

# Equipment Authorization Processing Issues

**TCB Workshop  
October 2016**

Laboratory Division  
Office of Engineering and Technology  
Federal Communications Commission



# KDB 974614 Accredited Testing Laboratory Roles and Responsibilities

- KDB Publication 974614
  - Last release 6/16/2016
    - <https://apps.fcc.gov/oetcf/kdb/forms/FTSSearchResultPage.cfm?switch=P&id=44684>
  - FCC Scopes in attachment D01 in table A1
  - FCC procedures for recognizing laboratory accreditation bodies in attachment D02
- Electronic Filing System updates to accommodate scopes in progress
  - Expected completion by end of year
  - Accreditation Bodies may assess test labs to new scopes now



# KDB 974614 Scopes for 17025 Labs

Scope	Test Method(s)	Additional Guidance
Unintentional Radiators (FCC Part 15B)	<ul style="list-style-type: none"> <li>ANSI C63.4-2014</li> </ul>	
Industrial, Scientific, and Medical Equipment (FCC Part 18)	<ul style="list-style-type: none"> <li>FCC MP-5 (February 1986)</li> </ul>	
Intentional Radiators (FCC Part 15C)	<ul style="list-style-type: none"> <li>ANSI C63.10-2013</li> </ul>	
UPCS (Part 15D)	<ul style="list-style-type: none"> <li>ANSI C63.17-2013</li> </ul>	
UNII without DFS Intentional Radiators (FCC Part 15E)	<ul style="list-style-type: none"> <li>ANSI C63.10-2013</li> </ul>	<ul style="list-style-type: none"> <li><a href="#"><u>KDB Publication 789033</u></a></li> </ul>
UNII with DFS Intentional Radiators (FCC Part 15E)	<ul style="list-style-type: none"> <li><a href="#"><u>KDB Publication 905462 Do02 UNII DFS Compliance Procedures new rules v01</u></a></li> </ul>	
UWB Intentional Radiators (FCC Part 15F)	<ul style="list-style-type: none"> <li>ANSI C63.10-2013</li> </ul>	
BPL Intentional Radiators (FCC Part 15G)	<ul style="list-style-type: none"> <li>ANSI C63.10-2013</li> </ul>	
White Space Device Intentional Radiators (FCC Part 15H)	<ul style="list-style-type: none"> <li>ANSI C63.10-2013</li> </ul>	



# KDB 974614 Scopes for 17025 Labs II

Scope	Test Method(s)	Additional Guidance
Commercial Mobile Services (FCC Licensed Radio Service Parts 22(cellular), 24, 25(non microwave), and 27)	<ul style="list-style-type: none"> <li>ANSI/TIA-603-D (2010)</li> </ul>	<ul style="list-style-type: none"> <li>KDB Publication <a href="#">971168</a></li> </ul>
General Mobile Radio Services (FCC Licensed Radio Service Equipment - 22(non-cellular), 90 (NM), 95, 97 and 101 (non-microwave))	<ul style="list-style-type: none"> <li>ANSI/TIA-603-D (2010)</li> <li>TIA-102.CAAA-D</li> </ul>	
Citizens Broadband Radio Service (FCC Licensed Radio Service Equipment – Part 96)	<ul style="list-style-type: none"> <li>ANSI/TIA-603-D (2010)</li> <li>TIA-102.CAAA-D</li> </ul>	<ul style="list-style-type: none"> <li>KDB Publication <a href="#">971168</a></li> </ul>
Maritime and Aviation Radio Services (FCC Licensed Radio Service Equipment – Part 80 and 87)	<ul style="list-style-type: none"> <li>ANSI/TIA-603-D (2010)</li> </ul>	
Microwave and Millimeter Band Radio Services (FCC Licensed Radio Service Equipment – Parts 25, 74, 90 (90Y, 90Z, DSRC) and 101)	<ul style="list-style-type: none"> <li>ANSI/TIA-603-D (2010)</li> <li>TIA-102.CAAA-D</li> </ul>	
Broadcast Radio Services (FCC Licensed Radio Service Equipment – Parts 73 and 74(non-microwave))	<ul style="list-style-type: none"> <li>ANSI/TIA-603-D (2010)</li> <li>TIA-102.CAAA-D</li> </ul>	
RF Radiation Exposure – (FCC devices subject to SAR requirements)	<ul style="list-style-type: none"> <li>IEEE Std 1528™-2013</li> </ul>	<ul style="list-style-type: none"> <li>KDB Publication <a href="#">865664</a></li> <li>KDB Publication <a href="#">447498</a></li> </ul>
Hearing Aid Compatibility (FCC Part 20 – HAC for commercial mobile services)	<ul style="list-style-type: none"> <li>ANSI C63.19-2007; or</li> <li>ANSI C63.19-2011</li> </ul>	
Signal Boosters(FCC Part 20–wideband consumer, provider specific & Industrial)	<ul style="list-style-type: none"> <li>FCC KDB Publication 935210 attachments D03, D04, and D05</li> </ul>	



# Accredited Testing Laboratory Scope Transition

- Transition of Scopes for Recognized Labs
  - Currently about 350 2.948 listed laboratories FCC recognized
    - May be recognized for Part 15B, 15C and/or 18
  - Currently about 410 accredited laboratories FCC recognized
    - Current recognition limited to Part 15B, 15C, and/or 18 but labs may be assessed to new scopes now
    - After electronic filing system updated, labs may be recognized for up to 18 scopes initially.
      - Total possible updates over 7300
      - FCC plans to request scope update information from TFABs when filing system ready but prior to public release and allow limited response time
        - » FCC will update database with scopes and then make the database available to the public
        - » TFABs will be responsible after initial update



