. Discussion
 - d. Motion passes 8 to 0
5. Motion to accept the nomination of Walt Pacheco as RPC Vice-Chair and Vince Krog as RPC Treasurer
 - a. Moved by W. Izumigawa
 - b. Seconded by Vince Krog

700 MHz Regional Planning Committee
Meeting Minutes 31-Oct-2016

- c. Discussion
- d. Motion passes 8-0

6. Meeting adjourned at 13:30 PM

Submitted by:

RPC Secretary – David Hafner

Hafner, David T

From: Hafner, David T
Sent: Thursday, October 27, 2016 3:41 PM
To: Membership

Cc:
Subject: Upcoming 700 MHz Regional Planning Committee meeting
Attachments: R11 Bylaws for 700MHz RPC 9 June 2009.pdf; PROPOSED AMENDMENTSRPCBylawsrevV32016.docx; 700 MHz Regional Planning Committee 19-May-2016.pdf

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Regards,

David T. Hafner, Jr.
Telecommunication Planner
Hawaii Emergency Management Agency
3949 Diamond Head Rd, Honolulu HI 96816-4495
(808)354-4260

700 MHz Regional Planning Committee

Meeting Minutes 10-Nov-2016

Members Present

<u>Members</u>	<u>Present</u>	<u>Absent</u>
David Miyaski – Kauai		√
Gordon Tamura – Kauai		√
Richard Rosa* - Kauai	√	
Warren Izumigawa – C&C	√	
Russell Kaneakau – C&C		√
Tony Velasco* – C&C	√	
Walt Pacheco – Maui	√	
Kaipo Kahai – Maui	√	
Keanu Lau Hee* - Maui		√
Anna Froust* - Maui		√
Don Jacobs – Hawaii	√	
John Drumond – Hawaii		√
Gavin DeMello*		√
David Hafner – State	√	
Vince Krog – State	√	
Victoria Garcia* - State	√	

*Alternate Member

1. A Scheduled Meeting of the 700 MHz RPC was convened at 0910
2. The Secretary confirmed that a quorum was present to conduct business
3. Motion to adopt the minutes of the 31-Oct-2016 meeting
 - a. Moved by W. Izumigawa
 - b. Seconded by D. Jacobs
 - c. Discussion
 - d. Motion passes 9-0
4. Motion to adopt the 700 MHz RPC Plan
 - a. Moved by W. Izumigawa
 - b. Seconded by D. Jacobs
 - c. Discussion
 - d. Motion passes 9-0
5. Meeting Adjourn at 0920

Hafner, David T

From: Hafner, David T
Sent: Tuesday, November 29, 2016 8:35 AM
To: Membership

Cc:
Subject: Reminder of the Upcoming 700 MHz Regional Planning Committee Meeting

Dear RPC members,

This is a reminder that the next upcoming 700 MHz Regional Planning Committee meetings will occur on the following date and time:

- Thursday December 1 2016 0900 (9:00 AM) to 1000 (10:00 AM)

The meeting will be conducted via VTC and/or phone bridge at the following locations

- Kalanimoku State VCC (will act as the originator)
- HI-EMA State EOC
- Kauai Count EOC
- Hawaii County EOC
- Maui County EOC
- Honolulu EOC

ETS VTC will originate the video calls from the Kalanimoku facility. Please arrange to schedule the availability of your EOC for the meeting.

The call-in phone bridge information will remain the same as the last meeting:

HIEMA Conference Bridge #1

Dial In number: 1-800-920-7487
Participant Passcode: 6976878#

The following codes may be used by the Participants:

*6 Mute Line ON /OFF

700 MHz Regional Planning Committee

Meeting Minutes 1-December-2016

Members Present

<u>Members</u>	<u>Present</u>	<u>Absent</u>
David Miyaski – Kauai	√	
Gordon Tamura – Kauai		√
Richard Rosa* - Kauai		√
Warren Izumigawa – C&C	√	
Russell Kaneakau – C&C		√
Tony Velasco* – C&C		√
Walt Pacheco – Maui	√	
Kaipo Kahai – Maui		√
Keanu Lau Hee* - Maui	√	
Anna Froust* - Maui		√
Don Jacobs – Hawaii	√	
John Drumond – Hawaii		√
Gavin DeMello*	√	
David Hafner – State	√	
Vince Krog – State		√
Victoria Garcia* - State	√	

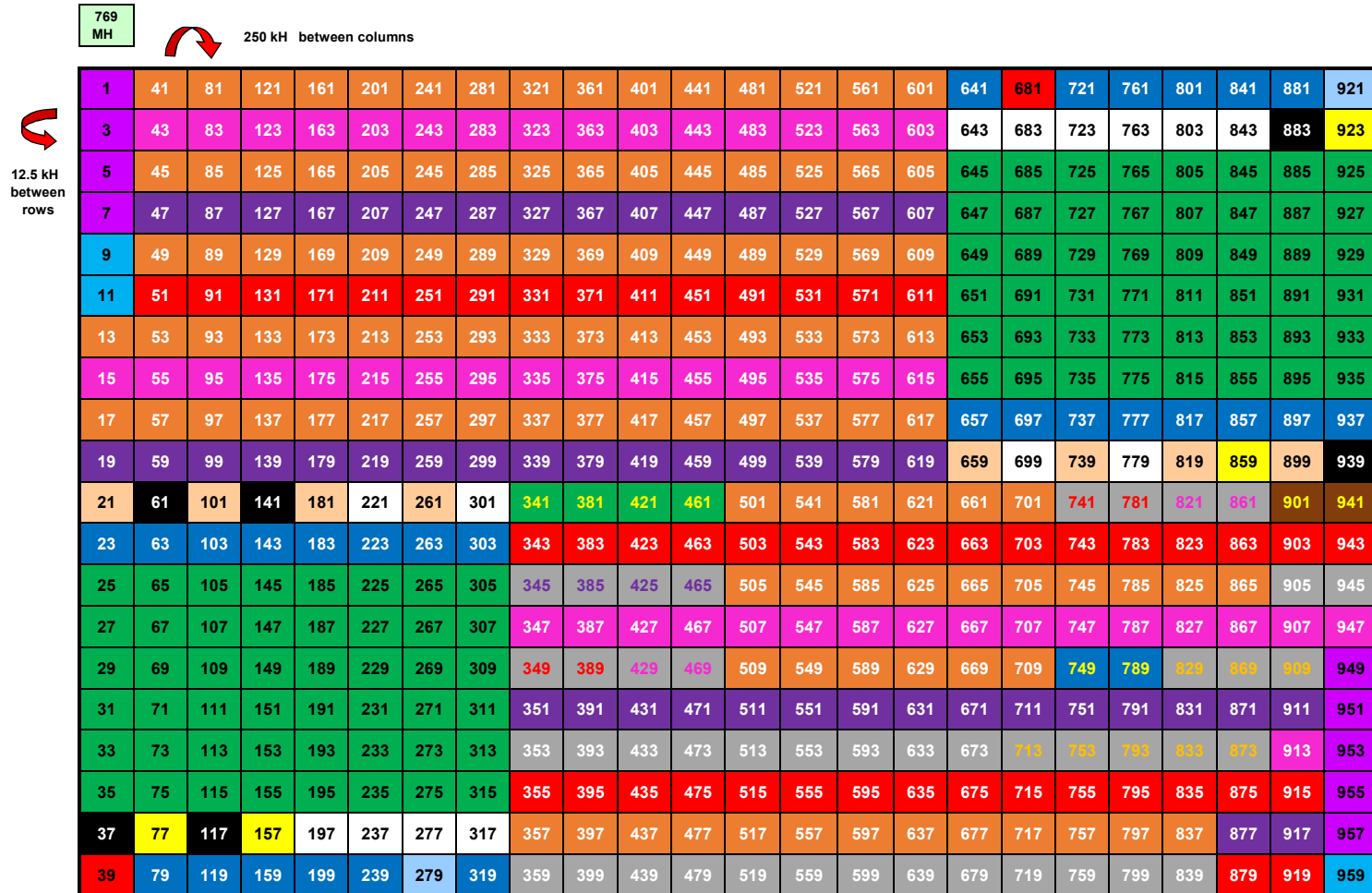
*Alternate Member

1. A Scheduled Meeting of the 700 MHz RPC was convened at 0910
2. The Secretary confirmed that a quorum was present to conduct business
3. Motion to adopt the minor edits to plan proposed by Victoria Garcia
 - a. Moved by W. Izumigawa
 - b. Seconded by V. Garcia
 - c. Discussion
 - d. Motion passes 8-0
4. Motion to adopt clarifications to the channel assignments
 - a. Moved by W. Izumigawa
 - b. Seconded by D. Jacobs
 - c. Discussion
 - d. Motion passes 8 to 0
5. Meeting Adjourn at 0923

ATTACHMENT J
Hawaii 700 MHz Narrowband Channel Plan

Attachment 700 MH Narrowband Channel Plan for Region 11

Each cell represents the ASE tx channel of a 12.5 kHz pair for voice



FCC Mandated Channels per 47 CFR Ch. 1 (10-1-04 Edition) 90.531 and Plan and Report and Order, PS Docket No. 13-87, released October 24, 2014

9	Low Power (2 watts max) for On-Scene Incident Responses (9 each)
3	Itinerant Low Power (2 watts max) for On-Scene Incident Responses For Nationwide Use
96	State Channels
14	"Floating Allotments" to supplement General Use Channels
6	Deployable Trunked System
8	Air to Ground
2	Narrowband Interoperability Calling Channels
28	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
2	Narrowband Data Interoperability
4	Vehicular (2 watts max) Repeater

Voice

48	Kauai primary
112	Honolulu primary
48	Maui primary
48	Hawaii primary
24	Kauai, Maui, & Hawaii Share
2	Honolulu/Hawaii Simplex
2	Kauai/Maui Simplex
4	Statewide Simplex by Discipline
8	Honolulu/FED/NGO Share
4	Hawaii/FED/NGO Share
4	Kauai/FED/NGO Share
4	Maui/FED/NGO Share

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<<<----- CHANNEL TOTALS ----->>>

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Channel	Frequency	Assignment
1	769.00000	Low Power for On-Scene Incident Response (2 watts max)
2	769.00625	Low Power for On-Scene Incident Response (2 watts max)
3	769.01250	Low Power for On-Scene Incident Response (2 watts max)
4	769.01875	Low Power for On-Scene Incident Response (2 watts max)
5	769.02500	Low Power for On-Scene Incident Response (2 watts max)
6	769.03125	Low Power for On-Scene Incident Response (2 watts max)
7	769.03750	Low Power for On-Scene Incident Response (2 watts max)
8	769.04375	Low Power for On-Scene Incident Response (2 watts max)
9	769.05000	Itenerant Low Power for On-Scene Incident Responses-Nationwide
10	769.05625	Itenerant Low Power for On-Scene Incident Responses-Nationwide
11	769.06250	Itenerant Low Power for On-Scene Incident Responses-Nationwide
12	769.06875	Itenerant Low Power for On-Scene Incident Responses-Nationwide
13	769.07500	City and County of Honolulu
14	769.08125	City and County of Honolulu
15	769.08750	County of Maui
16	769.09375	County of Maui
17	769.10000	City and County of Honolulu
18	769.10625	City and County of Honolulu
19	769.11250	County of Kauai
20	769.11875	County of Kauai
21	769.12500	Air to Ground
22	769.13125	Air to Ground
23	769.13750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
24	769.14375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
25	769.15000	State Channels
26	769.15625	State Channels
27	769.16250	State Channels
28	769.16875	State Channels
29	769.17500	State Channels
30	769.18125	State Channels
31	769.18750	State Channels
32	769.19375	State Channels
33	769.20000	State Channels
34	769.20625	State Channels
35	769.21250	State Channels
36	769.21875	State Channels
37	769.22500	Deployable Trunked System
38	769.23125	Deployable Trunked System

