Statewide Interoperability Executive Committee

Standard Operating Procedure

Arizona Interagency Radio System (AIRS) State Plan Standard Operating Procedures

Effective Date: 10/15/2013

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Record of Changes

This Record of Changes is used to record revisions to this document, including a brief description of the changes made, the date the changes went into effect by approval of the SIEC, and the appropriate PSIC Office Contact.

Change No.	Date	Description	PSIC Office Contact
1	11/16/2010	Reorder AIRS (AIRSAZ to the end) - Approved by SIEC 10/19 and PSCC 11/16	Michael Britt
2	3/24/2011	Correct order of CTCSS tones	Michael Britt
3	8/16/2011	Change to Table links, Updates to Appendix A.13, Remove references to AIRSAZ	Michael Britt
4	9/14/2011	Updated Maps from DPS, Approvals in lieu of signature page	Michael Britt
5	1/11/2012	Updated for Channels Plan change	Michael Britt
6	10/15/2013	Moved document to new format - Removed NIFOG channel information which is referenced in AZ Interoperable Channels Plan; Updated Regional Monitoring Assignments; Updated AIRS Suite Location Map; Added new definitions section	Glade Jarman

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1 Introduction

1.1 Background

AIRS is a suite of full-time, cross-banded (i.e. VHF, UHF, and 800 MHz[1]) mutual aid channels designated specifically for multi-agency use across the State of Arizona. The AIRS suite is limited to one frequency pair per band for the entire state. See the county maps in Appendix A to identify areas where there is AIRS coverage.

Agencies and organizations wishing to operate on AIRS must sign a Memorandum of Understanding (MOU) with the Department of Public Safety (DPS) which holds the licenses for AIRS frequencies.

AIRS is designed to provide interoperable communications capability to first responders of police, fire, and EMS agencies, as well as other personnel of municipal, county, state, tribal, and federal agencies performing public safety or public service activities. DPS may also determine that selected non-governmental organizations (NGOs) performing public safety or public service activities are eligible for approval to use AIRS.

These radio frequencies are to be used in the event of a multi-agency, multi-discipline, and/or multi-jurisdictional operation requiring the use of the common state radio channel(s), specifically for the purpose of coordinating activities during identified incidents. AIRS frequencies are not to be used by a single agency for routine public safety operations. AIRS frequencies may, however, be used by a single agency to reconstitute communications in the event of a system failure or other significant communications loss.

1.2 Purpose

This document contains standard operating procedures for the Arizona Interagency Radio System (AIRS). These procedures are intended to inform monitoring, dispatch and user actions regarding the system. AIRS is a suite of full-time, cross-banded mutual aid channels designed to provide interoperable communications capability to first responders of police, fire, and Emergency Medical Service agencies, as well as other personnel of municipal, county, state, tribal, and federal agencies performing public safety or public service activities. The Arizona Department of Public Safety (DPS) may also determine that selected non-governmental organizations (NGOs) performing public safety or public service activities are eligible for approval to use AIRS.

These radio frequencies are to be used in the event of a multi-agency operation requiring the use of the common state radio channel(s), specifically for the use of coordinating activities

[1]All 700 MHz radios can be programmed to access AIRS 800 MHz frequencies.

during identified incidents. AIRS frequencies are not designed to be used by a single agency for routine public safety operations.

This document also details the National Interoperability Channels and makes recommendations regarding their use and programming.

1.3 Scope

This procedure applies to all agencies that operate on the AIRS channels

1.4 Definitions

- AIRS: Arizona Interagency Radio System, formerly referred to as the Interagency Radio System (IARS) or as the Arizona Emergency Radio System (AERS).
- Bandwidth: The difference between the upper and lower frequencies in a continuous set of frequencies. It is typically measured in hertz.
- CTCSS: Continuous Tone-Coded Squelch System is a circuit that is used to reduce the annoyance of listening to other users on a shared two-way radio communications channel. It is sometimes called tone squelch. Where more than one user group is on the same channel (called *co-channel users*), CTCSS mutes the other users if they are using a different CTCSS tone or no CTCSS.
- DPS: Department of Public Safety
- EMS: Emergency Medical Services
- FCC: Federal Communications Commission
- Hertz: The unit of frequency in the International System of Units. It is defined as the number of cycles per second of a periodic phenomenon.
- ICS: The Incident Command System is a standardized, on-scene, all-hazards incident management approach used and promoted by the Federal Government.
- kHz: Kilohertz, one thousand Hertz
- MHz: Megahertz, one million Hertz
- NIMS: The National Incident Management System is the Federal system that identifies concepts and principles that answer how to manage emergencies from preparedness to recovery regardless of their cause, size, location or complexity.
- NGO: Non-governmental Organization
- NOC: Arizona Department of Public Safety, Wireless Systems Bureau, Network Operations Center
- POC: Point of Contact

- PSCC: The Public Safety Communications Advisory Commission provides recommendations to the PSIC Office on the development of standards based systems providing interoperability for public safety agencies' communications statewide.
- PSIC: The Public Safety Interoperable Communications Office is responsible for advancing interoperable communications in Arizona and supporting the PSCC and the SIEC in the performance of their missions.
- Rx: Receiving
- SIEC: The Statewide Interoperability Executive Committee is the sub-committee of the PSCC responsible for technical and operational recommendations to the PSCC. The SIEC manages the interoperability portions of the 700 MHz, UHF and VHF spectrums, and has operational oversight of AIRS.
- SOP: Standard Operating Procedure
- Tx: Transmitting
- UHF: Ultra High Frequency
- VHF: Very High Frequency
- WSB: Arizona Department of Public Safety, Wireless Systems Bureau which licenses the frequencies used by the AIRS system, and has engineering and maintenance responsibility for AIRS.

1.5 References

This document references the AIRS MOU, available online at: www.azpsic.gov/library/airs/.

This document references the FCC Report and Order General Docket 87-112, available online at: http://apcointl.org/component/docman/doc_download/109-87-112.html.

This document references the Arizona Statewide Interoperable Channel Plan, available online at: http://azpsic.gov/library/standards/AZ_Interoperable_Channels_Plan.pdf.

1.6 Administration

Arizona's Public Safety Interoperable Communications (PSIC) Office, with guidance from the SIEC and the AIRS Workgroup, is responsible for administering this procedure.

1.7 Document Terminology

The terms "shall," "must," "will," and "required" are used throughout this document to indicate required parameters and to differentiate from recommended parameters. Recommendations are identified by the words "should," "desirably" and "preferably."

1.8 Updates & Revisions

This document will be reviewed annually and updated as needed. Those wishing to suggest revisions or additions to this document should send their feedback electronically to psic@azpsic.gov or in writing to the PSIC Office, c/o Arizona Strategic Enterprise Technology (ASET) Office at 100 N 15th Avenue, Suite 400, Phoenix, AZ 85007.

Revisions to this document will be reviewed by the Technical and Operational Workgroup, which will recommend appropriate changes to the SIEC. Revised versions of this document will be effective once approved by the SIEC.

If no revisions are required, the "last reviewed" date will be updated and no other changes will be made.

2 AIRS Standards

2.1 Introduction

2.1.1 History

The Arizona Interagency Radio System (AIRS) is an outgrowth of Arizona's Inter-Agency Radio System (IARS) which was started in the mid-1970s. IARS was developed to allow communications between law enforcement agencies using VHF radio systems and UHF systems (primarily the Department of Public Safety and the Maricopa County Sheriff's Office). Over the next 20 years, this system grew to 15 communications sites covering Interstates I-8 and I-40, Maricopa County and southeast Arizona. While initially envisioned as a law enforcement asset, the Arizona public safety community later identified IARS as a valuable all-hazards resource.

Due to an increased interest in and need for interoperability and the availability of federal grant funds, the Arizona Division of Emergency Management (ADEM) undertook a project to modernize the IARS network. Radio coverage was increased by installing radios at more communications sites and the 800 MHz band was added at each site to create an AIRS suite of radios. The VHF system was also converted from simplex operation to a repeater, allowing for communications between users on all three frequency bands (i.e. VHF, UHF, and 800 MHz). In 2006, this new tri-band system was named the Arizona Interagency Radio System (AIRS).

2.1.2 Operations

The state is broken up into AIRS Regions (see Page 13, AIRS Regional Channel Assignments). Although these regions are drawn on the county boundaries, the radio coverage provided by a single communications site may extend beyond a single region/county. There are also gaps in coverage. Within a region, most communications sites are electronically "voted" to select the site that has the best received audio quality. The "voted" signal is sent to the communications center and a control signal is sent to the selected communications site to enable the cross-band/repeater operation. This operation is automatic, does not require any interaction with the communications center, and provides repeater and cross-band operation to field users.

Because the AIRS regional channels use a single frequency (per band) to cover the entire state, system originators developed a means of controlling intra-system inference by dividing up primary channel usage among the ten regional areas. Breaking the state into ten regional areas ensures that the amount of intra-system interference can be minimized while still providing good field coverage with a minimum of channel changes. Five CTCSS (PL) tones control the ten regions. By reusing the CTCSS tone around the state, Arizona reduces the number of channels needed in the subscriber radios.

The AIRSAZ channel is no longer available throughout the state. Because interference is minimized in the regional channels AIRS1 through AIRS5, their use is encouraged, and the use of the statewide channel AIRSAZ is discouraged and is no longer sanctioned.

2.1.3 Access

Eligible users must contact the DPS Wireless Systems Bureau (WSB) Administrative Secretary at 602-223-2247 to request access to AIRS. Governmental agencies and NGOs utilizing mobile and portable radios that are operated by personnel actively engaged in incident-related activities are eligible users.

DPS will provide applicants with the AIRS Memorandum of Understanding (MOU) and an information packet. The applicant agency must sign and return the MOU. DPS may sign the MOU for eligible applicants and send an executed copy, along with a Certificate of Participation and user documentation, to the applicant. The applicant will then be authorized to operate on the state licensed frequencies used by the AIRS system under the terms of the MOU.

