

Consultation: SMSE-016-25 – Policy, Licensing and Technical Framework for RPAS (5030–5091 MHz) and certain commercial mobile bands

From: AIRmarket Inc.

Contact: Lindsay Mohr, Founder & CEO

Date: 27 February 2026

1) Context and reference material provided

AIRmarket submits the following comments in response to SMSE-016-25.

As supporting context for this submission, AIRmarket is also providing a [presentation](#) that was originally delivered to ISED in **February 2025**, as part of AIRmarket's participation as an **RTM Service Supplier** within the **RTM Action Committee working group**. The presentation is included to document AIRmarket's previously stated position on the evolution of RPAS C2 services, spectrum enablement, and the anticipated role of third-party service providers within Canada's emerging RTM ecosystem.

This presentation is provided as background to support the rationale in this consultation response and to demonstrate continuity between AIRmarket's February 2025 recommendations and the approach proposed by ISED in this consultation, including alignment with U.S. direction, standards-based performance expectations, and an implementation path for DFMS and related services through RTM ecosystem service providers.

2) Executive summary

AIRmarket supports ISED's proposed approach in general and encourages ISED to implement it in a way that accelerates safe adoption while maintaining strong harmonization with the United States (FAA/FCC direction), consistent with this consultation's posture and AIRmarket's February 2025 recommendations.



AIRmarket's key messages:

A. Maintain U.S. alignment as the primary posture. Canada should continue to align policy outcomes, phased deployment, and technical expectations with the U.S. approach and the associated aviation standards pathway. (Supporting deck: Slide 4)

USA is Setting Spectrum Path - Use of 5030-5090 mhz

Executive Summary of Rules

- The FCC published a new rule on January 8, 2025 which will enable UAS operators to access dedicated spectrum for control-related communications: 5030 - 5090 MHz.

- Under Initial Access Mechanism (IAM) operators obtain frequency assignments in a **20 MHz** portion of the **5040 - 5060 MHz** band for non-networked operation while final plans for Non-Networked Access (NAA) & Network-Supported Services' (NSS) are established.

- One or more dynamic frequency management systems (DFMSs) will manage and coordinate access to the spectrum. Providing requesting operators with temporary frequency assignments to support UAS control link communications.

- Spectrum use authorized for NAA use under the "**License-by-Rule**" framework. NNA users must use certified NNA stations, and comply with the applicable NNA rules. No need not obtain individual spectrum licenses from the FCC.

Deployment Phases

1) Manual ISM Phase

FAA performs manual deconfliction of operators to enable use for shaping the next phase of deployment.

2) Automated DFMS Phase

FCC establishes the framework for automated allocations to manage deconflictions using DFMS by operators.

Resources / Documentation

1) FCC Release - 08 JAN 2025

Adopts initial rules for "drone" operations in the 5 GHz spectrum band.

2) FCC Final Rule Making

Spectrum Rules and Policies for the Operation of Unmanned Aircraft Systems. Defines the framework for how the spectrum will be implemented.

3) FCC Amendment for WRT-12

FCC recognizes the allocation of 5030 - 5090 MHz for UAS C2.

4) Final Acts WRT-12

International agreement for 5030 - 5090 MHz will support UAS C2.

Associated Standards

1) RTCA DO-362

"C2 Data Link Minimum Operational Performance Standards" defines the standards for the ARS & GRS hardware.

2) RTCA DO-377

"Minimum Performance of an Overall C2 Link System" defines the operational performance UAS C2 Links required by C2 Service Providers (C2CSP)