Channel	Frequency	Assignment
39	769.23750	Narrowband Interoperability Calling Channels
40	769.24375	Narrowband Interoperability Calling Channels
41	769.25000	City and County of Honolulu
42	769.25625	City and County of Honolulu
43	769.26250	County of Maui
44	769.26875	County of Maui
45	769.27500	City and County of Honolulu
46	769.28125	City and County of Honolulu
47	769.28750	County of Kauai
48	769.29375	County of Kauai
49	769.30000	City and County of Honolulu
50	769.30625	City and County of Honolulu
51	769.31250	County of Hawaii
52	769.31875	County of Hawaii
53	769.32500	City and County of Honolulu
54	769.33125	City and County of Honolulu
55	769.33750	County of Maui
56	769.34375	County of Maui
57	769.35000	City and County of Honolulu
58	769.35625	City and County of Honolulu
59	769.36250	County of Kauai
60	769.36875	County of Kauai
61	769.37500	Deployable Trunked System
62	769.38125	Deployable Trunked System
63	769.38750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
64	769.39375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
65	769.40000	State Channels
66	769.40625	State Channels
67	769.41250	State Channels
68	769.41875	State Channels
69	769.42500	State Channels
70	769.43125	State Channels
71	769.43750	State Channels
72	769.44375	State Channels
73	769.45000	State Channels
74	769.45625	State Channels
75	769.46250	State Channels
76	769.46875	State Channels

Channel	Frequency	Assignment
77	769.47500	Vehicular (2 watts max) Repeater
78	769.48125	Vehicular (2 watts max) Repeater
79	769.48750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
80	769.49375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
81	769.50000	City and County of Honolulu
82	769.50625	City and County of Honolulu
83	769.51250	County of Maui
84	769.51875	County of Maui
85	769.52500	City and County of Honolulu
86	769.53125	City and County of Honolulu
87	769.53750	County of Kauai
88	769.54375	County of Kauai
89	769.55000	City and County of Honolulu
90	769.55625	City and County of Honolulu
91	769.56250	County of Hawaii
92	769.56875	County of Hawaii
93	769.57500	City and County of Honolulu
94	769.58125	City and County of Honolulu
95	769.58750	County of Maui
96	769.59375	County of Maui
97	769.60000	City and County of Honolulu
98	769.60625	City and County of Honolulu
99	769.61250	County of Kauai
100	769.61875	County of Kauai
101	769.62500	Air to Ground
102	769.63125	Air to Ground
103	769.63750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
104	769.64375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
105	769.65000	State Channels
106	769.65625	State Channels
107	769.66250	State Channels
108	769.66875	State Channels
109	769.67500	State Channels
110	769.68125	State Channels
111	769.68750	State Channels
112	769.69375	State Channels
113	769.70000	State Channels
114	769.70625	State Channels

Channel	Frequency	Assignment
115	769.71250	State Channels
116	769.71875	State Channels
117	769.72500	Deployable Trunked System
118	769.73125	Deployable Trunked System
119	769.73750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
120	769.74375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
121	769.75000	City and County of Honolulu
122	769.75625	City and County of Honolulu
123	769.76250	County of Maui
124	769.76875	County of Maui
125	769.77500	City and County of Honolulu
126	769.78125	City and County of Honolulu
127	769.78750	County of Kauai
128	769.79375	County of Kauai
129	769.80000	City and County of Honolulu
130	769.80625	City and County of Honolulu
131	769.81250	County of Hawaii
132	769.81875	County of Hawaii
133	769.82500	City and County of Honolulu
134	769.83125	City and County of Honolulu
135	769.83750	County of Maui
136	769.84375	County of Maui
137	769.85000	City and County of Honolulu
138	769.85625	City and County of Honolulu
139	769.86250	County of Kauai
140	769.86875	County of Kauai
141	769.87500	Deployable Trunked System
142	769.88125	Deployable Trunked System
143	769.88750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
144	769.89375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
145	769.90000	State Channels
146	769.90625	State Channels
147	769.91250	State Channels
148	769.91875	State Channels
149	769.92500	State Channels
150	769.93125	State Channels
151	769.93750	State Channels
152	769.94375	State Channels

Channel	Frequency	Assignment
153	769.95000	State Channels
154	769.95625	State Channels
155	769.96250	State Channels
156	769.96875	State Channels
157	769.97500	Vehicular (2 watts max) Repeater
158	769.98125	Vehicular (2 watts max) Repeater
159	769.98750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
160	769.99375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
161	770.00000	City and County of Honolulu
162	770.00625	City and County of Honolulu
163	770.01250	County of Maui
164	770.01875	County of Maui
165	770.02500	City and County of Honolulu
166	770.03125	City and County of Honolulu
167	770.03750	County of Kauai
168	770.04375	County of Kauai
169	770.05000	City and County of Honolulu
170	770.05625	City and County of Honolulu
171	770.06250	County of Hawaii
172	770.06875	County of Hawaii
173	770.07500	City and County of Honolulu
174	770.08125	City and County of Honolulu
175	770.08750	County of Maui
176	770.09375	County of Maui
177	770.10000	City and County of Honolulu
178	770.10625	City and County of Honolulu
179	770.11250	County of Kauai
180	770.11875	County of Kauai
181	770.12500	Air to Ground
182	770.13125	Air to Ground
183	770.13750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
184	770.14375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
185	770.15000	State Channels
186	770.15625	State Channels
187	770.16250	State Channels
188	770.16875	State Channels
189	770.17500	State Channels
190	770.18125	State Channels

Channel	Frequency	Assignment
191	770.18750	State Channels
192	770.19375	State Channels
193	770.20000	State Channels
194	770.20625	State Channels
195	770.21250	State Channels
196	770.21875	State Channels
197	770.22500	"Floating Allotments" to supplement General Use Channels
198	770.23125	"Floating Allotments" to supplement General Use Channels
199	770.23750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
200	770.24375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
201	770.25000	City and County of Honolulu
202	770.25625	City and County of Honolulu
203	770.26250	County of Maui
204	770.26875	County of Maui
205	770.27500	City and County of Honolulu
206	770.28125	City and County of Honolulu
207	770.28750	County of Kauai
208	770.29375	County of Kauai
209	770.30000	City and County of Honolulu
210	770.30625	City and County of Honolulu
211	770.31250	County of Hawaii
212	770.31875	County of Hawaii
213	770.32500	City and County of Honolulu
214	770.33125	City and County of Honolulu
215	770.33750	County of Maui
216	770.34375	County of Maui
217	770.35000	City and County of Honolulu
218	770.35625	City and County of Honolulu
219	770.36250	County of Kauai
220	770.36875	County of Kauai
221	770.37500	"Floating Allotments" to supplement General Use Channels
222	770.38125	"Floating Allotments" to supplement General Use Channels
223	770.38750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
224	770.39375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
225	770.40000	State Channels
226	770.40625	State Channels
227	770.41250	State Channels
228	770.41875	State Channels

Channel	Frequency	Assignment
229	770.42500	State Channels
230	770.43125	State Channels
231	770.43750	State Channels
232	770.44375	State Channels
233	770.45000	State Channels
234	770.45625	State Channels
235	770.46250	State Channels
236	770.46875	State Channels
237	770.47500	"Floating Allotments" to supplement General Use Channels
238	770.48125	"Floating Allotments" to supplement General Use Channels
239	770.48750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
240	770.49375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
241	770.50000	City and County of Honolulu
242	770.50625	City and County of Honolulu
243	770.51250	County of Maui
244	770.51875	County of Maui
245	770.52500	City and County of Honolulu
246	770.53125	City and County of Honolulu
247	770.53750	County of Kauai
248	770.54375	County of Kauai
249	770.55000	City and County of Honolulu
250	770.55625	City and County of Honolulu
251	770.56250	County of Hawaii
252	770.56875	County of Hawaii
253	770.57500	City and County of Honolulu
254	770.58125	City and County of Honolulu
255	770.58750	County of Maui
256	770.59375	County of Maui
257	770.60000	City and County of Honolulu
258	770.60625	City and County of Honolulu
259	770.61250	County of Kauai
260	770.61875	County of Kauai
261	770.62500	Air to Ground
262	770.63125	Air to Ground
263	770.63750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
264	770.64375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
265	770.65000	State Channels
266	770.65625	State Channels

Channel	Frequency	Assignment
267	770.66250	State Channels
268	770.66875	State Channels
269	770.67500	State Channels
270	770.68125	State Channels
271	770.68750	State Channels
272	770.69375	State Channels
273	770.70000	State Channels
274	770.70625	State Channels
275	770.71250	State Channels
276	770.71875	State Channels
277	770.72500	"Floating Allotments" to supplement General Use Channels
278	770.73125	"Floating Allotments" to supplement General Use Channels
279	770.73750	Narrowband Data Interoperability
280	770.74375	Narrowband Data Interoperability
281	770.75000	City and County of Honolulu
282	770.75625	City and County of Honolulu
283	770.76250	County of Maui
284	770.76875	County of Maui
285	770.77500	City and County of Honolulu
286	770.78125	City and County of Honolulu
287	770.78750	County of Kauai
288	770.79375	County of Kauai
289	770.80000	City and County of Honolulu
290	770.80625	City and County of Honolulu
291	770.81250	County of Hawaii
292	770.81875	County of Hawaii
293	770.82500	City and County of Honolulu
294	770.83125	City and County of Honolulu
295	770.83750	County of Maui
296	770.84375	County of Maui
297	770.85000	City and County of Honolulu
298	770.85625	City and County of Honolulu
299	770.86250	County of Kauai
300	770.86875	County of Kauai
301	770.87500	"Floating Allotments" to supplement General Use Channels
302	770.88125	"Floating Allotments" to supplement General Use Channels
303	770.88750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
304	770.89375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)

Channel	Frequency	Assignment
305	770.90000	State Channels
306	770.90625	State Channels
307	770.91250	State Channels
308	770.91875	State Channels
309	770.92500	State Channels
310	770.93125	State Channels
311	770.93750	State Channels
312	770.94375	State Channels
313	770.95000	State Channels
314	770.95625	State Channels
315	770.96250	State Channels
316	770.96875	State Channels
317	770.97500	"Floating Allotments" to supplement General Use Channels
318	770.98125	"Floating Allotments" to supplement General Use Channels
319	770.98750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
320	770.99375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
321	771.00000	City and County of Honolulu
322	771.00625	City and County of Honolulu
323	771.01250	County of Maui
324	771.01875	County of Maui
325	771.02500	City and County of Honolulu
326	771.03125	City and County of Honolulu
327	771.03750	County of Kauai
328	771.04375	County of Kauai
329	771.05000	City and County of Honolulu
330	771.05625	City and County of Honolulu
331	771.06250	County of Hawaii
332	771.06875	County of Hawaii
333	771.07500	City and County of Honolulu
334	771.08125	City and County of Honolulu
335	771.08750	County of Maui
336	771.09375	County of Maui
337	771.10000	City and County of Honolulu
338	771.10625	City and County of Honolulu
339	771.11250	County of Kauai
340	771.11875	County of Kauai
341	771.12500	Statewide Simplex by Discipline
342	771.13125	Statewide Simplex by Discipline