All signatory agencies to the AIRS MOU should preferably program AIRS frequencies into their radios in order (AIRS1, AIRS2, AIRS3, AIRS4, and AIRS5). The programming zone may differ depending on the agency or the type of radio

2.1.4 National Interoperability Channels

While the AIRS MOU applies specifically, and only, to AIRS-suite channels and does NOT include VCALL/VTAC, UCALL/UTAC, or 8TAC channels, agencies are encouraged to program all of the interoperable channels operating in their frequency band into their radios. At a minimum, the calling channel and the first tactical channel should be programmed.

When possible, programming the AIRS Channels along with the National Channels in a separate segment is recommended.

Please refer to the Arizona Statewide Interoperable Channels Plan – Appendix A: Priority Programming Guide, available at:
http://azpsic.gov/library/standards/AZ_Interoperable_Channels_Plan.pdf

2.2 Regional Assignments

2.2.1 VHF Interoperability Channels/Frequencies

The VHF AIRS frequencies are licensed to the State of Arizona and an FCC license is required to operate on those frequencies. The AIRS MOU allows the signatory agencies to operate under the State's mobile license (KA89942). The VHF simplex tactical (TAC) channels are FCC designated national interoperability channels requiring no separate FCC license.

Table 1: Statewide VHF Priority Programming Guide

	NAME	BANDWIDTH	RX FREQ MHz	RX CTCSS Hz	TX FREQ MHz	TX CTCSS Hz
1	VAIRS1	12.5 kHz	155.4750	CSQ	155.1900	141.3
2	VAIRS2	12.5 kHz	155.4750	CSQ	155.1900	131.8
3	VAIRS3	12.5 kHz	155.4750	CSQ	155.1900	110.9
4	VAIRS4	12.5 kHz	155.4750	CSQ	155.1900	123.0
5	VAIRS5	12.5 kHz	155.4750	CSQ	155.1900	167.9

2.2.2 UHF Interoperability Channels/Frequencies

The UHF AIRS frequencies are licensed to the State of Arizona and an FCC license is required to operate on those frequencies. The AIRS MOU allows the signatory agencies to operate under the State's mobile license (KA89942). The UHF simplex TAC channels are FCC designated national interoperability channels requiring no separate FCC license.

Table 2: Statewide UHF Priority Programming Guide

	NAME	BANDWIDTH	RX FREQ MHz	RX CTCSS Hz	TX FREQ MHz	TX CTCSS Hz
1	UAIRS1	12.5 kHz	460.3750	CSQ	465.3750	141.3
2	UAIRS2	12.5 kHz	460.3750	CSQ	465.3750	131.8
3	UAIRS3	12.5 kHz	460.3750	CSQ	465.3750	110.9
4	UAIRS4	12.5 kHz	460.3750	CSQ	465.3750	123.0
5	UAIRS5	12.5 kHz	460.3750	CSQ	465.3750	167.9
6	UAIRS_D	12.5 kHz	460.3750	CSQ	460.3750	100.0

2.2.3 800 MHz Channels/Frequencies

The 800 MHz channels are all FCC designated national interoperability channels requiring no separate FCC license for mobile equipment. Mobile Relay (FB2) and Fixed Stations (FB) require FCC licensing. The following channel-specific information provides additional details related to the use of these channels:

The regional AIRS channels, AIRS1 through AIRS5, have CTCSS tones only used in Arizona.

Table 3: Statewide 800 MHz Priority Programming Guide

	NAME	BANDWIDTH	RX FREQ MHz	RX CTCSS Hz	TX FREQ MHz	TX CTCSS Hz
1	8AIRS1	20 kHz	866.0125	CSQ	821.0125	141.3
2	8AIRS2	20 kHz	866.0125	CSQ	821.0125	131.8
3	8AIRS3	20 kHz	866.0125	CSQ	821.0125	110.9
4	8AIRS4	20 kHz	866.0125	CSQ	821.0125	123.0
5	8AIRS5	20 kHz	866.0125	CSQ	821.0125	167.9

2.2.4 Regional AIRS Monitoring Assignments

AIRS is generally monitored by region. However, not all regions have a communications center capable of and responsible for monitoring the entire region. Also, some suite locations are too far from any communications center for monitoring to take place.

Appendix A.13 AIRS Regional Monitoring Assignments identifies the monitoring communications centers by region. Since AIRS monitoring practices are just beginning to be standardized throughout the state, AIRS users must inform themselves about monitoring practices currently in place in their regions and understand any limitations to using AIRS related to those practices.

2.3 Operational Guidelines

2.3.1 Rules of Use

AIRS channels are reserved for situations that require interoperable communications to coordinate multiple public safety/public service entities and/or activities across two or more separate radio systems. The following rules of use shall apply to these channels:

- **National Incident Management System** – Use an Incident Command System (ICS) compliant with the National Incident Management System (NIMS) when using a regional interoperability resource such as AIRS.

- **Plain Language** – All interoperable communications during multi-agency, multidiscipline incidents will be in plain language. Avoid using radio codes, acronyms, and abbreviations as they may cause confusion between agencies. Ensure that all verbal requests for assistance or backup specify the reason for the request.
- **Unit Identification** – Announce your home agency prior to announcing your unit identifier during interoperable communication situations (i.e., Flagstaff Engine 1).

2.3.2 Prioritization

In response to events or incidents which cross over political jurisdictions, there will potentially be competing demands and priorities for interoperable communications assets.

Until such time as Incident Command is established, the lead agency designee (i.e., communications supervisor/command personnel), in cooperation with their counterparts in other assisting agencies, will have the authority to designate the use of interoperable assets, including AIRS channels. Once Incident Command has been established, Command Staff or Communication Unit Leaders (when designated) direct the further coordination and delegation of the interoperable communications assets assigned to the event or incident in question.

Agencies should judiciously activate needed interoperable assets so as to both effectively respond to the event and/or incident and also minimize any negative impact on surrounding agencies or jurisdictions. When the same resources are requested for two or more incidents, AIRS assignments should be based on the priority levels listed below:

1. Disasters, large scale incidents, or extreme emergencies requiring mutual aid or interagency communications.
2. Incidents where imminent danger exists to life or property.
3. Other incidents requiring the response of multiple agencies.
4. Pre-planned events requiring mutual aid or interagency communications.
5. Incidents involving a single agency where supplemental communications are needed for short term agency use.
6. Drills, tests and exercises.

In the event of multiple simultaneous incidents within the same priority level, AIRS channels should be allocated with the following priorities in mind:

1. Incidents with the greatest level of exigency (e.g., greater threat to life or property, more immediate need) have priority over less exigent incidents.
2. Agencies with single/limited interoperable options have priority use of those options over agencies with multiple interoperable options.
3. When at all possible, agencies already using an interoperable asset during an event should not be redirected to another resource.

2.3.3 Restrictions and Limitations

The AIRS Suite is limited to one frequency pair per band for the entire state.

Known restriction and limitation issues include:

- Coverage. The AIRS Regional Channel Assignment Map (see Page 12) is intended to show assignment of AIRS Channels and should not be interpreted as showing that coverage is available throughout the region and follows along county lines. Users must see the County Maps following the Regional Map to help determine actual availability of coverage and identify gaps in coverage.

  The County Maps show composite radio coverage aggregated from all individual single site coverage estimates in the county. This aggregated coverage is mapped in a single color as the top layer on the County Map. The assigned regional AIRS channel shown on the AIRS Regional Channel Assignment Map is generally available throughout most of the aggregated coverage area shown on the County Map.

  There may be additional AIRS coverage from an adjacent county that is not visible on the County Map. That coverage can be identified on the County Map for the adjacent region where it is mapped as the top layer. In areas where coverage from more than one region overlaps, user need to become familiar with both coverage areas to understand which AIRS Channels and monitoring agencies may be active. Users risk losing their monitoring and dispatching support when they move to an overlapping channel because that channel has a different CTCSS (PL) tone.

- **Non-voted towers and voted towers not monitored.** There are some AIRS towers not voted back to a communications center. Other towers may be voted back to a communications center that is not actively monitoring AIRS. See Appendix A.13 AIRS Regional Monitoring Assignments to identify those locations.

- **Encryption.** AIRS channels are NOT encrypted.

- **Monitoring.** Several locations exist statewide where users have AIRS coverage but presently do not have any communications centers monitoring AIRS (See Appendix A.13AIRS Regional Monitoring Assignments documenting these locations.)

- **Communication.** AIRS makes use of conventional repeaters. Therefore, monitoring communications centers can communicate with users throughout the regional coverage area. However, user to user communication is possible only between users having coverage from a common tower within the region.

2.3.4 Monitoring and Dispatch Actions

The communications centers identified in Appendix A.13 AIRS Regional Monitoring Assignments are responsible for monitoring the regionally assigned AIRS channel at all times. DPS may monitor AIRS in areas where communications centers cannot monitor. The volume for AIRS must be set to a level allowing dispatchers to immediately hear and respond to any message traffic across that channel at all times. Note that direct or simplex AIRS usage will not be monitored by any dispatch center and that direct or simplex users will not have the ability to

communicate across different bands. Communications centers are also encouraged to monitor the National Interoperable Calling Channel aligned with their primary operating frequency (either VCALL10, UCALL40, 8CALL90 or 7CALL50).

1. **Incident Use**

   Agencies leading multi-agency incidents where AIRS channels are needed will notify the monitoring communications center of their need for the channel either by clearing on air or calling the center, and will describe the nature of the incident.

   Multi-agency Incidents for which AIRS is available:

   1. The monitoring communications center will confirm availability of the AIRS channel and tell the agency to go ahead and begin use.
   2. The lead agency will confirm that it is assuming responsibility for dispatching the incident and take responsibility for notifying additional agencies, as appropriate.
   3. The monitoring communications center will continue to monitor AIRS traffic in the event of a change in the incident or the development of a subsequent incident.
   4. The lead agency's communications center will provide dispatch services for the incident. Providing dispatch services includes the responsibility for monitoring and responding on AIRS channels and coordinating other agency unit responses as requested or necessary.
   5. During an incident, communications centers and agencies will document radio traffic on AIRS in a manner consistent with their agency operating procedures for AIRS incidents. This will vary by center. For example, monitoring communications centers will log the incident if creating a log record for AIRS use is consistent with their daily operations protocols. Agencies using AIRS will initiate a CAD record for the incident if creating such a record is consistent with their daily operations protocols.
   6. In case of system failure, the lead agency's communications center will attempt alternate communication methods. If alternative communication methods cannot be established, dispatch responsibilities will be transferred to the next appropriate communications center.
   7. At the termination of an incident, or when the incident no longer requires the use of AIRS, the lead agency should announce that AIRS will no longer be used for incident traffic and that all field personnel should return to their home communications center. The lead agency will then announce that the channel is clear, document the time in their incident records and notify the monitoring communications center that the channel is available.