Slide 4

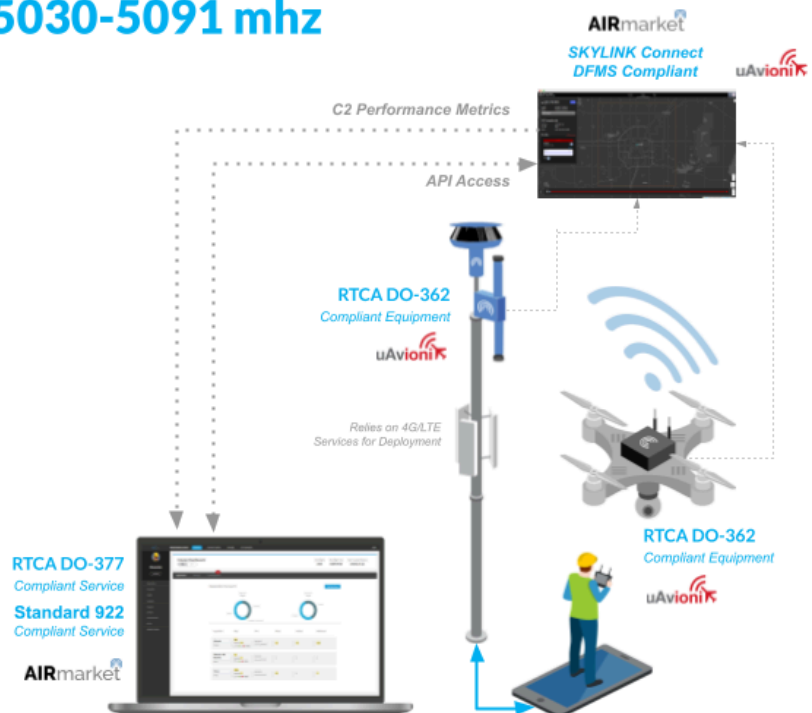


B. Enable an RSP-driven implementation layer for DFMS and related services. RPAS Traffic Management ecosystem service providers (RSPs)—as contemplated in NAV CANADA’s RTM ecosystem thinking—are a practical delivery mechanism for DFMS-style coordination and other services contemplated by this consultation. (Supporting deck: Slide 5)

C2 Pathforward - Use of 5030-5091 mhz

Summary of Proposal / Plans

- Proposing “Full Compliance” with FCC Rulemaking and RTCA DO-362 & RTCA DO-377 by policy.
- Proposing spectrum authorization to be granted under Development Licence by policy. Operators applications are deconflicted by ISED for interim deployment while industry consultation starts.
- Investment (\$) to deploy a network of GRS’s co-located with airspace surveillance to establish the RTM enabling infrastructure. uAvionix achieves RTCA DO-362 compliance for GRS’s & ARS’s.
- AIRmarket is an recognized C2 CSP that achieves RTCA DO-377 compliance through front-end services.
- Our Multi-link & Multi-path solution will achieve performance requirements defined in Standard 922 - RPAS Safety Assurance.
- **Proposed Modification:** Any connectivity service to enable ARS transmission approval. Current config inhibits use in 4G/LTE coverage areas only.



Slide 5

C. Expect RSPs to provide C2 services and supporting 5030–5091 ground infrastructure (GRS), co-located with surveillance sensors. This is a realistic, scalable infrastructure deployment pattern for Canada. (Supporting deck: Slide 5)



D. Empowering third-party service providers will accelerate adoption and reduce government development burden. ISED should set safety/interference guardrails, while enabling industry to scale at the pace of innovation. (Supporting deck: Slides 6)

Vision for CND Industry - Whats Needed?

Proposal for Canada

- Seeking "Interim Approval" by policy under Development Licencing framework. Develop industry working knowledge to feed into ISED consultation process with "Full Compliance" to FCC Rulemaking.
- Need to align our Canadian strategy for Payload Connectivity.

Topic	USA - Final Rulemaking	CDN - Proposed Interim Policy
International Spectrum Allocation with WRC-12	✓	✓
Compliance with RTCA DO-362 & RTCA DO-377	✓	✓
Enables Multi-Link & Multi-Path Solution Framework for C2	✓	✓
Payload Connectivity Services	Use of 4G/LTE or CBRS / 4G or SATCOM	Use of 4G/LTE or 3.9 GHz / 5G or SATCOM



- Industry Focus Areas
- Drive development ASR's & Network Appliances complaint with vision: Multi-Path, Multi-Link
 - Drive size, weight, and power reductions for SATCOM
 - Drive alignment for payload connectivity services between USA & CDN. Use of Private 4G & 5G services and hardware development.
 - Drive MNO's for coverage data & aviation profiles / services
 - Drive aircraft OEM alignment
- Operational Notes
- C2 Risk profile aligns with Population Density. # of links will increase with pop density based on terrestrial services.
 - SATCOM will be required for northern Canada operations.

