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FCC Update for AFC

AFC Fall 2014 Meeting

Scope

- LightSquared
- Proposed FCC receiver standards
- Cell phones on aircraft
- Earth station onboard mobile platforms
- FCC regulatory fee increase

LightSquared

- LightSquared is struggling after FCC delays
 - Proceeding through bankruptcy proceedings on \$1.7bn of debt
 - A competitor (Dish) has acquired \$1bn of debt
 - Harbinger attempting to sue GPS IC for \$1.9bn
 - Claims GPS manufacturers were 'not forthcoming' on GPS receiver performance
- LightSquared seeking potential buyers
 - Dish has been a potential buyer
 - Harbinger still attempting to reconcile with creditors
 - Bankruptcy court proceedings ongoing

What now?

- Awaiting court case to be resolved
- Awaiting output from GPS receiver protection working group

Proposed FCC Receiver Standards

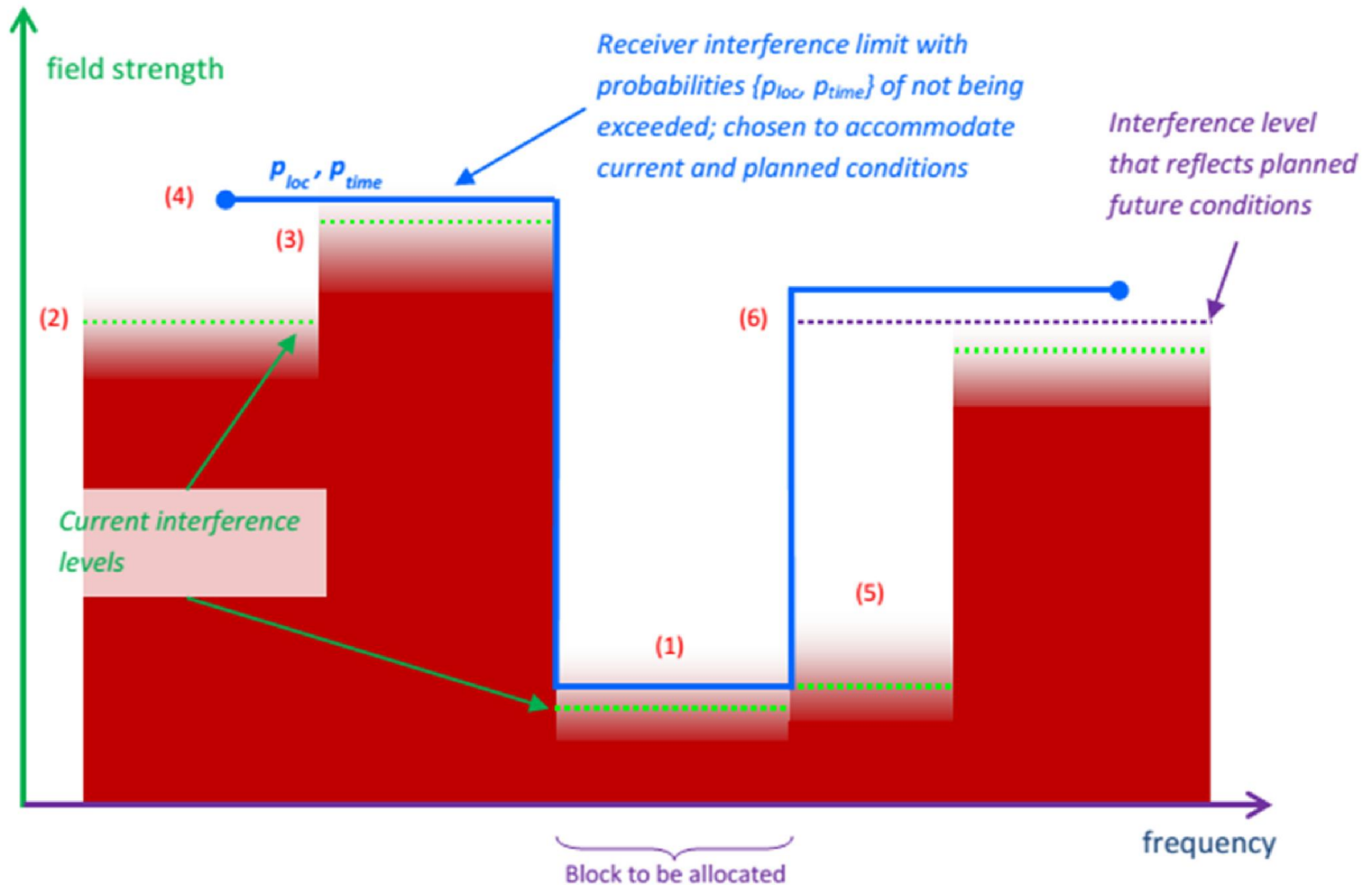
- Initiative from the FCC Technical Advisory Council
 - Remit: Efficient use of the radio spectrum
 - Prevent another LightSquared issue
 - *FCC has to find a balance between new entrants and incumbents. Worst case favors incumbents; need a complementary method to strike a better balance*
- Proposing a ‘Harm Claims Threshold’ for allocations
 - 2013 white paper detailed the concept
 - AFC commented on impracticalities for aviation