   Multi-agency Incidents for which AIRS is unavailable:

   1. If the channel is not available and Incident Command has not yet been established, the primary monitoring communications center will advise the

agency requesting the channel that it is in use and attempt to provide both requesting agencies with any available information needed to prioritize the use of AIRS for the simultaneous incidents. Monitoring personnel, at their discretion, may suggest other interoperable communications resources based on their knowledge of the in progress incident utilizing AIRS, other available resources, and so on.

2. The agencies leading the simultaneous incidents will determine which incident will be assigned the AIRS channel based on prioritization guidelines outlined above in Section 2.3.2 Prioritization.
3. If the AIRS asset is transferred, the lead agency or Incident Command relinquishing the AIRS channel will contact the primary monitoring communications center to advise them of the transfer.

2. Itinerate Use

1. AIRS is available for emergency use by itinerate users. Itinerate users are defined as responders working outside of their agency's coverage area. They may use AIRS channels to request assistance through the monitoring communications center for the region where the emergency occurs.
2. The monitoring communications center will assist the requester by contacting an appropriate local agency to respond and will maintain communication with the requester as needed until communications can be moved to another asset.
3. The primary monitoring agency may facilitate notification to the responder's agency of the responder's situation if requested to do so.
4. The communications centers and agencies involved will document itinerate use of AIRS in a manner consistent with their daily practices for incidents within their agency.

2.3.5 Field User Actions

1. Initiate command protocols according to the Incident Command System (ICS) for all incidents or events requiring the response of multiple agencies.
2. Before transmitting on AIRS, listen to the channel first to ensure that your radio traffic will not be covering or interfering with that of another user.
3. Identify yourself by agency name and call sign. Users from agencies without call signs should identify by organization and individual name.
4. Keep radio traffic to a minimum and use plain language.
5. Be available on the assigned channel.
6. Do not use AIRS as a travel/chat channel for traffic unrelated to an incident or itinerate user emergency.
7. Report any problems with AIRS to agency/communications center personnel who will initiate the AIRS problem identification and resolution process.

2.4 Problem ID and Resolution

Technical and maintenance problems with AIRS are resolved by DPS. Agencies must make sure their equipment is functioning before placing a service call on the AIRS system.

The SIEC, with the support of the PSIC Office, recommends solutions for oversight issues and any unresolved technical and maintenance issues.

2.4.1 During an incident:

1. Report any technical and maintenance problems with AIRS to the primary agency dispatcher or to the COML, if designated. Dispatch personnel for the agency initiating the call for service, incident command staff, and/or the incident COML will report those problems with AIRS to DPS by contacting the WSB Network Operations Center (NOC). The WSB NOC will be responsible for ensuring effective resolution of all reported problems.
2. Contact the DPS WSB NOC by calling 602-223-2245. During duty hours, an on-duty technician will take the trouble report. After normal hours, the On-Call Supervisor will be notified.
3. Move the incident off of AIRS channels if the issue cannot be resolved satisfactorily.

2.4.2 Non-emergency and after incident issues:

1. Personnel for the agency initiating the call for service, incident command staff, and/or the incident COML can report any technical and maintenance problems with AIRS to the DPS WSB NOC. The DPS WSB NOC will be responsible for ensuring an effective resolution to all reported problems.
2. The DPS WSB NOC can be reached via email at WSB_NOC@AZDPS.GOV. Include as much information about the nature of the problem as possible, such as the number of users, what location(s), which frequency (band), and any other defining characteristics.

2.4.3 Oversight issues and unresolved AIRS problems:

1. Report oversight issues and unresolved AIRS problems to the SIEC via the PSIC Office. The SIEC will discuss reported AIRS issues/problems and recommend an action plan.
2. Reports may be submitted electronically to siec@azgita.gov or in writing to the PSIC Office, Government Information Technology Agency located at 100 N 15th Avenue, Suite 440, Phoenix, AZ 85007. The PSIC Office will agendize the oversight issue or unresolved problem report for the SIEC.

2.5 AIRS Testing Protocols

Each communications center responsible for AIRS monitoring duties should host regular open-net tests of the AIRS system.

1. Each center's test will be set and announced in advance at the discretion of the center.

2. At the onset of the test, communications center personnel will announce the start of the test, ensure that the channel is not otherwise in use, and execute a roll-call of public safety and service agencies within the monitored area that have agreed to take part in the test.
3. Additional agencies not included in the roll-call should be given an opportunity to announce themselves at the end of the roll-call.
4. The communications center can then terminate the test and document it as required by its own policies and procedures.
5. If AIRS problems are identified during the open-net test, the center will follow the Section 2.4 Problem ID and Resolution procedures to initiate the resolution process for those problems.

2.6 AIRS Training

It is the responsibility of each user agency to ensure that all of its dispatchers and field users are properly trained in the use of AIRS. Overview training is available upon request from the PSIC Office, but end user training is the responsibility of the user agency. At a minimum, all user personnel should understand the following:

- When AIRS is to be used
- How to select the right channel
- The requirement for plain English
- The requirement to use agency affiliation and title
- The regional monitoring and dispatching capabilities
- Who to notify in their agency if there is a problem

