| **US Radiocommunication Sector** **FACT SHEET** |
| --- |
| **Study Group:** USWP 7D | **Document No:** USWP7D\_24-04\_NC |
| **Reference:** [7D/41 Annex 1](https://www.itu.int/md/R23-WP7d-C-0041/en) and [7D/58](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R23-WP7D-C-0058) | **Date:** August 15, 2024 |
| **Document Title:** Draft Reply Liaison Statement to WP4A on WRC-27 AI 1.16 |
| **Authors** |  | **E-Mail** |
|  |  |  |
| Hastyar Barvar, Amazon |  | hbarvar@amazon.com |
| Alex Epshteyn, Amazon Chris Hofer, Amazon |  | epshtey@amazon.comchofer@amazon.com |
| **Purpose/Objective**: This document proposes a draft reply liaison statement to WP4A on AI 1.16 in response to document [7D/58](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R23-WP7D-C-0058) |
| **Abstract**: This document proposes a response to the liaison statement of WP 4A on WRC-27 AI 1.16. |
| **Fact Sheet Preparer:** Hastyar Barvar |

|  |  |
| --- | --- |
| **Radiocommunication Study Groups** |  |
|  |  |
|  |  |
| Source: -Subject: Resolution 681 (WRC-23), WRC-27 AI 1.16 | **Document XXX** |
| **Date** |
| **English only** |

**United States of America**

REPLY LIAISON STATEMENT TO WORKING PARTY 4A

**Relevant technical information to support studies under WRC-27 agenda item 1.16 documenting FSS characteristics in some frequency bands**

# Introduction

In response WP7D’s liaison statement in Doc. 4A/22, WP4A submitted a reply liaison statement to WP7D, Doc. [7D/58](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=R23-WP7D-C-0058), in which a number of points are included. Addressing these points could facilitate the correspondence between two working parties in connection with WRC-27 AI 1.16. The United States proposes the attached draft reply liaison statement to address these points.

**Attachment:** 1

|  |
| --- |
| Attachment |
| DRAFT REPLY LIAISON STATEMENT TO WORKING PARTY 4A |
| Relevant technical information to support studies under WRC-27 agenda item 1.16 documenting FSS characteristics in some frequency bands |

WP 7D thanks WP 4A for its liaison statement in Document 7D/58 and bringing to the attention of WP 7D that WP 4A is gathering characteristics of representative non-GSO systems that could be operated under a FSS allocation in the space-to-Earth direction in frequency bands adjacent to the ones allocated to RAS service as listed in Table 1 of Resolution **681 (WRC‑23)**.

With respect to the points raised regarding *resolves* 3 to 6 of Resolution**681 (WRC-23)**, WP 7D has gathered the information requested for consideration by WP 4A – including the location of the RAS facilities mentioned in *considering k)* of the Resolution; the frequency bands where observations are taken at each facility; and the subset of those frequency bands where there are allocations for RAS in the Radio Regulations.

WP 7D is fully aware that not all the frequencies utilized by the radio astronomy services in the subject radio quiet zones are allocated to RAS on a primary or even secondary basis. It is noted that in frequencies where there is no radio astronomy allocation, the radio astronomy services operate under R.R. No 4.4 and cannot claim protection from other primary and secondary services. To expedite its studies, WP 7D requests WP 4A to provide, to the degree possible, operational characteristics of non-GSO FSS systems that operate or plan to operate within or adjacent to RAS primary bands listed in the “Non-GSO Operating frequency range” column.