Channel	Frequency	Assignment
343	771.13750	County of Hawaii
344	771.14375	County of Hawaii
345	771.15000	Kauai/FED/NGO Share
346	771.15625	Kauai/FED/NGO Share
347	771.16250	County of Maui
348	771.16875	County of Maui
349	771.17500	Hawaii/FED/NGO Share
350	771.18125	Hawaii/FED/NGO Share
351	771.18750	County of Kauai
352	771.19375	County of Kauai
353	771.20000	Kauai, Maui, & Hawaii Share
354	771.20625	Kauai, Maui, & Hawaii Share
355	771.21250	County of Hawaii
356	771.21875	County of Hawaii
357	771.22500	City and County of Honolulu
358	771.23125	City and County of Honolulu
359	771.23750	Kauai, Maui, & Hawaii Share
360	771.24375	Kauai, Maui, & Hawaii Share
361	771.25000	City and County of Honolulu
362	771.25625	City and County of Honolulu
363	771.26250	County of Maui
364	771.26875	County of Maui
365	771.27500	City and County of Honolulu
366	771.28125	City and County of Honolulu
367	771.28750	County of Kauai
368	771.29375	County of Kauai
369	771.30000	City and County of Honolulu
370	771.30625	City and County of Honolulu
371	771.31250	County of Hawaii
372	771.31875	County of Hawaii
373	771.32500	City and County of Honolulu
374	771.33125	City and County of Honolulu
375	771.33750	County of Maui
376	771.34375	County of Maui
377	771.35000	City and County of Honolulu
378	771.35625	City and County of Honolulu
379	771.36250	County of Kauai
380	771.36875	County of Kauai

Channel	Frequency	Assignment
381	771.37500	Statewide Simplex by Discipline
382	771.38125	Statewide Simplex by Discipline
383	771.38750	County of Hawaii
384	771.39375	County of Hawaii
385	771.40000	Kauai/FED/NGO Share
386	771.40625	Kauai/FED/NGO Share
387	771.41250	County of Maui
388	771.41875	County of Maui
389	771.42500	Hawaii/FED/NGO Share
390	771.43125	Hawaii/FED/NGO Share
391	771.43750	County of Kauai
392	771.44375	County of Kauai
393	771.45000	Kauai, Maui, & Hawaii Share
394	771.45625	Kauai, Maui, & Hawaii Share
395	771.46250	County of Hawaii
396	771.46875	County of Hawaii
397	771.47500	City and County of Honolulu
398	771.48125	City and County of Honolulu
399	771.48750	Kauai, Maui, & Hawaii Share
400	771.49375	Kauai, Maui, & Hawaii Share
401	771.50000	City and County of Honolulu
402	771.50625	City and County of Honolulu
403	771.51250	County of Maui
404	771.51875	County of Maui
405	771.52500	City and County of Honolulu
406	771.53125	City and County of Honolulu
407	771.53750	County of Kauai
408	771.54375	County of Kauai
409	771.55000	City and County of Honolulu
410	771.55625	City and County of Honolulu
411	771.56250	County of Hawaii
412	771.56875	County of Hawaii
413	771.57500	City and County of Honolulu
414	771.58125	City and County of Honolulu
415	771.58750	County of Maui
416	771.59375	County of Maui
417	771.60000	City and County of Honolulu
418	771.60625	City and County of Honolulu

Channel	Frequency	Assignment
419	771.61250	County of Kauai
420	771.61875	County of Kauai
421	771.62500	Statewide Simplex by Discipline
422	771.63125	Statewide Simplex by Discipline
423	771.63750	County of Hawaii
424	771.64375	County of Hawaii
425	771.65000	Kauai/FED/NGO Share
426	771.65625	Kauai/FED/NGO Share
427	771.66250	County of Maui
428	771.66875	County of Maui
429	771.67500	Maui/FED/NGO Share
430	771.68125	Maui/FED/NGO Share
431	771.68750	County of Kauai
432	771.69375	County of Kauai
433	771.70000	Kauai, Maui, & Hawaii Share
434	771.70625	Kauai, Maui, & Hawaii Share
435	771.71250	County of Hawaii
436	771.71875	County of Hawaii
437	771.72500	City and County of Honolulu
438	771.73125	City and County of Honolulu
439	771.73750	Kauai, Maui, & Hawaii Share
440	771.74375	Kauai, Maui, & Hawaii Share
441	771.75000	City and County of Honolulu
442	771.75625	City and County of Honolulu
443	771.76250	County of Maui
444	771.76875	County of Maui
445	771.77500	City and County of Honolulu
446	771.78125	City and County of Honolulu
447	771.78750	County of Kauai
448	771.79375	County of Kauai
449	771.80000	City and County of Honolulu
450	771.80625	City and County of Honolulu
451	771.81250	County of Hawaii
452	771.81875	County of Hawaii
453	771.82500	City and County of Honolulu
454	771.83125	City and County of Honolulu
455	771.83750	County of Maui
456	771.84375	County of Maui

Channel	Frequency	Assignment
457	771.85000	City and County of Honolulu
458	771.85625	City and County of Honolulu
459	771.86250	County of Kauai
460	771.86875	County of Kauai
461	771.87500	Statewide Simplex by Discipline
462	771.88125	Statewide Simplex by Discipline
463	771.88750	County of Hawaii
464	771.89375	County of Hawaii
465	771.90000	Kauai/FED/NGO Share
466	771.90625	Kauai/FED/NGO Share
467	771.91250	County of Maui
468	771.91875	County of Maui
469	771.92500	Maui/FED/NGO Share
470	771.93125	Maui/FED/NGO Share
471	771.93750	County of Kauai
472	771.94375	County of Kauai
473	771.95000	Kauai, Maui, & Hawaii Share
474	771.95625	Kauai, Maui, & Hawaii Share
475	771.96250	County of Hawaii
476	771.96875	County of Hawaii
477	771.97500	City and County of Honolulu
478	771.98125	City and County of Honolulu
479	771.98750	Kauai, Maui, & Hawaii Share
480	771.99375	Kauai, Maui, & Hawaii Share
481	772.00000	City and County of Honolulu
482	772.00625	City and County of Honolulu
483	772.01250	County of Maui
484	772.01875	County of Maui
485	772.02500	City and County of Honolulu
486	772.03125	City and County of Honolulu
487	772.03750	County of Kauai
488	772.04375	County of Kauai
489	772.05000	City and County of Honolulu
490	772.05625	City and County of Honolulu
491	772.06250	County of Hawaii
492	772.06875	County of Hawaii
493	772.07500	City and County of Honolulu
494	772.08125	City and County of Honolulu

Channel	Frequency	Assignment
495	772.08750	County of Maui
496	772.09375	County of Maui
497	772.10000	City and County of Honolulu
498	772.10625	City and County of Honolulu
499	772.11250	County of Kauai
500	772.11875	County of Kauai
501	772.12500	City and County of Honolulu
502	772.13125	City and County of Honolulu
503	772.13750	County of Hawaii
504	772.14375	County of Hawaii
505	772.15000	City and County of Honolulu
506	772.15625	City and County of Honolulu
507	772.16250	County of Maui
508	772.16875	County of Maui
509	772.17500	City and County of Honolulu
510	772.18125	City and County of Honolulu
511	772.18750	County of Kauai
512	772.19375	County of Kauai
513	772.20000	Kauai, Maui, & Hawaii Share
514	772.20625	Kauai, Maui, & Hawaii Share
515	772.21250	County of Hawaii
516	772.21875	County of Hawaii
517	772.22500	City and County of Honolulu
518	772.23125	City and County of Honolulu
519	772.23750	Kauai, Maui, & Hawaii Share
520	772.24375	Kauai, Maui, & Hawaii Share
521	772.25000	City and County of Honolulu
522	772.25625	City and County of Honolulu
523	772.26250	County of Maui
524	772.26875	County of Maui
525	772.27500	City and County of Honolulu
526	772.28125	City and County of Honolulu
527	772.28750	County of Kauai
528	772.29375	County of Kauai
529	772.30000	City and County of Honolulu
530	772.30625	City and County of Honolulu
531	772.31250	County of Hawaii
532	772.31875	County of Hawaii

Channel	Frequency	Assignment
533	772.32500	City and County of Honolulu
534	772.33125	City and County of Honolulu
535	772.33750	County of Maui
536	772.34375	County of Maui
537	772.35000	City and County of Honolulu
538	772.35625	City and County of Honolulu
539	772.36250	County of Kauai
540	772.36875	County of Kauai
541	772.37500	City and County of Honolulu
542	772.38125	City and County of Honolulu
543	772.38750	County of Hawaii
544	772.39375	County of Hawaii
545	772.40000	City and County of Honolulu
546	772.40625	City and County of Honolulu
547	772.41250	County of Maui
548	772.41875	County of Maui
549	772.42500	City and County of Honolulu
550	772.43125	City and County of Honolulu
551	772.43750	County of Kauai
552	772.44375	County of Kauai
553	772.45000	Kauai, Maui, & Hawaii Share
554	772.45625	Kauai, Maui, & Hawaii Share
555	772.46250	County of Hawaii
556	772.46875	County of Hawaii
557	772.47500	City and County of Honolulu
558	772.48125	City and County of Honolulu
559	772.48750	Kauai, Maui, & Hawaii Share
560	772.49375	Kauai, Maui, & Hawaii Share
561	772.50000	City and County of Honolulu
562	772.50625	City and County of Honolulu
563	772.51250	County of Maui
564	772.51875	County of Maui
565	772.52500	City and County of Honolulu
566	772.53125	City and County of Honolulu
567	772.53750	County of Kauai
568	772.54375	County of Kauai
569	772.55000	City and County of Honolulu
570	772.55625	City and County of Honolulu

Channel	Frequency	Assignment
571	772.56250	County of Hawaii
572	772.56875	County of Hawaii
573	772.57500	City and County of Honolulu
574	772.58125	City and County of Honolulu
575	772.58750	County of Maui
576	772.59375	County of Maui
577	772.60000	City and County of Honolulu
578	772.60625	City and County of Honolulu
579	772.61250	County of Kauai
580	772.61875	County of Kauai
581	772.62500	City and County of Honolulu
582	772.63125	City and County of Honolulu
583	772.63750	County of Hawaii
584	772.64375	County of Hawaii
585	772.65000	City and County of Honolulu
586	772.65625	City and County of Honolulu
587	772.66250	County of Maui
588	772.66875	County of Maui
589	772.67500	City and County of Honolulu
590	772.68125	City and County of Honolulu
591	772.68750	County of Kauai
592	772.69375	County of Kauai
593	772.70000	Kauai, Maui, & Hawaii Share
594	772.70625	Kauai, Maui, & Hawaii Share
595	772.71250	County of Hawaii
596	772.71875	County of Hawaii
597	772.72500	City and County of Honolulu
598	772.73125	City and County of Honolulu
599	772.73750	Kauai, Maui, & Hawaii Share
600	772.74375	Kauai, Maui, & Hawaii Share
601	772.75000	City and County of Honolulu
602	772.75625	City and County of Honolulu
603	772.76250	County of Maui
604	772.76875	County of Maui
605	772.77500	City and County of Honolulu
606	772.78125	City and County of Honolulu
607	772.78750	County of Kauai
608	772.79375	County of Kauai