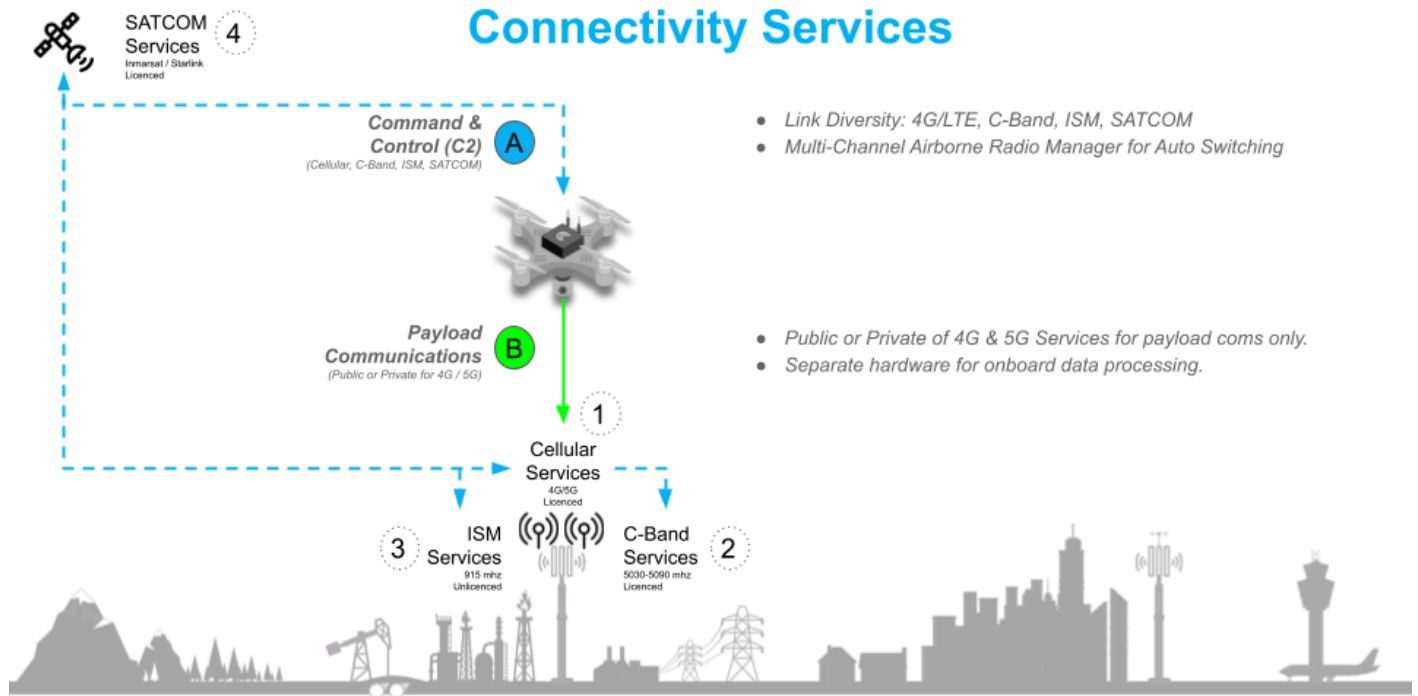
Slide 6

E. Provisioning of RPAS C2 services should align with Transport Canada & NAV CANADA direction for RTM services.



F. ISED should expect multi-path, multi-link architectures. Practical robustness will rely on multiple bearers (C-Band + mobile + satellite and other links), with the number and diversity of links increasing with operational risk and environment. (Supporting deck: Slides 3 & 6)

iART Reference Architecture of Connectivity Services



Slide 3

G. ISED should empower the nascent RSP market to build RPAS-dedicated C2 applications/services on top of existing mobile (MNO) and satellite networks. This enables RPAS-specific services while encouraging slower-moving network owners to focus on provisioning and profile updates—supporting a viable commercial path for a Canadian RTM services ecosystem. (Supporting deck: Slide 6)

3) Responses to consultation questions

Section 5 – 5030–5091 MHz (RPAS CNPC)

Q1. CTFA changes / Canadian footnotes and regulatory updates

AIRmarket supports the proposed CTFA and related regulatory updates to clearly enable RPAS CNPC in 5030–5091 MHz under an aviation-grade framework, consistent with international allocations and U.S.-aligned direction. (Supporting deck: Slide 4)

Q2. Other applications besides CNPC in 5030–5091 MHz

AIRmarket recommends keeping 5030–5091 MHz tightly scoped to **safety-critical CNPC (non-payload)**. Payload communications should primarily leverage existing commercial mobile and satellite networks. (Supporting deck: Slide 3)

Q3. Band plan approach (ICAO vs U.S.-like)

AIRmarket supports an approach that remains interoperable with ICAO while staying strongly aligned with the U.S. trajectory, including phased deployment (interim coordination progressing to DFMS automation). (Supporting deck: Slide 4)

Q4. Other band plan considerations

AIRmarket recommends that the band plan and operational framework explicitly anticipate:

- multi-link/multi-path operations as a safety feature (Supporting deck: Slide 3)
- a phased deployment model that uses operational evidence to refine the final framework (Supporting deck: Slides 4–6)

Q5. Radio licences for terrestrial aeronautical stations communicating with aircraft stations

AIRmarket supports licensing of terrestrial aeronautical stations (GRS) supporting CNPC, and expects a scalable model where RSPs deploy and operate GRS networks, commonly co-located with surveillance sensors. (Supporting deck: Slide 5)



