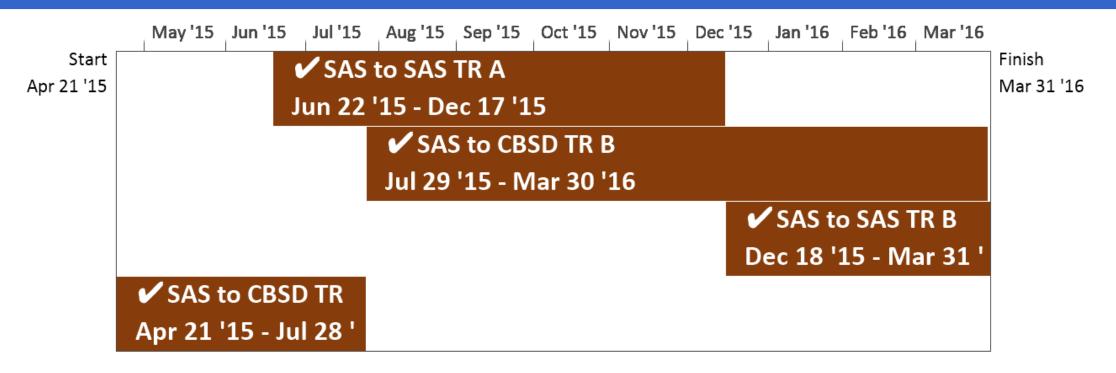
# SPECTRUM SHARING COMMITTEE RELEASE SCHEDULE

**Approved by the Spectrum Sharing Committee Steering Group 24 May 2017** 





# Early Release (Release 0) Publication Timeline







## Release 1 Commercialization Milestones

#### Q4 2017

- SAS Certification Complete
- ESC Certification Complete
- CBSD Certification Complete
- Band in service