Channel	Frequency	Assignment
609	772.80000	City and County of Honolulu
610	772.80625	City and County of Honolulu
611	772.81250	County of Hawaii
612	772.81875	County of Hawaii
613	772.82500	City and County of Honolulu
614	772.83125	City and County of Honolulu
615	772.83750	County of Maui
616	772.84375	County of Maui
617	772.85000	City and County of Honolulu
618	772.85625	City and County of Honolulu
619	772.86250	County of Kauai
620	772.86875	County of Kauai
621	772.87500	City and County of Honolulu
622	772.88125	City and County of Honolulu
623	772.88750	County of Hawaii
624	772.89375	County of Hawaii
625	772.90000	City and County of Honolulu
626	772.90625	City and County of Honolulu
627	772.91250	County of Maui
628	772.91875	County of Maui
629	772.92500	City and County of Honolulu
630	772.93125	City and County of Honolulu
631	772.93750	County of Kauai
632	772.94375	County of Kauai
633	772.95000	Kauai, Maui, & Hawaii Share
634	772.95625	Kauai, Maui, & Hawaii Share
635	772.96250	County of Hawaii
636	772.96875	County of Hawaii
637	772.97500	City and County of Honolulu
638	772.98125	City and County of Honolulu
639	772.98750	Kauai, Maui, & Hawaii Share
640	772.99375	Kauai, Maui, & Hawaii Share
641	773.00000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
642	773.00625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
643	773.01250	"Floating Allotments" to supplement General Use Channels
644	773.01875	"Floating Allotments" to supplement General Use Channels
645	773.02500	State Channels
646	773.03125	State Channels

Channel	Frequency	Assignment
647	773.03750	State Channels
648	773.04375	State Channels
649	773.05000	State Channels
650	773.05625	State Channels
651	773.06250	State Channels
652	773.06875	State Channels
653	773.07500	State Channels
654	773.08125	State Channels
655	773.08750	State Channels
656	773.09375	State Channels
657	773.10000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
658	773.10625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
659	773.11250	Air to Ground
660	773.11875	Air to Ground
661	773.12500	City and County of Honolulu
662	773.13125	City and County of Honolulu
663	773.13750	County of Hawaii
664	773.14375	County of Hawaii
665	773.15000	City and County of Honolulu
666	773.15625	City and County of Honolulu
667	773.16250	County of Maui
668	773.16875	County of Maui
669	773.17500	City and County of Honolulu
670	773.18125	City and County of Honolulu
671	773.18750	County of Kauai
672	773.19375	County of Kauai
673	773.20000	Kauai, Maui, & Hawaii Share
674	773.20625	Kauai, Maui, & Hawaii Share
675	773.21250	County of Hawaii
676	773.21875	County of Hawaii
677	773.22500	City and County of Honolulu
678	773.23125	City and County of Honolulu
679	773.23750	Kauai, Maui, & Hawaii Share
680	773.24375	Kauai, Maui, & Hawaii Share
681	773.25000	Narrowband Interoperability Calling Channels
682	773.25625	Narrowband Interoperability Calling Channels
683	773.26250	"Floating Allotments" to supplement General Use Channels
684	773.26875	"Floating Allotments" to supplement General Use Channels

Channel	Frequency	Assignment
685	773.27500	State Channels
686	773.28125	State Channels
687	773.28750	State Channels
688	773.29375	State Channels
689	773.30000	State Channels
690	773.30625	State Channels
691	773.31250	State Channels
692	773.31875	State Channels
693	773.32500	State Channels
694	773.33125	State Channels
695	773.33750	State Channels
696	773.34375	State Channels
697	773.35000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
698	773.35625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
699	773.36250	"Floating Allotments" to supplement General Use Channels
700	773.36875	"Floating Allotments" to supplement General Use Channels
701	773.37500	City and County of Honolulu
702	773.38125	City and County of Honolulu
703	773.38750	County of Hawaii
704	773.39375	County of Hawaii
705	773.40000	City and County of Honolulu
706	773.40625	City and County of Honolulu
707	773.41250	County of Maui
708	773.41875	County of Maui
709	773.42500	City and County of Honolulu
710	773.43125	City and County of Honolulu
711	773.43750	County of Kauai
712	773.44375	County of Kauai
713	773.45000	Honolulu/FED/NGO Share
714	773.45625	Honolulu/FED/NGO Share
715	773.46250	County of Hawaii
716	773.46875	County of Hawaii
717	773.47500	City and County of Honolulu
718	773.48125	City and County of Honolulu
719	773.48750	Kauai, Maui, & Hawaii Share
720	773.49375	Kauai, Maui, & Hawaii Share
721	773.50000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
722	773.50625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)

Channel	Frequency	Assignment
723	773.51250	"Floating Allotments" to supplement General Use Channels
724	773.51875	"Floating Allotments" to supplement General Use Channels
725	773.52500	State Channels
726	773.53125	State Channels
727	773.53750	State Channels
728	773.54375	State Channels
729	773.55000	State Channels
730	773.55625	State Channels
731	773.56250	State Channels
732	773.56875	State Channels
733	773.57500	State Channels
734	773.58125	State Channels
735	773.58750	State Channels
736	773.59375	State Channels
737	773.60000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
738	773.60625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
739	773.61250	Air to Ground
740	773.61875	Air to Ground
741	773.62500	Hawaii/FED/NGO Share
742	773.63125	Hawaii/FED/NGO Share
743	773.63750	County of Hawaii
744	773.64375	County of Hawaii
745	773.65000	City and County of Honolulu
746	773.65625	City and County of Honolulu
747	773.66250	County of Maui
748	773.66875	County of Maui
749	773.67500	Honolulu/Hawaii Simplex
750	773.68125	Honolulu/Hawaii Simplex
751	773.68750	County of Kauai
752	773.69375	County of Kauai
753	773.70000	Honolulu/FED/NGO Share
754	773.70625	Honolulu/FED/NGO Share
755	773.71250	County of Hawaii
756	773.71875	County of Hawaii
757	773.72500	City and County of Honolulu
758	773.73125	City and County of Honolulu
759	773.73750	Kauai, Maui, & Hawaii Share
760	773.74375	Kauai, Maui, & Hawaii Share

Channel	Frequency	Assignment
761	773.75000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
762	773.75625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
763	773.76250	"Floating Allotments" to supplement General Use Channels
764	773.76875	"Floating Allotments" to supplement General Use Channels
765	773.77500	State Channels
766	773.78125	State Channels
767	773.78750	State Channels
768	773.79375	State Channels
769	773.80000	State Channels
770	773.80625	State Channels
771	773.81250	State Channels
772	773.81875	State Channels
773	773.82500	State Channels
774	773.83125	State Channels
775	773.83750	State Channels
776	773.84375	State Channels
777	773.85000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
778	773.85625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
779	773.86250	"Floating Allotments" to supplement General Use Channels
780	773.86875	"Floating Allotments" to supplement General Use Channels
781	773.87500	Hawaii/FED/NGO Share
782	773.88125	Hawaii/FED/NGO Share
783	773.88750	County of Hawaii
784	773.89375	County of Hawaii
785	773.90000	City and County of Honolulu
786	773.90625	City and County of Honolulu
787	773.91250	County of Maui
788	773.91875	County of Maui
789	773.92500	Honolulu/Hawaii Simplex
790	773.93125	Honolulu/Hawaii Simplex
791	773.93750	County of Kauai
792	773.94375	County of Kauai
793	773.95000	Honolulu/FED/NGO Share
794	773.95625	Honolulu/FED/NGO Share
795	773.96250	County of Hawaii
796	773.96875	County of Hawaii
797	773.97500	City and County of Honolulu
798	773.98125	City and County of Honolulu

Channel	Frequency	Assignment
799	773.98750	Kauai, Maui, & Hawaii Share
800	773.99375	Kauai, Maui, & Hawaii Share
801	774.00000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
802	774.00625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
803	774.01250	"Floating Allotments" to supplement General Use Channels
804	774.01875	"Floating Allotments" to supplement General Use Channels
805	774.02500	State Channels
806	774.03125	State Channels
807	774.03750	State Channels
808	774.04375	State Channels
809	774.05000	State Channels
810	774.05625	State Channels
811	774.06250	State Channels
812	774.06875	State Channels
813	774.07500	State Channels
814	774.08125	State Channels
815	774.08750	State Channels
816	774.09375	State Channels
817	774.10000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
818	774.10625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
819	774.11250	Air to Ground
820	774.11875	Air to Ground
821	774.12500	Maui/FED/NGO Share
822	774.13125	Maui/FED/NGO Share
823	774.13750	County of Hawaii
824	774.14375	County of Hawaii
825	774.15000	City and County of Honolulu
826	774.15625	City and County of Honolulu
827	774.16250	County of Maui
828	774.16875	County of Maui
829	774.17500	Honolulu/FED/NGO Share
830	774.18125	Honolulu/FED/NGO Share
831	774.18750	County of Kauai
832	774.19375	County of Kauai
833	774.20000	Honolulu/FED/NGO Share
834	774.20625	Honolulu/FED/NGO Share
835	774.21250	County of Hawaii
836	774.21875	County of Hawaii

Channel	Frequency	Assignment
837	774.22500	City and County of Honolulu
838	774.23125	City and County of Honolulu
839	774.23750	Kauai, Maui, & Hawaii Share
840	774.24375	Kauai, Maui, & Hawaii Share
841	774.25000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
842	774.25625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
843	774.26250	"Floating Allotments" to supplement General Use Channels
844	774.26875	"Floating Allotments" to supplement General Use Channels
845	774.27500	State Channels
846	774.28125	State Channels
847	774.28750	State Channels
848	774.29375	State Channels
849	774.30000	State Channels
850	774.30625	State Channels
851	774.31250	State Channels
852	774.31875	State Channels
853	774.32500	State Channels
854	774.33125	State Channels
855	774.33750	State Channels
856	774.34375	State Channels
857	774.35000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
858	774.35625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
859	774.36250	Vehicular (2 watts max) Repeater
860	774.36875	Vehicular (2 watts max) Repeater
861	774.37500	Maui/FED/NGO Share
862	774.38125	Maui/FED/NGO Share
863	774.38750	County of Hawaii
864	774.39375	County of Hawaii
865	774.40000	City and County of Honolulu
866	774.40625	City and County of Honolulu
867	774.41250	County of Maui
868	774.41875	County of Maui
869	774.42500	Honolulu/FED/NGO Share
870	774.43125	Honolulu/FED/NGO Share
871	774.43750	County of Kauai
872	774.44375	County of Kauai
873	774.45000	Honolulu/FED/NGO Share
874	774.45625	Honolulu/FED/NGO Share