Appendix A: AIRS Regional Channel Assignments and Coverage Maps

Figure 1: AIRS Regional Channel Assignments

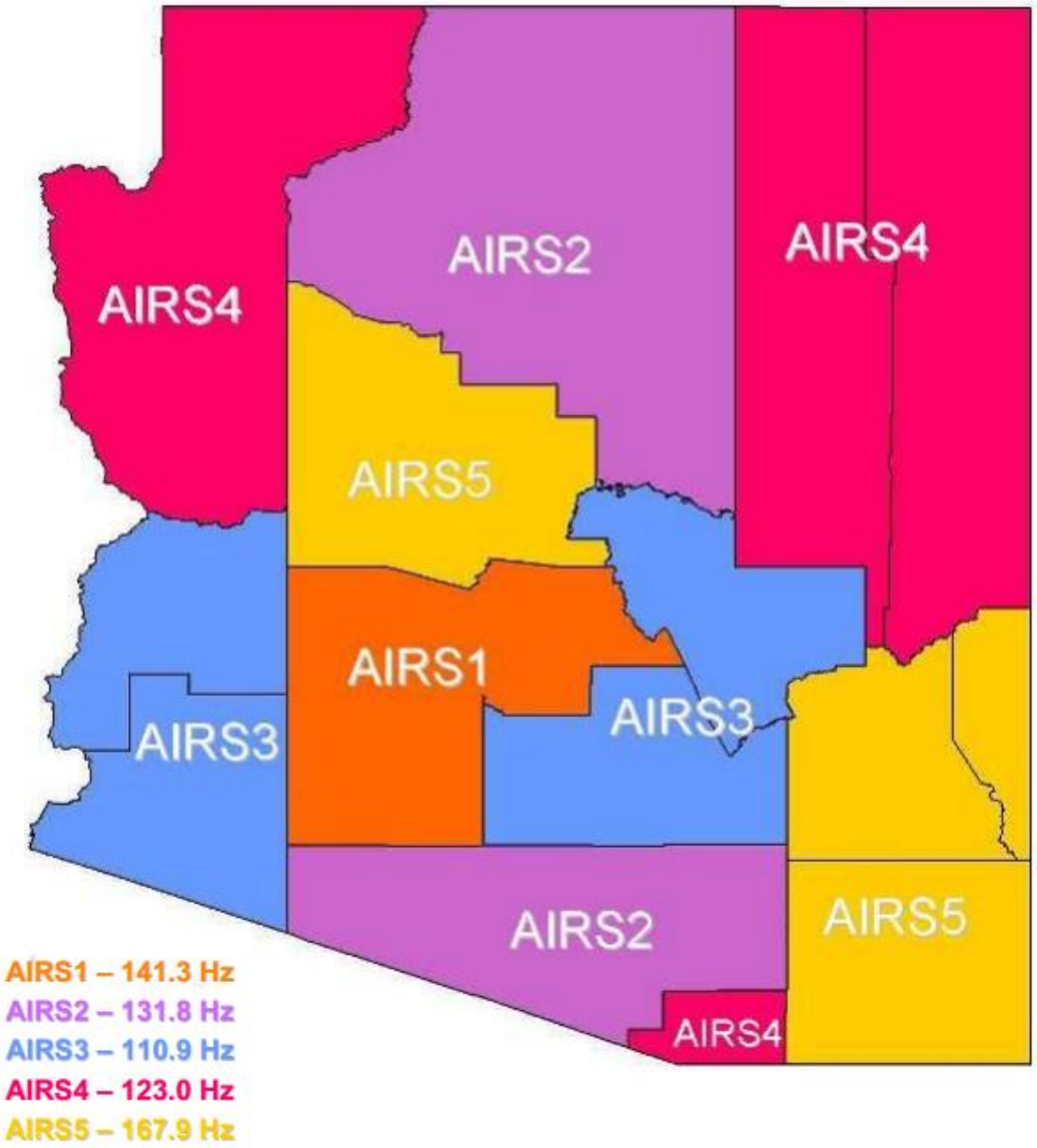
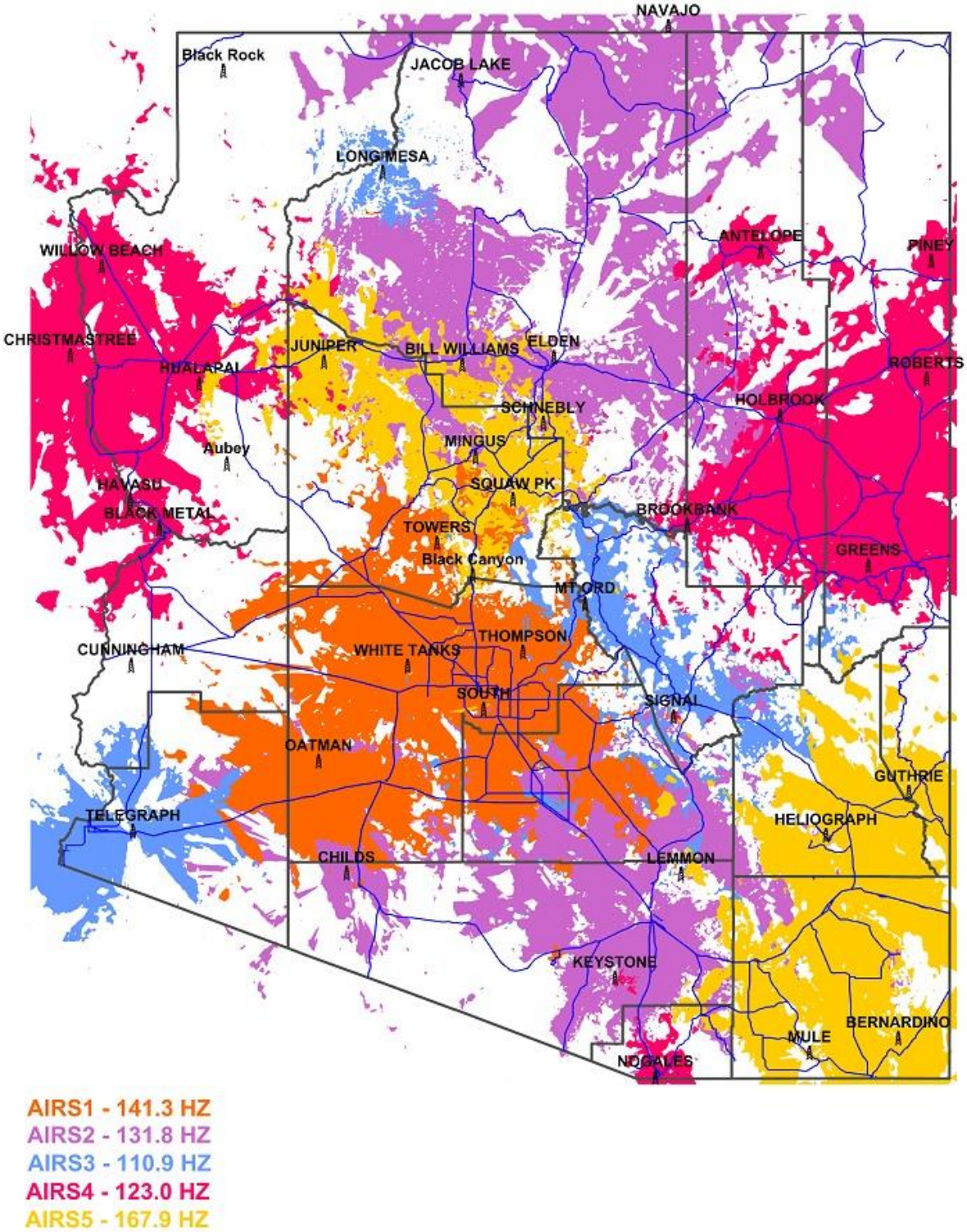
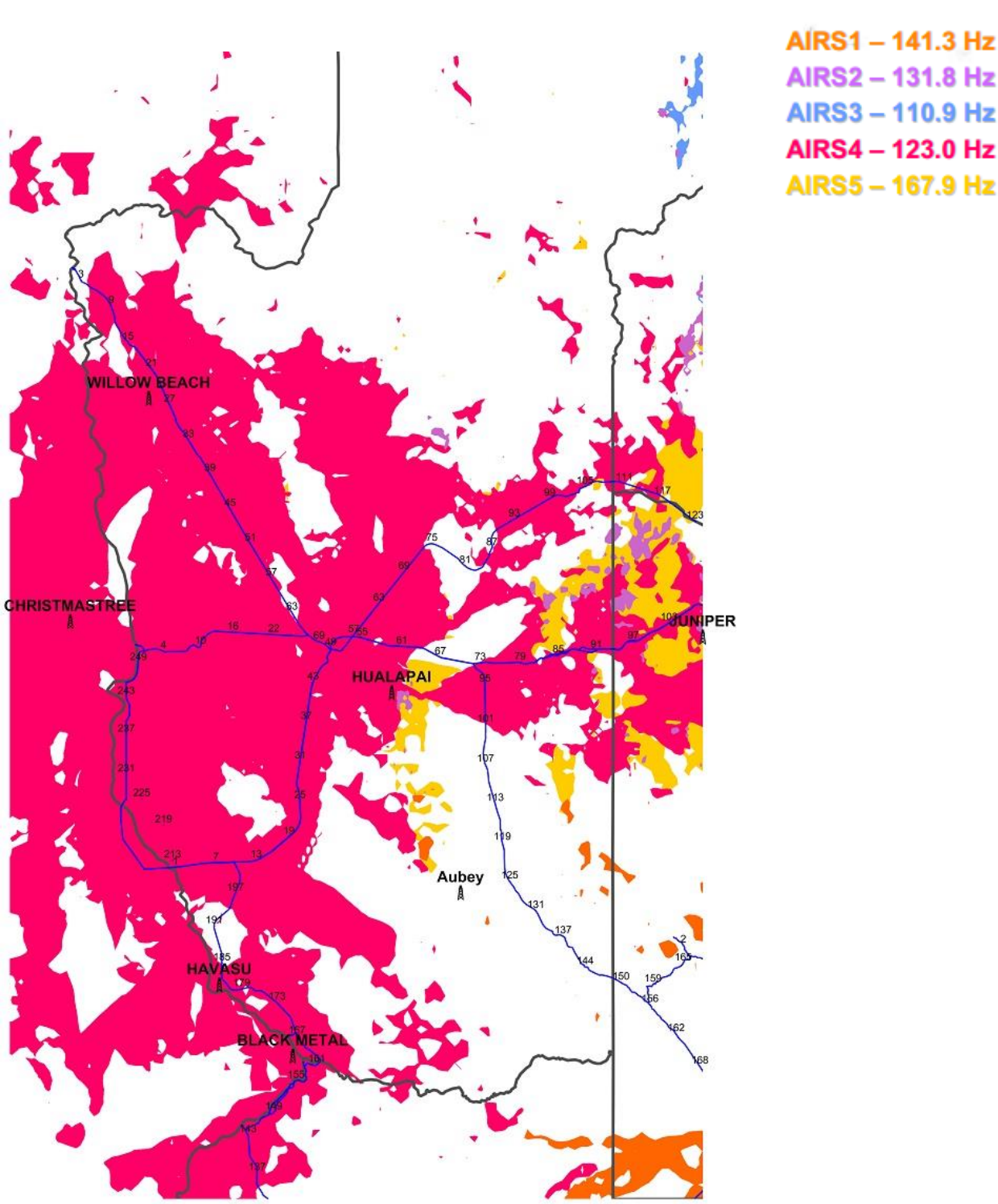


Figure 2: AIRS Statewide Map of Regional Coverage



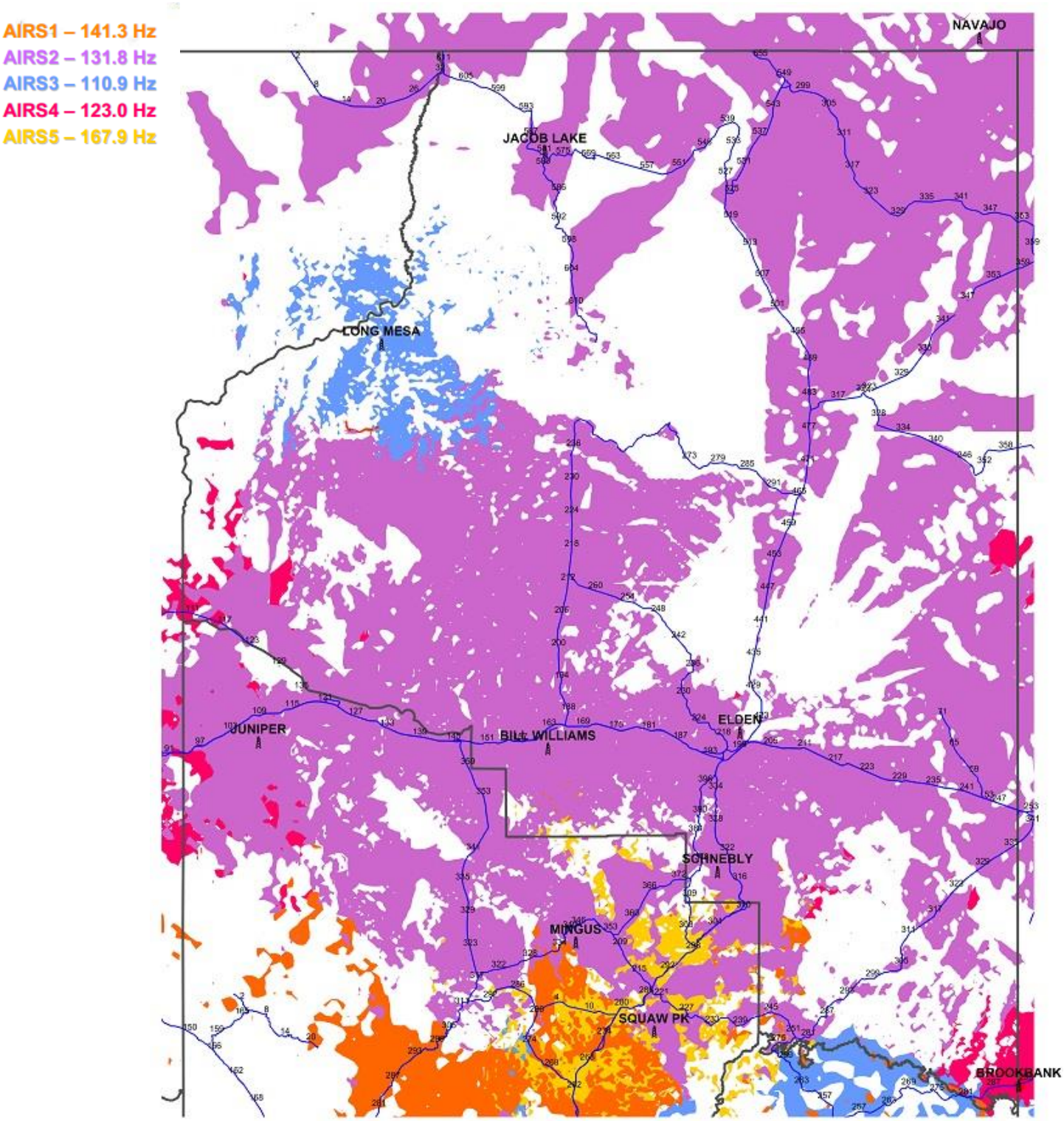
Statewide AIRS Predicted Regional Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