Q6. Space stations (satellite CNPC) licensing model

AIRmarket supports a clear satellite pathway and emphasizes that SATCOM is operationally required for remote/northern Canada as part of multi-link architectures. (Supporting deck: Slide 6)

Q7. Aircraft stations with terrestrial aeronautical stations (licence-exempt approach/power)

AIRmarket supports streamlined airborne authorization (including licence-exempt where appropriate), provided interference protections and safety objectives are maintained. The framework should evaluate airborne rules with a view to overall link-system performance outcomes (service-level performance), not only single-bearer technical parameters. (Supporting deck: Slides 4–5)

Q8. Aircraft stations with space stations (generic earth station licensing)

AIRmarket supports practical licensing mechanisms for aircraft earth stations to enable satellites as part of multi-link continuity, especially for remote operations. (Supporting deck: Slide 6)

Q9. Standards (RTCA DO-362A; other standards)

AIRmarket supports requiring standards aligned with U.S. direction:

- RTCA DO-362 (equipment) for the CNPC datalink ecosystem, and
- RTCA DO-377 as the minimum performance framework for overall link-system/service outcomes. (Supporting deck: Slide 4)

Q10. Where to place technical requirements (conditions/RBR vs RSS)

AIRmarket supports implementing requirements in the fastest viable mechanism first (conditions of authorization / RBR updates), then maturing toward dedicated RSS requirements as operational evidence and the device ecosystem mature. (Supporting deck: Slides 4–6)

Q11. DRAO exclusion zones for 5030–5091 MHz

AIRmarket supports DRAO protections and recommends periodic reassessment based on real deployment evidence gathered during phased rollout. (Supporting deck: Slide 4–6 phased approach)



Q12. Coexistence with FSS earth stations in 5091–5150 MHz

AIRmarket supports the proposed approach, recommending an operational monitoring/escalation pathway as CNPC deployments scale.

Q13. Other adjacent-band coexistence considerations

AIRmarket recommends ISED explicitly recognize multi-link/multi-path architectures as a key operational mitigation (failover capability) when interference/outage conditions occur. (Supporting deck: Slide 3)

Q14. Interim coordination approach until DFMS exists

AIRmarket strongly supports an interim mechanism that enables deployment now while building evidence and capability for DFMS automation—consistent with the U.S. phased approach and AIRmarket’s February 2025 recommendation for interim approval and a development licensing posture. (Supporting deck: Slides 4–6)

Q15. DFMS administered by private third party; other coordination approaches

AIRmarket supports DFMS administration by qualified third parties under ISED designation, and views RSPs as a natural implementing class in Canada’s RTM ecosystem. (Supporting deck: Slide 5)

Q16. Timelines for DFMS availability/deployment

AIRmarket recommends ISED publish a phased timeline with clear milestones (interim operations → pilot DFMS → scale DFMS), aligned with U.S. phased deployment logic. (Supporting deck: Slide 4)

Q17. Multiple DFMS administrators; sustainable market

AIRmarket supports multiple DFMS administrators, provided interoperability, auditability, and consistent protection criteria are enforced (standard interfaces, models, and reporting). Competitive administrators can accelerate innovation while ISED retains policy and oversight authority.

Q18. DFMS designation agreements based on existing administrator precedents

AIRmarket supports use of existing designation agreement models and recommends explicit requirements for security, availability, audit transparency, and operational continuity consistent with safety-critical services.



Q19. DFMS technical/operational implementation aspects

AIRmarket supports DFMS implementation focusing on standard interfaces, protection criteria, data security, and operational performance monitoring. Service providers can support performance monitoring as part of a C2 service model. (Supporting deck: Slide 5 performance framing)

Q20. Additional DFMS factors/constraints

Canada-specific constraints include:

- remote/northern coverage realities where SATCOM is required (Supporting deck: Slide 6)
- deployment strategies tied to wildfire/energy corridors and mixed terrestrial + satellite coverage (Supporting deck: Slide 7)

Section 6 – Commercial mobile bands (RPAS framework in mobile bands)

Q21. Considerations to identify mobile bands

AIRmarket supports identifying an initial set of commercial mobile bands using structured criteria and recommends prioritizing ecosystem maturity, coverage/capacity utility, and manageable coexistence characteristics.