Channel	Frequency	Assignment
875	774.46250	County of Hawaii
876	774.46875	County of Hawaii
877	774.47500	County of Kauai
878	774.48125	County of Kauai
879	774.48750	County of Hawaii
880	774.49375	County of Hawaii
881	774.50000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
882	774.50625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
883	774.51250	Deployable Trunked System
884	774.51875	Deployable Trunked System
885	774.52500	State Channels
886	774.53125	State Channels
887	774.53750	State Channels
888	774.54375	State Channels
889	774.55000	State Channels
890	774.55625	State Channels
891	774.56250	State Channels
892	774.56875	State Channels
893	774.57500	State Channels
894	774.58125	State Channels
895	774.58750	State Channels
896	774.59375	State Channels
897	774.60000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
898	774.60625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
899	774.61250	Air to Ground
900	774.61875	Air to Ground
901	774.62500	Kauai/Maui Simplex
902	774.63125	Kauai/Maui Simplex
903	774.63750	County of Hawaii
904	774.64375	County of Hawaii
905	774.65000	Kauai, Maui, & Hawaii Share
906	774.65625	Kauai, Maui, & Hawaii Share
907	774.66250	County of Maui
908	774.66875	County of Maui
909	774.67500	Honolulu/FED/NGO Share
910	774.68125	Honolulu/FED/NGO Share
911	774.68750	County of Kauai
912	774.69375	County of Kauai

Channel	Frequency	Assignment
913	774.70000	County of Maui
914	774.70625	County of Maui
915	774.71250	County of Hawaii
916	774.71875	County of Hawaii
917	774.72500	County of Kauai
918	774.73125	County of Kauai
919	774.73750	County of Hawaii
920	774.74375	County of Hawaii
921	774.75000	Narrowband Data Interoperability
922	774.75625	Narrowband Data Interoperability
923	774.76250	Vehicular (2 watts max) Repeater
924	774.76875	Vehicular (2 watts max) Repeater
925	774.77500	State Channels
926	774.78125	State Channels
927	774.78750	State Channels
928	774.79375	State Channels
929	774.80000	State Channels
930	774.80625	State Channels
931	774.81250	State Channels
932	774.81875	State Channels
933	774.82500	State Channels
934	774.83125	State Channels
935	774.83750	State Channels
936	774.84375	State Channels
937	774.85000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
938	774.85625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
939	774.86250	Deployable Trunked System
940	774.86875	Deployable Trunked System
941	774.87500	Kauai/Maui Simplex
942	774.88125	Kauai/Maui Simplex
943	774.88750	County of Hawaii
944	774.89375	County of Hawaii
945	774.90000	Kauai, Maui, & Hawaii Share
946	774.90625	Kauai, Maui, & Hawaii Share
947	774.91250	County of Maui
948	774.91875	County of Maui
949	774.92500	Low Power for On-Scene Incident Response (2 watts max)
950	774.93125	Low Power for On-Scene Incident Response (2 watts max)

Channel	Frequency	Assignment
951	774.93750	Low Power for On-Scene Incident Response (2 watts max)
952	774.94375	Low Power for On-Scene Incident Response (2 watts max)
953	774.95000	Low Power for On-Scene Incident Response (2 watts max)
954	774.95625	Low Power for On-Scene Incident Response (2 watts max)
955	774.96250	Low Power for On-Scene Incident Response (2 watts max)
956	774.96875	Low Power for On-Scene Incident Response (2 watts max)
957	774.97500	Low Power for On-Scene Incident Response (2 watts max)
958	774.98125	Low Power for On-Scene Incident Response (2 watts max)
959	774.98750	Itenerant Low Power for On-Scene Incident Responses-Nationwide
960	774.99375	Itenerant Low Power for On-Scene Incident Responses-Nationwide

Channel	Frequency	Assignment
1	769.00000	Low Power for On-Scene Incident Response (2 watts max)
2	769.00625	Low Power for On-Scene Incident Response (2 watts max)
3	769.01250	Low Power for On-Scene Incident Response (2 watts max)
4	769.01875	Low Power for On-Scene Incident Response (2 watts max)
5	769.02500	Low Power for On-Scene Incident Response (2 watts max)
6	769.03125	Low Power for On-Scene Incident Response (2 watts max)
7	769.03750	Low Power for On-Scene Incident Response (2 watts max)
8	769.04375	Low Power for On-Scene Incident Response (2 watts max)
9	769.05000	Itenerant Low Power for On-Scene Incident Responses-Nationwide
10	769.05625	Itenerant Low Power for On-Scene Incident Responses-Nationwide
11	769.06250	Itenerant Low Power for On-Scene Incident Responses-Nationwide
12	769.06875	Itenerant Low Power for On-Scene Incident Responses-Nationwide
13	769.07500	City and County of Honolulu
14	769.08125	City and County of Honolulu
15	769.08750	County of Maui
16	769.09375	County of Maui
17	769.10000	City and County of Honolulu
18	769.10625	City and County of Honolulu
19	769.11250	County of Kauai
20	769.11875	County of Kauai
21	769.12500	Air to Ground
22	769.13125	Air to Ground
23	769.13750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
24	769.14375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
25	769.15000	State Channels
26	769.15625	State Channels
27	769.16250	State Channels
28	769.16875	State Channels
29	769.17500	State Channels
30	769.18125	State Channels
31	769.18750	State Channels
32	769.19375	State Channels
33	769.20000	State Channels
34	769.20625	State Channels
35	769.21250	State Channels
36	769.21875	State Channels
37	769.22500	Deployable Trunked System
38	769.23125	Deployable Trunked System

Channel	Frequency	Assignment
39	769.23750	Narrowband Interoperability Calling Channels
40	769.24375	Narrowband Interoperability Calling Channels
41	769.25000	City and County of Honolulu
42	769.25625	City and County of Honolulu
43	769.26250	County of Maui
44	769.26875	County of Maui
45	769.27500	City and County of Honolulu
46	769.28125	City and County of Honolulu
47	769.28750	County of Kauai
48	769.29375	County of Kauai
49	769.30000	City and County of Honolulu
50	769.30625	City and County of Honolulu
51	769.31250	County of Hawaii
52	769.31875	County of Hawaii
53	769.32500	City and County of Honolulu
54	769.33125	City and County of Honolulu
55	769.33750	County of Maui
56	769.34375	County of Maui
57	769.35000	City and County of Honolulu
58	769.35625	City and County of Honolulu
59	769.36250	County of Kauai
60	769.36875	County of Kauai
61	769.37500	Deployable Trunked System
62	769.38125	Deployable Trunked System
63	769.38750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
64	769.39375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
65	769.40000	State Channels
66	769.40625	State Channels
67	769.41250	State Channels
68	769.41875	State Channels
69	769.42500	State Channels
70	769.43125	State Channels
71	769.43750	State Channels
72	769.44375	State Channels
73	769.45000	State Channels
74	769.45625	State Channels
75	769.46250	State Channels
76	769.46875	State Channels

Channel	Frequency	Assignment
77	769.47500	Vehicular (2 watts max) Repeater
78	769.48125	Vehicular (2 watts max) Repeater
79	769.48750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
80	769.49375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
81	769.50000	City and County of Honolulu
82	769.50625	City and County of Honolulu
83	769.51250	County of Maui
84	769.51875	County of Maui
85	769.52500	City and County of Honolulu
86	769.53125	City and County of Honolulu
87	769.53750	County of Kauai
88	769.54375	County of Kauai
89	769.55000	City and County of Honolulu
90	769.55625	City and County of Honolulu
91	769.56250	County of Hawaii
92	769.56875	County of Hawaii
93	769.57500	City and County of Honolulu
94	769.58125	City and County of Honolulu
95	769.58750	County of Maui
96	769.59375	County of Maui
97	769.60000	City and County of Honolulu
98	769.60625	City and County of Honolulu
99	769.61250	County of Kauai
100	769.61875	County of Kauai
101	769.62500	Air to Ground
102	769.63125	Air to Ground
103	769.63750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
104	769.64375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
105	769.65000	State Channels
106	769.65625	State Channels
107	769.66250	State Channels
108	769.66875	State Channels
109	769.67500	State Channels
110	769.68125	State Channels
111	769.68750	State Channels
112	769.69375	State Channels
113	769.70000	State Channels
114	769.70625	State Channels

Channel	Frequency	Assignment
115	769.71250	State Channels
116	769.71875	State Channels
117	769.72500	Deployable Trunked System
118	769.73125	Deployable Trunked System
119	769.73750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
120	769.74375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
121	769.75000	City and County of Honolulu
122	769.75625	City and County of Honolulu
123	769.76250	County of Maui
124	769.76875	County of Maui
125	769.77500	City and County of Honolulu
126	769.78125	City and County of Honolulu
127	769.78750	County of Kauai
128	769.79375	County of Kauai
129	769.80000	City and County of Honolulu
130	769.80625	City and County of Honolulu
131	769.81250	County of Hawaii
132	769.81875	County of Hawaii
133	769.82500	City and County of Honolulu
134	769.83125	City and County of Honolulu
135	769.83750	County of Maui
136	769.84375	County of Maui
137	769.85000	City and County of Honolulu
138	769.85625	City and County of Honolulu
139	769.86250	County of Kauai
140	769.86875	County of Kauai
141	769.87500	Deployable Trunked System
142	769.88125	Deployable Trunked System
143	769.88750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
144	769.89375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
145	769.90000	State Channels
146	769.90625	State Channels
147	769.91250	State Channels
148	769.91875	State Channels
149	769.92500	State Channels
150	769.93125	State Channels
151	769.93750	State Channels
152	769.94375	State Channels

Channel	Frequency	Assignment
153	769.95000	State Channels
154	769.95625	State Channels
155	769.96250	State Channels
156	769.96875	State Channels
157	769.97500	Vehicular (2 watts max) Repeater
158	769.98125	Vehicular (2 watts max) Repeater
159	769.98750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
160	769.99375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
161	770.00000	City and County of Honolulu
162	770.00625	City and County of Honolulu
163	770.01250	County of Maui
164	770.01875	County of Maui
165	770.02500	City and County of Honolulu
166	770.03125	City and County of Honolulu
167	770.03750	County of Kauai
168	770.04375	County of Kauai
169	770.05000	City and County of Honolulu
170	770.05625	City and County of Honolulu
171	770.06250	County of Hawaii
172	770.06875	County of Hawaii
173	770.07500	City and County of Honolulu
174	770.08125	City and County of Honolulu
175	770.08750	County of Maui
176	770.09375	County of Maui
177	770.10000	City and County of Honolulu
178	770.10625	City and County of Honolulu
179	770.11250	County of Kauai
180	770.11875	County of Kauai
181	770.12500	Air to Ground
182	770.13125	Air to Ground
183	770.13750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
184	770.14375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
185	770.15000	State Channels
186	770.15625	State Channels
187	770.16250	State Channels
188	770.16875	State Channels
189	770.17500	State Channels
190	770.18125	State Channels

Channel	Frequency	Assignment
191	770.18750	State Channels
192	770.19375	State Channels
193	770.20000	State Channels
194	770.20625	State Channels
195	770.21250	State Channels
196	770.21875	State Channels
197	770.22500	"Floating Allotments" to supplement General Use Channels
198	770.23125	"Floating Allotments" to supplement General Use Channels
199	770.23750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
200	770.24375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
201	770.25000	City and County of Honolulu
202	770.25625	City and County of Honolulu
203	770.26250	County of Maui
204	770.26875	County of Maui
205	770.27500	City and County of Honolulu
206	770.28125	City and County of Honolulu
207	770.28750	County of Kauai
208	770.29375	County of Kauai
209	770.30000	City and County of Honolulu
210	770.30625	City and County of Honolulu
211	770.31250	County of Hawaii
212	770.31875	County of Hawaii
213	770.32500	City and County of Honolulu
214	770.33125	City and County of Honolulu
215	770.33750	County of Maui
216	770.34375	County of Maui
217	770.35000	City and County of Honolulu
218	770.35625	City and County of Honolulu
219	770.36250	County of Kauai
220	770.36875	County of Kauai
221	770.37500	"Floating Allotments" to supplement General Use Channels
222	770.38125	"Floating Allotments" to supplement General Use Channels
223	770.38750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
224	770.39375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
225	770.40000	State Channels
226	770.40625	State Channels
227	770.41250	State Channels
228	770.41875	State Channels