Figure 3: Mohave County Coverage - AIRS4 (123.0 Hz)



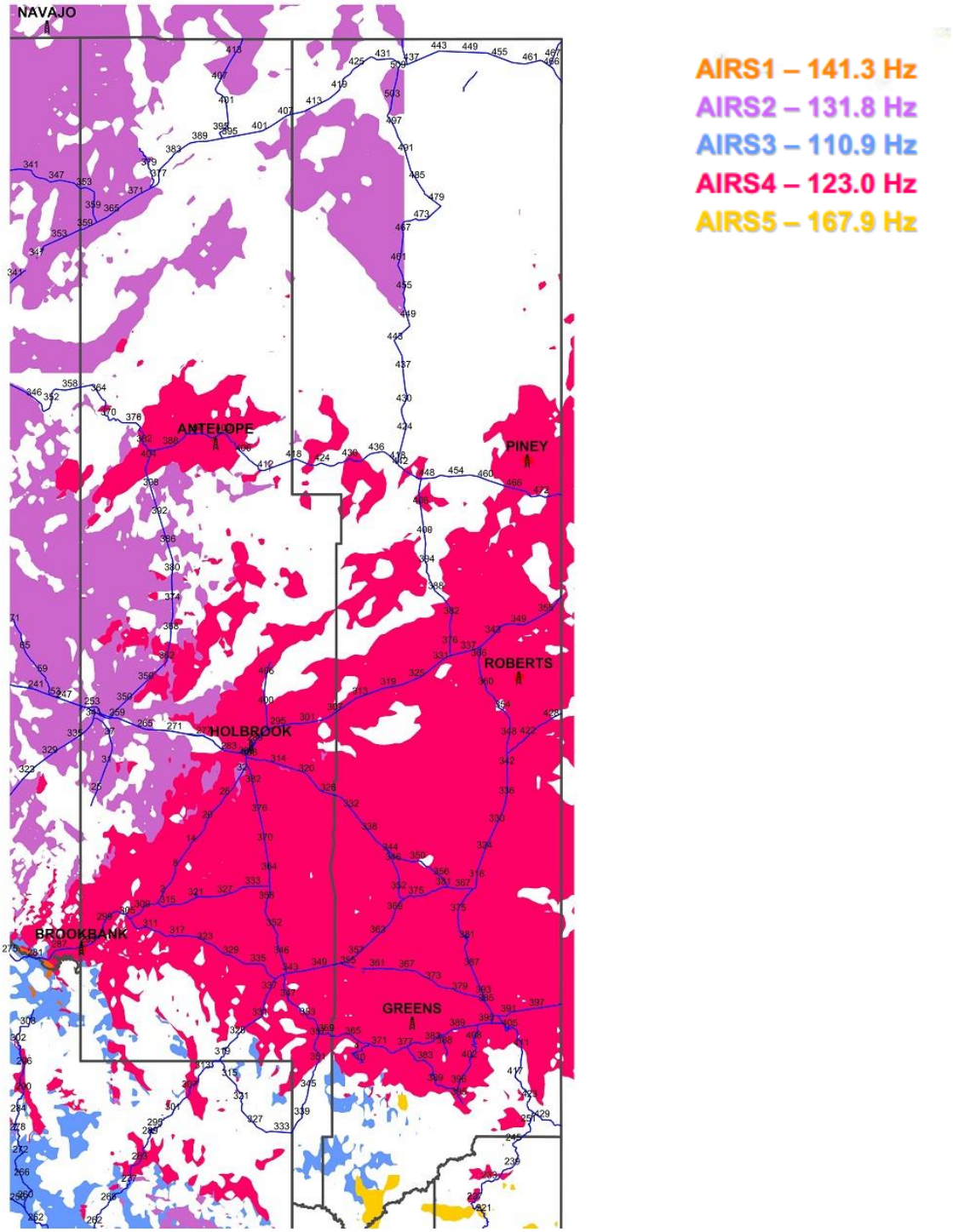
Mohave County Predicted AIRS Regional Radio Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

Figure 4: Coconino County Coverage - AIRS2 (131.8 Hz)



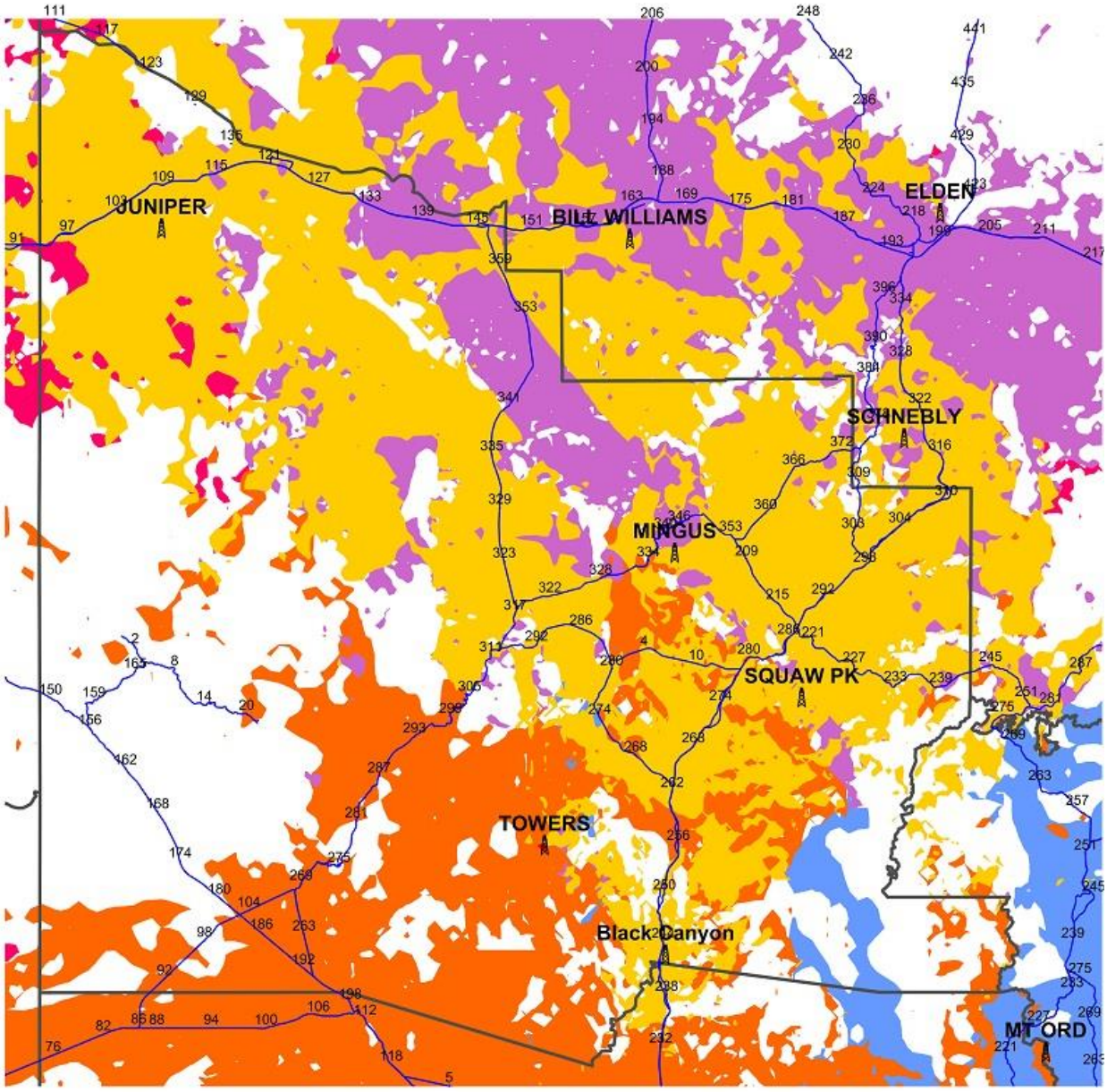
Coconino County Predicted AIRS Regional Radio Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

Figure 5: Apache and Navajo Counties Coverage - AIRS4 (123.0 Hz)



Apache and Navajo Counties Predicted AIRS Regional Radio Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

