



FCC's Harm Claim Threshold

AFC Spring 2015

Proposed FCC Receiver Standards

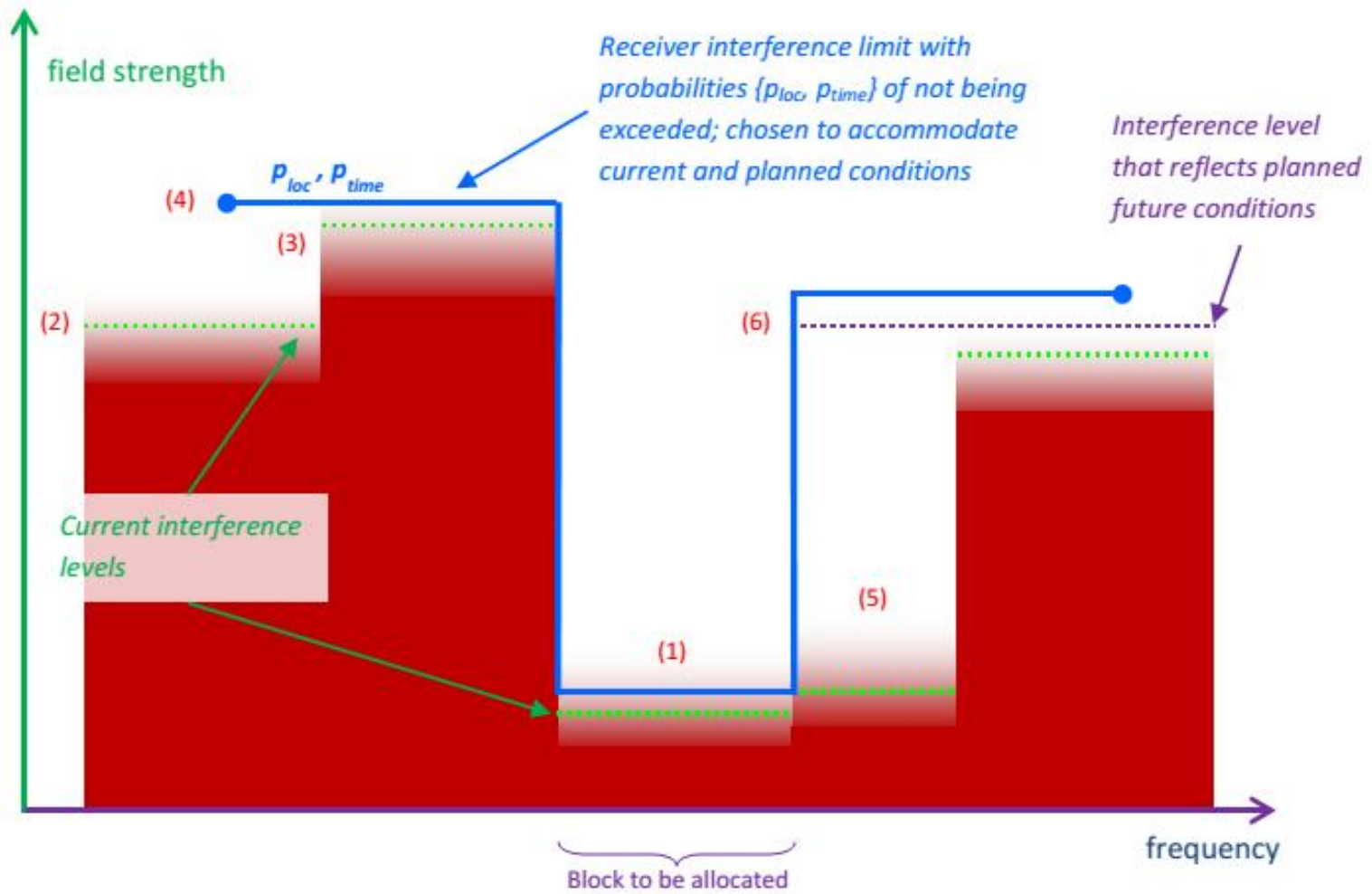


- Initiative from the FCC Technical Advisory Council
 - Remit: Efficient use of the radio spectrum
 - Prevent another LightSquared issue
 - *FCC has to find a balance between new entrants and incumbents. Worst case favors incumbents; need a complementary method to strike a better balance*
- Proposing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

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 Programs



- Intended to implement as part of the 3.5 GHz NPRM
 - 150 MHz for small cells with a semi-unlicensed approach
- However, FCC deemed the process not mature enough
 - TAC meeting reviewing ‘challenges’ over the next year and reviewing results (June meeting presentations [here](#))
 - Potential to apply to other frequency bands of interest
 - GPS work being proposed by LS

Harm Claim Threshold's Future



- New white paper targeted for Dec 2015
- For new services, the FCC should require analysis of the impact on incumbents based on a common set of operational parameters
 - Who should perform the analysis?
 - Can the FCC trust the results?
- If incumbent receivers not designed to strict standards
 - How to characterize all receiver designs within a service?
- Incumbent's confidential/proprietary information
 - Is it in the incumbent's best interest to share information?
 - Can this process be misused by either party?



Questions?