Channel	Frequency	Assignment
229	770.42500	State Channels
230	770.43125	State Channels
231	770.43750	State Channels
232	770.44375	State Channels
233	770.45000	State Channels
234	770.45625	State Channels
235	770.46250	State Channels
236	770.46875	State Channels
237	770.47500	"Floating Allotments" to supplement General Use Channels
238	770.48125	"Floating Allotments" to supplement General Use Channels
239	770.48750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
240	770.49375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
241	770.50000	City and County of Honolulu
242	770.50625	City and County of Honolulu
243	770.51250	County of Maui
244	770.51875	County of Maui
245	770.52500	City and County of Honolulu
246	770.53125	City and County of Honolulu
247	770.53750	County of Kauai
248	770.54375	County of Kauai
249	770.55000	City and County of Honolulu
250	770.55625	City and County of Honolulu
251	770.56250	County of Hawaii
252	770.56875	County of Hawaii
253	770.57500	City and County of Honolulu
254	770.58125	City and County of Honolulu
255	770.58750	County of Maui
256	770.59375	County of Maui
257	770.60000	City and County of Honolulu
258	770.60625	City and County of Honolulu
259	770.61250	County of Kauai
260	770.61875	County of Kauai
261	770.62500	Air to Ground
262	770.63125	Air to Ground
263	770.63750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
264	770.64375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
265	770.65000	State Channels
266	770.65625	State Channels

Channel	Frequency	Assignment
267	770.66250	State Channels
268	770.66875	State Channels
269	770.67500	State Channels
270	770.68125	State Channels
271	770.68750	State Channels
272	770.69375	State Channels
273	770.70000	State Channels
274	770.70625	State Channels
275	770.71250	State Channels
276	770.71875	State Channels
277	770.72500	"Floating Allotments" to supplement General Use Channels
278	770.73125	"Floating Allotments" to supplement General Use Channels
279	770.73750	Narrowband Data Interoperability
280	770.74375	Narrowband Data Interoperability
281	770.75000	City and County of Honolulu
282	770.75625	City and County of Honolulu
283	770.76250	County of Maui
284	770.76875	County of Maui
285	770.77500	City and County of Honolulu
286	770.78125	City and County of Honolulu
287	770.78750	County of Kauai
288	770.79375	County of Kauai
289	770.80000	City and County of Honolulu
290	770.80625	City and County of Honolulu
291	770.81250	County of Hawaii
292	770.81875	County of Hawaii
293	770.82500	City and County of Honolulu
294	770.83125	City and County of Honolulu
295	770.83750	County of Maui
296	770.84375	County of Maui
297	770.85000	City and County of Honolulu
298	770.85625	City and County of Honolulu
299	770.86250	County of Kauai
300	770.86875	County of Kauai
301	770.87500	"Floating Allotments" to supplement General Use Channels
302	770.88125	"Floating Allotments" to supplement General Use Channels
303	770.88750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
304	770.89375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)

Channel	Frequency	Assignment
305	770.90000	State Channels
306	770.90625	State Channels
307	770.91250	State Channels
308	770.91875	State Channels
309	770.92500	State Channels
310	770.93125	State Channels
311	770.93750	State Channels
312	770.94375	State Channels
313	770.95000	State Channels
314	770.95625	State Channels
315	770.96250	State Channels
316	770.96875	State Channels
317	770.97500	"Floating Allotments" to supplement General Use Channels
318	770.98125	"Floating Allotments" to supplement General Use Channels
319	770.98750	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
320	770.99375	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
321	771.00000	City and County of Honolulu
322	771.00625	City and County of Honolulu
323	771.01250	County of Maui
324	771.01875	County of Maui
325	771.02500	City and County of Honolulu
326	771.03125	City and County of Honolulu
327	771.03750	County of Kauai
328	771.04375	County of Kauai
329	771.05000	City and County of Honolulu
330	771.05625	City and County of Honolulu
331	771.06250	County of Hawaii
332	771.06875	County of Hawaii
333	771.07500	City and County of Honolulu
334	771.08125	City and County of Honolulu
335	771.08750	County of Maui
336	771.09375	County of Maui
337	771.10000	City and County of Honolulu
338	771.10625	City and County of Honolulu
339	771.11250	County of Kauai
340	771.11875	County of Kauai
341	771.12500	Statewide Simplex by Discipline
342	771.13125	Statewide Simplex by Discipline

Channel	Frequency	Assignment
343	771.13750	County of Hawaii
344	771.14375	County of Hawaii
345	771.15000	Kauai/FED/NGO Share
346	771.15625	Kauai/FED/NGO Share
347	771.16250	County of Maui
348	771.16875	County of Maui
349	771.17500	Hawaii/FED/NGO Share
350	771.18125	Hawaii/FED/NGO Share
351	771.18750	County of Kauai
352	771.19375	County of Kauai
353	771.20000	Kauai, Maui, & Hawaii Share
354	771.20625	Kauai, Maui, & Hawaii Share
355	771.21250	County of Hawaii
356	771.21875	County of Hawaii
357	771.22500	City and County of Honolulu
358	771.23125	City and County of Honolulu
359	771.23750	Kauai, Maui, & Hawaii Share
360	771.24375	Kauai, Maui, & Hawaii Share
361	771.25000	City and County of Honolulu
362	771.25625	City and County of Honolulu
363	771.26250	County of Maui
364	771.26875	County of Maui
365	771.27500	City and County of Honolulu
366	771.28125	City and County of Honolulu
367	771.28750	County of Kauai
368	771.29375	County of Kauai
369	771.30000	City and County of Honolulu
370	771.30625	City and County of Honolulu
371	771.31250	County of Hawaii
372	771.31875	County of Hawaii
373	771.32500	City and County of Honolulu
374	771.33125	City and County of Honolulu
375	771.33750	County of Maui
376	771.34375	County of Maui
377	771.35000	City and County of Honolulu
378	771.35625	City and County of Honolulu
379	771.36250	County of Kauai
380	771.36875	County of Kauai

Channel	Frequency	Assignment
381	771.37500	Statewide Simplex by Discipline
382	771.38125	Statewide Simplex by Discipline
383	771.38750	County of Hawaii
384	771.39375	County of Hawaii
385	771.40000	Kauai/FED/NGO Share
386	771.40625	Kauai/FED/NGO Share
387	771.41250	County of Maui
388	771.41875	County of Maui
389	771.42500	Hawaii/FED/NGO Share
390	771.43125	Hawaii/FED/NGO Share
391	771.43750	County of Kauai
392	771.44375	County of Kauai
393	771.45000	Kauai, Maui, & Hawaii Share
394	771.45625	Kauai, Maui, & Hawaii Share
395	771.46250	County of Hawaii
396	771.46875	County of Hawaii
397	771.47500	City and County of Honolulu
398	771.48125	City and County of Honolulu
399	771.48750	Kauai, Maui, & Hawaii Share
400	771.49375	Kauai, Maui, & Hawaii Share
401	771.50000	City and County of Honolulu
402	771.50625	City and County of Honolulu
403	771.51250	County of Maui
404	771.51875	County of Maui
405	771.52500	City and County of Honolulu
406	771.53125	City and County of Honolulu
407	771.53750	County of Kauai
408	771.54375	County of Kauai
409	771.55000	City and County of Honolulu
410	771.55625	City and County of Honolulu
411	771.56250	County of Hawaii
412	771.56875	County of Hawaii
413	771.57500	City and County of Honolulu
414	771.58125	City and County of Honolulu
415	771.58750	County of Maui
416	771.59375	County of Maui
417	771.60000	City and County of Honolulu
418	771.60625	City and County of Honolulu

Channel	Frequency	Assignment
419	771.61250	County of Kauai
420	771.61875	County of Kauai
421	771.62500	Statewide Simplex by Discipline
422	771.63125	Statewide Simplex by Discipline
423	771.63750	County of Hawaii
424	771.64375	County of Hawaii
425	771.65000	Kauai/FED/NGO Share
426	771.65625	Kauai/FED/NGO Share
427	771.66250	County of Maui
428	771.66875	County of Maui
429	771.67500	Maui/FED/NGO Share
430	771.68125	Maui/FED/NGO Share
431	771.68750	County of Kauai
432	771.69375	County of Kauai
433	771.70000	Kauai, Maui, & Hawaii Share
434	771.70625	Kauai, Maui, & Hawaii Share
435	771.71250	County of Hawaii
436	771.71875	County of Hawaii
437	771.72500	City and County of Honolulu
438	771.73125	City and County of Honolulu
439	771.73750	Kauai, Maui, & Hawaii Share
440	771.74375	Kauai, Maui, & Hawaii Share
441	771.75000	City and County of Honolulu
442	771.75625	City and County of Honolulu
443	771.76250	County of Maui
444	771.76875	County of Maui
445	771.77500	City and County of Honolulu
446	771.78125	City and County of Honolulu
447	771.78750	County of Kauai
448	771.79375	County of Kauai
449	771.80000	City and County of Honolulu
450	771.80625	City and County of Honolulu
451	771.81250	County of Hawaii
452	771.81875	County of Hawaii
453	771.82500	City and County of Honolulu
454	771.83125	City and County of Honolulu
455	771.83750	County of Maui
456	771.84375	County of Maui

Channel	Frequency	Assignment
457	771.85000	City and County of Honolulu
458	771.85625	City and County of Honolulu
459	771.86250	County of Kauai
460	771.86875	County of Kauai
461	771.87500	Statewide Simplex by Discipline
462	771.88125	Statewide Simplex by Discipline
463	771.88750	County of Hawaii
464	771.89375	County of Hawaii
465	771.90000	Kauai/FED/NGO Share
466	771.90625	Kauai/FED/NGO Share
467	771.91250	County of Maui
468	771.91875	County of Maui
469	771.92500	Maui/FED/NGO Share
470	771.93125	Maui/FED/NGO Share
471	771.93750	County of Kauai
472	771.94375	County of Kauai
473	771.95000	Kauai, Maui, & Hawaii Share
474	771.95625	Kauai, Maui, & Hawaii Share
475	771.96250	County of Hawaii
476	771.96875	County of Hawaii
477	771.97500	City and County of Honolulu
478	771.98125	City and County of Honolulu
479	771.98750	Kauai, Maui, & Hawaii Share
480	771.99375	Kauai, Maui, & Hawaii Share
481	772.00000	City and County of Honolulu
482	772.00625	City and County of Honolulu
483	772.01250	County of Maui
484	772.01875	County of Maui
485	772.02500	City and County of Honolulu
486	772.03125	City and County of Honolulu
487	772.03750	County of Kauai
488	772.04375	County of Kauai
489	772.05000	City and County of Honolulu
490	772.05625	City and County of Honolulu
491	772.06250	County of Hawaii
492	772.06875	County of Hawaii
493	772.07500	City and County of Honolulu
494	772.08125	City and County of Honolulu