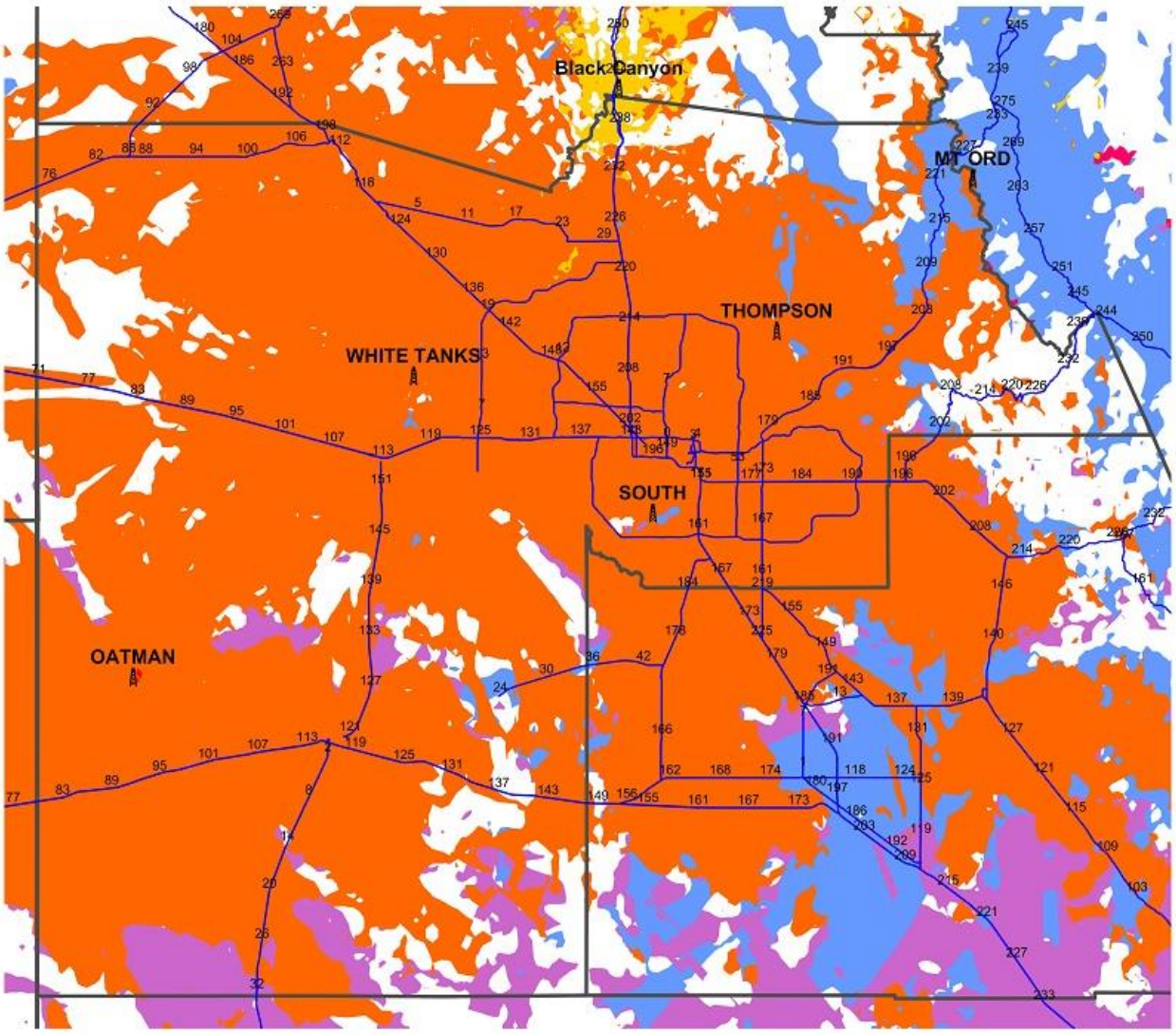
Figure 6: Yavapai County Coverage - AIRS5 (167.9 Hz)



Yavapai County Predicted AIRS Regional Radio Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

AIRS1 – 141.3 Hz
AIRS2 – 131.8 Hz
AIRS3 – 110.9 Hz
AIRS4 – 123.0 Hz
AIRS5 – 167.9 Hz

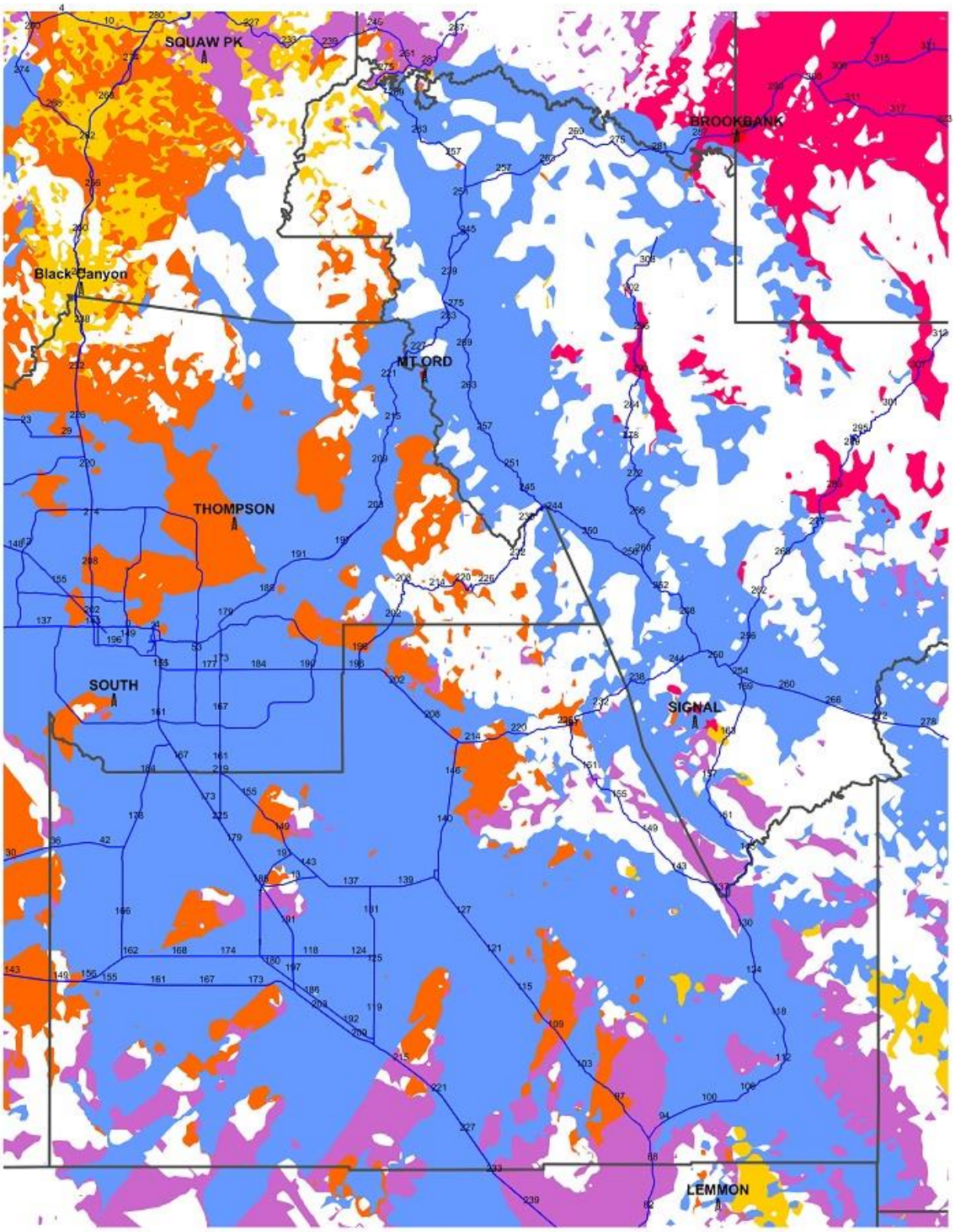
Figure 7: Maricopa County Coverage - AIRS1 (141.3 Hz)



Maricopa County Predicted AIRS Regional Radio Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

AIRS1 – 141.3 Hz
AIRS2 – 131.8 Hz
AIRS3 – 110.9 Hz
AIRS4 – 123.0 Hz
AIRS5 – 167.9 Hz

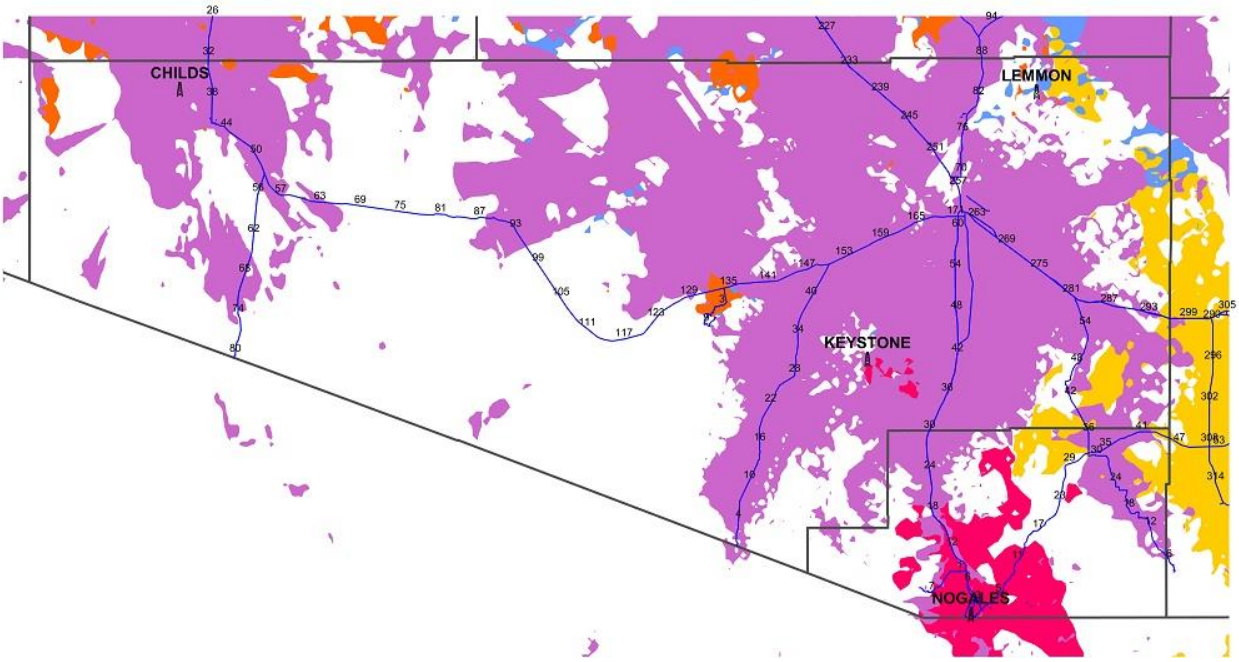
Figure 8: Gila and Pinal Counties Coverage - AIRS3 (110.9 Hz)