# FCC Test Firm AB/DA Meetings

- FCC Test Firm Accrediting Body/Designating Authority Meetings
  - Areas of Discussion
    - FCC Report and Order 14-208
    - FCC Memorandum Opinion and Order and Order on Reconsideration 16-74
    - KDBs
      - 974614 Accredited Test Firm Roles
      - 853844 Accredited Test Firm Assessment Checklist
      - 901874 Designation/recognition process and MRAs
    - Demonstration of FCC websites
      - KDB, EDOCS, new Test firm maintenance site



# Accredited Test Laboratories in Non-MRA Countries

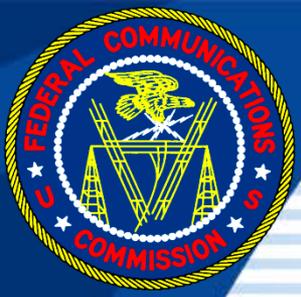
- Testing laboratories in non-MRA countries must be assessed by an FCC recognized test firm accrediting body (TFAB)
  - The FCC recognizes TFABs to assess accredited testing labs in specific countries
  - Each TFAB must submit a request to the FCC to be recognized for each country that they want to assess labs in.
    - See FCC 2.949 and KDB Publication 974614 D02 for details and required information
  - FCC has received multiple requests
  - At this time two US TFABs have submitted enough supporting information for the FCC to publish a public notice asking for comments. PN's available at [www.fcc.gov/edocs](http://www.fcc.gov/edocs)
    - DA 16-1138 A2LA
    - DA 16-1139 NVLAP
    - Support information on [www.fcc.gov/ecfs](http://www.fcc.gov/ecfs) proceeding FCC ET16-313



# TCB Roles and Responsibilities

## KDB 641163

- Last published July 31, 2015
- Next version to be released shortly
  - Updates to better align terminology with ISO/IEC 17065
  - Added TCB Scope to Test Firm scope table
  - Added Key personnel table
- In a future version the FCC plans to update the TCB Core capability requirements currently in DA 99-1640



# TCB Recent Questions/Reminders

- Outsourcing/Subcontracting
- Annual Market Surveillance reports due January 31, 2017
- Test Site validation requirements



# TCB Outsourcing/Subcontracting

- TCBs are required to have the test capability identified in DA 99-1640 - See Section IV (G)
  - Market surveillance, SAR testing and HAC testing may be outsourced to an FCC recognized accredited testing facility
  - FCC requirements don't identify a minimum number of devices a specific key employee must test annually
  - In general the FCC does not have specific requirements regarding the TCB market surveillance testing being done by the same individuals at the testing lab who originally tested the product for compliance
    - If the test lab individual provided consulting for the grantee, then impartiality requirements would need to be considered prior to allowing the same person to perform market surveillance testing
    - In some cases the FCC will specify a device be tested at a different laboratory by different personnel than those that performed the original testing
  - For market surveillance testing that is outsourced ISO/IEC 17065 requires that the client be notified in advance of outsourced activities and the FCC requires that the testing facility be documented in the report generated for the market surveillance



# TCB Market Surveillance

- Market surveillance annual reports due January 31, 2017.
  - TCBs are expected to perform market surveillance activities throughout the surveillance year and submit non-compliant findings to the FCC as soon as they are identified
    - This includes identifying grantees that are non-responsive to FCC requests



# Test Site Validation Requirements

- See KDB Publication 704992
- Site validation requirements for radiated emissions compliance testing of unintentional radiators, intentional radiators and licensed radio equipment performed on an Open Area Test Site (OATS) (or alternative test site) are specified in Section 2.948(d)
  - Validation of the test site shall be confirmed no less than once every three years.
- When the measurement method used requires the testing of radiated emissions on a validated test site, the site attenuation must comply with the requirements of clauses 5.4 and 5.5 of ANSI C63.4-2014.
  - Note that some radiated emission test methods such as the substitution measurement method may not require the use of a validated test site. However, the test site used is required to comply with the conditions provided in the applicable measurement standard.



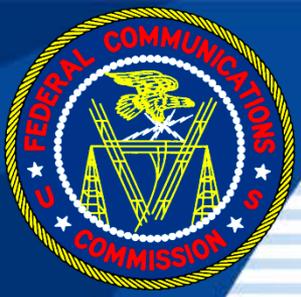
# Test Site Validation Requirements

- Test sites in the 30 MHz to 1 GHz range are required to comply with the site validation requirements in clause 5.4 of ANSI C63.4-2014
- Test sites in the 1 GHz to 40 GHz are required to meet the site validation requirements in clause 5.5 of ANSI C63.4-2014. Two options for test facilities used to make radiated emission measurements above 1 GHz are provided:
  - The site validation criterion called out in CISPR 16-1-4:2010-04; or
  - A minimum area of the ground plane is covered with RF absorbing material as specified.



# Test Site Validation Requirements

- Transition period for test sites to demonstrate compliance with the site validation requirements above 1 GHz in the CISPR standard.
  - During a three-year transition period, either option in ANSI C63.4-2014 may be used. However, at the end of the transition period, July 13, 2018, a test site used for radiated emission measurements is required to comply with CISPR 16-1-4:2010-04.
  - The three-year transition period also applies to radiated emission measurements made in accordance with ANSI C63.10-2013 which requires the test site to conform to the site validation criteria called out in CISPR 16-1-4:2010-04.
  - Test laboratories are encouraged to start the transition to CISPR 16-1-4:2010-04.



# Questions and Answers

**Thanks!**