Channel	Frequency	Assignment
495	772.08750	County of Maui
496	772.09375	County of Maui
497	772.10000	City and County of Honolulu
498	772.10625	City and County of Honolulu
499	772.11250	County of Kauai
500	772.11875	County of Kauai
501	772.12500	City and County of Honolulu
502	772.13125	City and County of Honolulu
503	772.13750	County of Hawaii
504	772.14375	County of Hawaii
505	772.15000	City and County of Honolulu
506	772.15625	City and County of Honolulu
507	772.16250	County of Maui
508	772.16875	County of Maui
509	772.17500	City and County of Honolulu
510	772.18125	City and County of Honolulu
511	772.18750	County of Kauai
512	772.19375	County of Kauai
513	772.20000	Kauai, Maui, & Hawaii Share
514	772.20625	Kauai, Maui, & Hawaii Share
515	772.21250	County of Hawaii
516	772.21875	County of Hawaii
517	772.22500	City and County of Honolulu
518	772.23125	City and County of Honolulu
519	772.23750	Kauai, Maui, & Hawaii Share
520	772.24375	Kauai, Maui, & Hawaii Share
521	772.25000	City and County of Honolulu
522	772.25625	City and County of Honolulu
523	772.26250	County of Maui
524	772.26875	County of Maui
525	772.27500	City and County of Honolulu
526	772.28125	City and County of Honolulu
527	772.28750	County of Kauai
528	772.29375	County of Kauai
529	772.30000	City and County of Honolulu
530	772.30625	City and County of Honolulu
531	772.31250	County of Hawaii
532	772.31875	County of Hawaii

Channel	Frequency	Assignment
533	772.32500	City and County of Honolulu
534	772.33125	City and County of Honolulu
535	772.33750	County of Maui
536	772.34375	County of Maui
537	772.35000	City and County of Honolulu
538	772.35625	City and County of Honolulu
539	772.36250	County of Kauai
540	772.36875	County of Kauai
541	772.37500	City and County of Honolulu
542	772.38125	City and County of Honolulu
543	772.38750	County of Hawaii
544	772.39375	County of Hawaii
545	772.40000	City and County of Honolulu
546	772.40625	City and County of Honolulu
547	772.41250	County of Maui
548	772.41875	County of Maui
549	772.42500	City and County of Honolulu
550	772.43125	City and County of Honolulu
551	772.43750	County of Kauai
552	772.44375	County of Kauai
553	772.45000	Kauai, Maui, & Hawaii Share
554	772.45625	Kauai, Maui, & Hawaii Share
555	772.46250	County of Hawaii
556	772.46875	County of Hawaii
557	772.47500	City and County of Honolulu
558	772.48125	City and County of Honolulu
559	772.48750	Kauai, Maui, & Hawaii Share
560	772.49375	Kauai, Maui, & Hawaii Share
561	772.50000	City and County of Honolulu
562	772.50625	City and County of Honolulu
563	772.51250	County of Maui
564	772.51875	County of Maui
565	772.52500	City and County of Honolulu
566	772.53125	City and County of Honolulu
567	772.53750	County of Kauai
568	772.54375	County of Kauai
569	772.55000	City and County of Honolulu
570	772.55625	City and County of Honolulu

Channel	Frequency	Assignment
571	772.56250	County of Hawaii
572	772.56875	County of Hawaii
573	772.57500	City and County of Honolulu
574	772.58125	City and County of Honolulu
575	772.58750	County of Maui
576	772.59375	County of Maui
577	772.60000	City and County of Honolulu
578	772.60625	City and County of Honolulu
579	772.61250	County of Kauai
580	772.61875	County of Kauai
581	772.62500	City and County of Honolulu
582	772.63125	City and County of Honolulu
583	772.63750	County of Hawaii
584	772.64375	County of Hawaii
585	772.65000	City and County of Honolulu
586	772.65625	City and County of Honolulu
587	772.66250	County of Maui
588	772.66875	County of Maui
589	772.67500	City and County of Honolulu
590	772.68125	City and County of Honolulu
591	772.68750	County of Kauai
592	772.69375	County of Kauai
593	772.70000	Kauai, Maui, & Hawaii Share
594	772.70625	Kauai, Maui, & Hawaii Share
595	772.71250	County of Hawaii
596	772.71875	County of Hawaii
597	772.72500	City and County of Honolulu
598	772.73125	City and County of Honolulu
599	772.73750	Kauai, Maui, & Hawaii Share
600	772.74375	Kauai, Maui, & Hawaii Share
601	772.75000	City and County of Honolulu
602	772.75625	City and County of Honolulu
603	772.76250	County of Maui
604	772.76875	County of Maui
605	772.77500	City and County of Honolulu
606	772.78125	City and County of Honolulu
607	772.78750	County of Kauai
608	772.79375	County of Kauai

Channel	Frequency	Assignment
609	772.80000	City and County of Honolulu
610	772.80625	City and County of Honolulu
611	772.81250	County of Hawaii
612	772.81875	County of Hawaii
613	772.82500	City and County of Honolulu
614	772.83125	City and County of Honolulu
615	772.83750	County of Maui
616	772.84375	County of Maui
617	772.85000	City and County of Honolulu
618	772.85625	City and County of Honolulu
619	772.86250	County of Kauai
620	772.86875	County of Kauai
621	772.87500	City and County of Honolulu
622	772.88125	City and County of Honolulu
623	772.88750	County of Hawaii
624	772.89375	County of Hawaii
625	772.90000	City and County of Honolulu
626	772.90625	City and County of Honolulu
627	772.91250	County of Maui
628	772.91875	County of Maui
629	772.92500	City and County of Honolulu
630	772.93125	City and County of Honolulu
631	772.93750	County of Kauai
632	772.94375	County of Kauai
633	772.95000	Kauai, Maui, & Hawaii Share
634	772.95625	Kauai, Maui, & Hawaii Share
635	772.96250	County of Hawaii
636	772.96875	County of Hawaii
637	772.97500	City and County of Honolulu
638	772.98125	City and County of Honolulu
639	772.98750	Kauai, Maui, & Hawaii Share
640	772.99375	Kauai, Maui, & Hawaii Share
641	773.00000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
642	773.00625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
643	773.01250	"Floating Allotments" to supplement General Use Channels
644	773.01875	"Floating Allotments" to supplement General Use Channels
645	773.02500	State Channels
646	773.03125	State Channels

Channel	Frequency	Assignment
647	773.03750	State Channels
648	773.04375	State Channels
649	773.05000	State Channels
650	773.05625	State Channels
651	773.06250	State Channels
652	773.06875	State Channels
653	773.07500	State Channels
654	773.08125	State Channels
655	773.08750	State Channels
656	773.09375	State Channels
657	773.10000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
658	773.10625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
659	773.11250	Air to Ground
660	773.11875	Air to Ground
661	773.12500	City and County of Honolulu
662	773.13125	City and County of Honolulu
663	773.13750	County of Hawaii
664	773.14375	County of Hawaii
665	773.15000	City and County of Honolulu
666	773.15625	City and County of Honolulu
667	773.16250	County of Maui
668	773.16875	County of Maui
669	773.17500	City and County of Honolulu
670	773.18125	City and County of Honolulu
671	773.18750	County of Kauai
672	773.19375	County of Kauai
673	773.20000	Kauai, Maui, & Hawaii Share
674	773.20625	Kauai, Maui, & Hawaii Share
675	773.21250	County of Hawaii
676	773.21875	County of Hawaii
677	773.22500	City and County of Honolulu
678	773.23125	City and County of Honolulu
679	773.23750	Kauai, Maui, & Hawaii Share
680	773.24375	Kauai, Maui, & Hawaii Share
681	773.25000	Narrowband Interoperability Calling Channels
682	773.25625	Narrowband Interoperability Calling Channels
683	773.26250	"Floating Allotments" to supplement General Use Channels
684	773.26875	"Floating Allotments" to supplement General Use Channels

Channel	Frequency	Assignment
685	773.27500	State Channels
686	773.28125	State Channels
687	773.28750	State Channels
688	773.29375	State Channels
689	773.30000	State Channels
690	773.30625	State Channels
691	773.31250	State Channels
692	773.31875	State Channels
693	773.32500	State Channels
694	773.33125	State Channels
695	773.33750	State Channels
696	773.34375	State Channels
697	773.35000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
698	773.35625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
699	773.36250	"Floating Allotments" to supplement General Use Channels
700	773.36875	"Floating Allotments" to supplement General Use Channels
701	773.37500	City and County of Honolulu
702	773.38125	City and County of Honolulu
703	773.38750	County of Hawaii
704	773.39375	County of Hawaii
705	773.40000	City and County of Honolulu
706	773.40625	City and County of Honolulu
707	773.41250	County of Maui
708	773.41875	County of Maui
709	773.42500	City and County of Honolulu
710	773.43125	City and County of Honolulu
711	773.43750	County of Kauai
712	773.44375	County of Kauai
713	773.45000	Honolulu/FED/NGO Share
714	773.45625	Honolulu/FED/NGO Share
715	773.46250	County of Hawaii
716	773.46875	County of Hawaii
717	773.47500	City and County of Honolulu
718	773.48125	City and County of Honolulu
719	773.48750	Kauai, Maui, & Hawaii Share
720	773.49375	Kauai, Maui, & Hawaii Share
721	773.50000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
722	773.50625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)

Channel	Frequency	Assignment
723	773.51250	"Floating Allotments" to supplement General Use Channels
724	773.51875	"Floating Allotments" to supplement General Use Channels
725	773.52500	State Channels
726	773.53125	State Channels
727	773.53750	State Channels
728	773.54375	State Channels
729	773.55000	State Channels
730	773.55625	State Channels
731	773.56250	State Channels
732	773.56875	State Channels
733	773.57500	State Channels
734	773.58125	State Channels
735	773.58750	State Channels
736	773.59375	State Channels
737	773.60000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
738	773.60625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
739	773.61250	Air to Ground
740	773.61875	Air to Ground
741	773.62500	Hawaii/FED/NGO Share
742	773.63125	Hawaii/FED/NGO Share
743	773.63750	County of Hawaii
744	773.64375	County of Hawaii
745	773.65000	City and County of Honolulu
746	773.65625	City and County of Honolulu
747	773.66250	County of Maui
748	773.66875	County of Maui
749	773.67500	Honolulu/Hawaii Simplex
750	773.68125	Honolulu/Hawaii Simplex
751	773.68750	County of Kauai
752	773.69375	County of Kauai
753	773.70000	Honolulu/FED/NGO Share
754	773.70625	Honolulu/FED/NGO Share
755	773.71250	County of Hawaii
756	773.71875	County of Hawaii
757	773.72500	City and County of Honolulu
758	773.73125	City and County of Honolulu
759	773.73750	Kauai, Maui, & Hawaii Share
760	773.74375	Kauai, Maui, & Hawaii Share