Gila and Pinal Counties Predicted AIRS Regional Radio Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

AIRS1 – 141.3 Hz
AIRS2 – 131.8 Hz
AIRS3 – 110.9 Hz
AIRS4 – 123.0 Hz
AIRS5 – 167.9 Hz

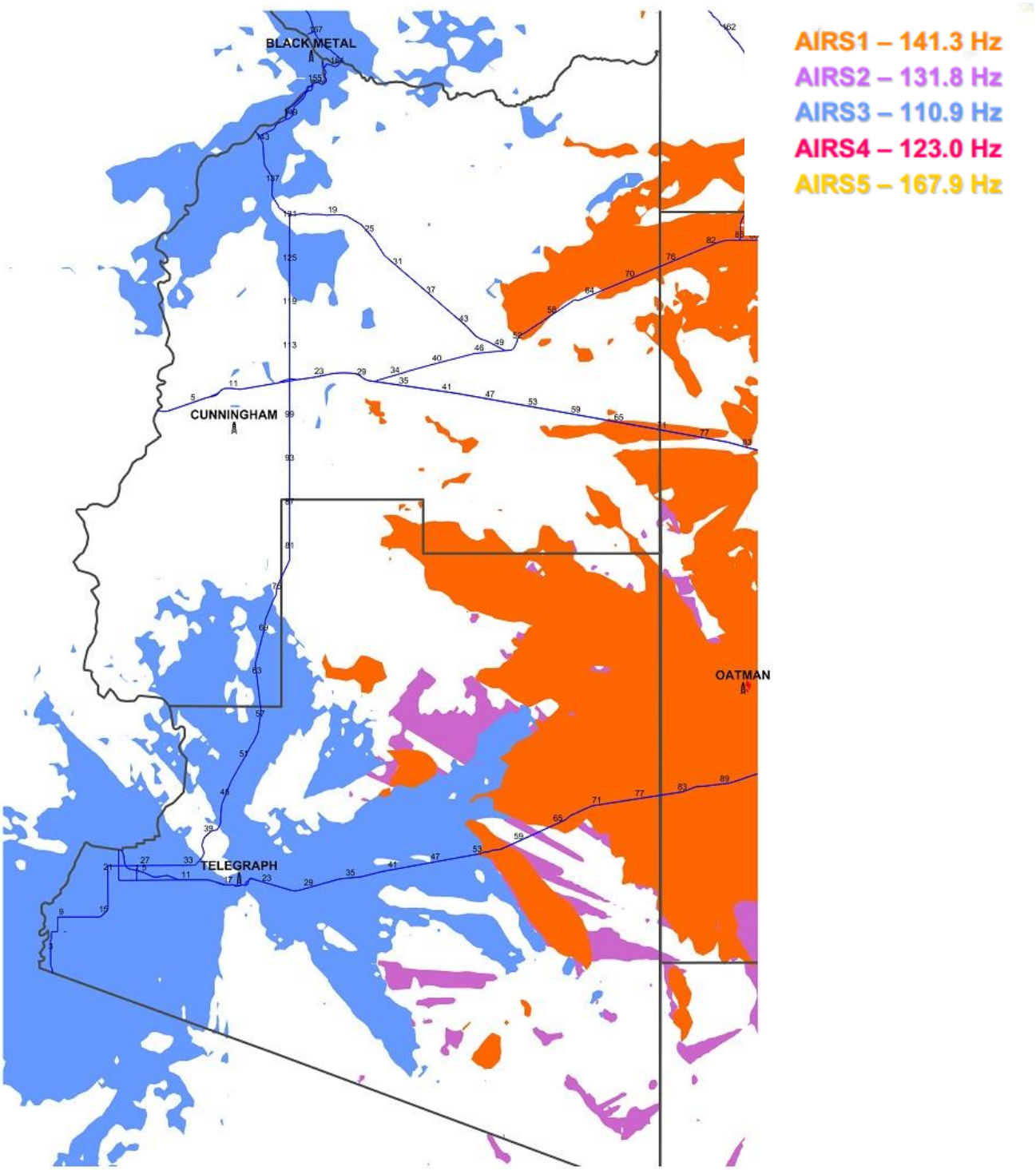
Figure 9: Pima and Santa Cruz Coverage - AIRS2 (131.8 Hz)



Pima and Santa Cruz Counties Predicted AIRS Regional Radio Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

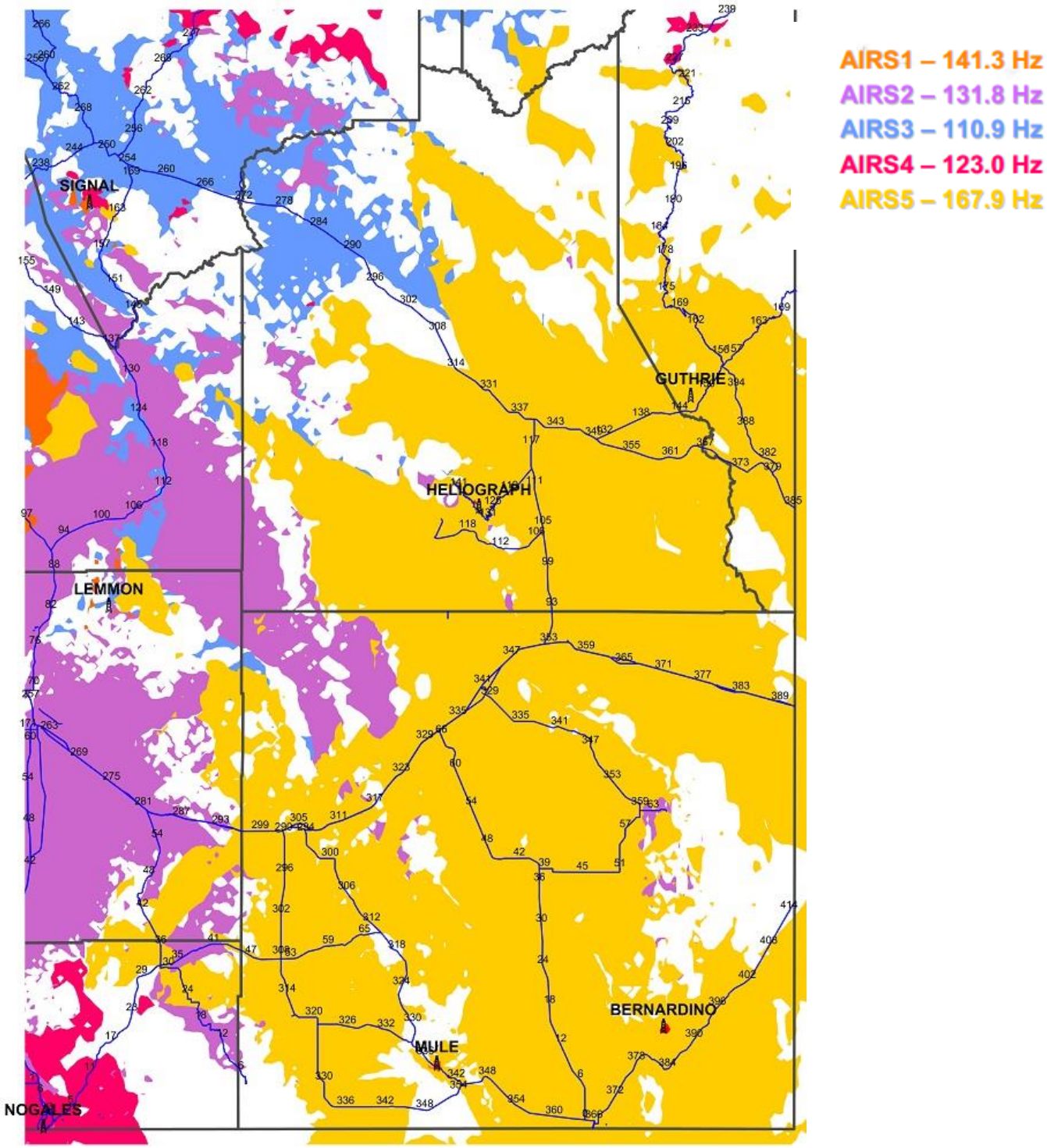
AIRS1 – 141.3 Hz
AIRS2 – 131.8 Hz
AIRS3 – 110.9 Hz
AIRS4 – 123.0 Hz
AIRS5 – 167.9 Hz

Figure 10: La Paz and Yuma Counties Coverage - AIRS3 (110.9 Hz)