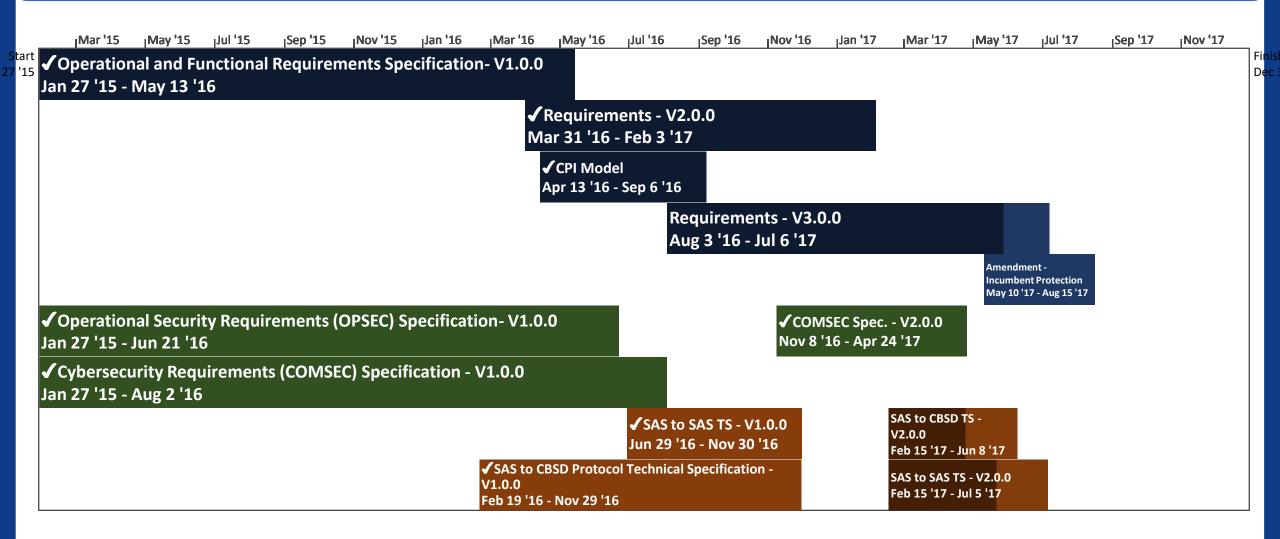
### January 2018

Category A and Category B CBSD Commercial Roll Out Begins





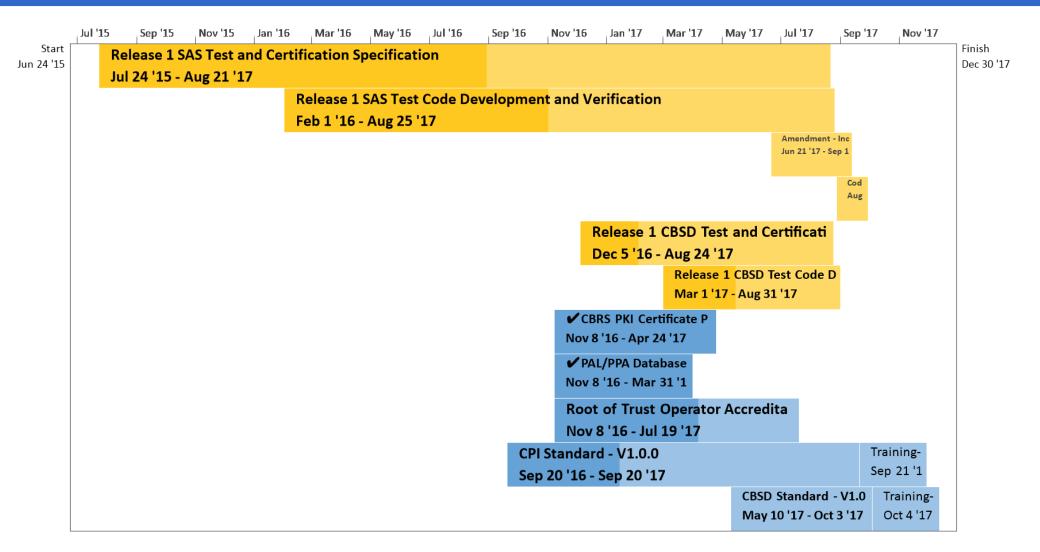
# Release 1 Publication Timeline (Requirements and Protocols)







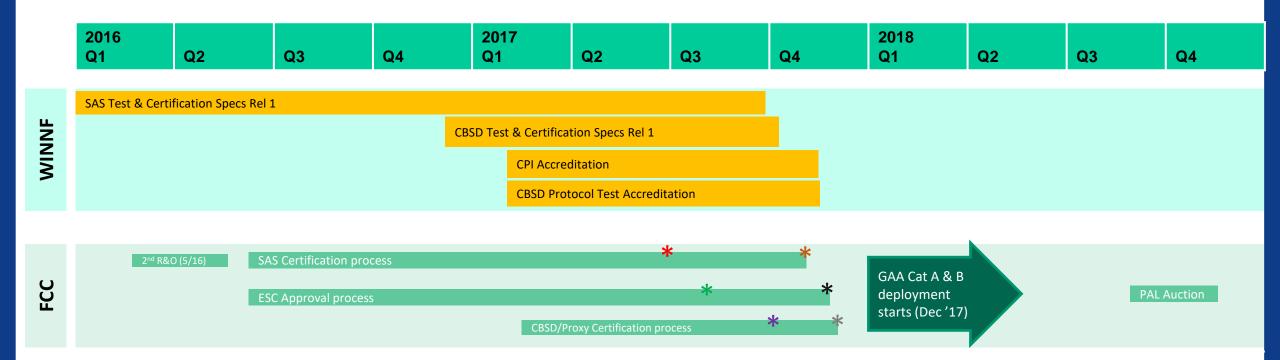
# Release 1 Publication Timeline (Commercialization)







## **Commercialization Milestones**



- \* Start SAS product Certification
- \* First SAS products Certified (Oct '17)

- \* Start ESC product Approval
- \* First ESC products Approved (Nov '17)

- \* Start CBSD product Certification
- \* First CBSD products Certified (Nov '17)





# Standards That Comprise Release 1 (New Items in Red)

WINNF-15-S-0112-V3.0.0 Operational and Functional Requirements

WINNF-17-S-XXXX-V1.0.0 Incumbent Protection Amendment for WINNF-15-S-0112-V3.0.0

WINNF-15-S-0065-V2.0.0 CBRS Communications Security Technical Specification

WINNF-15-S-0071-V1.0.0 CBRS Operational Security Technical Specification

WINNF-16-S-0016-V2.0.0 SAS to CBSD Protocol Specification

WINNF-16-S-0096-V2.0.0 SAS to SAS Protocol Specification

WINNF-16-S-0061-V1.0.0 SAS Test and Certification Specification

WINNF-17-S-XXXX-V1.0.0 Incumbent Protection Amendment for WINNF-17-S-0061-V1.0.0

WINNF-17-S-0122-V1.0.0 CBSD Test and Certification Specification

WINNF-16-S-0245-V1.0.0 PAL Database Specification

WINNF-17-S-0022-V1.0.0 CBRS PKI Certificate Policy

WINNF-16-S-0247-V1.0.0 CPI Accreditation Standard

WINNF-17-S-XXXX-V1.0.0 CBSD Protocol Test Accreditation Standard





# What is addressed in the Release 1 (1 of 3)

### **Border Area Management**

Requirements on Implementing international agreements to protect Canada and Mexico

#### **CBSD Measurement Reporting**

 Initial requirements for CBSD measurements of their local interference environment, and reporting those data back to the SAS.

### **CBSD Registration Processing**

• The requirements for how a CBSD registers with a SAS, including owner registration, professional installer registration and CBSD registration.