Receiver Standards

- Initiative from the FCC's Technical Advisory Council (TAC)
 - White paper in 2013 suggested a harm claim threshold process for receivers
 - Form of receiver self protection

Harm Claim Threshold Concept

- Specify maximum field strength limits for receiver's in and out of band interference immunity
 - Cannot claim protection if you do not meet the standard
- Signal limits also defined by agreed probabilities of being exceeded
 - Time and location variables would need to be agreed
- Limits created by a multi-stakeholder group of interested parties
 - FCC has final decision (agreement or stalemate)
- Any required guard bands must be within own allocation
 - Recommended to assume worst case (adjacent OFDM system)
- Limits subject to review as requirements change
 - No details on how often this would occur



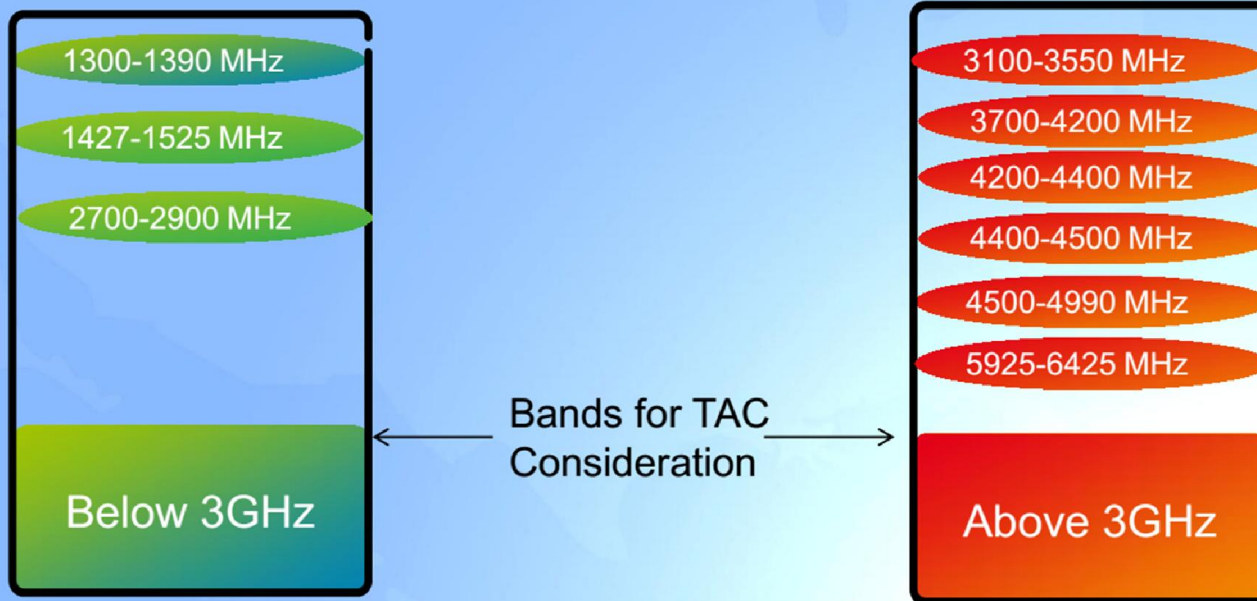
Pilot Program

- FCC implementing a pilot multi-stakeholder group
 - 3.5 GHz band trial group
- Test over the next year and review results
 - Potential to apply to other frequency bands of interest

FCC TAC Advanced Sharing WG

- Group proposing new methods/bands for sharing spectrum
 - Specifies IMT, but also other technologies may be used

Sharing Recommendations



- Advanced Sharing WG recommends the Commission to consider these bands for future sharing
 - Specific sharing model would depend on the incumbent types and available tools to manage interference among various systems



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Questions?