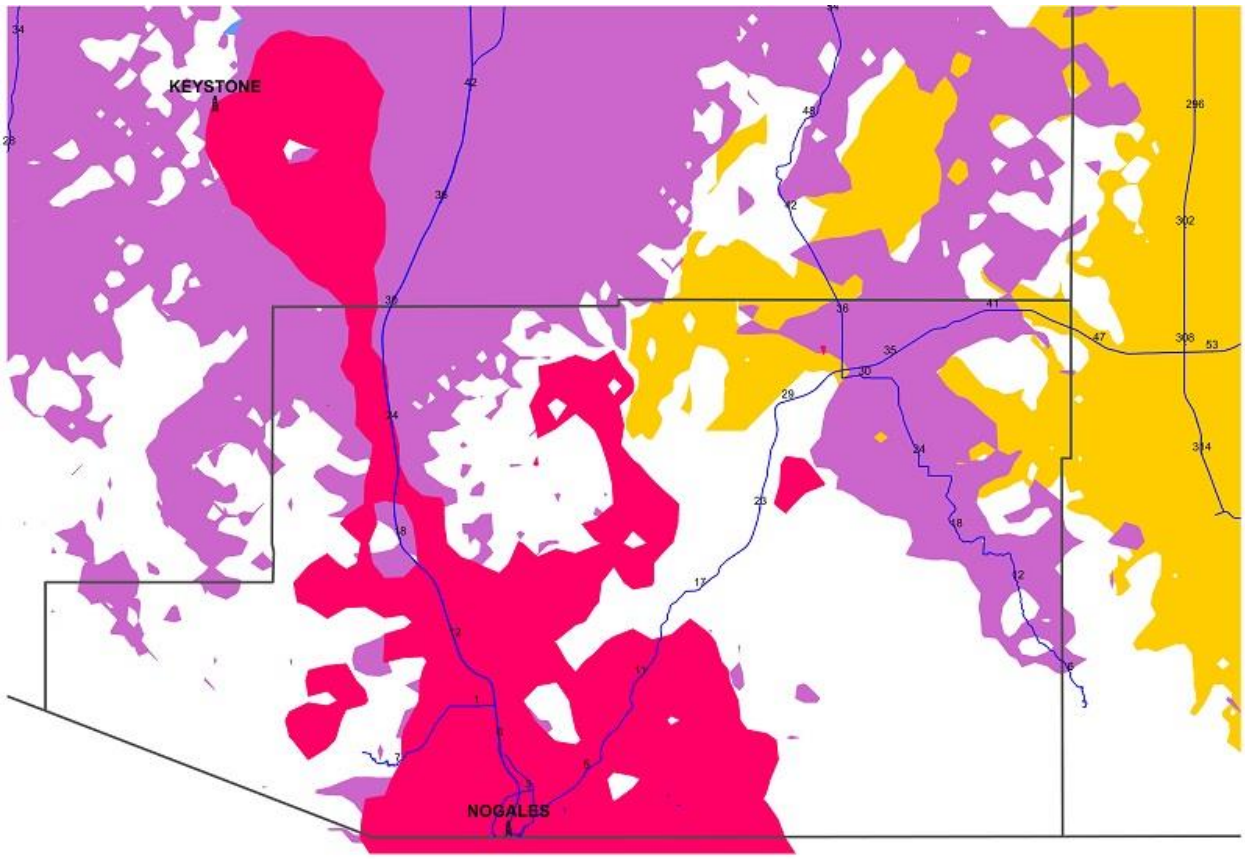
La Paz and Yuma Counties Predicted AIRS Regional Radio Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

Figure 11: Cochise, Graham, and Greenlee Counties Coverage - AIRS5 (167.9 Hz)



Cochise, Graham, and Greenlee Counties Predicted AIRS Regional Radio Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

Figure 12: Santa Cruz County Coverage - AIRS4 (123.0 Hz)



Santa Cruz County Predicted AIRS Regional Radio Coverage for a UHF Mobile; VHF & 800 MHz Coverage May Differ

AIRS1 – 141.3 Hz
AIRS2 – 131.8 Hz
AIRS3 – 110.9 Hz
AIRS4 – 123.0 Hz
AIRS5 – 167.9 Hz

Table 4: AIRS Regional Monitoring Assignments

Last Updated: 9/24/2013 (See www.azpsic.gov/library/airs for updated assignments)

AIRS Channel	County Serviced	Monitoring Communications center	Suite Location(s)	Additional Monitoring Information
AIRS1	Maricopa	City of Mesa	Towers Mountain	Voted to Mesa
			Thompson Peak	Voted to Mesa
			South Mountain	Voted to Mesa
			White Tank Mountain	Voted to Mesa
			Oatman Mountain	Voted to Mesa
AIRS2	Pima	Pima County Sheriff's Office	Mt. Lemmon	Pima County
			Keystone Peak	Pima County
			Childs Mountain	Ajo Sheriff's Office
AIRS2	Coconino	Coconino Sheriff's Office	Navajo Mountain	Page PD
			Mt. Elden	
			Bill Williams Mountain	
			Schnebly Hill	
			Jacob Lake	
AIRS3	Gila/Pinal	Gila County Sheriff's Office	Signal Peak	Pinal County and Casa Grande PD
			Mt. Ord	SO in Payson
AIRS3	La Paz	La Paz County	Black Metal	
AIRS3	Yuma	Yuma County	Telegraph Pass	
AIRS4	Santa Cruz	Santa Cruz County Sheriff's Office	Nogales Hill	
AIRS4	Navajo/Apache	Navajo County Sheriff's Office	Piney Hill	
			Roberts Ranch	
			Greens Peak	
			Antelope Mesa	
			Holbrook	
			Brookbank Point	
AIRS4	Mohave	Mohave County Sheriff's Office	Willow Beach	
			Christmas Tree Pass	
			Hualapai Mountain	
			Black Rock (pending)	
			Black Metal	Havasu PD
AIRS5	Greenlee/Graham/Cochise	Not Monitored	Heliograph Peak	Voted to DPS Tucson
			Mule Mountain	Voted to DPS Tucson
			Bernadino Peak	Voted to DPS Tucson
			Guthrie Peak	Voted to DPS Tucson
AIRS5	Yavapai	Sedona Fire	Juniper Mountain	
			Mingus Mountain	
			Squaw Peak	

Table 5: AIRS Tower Locations and Assigned CTCSS (PL) Tones

AIRS Channel	County Serviced	Suite Locations	CTCSS (PL) Tones
AIRS1	Maricopa	Towers Mountain	141.3 Hz
		Thompson Peak	
		South Mountain	
		White Tank Mountain	
		Oatman Mountain	
AIRS2	Pima	Mt. Lemmon	131.8 Hz
		Keystone Peak	
		Childs Mountain	
AIRS2	Coconino	Navajo Mountain	131.8 Hz
		Mt. Elden	
		Bill Williams Mountain	
		Schnebly Hill	
		Jacob Lake	
AIRS3	Gila/Pinal	Signal Peak	110.9 Hz
		Mt. Ord	
AIRS3	La Paz	Black Metal	110.9 Hz
AIRS3	Yuma	Telegraph Pass	110.9 Hz
AIRS4	Santa Cruz	Nogales Hill	123.0 Hz
AIRS4	Navajo/Apache	Piney Hill	123.0 Hz
		Roberts Ranch	
		Greens Peak	
		Antelope Mesa	
		Holbrook	
		Brookbank Point	
AIRS4	Mohave	Willow Beach	123.0 Hz
		Christmas Tree Pass	
		Hualapai Mountain	
		Black Rock (pending)	
		Black Metal	
AIRS5	Greenlee/Graham/Cochise	Heliograph Peak	167.9 Hz
		Mule Mountain	
		Bernadino Peak	
		Guthrie Peak	
AIRS5	Yavapai	Juniper Mountain	167.9 Hz
		Mingus Mountain	
		Squaw Peak	

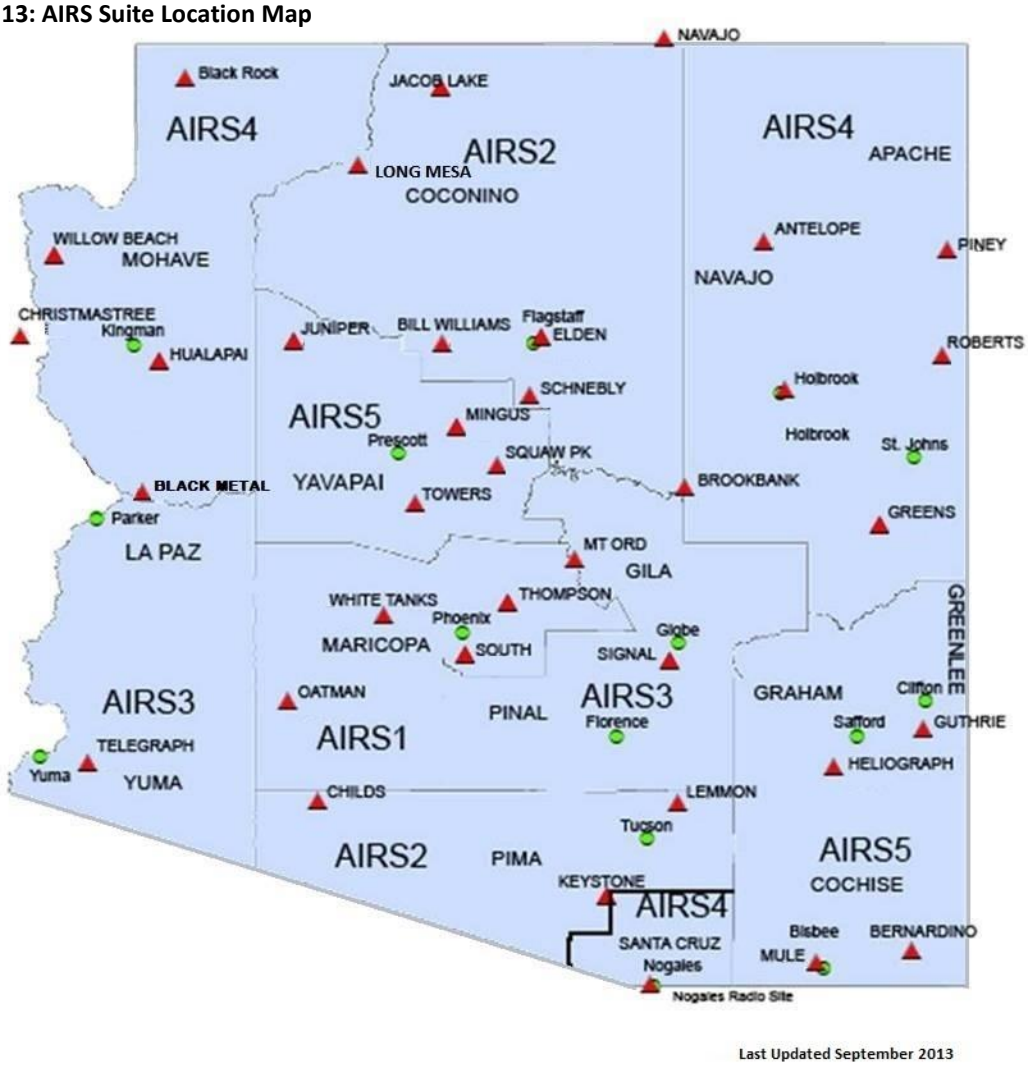



Figure 13: AIRS Suite Location Map