## CBSD Protocol Test Accreditation Standard (NEW)

#### **Communications Security**

The communications security policies governing SAS and CBSD communications interfaces.

## **Certificate Authority Accreditation Standard**

#### **Certified Professional Installer Accreditation Standard**

 Guidelines for adoption of uniform industry working standards and curriculum required to be consistent with the protection of spectrum, both licensed and GAA, for sharing in the 3550-3700 MHz band.



INNOVATION FORUM

# What is addressed in the Release 1 (2 of 3)

#### **Domain Proxy**

 The baseline Operational and Functional Requirements of the CBRS Domain Proxy for initial testing and trials.

#### **Dynamic Protection Zones**

## **Environmental Sensing Capability (ESC)**

• The requirements for implementation of an Environment Sensing Capability, and protecting federal incumbents.

#### **Exception Management**

• The requirements for how trouble tickets or exceptions are managed, including from FCC input, reports from incumbents, and reports from PAL.

#### **FSS Protection**

#### **Grandfathered Wireless Device Protection**

#### **Operations Security**

 The overall system operational security requirements to include handling of incumbent data, obfuscation of spectrum data, and processes associated with auditing and governance of the SAS infrastructure.



# What is addressed in the Release 1 (3 of 3)

#### **PAL Protection Area Definition**

 Requirements on how PALs reports their coverage area to the SAS for end-to-end use of the licenses. This includes how PAL licensees define PAL Protection Areas (PPAs), request to operate in a particular geographic area within their license boundary (PPA), how PPA credentials and IDs are defined, conveyed and managed, and how the SAS accomplishes such protections.

## Protocol Support for Priority Access Licensing Propagation Modeling

 Identify appropriate 3.5 GHz propagation models for Incumbent and PAL protection and PPA definition, determine relative benefits and limitations, develop agreement on baseline needs such as underlying data, and define standardized interference aggregation methodologies.

#### **SAS to SAS Information Sharing**

Initial support for SAS-SAS Synchronization and Information exchange.

## **Spectrum Grant Request Processing**

• The requirements for how a CBSD requests and relinquish grants, and how grants are reassigned or terminated.

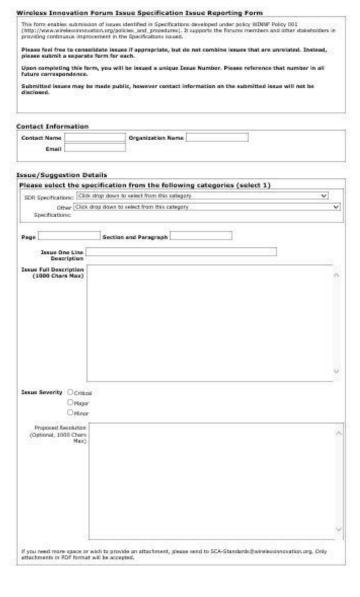




# Issue Management and Change Requests

Following the release of revision 1 specifications, change requests will be collected from the Forum's

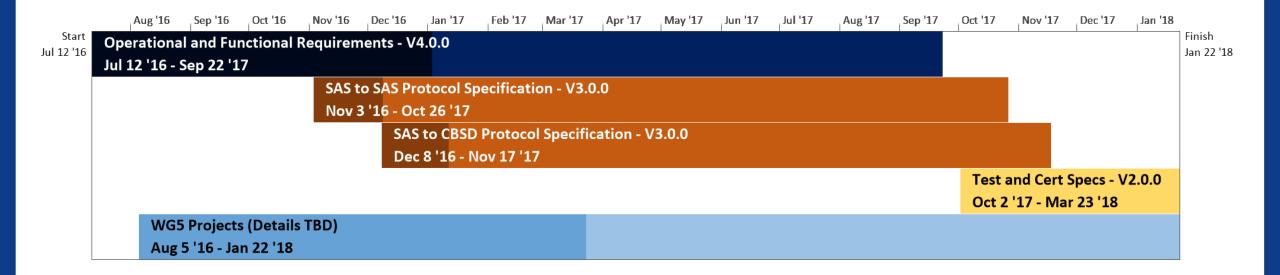
public issues management portal







## Release 2 Publication Timeline







## What will be addressed in Release 2

#### **CBSD to CBSD Operation**

#### **Channel Assignment Optimization**

• Full support of WInnForum requirements on how spectrum is assigned across SASs, including PAL.

#### **GAA Coexistence**

 A framework for providing fair shared access to CBRS radio resources while mitigating the negative impacts from multiple signals, possibly across multiple air interface technologies, utilizing overlapping and/or neighboring radio resources. This can be used by other organizations in establishing technology specific coexistence agreements.

#### **PAL Leasing**

Standardized Non-protocol Procedures (e.g., owner registration)

**Enhancements from Release 1** 