Channel	Frequency	Assignment
761	773.75000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
762	773.75625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
763	773.76250	"Floating Allotments" to supplement General Use Channels
764	773.76875	"Floating Allotments" to supplement General Use Channels
765	773.77500	State Channels
766	773.78125	State Channels
767	773.78750	State Channels
768	773.79375	State Channels
769	773.80000	State Channels
770	773.80625	State Channels
771	773.81250	State Channels
772	773.81875	State Channels
773	773.82500	State Channels
774	773.83125	State Channels
775	773.83750	State Channels
776	773.84375	State Channels
777	773.85000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
778	773.85625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
779	773.86250	"Floating Allotments" to supplement General Use Channels
780	773.86875	"Floating Allotments" to supplement General Use Channels
781	773.87500	Hawaii/FED/NGO Share
782	773.88125	Hawaii/FED/NGO Share
783	773.88750	County of Hawaii
784	773.89375	County of Hawaii
785	773.90000	City and County of Honolulu
786	773.90625	City and County of Honolulu
787	773.91250	County of Maui
788	773.91875	County of Maui
789	773.92500	Honolulu/Hawaii Simplex
790	773.93125	Honolulu/Hawaii Simplex
791	773.93750	County of Kauai
792	773.94375	County of Kauai
793	773.95000	Honolulu/FED/NGO Share
794	773.95625	Honolulu/FED/NGO Share
795	773.96250	County of Hawaii
796	773.96875	County of Hawaii
797	773.97500	City and County of Honolulu
798	773.98125	City and County of Honolulu

Channel	Frequency	Assignment
799	773.98750	Kauai, Maui, & Hawaii Share
800	773.99375	Kauai, Maui, & Hawaii Share
801	774.00000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
802	774.00625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
803	774.01250	"Floating Allotments" to supplement General Use Channels
804	774.01875	"Floating Allotments" to supplement General Use Channels
805	774.02500	State Channels
806	774.03125	State Channels
807	774.03750	State Channels
808	774.04375	State Channels
809	774.05000	State Channels
810	774.05625	State Channels
811	774.06250	State Channels
812	774.06875	State Channels
813	774.07500	State Channels
814	774.08125	State Channels
815	774.08750	State Channels
816	774.09375	State Channels
817	774.10000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
818	774.10625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
819	774.11250	Air to Ground
820	774.11875	Air to Ground
821	774.12500	Maui/FED/NGO Share
822	774.13125	Maui/FED/NGO Share
823	774.13750	County of Hawaii
824	774.14375	County of Hawaii
825	774.15000	City and County of Honolulu
826	774.15625	City and County of Honolulu
827	774.16250	County of Maui
828	774.16875	County of Maui
829	774.17500	Honolulu/FED/NGO Share
830	774.18125	Honolulu/FED/NGO Share
831	774.18750	County of Kauai
832	774.19375	County of Kauai
833	774.20000	Honolulu/FED/NGO Share
834	774.20625	Honolulu/FED/NGO Share
835	774.21250	County of Hawaii
836	774.21875	County of Hawaii

Channel	Frequency	Assignment
837	774.22500	City and County of Honolulu
838	774.23125	City and County of Honolulu
839	774.23750	Kauai, Maui, & Hawaii Share
840	774.24375	Kauai, Maui, & Hawaii Share
841	774.25000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
842	774.25625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
843	774.26250	"Floating Allotments" to supplement General Use Channels
844	774.26875	"Floating Allotments" to supplement General Use Channels
845	774.27500	State Channels
846	774.28125	State Channels
847	774.28750	State Channels
848	774.29375	State Channels
849	774.30000	State Channels
850	774.30625	State Channels
851	774.31250	State Channels
852	774.31875	State Channels
853	774.32500	State Channels
854	774.33125	State Channels
855	774.33750	State Channels
856	774.34375	State Channels
857	774.35000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
858	774.35625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
859	774.36250	Vehicular (2 watts max) Repeater
860	774.36875	Vehicular (2 watts max) Repeater
861	774.37500	Maui/FED/NGO Share
862	774.38125	Maui/FED/NGO Share
863	774.38750	County of Hawaii
864	774.39375	County of Hawaii
865	774.40000	City and County of Honolulu
866	774.40625	City and County of Honolulu
867	774.41250	County of Maui
868	774.41875	County of Maui
869	774.42500	Honolulu/FED/NGO Share
870	774.43125	Honolulu/FED/NGO Share
871	774.43750	County of Kauai
872	774.44375	County of Kauai
873	774.45000	Honolulu/FED/NGO Share
874	774.45625	Honolulu/FED/NGO Share

Channel	Frequency	Assignment
875	774.46250	County of Hawaii
876	774.46875	County of Hawaii
877	774.47500	County of Kauai
878	774.48125	County of Kauai
879	774.48750	County of Hawaii
880	774.49375	County of Hawaii
881	774.50000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
882	774.50625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
883	774.51250	Deployable Trunked System
884	774.51875	Deployable Trunked System
885	774.52500	State Channels
886	774.53125	State Channels
887	774.53750	State Channels
888	774.54375	State Channels
889	774.55000	State Channels
890	774.55625	State Channels
891	774.56250	State Channels
892	774.56875	State Channels
893	774.57500	State Channels
894	774.58125	State Channels
895	774.58750	State Channels
896	774.59375	State Channels
897	774.60000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
898	774.60625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
899	774.61250	Air to Ground
900	774.61875	Air to Ground
901	774.62500	Kauai/Maui Simplex
902	774.63125	Kauai/Maui Simplex
903	774.63750	County of Hawaii
904	774.64375	County of Hawaii
905	774.65000	Kauai, Maui, & Hawaii Share
906	774.65625	Kauai, Maui, & Hawaii Share
907	774.66250	County of Maui
908	774.66875	County of Maui
909	774.67500	Honolulu/FED/NGO Share
910	774.68125	Honolulu/FED/NGO Share
911	774.68750	County of Kauai
912	774.69375	County of Kauai

Channel	Frequency	Assignment
913	774.70000	County of Maui
914	774.70625	County of Maui
915	774.71250	County of Hawaii
916	774.71875	County of Hawaii
917	774.72500	County of Kauai
918	774.73125	County of Kauai
919	774.73750	County of Hawaii
920	774.74375	County of Hawaii
921	774.75000	Narrowband Data Interoperability
922	774.75625	Narrowband Data Interoperability
923	774.76250	Vehicular (2 watts max) Repeater
924	774.76875	Vehicular (2 watts max) Repeater
925	774.77500	State Channels
926	774.78125	State Channels
927	774.78750	State Channels
928	774.79375	State Channels
929	774.80000	State Channels
930	774.80625	State Channels
931	774.81250	State Channels
932	774.81875	State Channels
933	774.82500	State Channels
934	774.83125	State Channels
935	774.83750	State Channels
936	774.84375	State Channels
937	774.85000	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
938	774.85625	Narrowband Interoperability Channels (Trunking Secondary to Conventional)
939	774.86250	Deployable Trunked System
940	774.86875	Deployable Trunked System
941	774.87500	Kauai/Maui Simplex
942	774.88125	Kauai/Maui Simplex
943	774.88750	County of Hawaii
944	774.89375	County of Hawaii
945	774.90000	Kauai, Maui, & Hawaii Share
946	774.90625	Kauai, Maui, & Hawaii Share
947	774.91250	County of Maui
948	774.91875	County of Maui
949	774.92500	Low Power for On-Scene Incident Response (2 watts max)
950	774.93125	Low Power for On-Scene Incident Response (2 watts max)

Channel	Frequency	Assignment
951	774.93750	Low Power for On-Scene Incident Response (2 watts max)
952	774.94375	Low Power for On-Scene Incident Response (2 watts max)
953	774.95000	Low Power for On-Scene Incident Response (2 watts max)
954	774.95625	Low Power for On-Scene Incident Response (2 watts max)
955	774.96250	Low Power for On-Scene Incident Response (2 watts max)
956	774.96875	Low Power for On-Scene Incident Response (2 watts max)
957	774.97500	Low Power for On-Scene Incident Response (2 watts max)
958	774.98125	Low Power for On-Scene Incident Response (2 watts max)
959	774.98750	Itenerant Low Power for On-Scene Incident Responses-Nationwide
960	774.99375	Itenerant Low Power for On-Scene Incident Responses-Nationwide

ATTACHMENT K

**Letter from Governor to SIEB delegating authority for coordinating Air
to Ground Channels**



EXECUTIVE CHAMBERS
HONOLULU

DAVID Y. IGE
GOVERNOR

January 15, 2016

Admiral David G. Simpson
Chief
Public Safety & Homeland Security Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Admiral Simpson:

As Governor of the State of Hawai'i, I request that the administration and coordination of the new 700 MHz Air to Ground 700 MHz Narrowband channels be overseen by the Statewide Interoperability Executive Board (SIEB) and administered by the Region 11 700 MHz Regional Planning Committee (RPC). A list of the eight channels re-designated by the FCC to Air to Ground channels is reflected in the Hawai'i 700 MHz Region 11 State Plan. The Chair of the RPC, Warren Izumigawa, serves as a member of the SIEB. In that role, he brings actions of the RPC to the attention of the SIEB for collaboration and communication of issues that touch interoperability.

The SIEB has given the RPC designated authority to administer and develop technical parameters and usage guidelines for interoperability channels in the 700 MHz band. The administration of interoperability channels requires the issuance of guidance to the user base; this coordination task is much different than that required for the new 700 MHz Air to Ground channels. Air to Ground usage expects its user base to be more engaged in internal, agency specific communications which is different from how the interoperability channels are used. For this reason and because of the subject matter expertise of the RPC members, the SIEB Chair, Major General Arthur J. Logan, designates the Region 11 700 MHz RPC as coordinator of these channels.

The SIEB informed the Chair of the RPC of its designation to administer and coordinate the Air to Ground channels to ensure consistent coordination of the 700 MHz band in the region. The RPC concurs with this request.

FCC Channel Number	Base Frequency Center	Mobile Frequency Center
21-22	769.13125 MHz	799.13125 MHz
101-102	769.63125 MHz	799.63125 MHz
181-182	770.13125 MHz	800.13125 MHz
261-262	770.63125 MHz	800.63125 MHz
659-660	773.11875 MHz	803.11875 MHz
739-740	773.61875 MHz	803.61875 MHz
819-820	774.11875 MHz	804.11875 MHz
899-900	774.61875 MHz	804.61875 MHz

Admiral David G. Simpson
January 15, 2016
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If you have any questions related to the SIEB or RPC designation, please have your staff contact the Statewide Interoperability Coordinator (SWIC), Victoria Garcia, at (808) 208-3606, or via email: victoria.garcia@hawaii.gov.

With warmest regards,



David Y. Ige
Governor, State of Hawai'i

c: Mayor Kirk Caldwell, City and County of Honolulu
Mayor Alan M. Arakawa, Maui County
Mayor Bernard P. Carvalho, Kauai County
Mayor William P. Keno, Hawai'i County
Major General Arthur J. Logan, Adjutant General
Douglas Murdock, Comptroller, State of Hawai'i, DAGS
Todd Nacapuy, CIO, ETS
Victoria Garcia, Coordinator, SWIC
Dolores Cook, Office of Homeland Security

ATTACHMENT L
List of Air to Ground Channels

700 MHz Air to Ground 700 MHz Narrowband Channels

FCC Channel Number	Base Frequency Center	Mobile Frequency Center
21-22	769.13125 MHz	799.13125 MHz
101-102	769.63125 MHz	799.63125 MHz
181-182	770.13125 MHz	800.13125 MHz
261-262	770.63125 MHz	800.63125 MHz
659-660	773.11875 MHz	803.11875 MHz
739-740	773.61875 MHz	803.61875 MHz
819-820	774.11875 MHz	804.11875 MHz
899-900	774.61875 MHz	804.61875 MHz