SKAO Location: TBD

ALMA Location: TBD

Table 1

Non-GSO systems, under the responsibility of WP 4A, adjacent to RAS primary bands utilized by the SKAO in the RQZ of South Africa

|  |  |  |  |
| --- | --- | --- | --- |
| SKAO Observation Frequency Ranges[[1]](#footnote-1) | RAS bands | Non-GSO service | Non-GSO Operating frequency range |
| 100 MHzTo25.5 GHz | 4,990–5,000 MHz 10.6–10.7 GHz  | Fixed-satellite | 4 500-4 800 MHz10.7-10.95 GHz |

Table 2

Non-GSO systems, under the responsibility of WP 4A, adjacent to RAS primary bands utilized by ALMA in the RQZ of Chile

|  |  |  |  |
| --- | --- | --- | --- |
| ALMA Observation Frequency Ranges2 | RAS bands | Non-GSO service | Non-GSO Operating frequency range |
| 31.3-45 GHz67-90 GHz84-116 GHz125-370 GHz385-500 GHz602-720 GHz787-950 GHz | 42.5–43.5 GHz76-77.5 GHz200–231.5 GHz | Fixed-satellite | 41.5-42.5 GHz74-76 GHz235-240 GHz |

Working Party 7D looks forward to a close cooperation with WP 4A under this agenda item.

The next WP 7D meeting is expected to take place in XXX.

|  |
| --- |
| **Status:** For information and action, if any |
| **Contact:** XXX | **E-mail:** XXX  |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Annex**

|  |  |  |
| --- | --- | --- |
|  | RQZ Observations under RR No. 4.4 | RQZ Observations under RAS Allocations |
| SKAO | 100-150.05 MHz, 153-322 MHz, 328.6-406.1 MHz, 410-606 MHz, 606-608 MHz, 614-1330 MHz, 1330-1400 MHz, 1427-1610.6 MHz, 1610.6-1613.8 MHz, 1613.8-1660 MHz, 1670-1718.8 MHz, 1718.8-1722.2 MHz, 1722.2-2655 MHz, 2690-2700 MHz, 2700-3260 MHz, 3260-3267 MHz, 3267-3332 MHz, 3332-3339 MHz, 3339-3345 MHz, 3345-3352.5 MHz, 3352.5-4800 MHz, 4800-4825 MHz, 4825-4835 MHz, 4835-4950 MHz, 4950-4990 MHz, 5000-6650 MHz, 6650-6675.2 MHz, 6675.2-10600 MHz, 10.7-14.47 GHz, 14.47-14.5 GHz, 14.5-15.35 GHz, 15.4-22.01 GHz, 22.01-22.21 GHz, 22.21-22.5 GHz, 22.5-22.81 GHz, 22.81-22.86 GHz, 22.86-23.07 GHz, 23.07-23.12 GHz, 23.12-23.6 GHz, 23.6-24 GHz, 24-25.5 GHz | 150.05–153 MHz (Primary R1)322–328.6 MHz (Primary)406.1–410 MHz (Primary)608–614 MHz (Primary in R2)1,400–1,427 MHz (Primary)1,660–1,670 MHz (Primary)2,655–2,690 MHz (Secondary)4,800-4,990 MHz (Secondary)4,990–5,000 MHz (Primary)10.6–10.7 GHz (Primary)15.35–15.4 GHz (Primary)22.21-22.5 GHz (Primary)23.6-24 GHz (Primary) |
| ALMA | 76-77.5 GHz, 77.5-79 GHz, 79-86 GHz, 125-130 GHz, 134-136 GHz, 136-141 GHz, 248-250 GHz, 945-950 GHz | 31.3–31.8 GHz (Primary)42.5–43.5 GHz (Primary)76-77.5 (Primary)77.5-79 (Secondary)79-94 GHz (Primary)94-94.1 GHz (Secondary)94.1-116 (Primary)130-134 (Primary)141-158.5 GHz (Primary)164–167 GHz (Primary)182–185 GHz (Primary)200–231.5 GHz (Primary)241–248 GHz (Primary)250-275 GHz (Primary)275-323 GHz (Primary)327-371 GHz (Primary)388-424 GHz (Primary)426-442 GHz (Primary) 453-510 GHz (Primary)623-711 GHz (Primary)795-909 GHz (Primary)926-945 GHz (Primary) |

1. ,2 The frequencies utilized by these RQZ locations are a mixture of primary and secondary radio astronomy bands. Furthermore, bands not allocated to radio astronomy are employed under Radio Regulation No. 4.4. See the Annex for more information. [↑](#footnote-ref-1)