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| logogreen | **ASIA-PACIFIC TELECOMMUNITY**  **The 15th Meeting of APT Wireless Group (AWG-15)**  27 – 30 August 2013, Bangkok, Thailand | **Document:**  **AWG15/OUT-22**  30 August 2013 |

**Working Group on Service and Applications**

**NEW Questionnaire On APPLICATION OF DIRECT**

**BROADBAND RADIO COMMUNICATION SYSTEM BETWEEN AIR AND GROUND**

1. **Introduction**

Demand has increased for better mobile phone and wireless local area network (LAN) access on-board aircraft. Today, several airlines have started cabin use of cellular phones with a system involving satellites. Meanwhile, the direct air-to-ground broadband radio communication system for the air passengers is developing because of low cost of capacity and short round-trip delays. This system requires constructing a network of base stations covering each flight route, while can better ensure communications bandwidth and lower communication costs. The application of this system is not only for high-speed internet service to the air passengers, but also for transmitting videos and pictures obtained by airplanes to grasp the damage in the case of disaster.

In the AWG-15 meeting, Task Group Aeronautical and Maritime under the Working Group Service and Application approved the following proposals for the benefit of improving the relevant studies carried out by APT Members:

1. To collect the information on application of direct air-to-ground broadband radio communication system by distributing a questionnaire;
2. To encourage APT Members to response to the questionnaire at time;
3. To encourage APT Members to enrich the related studies through contributing to the further AWG meeting.

This questionnaire is designed for administrations as well as operators and other partners to provide the information of direct air-to-ground communication. The collected information to be discussed in the future AWG’s meeting, especially in TG A&M.

1. **Administration/Institution/Company Information and Profile**

Name of the Administration/Institution/Company :

Name of contact person :

Postal Address :

Phone :

Email Address :

My Administration/Institution/Company is:

1. Regulator (1)
2. Operator (2)
3. Vendor (3)
4. Others (4)  <please describe your answer here>
5. **Questions**
6. **Current status**
7. What kinds of broadband radio communication applications using above 2 GHz in an airplane are expected in your country? There may be some types of applications which require high-speed wireless connection such as high-speed internet service to air passengers, data transfer of aerial photograph, synthetic aperture radar (SAR), laser measurement data, aviation-related data, flight experiments data, live broadcast system for the helicopter, and etc. Please describe your expectations or specific use cases, and provide necessary data transfer rate and estimates of future market size.

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| --- | --- | --- | --- |
|  | **Application** | **Data transfer rate** | **Future market size**  **(Percentage of all airplanes in your country, which will use each application)** |
| 1 |  |  | More than 50% / Less than 50% / none |
| 2 |  |  | More than 50% / Less than 50% / none |
|  |  |  | More than 50% / Less than 50% / none |

1. Which type of access systems do you suggest for theses applications?

(a) Direct air-to-ground;

(b) Satellite link;

(c) Any other type. (Please clarify the type.)

1. **Future plan**
2. Frequency allocation for the direct air-to-ground broadband radio communication system should be taken a proper care, because the system may affect other systems. In your country, is there any planned frequency allocation above 2 GHz for the direct air-to-ground broadband radio communication system? (Yes / No)?

If you answered “Yes” to **Question 3** above, please answer the **Question 4**.

If you answered “No” to **Question 3** above, please answer the **Question 5**.

1. Please provide the frequency allocation information above 2 GHz for application.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Frequency**  **[MHz]** | **Bandwidth**  **[MHz]** | **Comments**  **( for example application)** |
| 1 |  |  |  |
|  |  |  |  |

1. Suitable frequency for the direct air-to-ground broadband radio communication system may relate to technology, application, and regulatory aspects. What frequency do you think suitable for the system usage with respect to each application assumed in your country? Please provide the frequency information above 2 GHz for each application including reasons.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Application** | **Frequency**  **[MHz]** | **Reason** |
| 1 |  |  |  |
| 2 |  |  |  |
|  |  |  |  |

1. **Current development status**
2. Currently, is there any organization in your country, which is developing the direct air-to-ground broadband radio communication system? (Yes / No).

If you answered “Yes” to **Question 6** above, please answer the **Question 7 and Question 8**.

If you answered “No” to **Question 6** above, please answer the **Question 9**.

1. Please provide the information about frequency, bandwidth and data transfer rate which is used for the development, and target application.

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| --- | --- | --- | --- | --- |
|  | **Frequency**  **[MHz]** | **Bandwidth**  **[MHz]** | **Data transfer rate** | **Target application** |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
|  |  |  |  |  |

1. Do you have plan or interest for making international standardization of the direct air-to-ground broadband radio communication system? (Yes / No)
2. Is there any plan of developing the direct air-to-ground broadband radio communication system in the future? (Yes / No)
3. **Others**
4. Do you have the demand for using broadband radio communication to any other high-speed mobile object, such as high-speed train, etc.? If you answer “Yes”, please provide the information of the usage.
5. Please provide any other direct air-to-ground broadband radio communication system information and studies that are beneficial to share among APT countries

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