

CSMAC WG 3 – Status Report

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Minor Updates January 11, 2012

CSMAC WG 3 Scope

CSMAC WG3 will focus on recommendations to optimize industry access to the 1755-1850 MHz band while protecting federal operations. This work shall consider the entire 1755-1850 MHz band while taking into account the industry priority to access 1755-1780 MHz first. Deliverables include recommendations regarding definition and specification for sharing techniques with satellite operations (including any interference acceptance rules and coordination zones) and improved coordination rules and procedures for electronic warfare.

Key Subject Areas

Subject	Preliminary Findings	Key next steps
Interference from commercial mobile devices into satellite receivers.	Preliminary analysis based on current assumptions applied to 2001 NTIA/DoD study shows that interference is acceptable.	Detailed study using non-public information is under development by DoD.
Interference from satellite earth terminals into commercial base station receivers.	Based on current analysis there will be zones around the satellite terminals where interference is above the acceptable level, mitigation methods can significantly reduce the zone to acceptable sizes.	Phase 1 of the study based on public information is complete and under final review by the WG. Recommend proposed mitigation methods in final report. Phase 2 of the study based on non-public information is under development by DoD.
Electronic Warfare (EW)	EW operations are acceptable under the current Non-Interference Basis to authorized services.	Review and agree to recommendations to improve current coordination procedures for EW.

Interference from commercial mobile devices into satellite receivers

- Status:
 - Based on the assumption that the band will be used for mobile device operations, the preliminary finding is that sharing is feasible.
 - The report from DoD has yet to be released to the Working Group.
- Key Blockers:
 - Final release of the DoD study to the Working Group.
- Key Discussion Points:
 - While the current assumptions leads to a conclusion of capability, some recommendations need development to ensure the systems remain compatible in the future as the mobile traffic grows.

Interference from satellite earth terminals into commercial base station receivers

- Status:
 - Phase 1 of the study based on public information is complete and under final review by the working group. Studies indicate mitigation methods can significantly reduce the size of the zone of interference (e.g. satellite earth terminal power control, taking account of realistic antenna patterns for earth terminal transmitters and base station receivers).
 - Phase 2 of the study is based on non-public information and is currently under development. Phase 2 will more accurately represent the satellite systems and provide a more accurate representation of interference.
 - Reports from a similar Interference Scenario in the United Kingdom indicated the satellite uplinks and the commercial base station receivers have compatible operations at less than 5 km around the satellite facility.
- Key Blockers:
 - Amount of detail that can be released from Phase 2 studies and timing for completion of Phase 2 studies.
- Key Discussion Points:
 - Methods to enhance direct interaction between commercial operators and satellite earth terminal operations so that operators can decide on the most appropriate mitigation methods that should be used.

Electronic Warfare (EW)

- Status:
 - The proposal for improved current coordination procedures for EW has not been released to the WG for review.
- Key Blockers:
 - Release of the proposed improved coordination procedures.
- Key Discussion Points:
 - Need to complete WG review for incorporation into final report.

Schedule for Final Report

Deadline	Item
12/31/12	Issue Final Draft Phase 1 Study of Satellite Uplinks into Commercial Base Stations
1/22/13	Final Review and Consensus Agreement on Phase 1 Study
1/22/13	Issue Draft EW Recommendations
2/4/13	Final Review and Consensus Agreement on EW Recommendations
2/20/13	Issue Final Draft of Interference Study of Cell into Satellite Operations
2/21/13	Issue Final Draft Phase 2 Study of Satellite Uplinks into Commercial Base Stations
2/27/13	Final Review and Consensus Agreement on Cell into Satellite Operations Study
2/28/13	Final Review and Consensus Agreement on Phase 2 Study
3/4/13	Issue Draft Final Report
3/14/13	Final Review of Comments on Draft Final Report
3/21/13	Issue Final Consensus Report

Schedule is dependent on government meets delivery timelines and assumes DoD study results and outputs will be generally acceptable by Industry

CSMAC Liaison Observations

- No agreed recommendations for today's meeting
- WG 3 will not have a completed report for the February meeting
 - Government not yet able to release all needed technical data for Phase 1 or Phase 2 Study
 - Government has not commented on Phase 1 which assumes worst case satellite uplink parameters
 - All satellite uplink stations are yet to be identified
- Likely outcome
 - Base stations and hand sets will be allowed to operate on a non-interference basis, similar to the current situation in the UK
 - Base stations will need to determine their own protection levels
 - If Government doesn't believe that projected interference into its satellite receivers is acceptable, there will need to be an agreed to technical methodology and associated regulatory implementation