Q22. Other considerations

AIRmarket recommends explicitly recognizing:

- aerial UE propagation/interference characteristics,
- MNO provisioning and aviation profile needs, and
- the role of RSPs building RPAS-specific applications and services on top of existing networks to accelerate adoption while reducing government implementation burden. (Supporting deck: Slide 6)



Q23. Apply RPAS framework to initial mobile bands (600, 700, AWS-1, AWS-3, PCS)

AIRmarket supports applying the RPAS framework to the proposed initial set of commercial mobile bands as a practical starting point for aerial UE connectivity at scale, consistent with leveraging existing mobile infrastructure for RPAS operations. (Supporting deck: Slide 6 mobile strategy)

Q24. Other mobile bands to include

AIRmarket recommends future expansion based on criteria (standards/ecosystem maturity, coexistence evidence, operational guardrails), rather than broad expansion ahead of evidence.

Q25. Remove prohibition from Access Licensing framework

AIRmarket supports removing prohibitions as proposed for identified bands, with clear responsibilities and coexistence protections maintained.

Q26. Permit RPAS aerial UE to communicate with authorized satellites under SMCS

AIRmarket supports permitting satellite connectivity for RPAS aerial UEs where applicable and emphasizes that satellite is essential for remote/northern operations as part of multi-link continuity. (Supporting deck: Slide 6)

Q27. Modify CTFA with Canadian footnote to permit RPAS aerial UE under mobile allocations

AIRmarket supports explicit authorization language to remove ambiguity, accelerate adoption, and enable safety/coexistence controls.

Q28. Permit RPAS aerial UE under existing mobile spectrum licences (operators as subscribers)

AIRmarket strongly supports permitting RPAS aerial UEs under existing mobile spectrum licences, with RPAS operators and service providers acting as subscribers. This approach enables MNOs to focus on provisioning/profile updates while enabling RSPs to deliver RPAS-specific C2 and safety services at the pace of innovation. (Supporting deck: Slide 6)



Q29. Are existing conditions of licence sufficient?

AIRmarket expects existing licensing conditions are largely sufficient, but aerial UE operations will likely require incremental technical guidance (device behavior, power control, operational expectations) as the evidence base matures.

Q30. Extend generic SMCS earth station licences to include RPAS aerial UEs

AIRmarket supports this where applicable and encourages low-friction pathways that preserve coexistence protections and enable multi-link continuity.

Q31. Anticipated use cases and deployment considerations (altitude, interference environment)

AIRmarket anticipates use cases supporting critical infrastructure and wildfire response, and operations across mixed terrestrial/SATCOM regions. Deployment strategy should recognize regional prioritization and practical coverage realities. (Supporting deck: Slide 7)

Q32. Effectiveness of licensing approach for intra-network coexistence

AIRmarket agrees the subscriber-under-MNO model is effective for intra-network coexistence because the network operator can manage scheduling, QoS policies, and aerial UE provisioning.

Q33. Apply existing SRSP coexistence measures for inter-network coexistence (pfd/field strength at boundaries)

AIRmarket supports applying existing SRSP coexistence measures as a baseline, with coordination and evidence-based refinement as aerial UE deployments scale.

Q34. Develop new RSS technical requirements for aerial UEs (power limits, TPC)

AIRmarket supports developing aerial UE-specific RSS requirements in step with standards maturity and deployment evidence, to ensure predictable coexistence outcomes.



Q35. No additional mitigation beyond existing OOB limits for adjacent-block inter-network interference

AIRmarket supports the proposed baseline approach, with the recommendation that ISED retain adaptive levers if scaling reveals measurable interference impacts.

Q36. No additional mitigation beyond existing OOB limits for adjacent public safety and fixed point-to-point systems

AIRmarket supports the proposed approach and recommends defined escalation and mitigation pathways if interference is observed as deployments scale.

Q37. DRAO exclusion zones in applicable mobile bands

AIRmarket supports DRAO protections and recommends periodic reassessment based on deployment evidence.

Q38. MetSat coexistence in 1695–1710 MHz (are existing RSS rules sufficient? if not, adopt stricter OOB)

AIRmarket supports ensuring aerial UE rules adequately protect MetSat earth stations. If existing RSS limits are insufficient, stronger OOB limits should be adopted based on technical evidence and consistent international approaches.

4) Closing

AIRmarket supports ISED's overall approach and encourages ISED to explicitly empower a Canadian RTM/RSP market to deliver DFMS and C2 services consistent with Transport Canada and NAV CANADA RTM direction, while maintaining clear alignment with U.S. approaches and standards. This posture enables Canada to scale RPAS safely and quickly while reducing government development burden and allowing industry innovation to drive implementation of services and infrastructure. (Supporting deck: Slides 4–7)



Lindsay Mohr
Founder & CEO,
AIRmarket Inc.

10651 102 Street NW, Edmonton, AB, T5H 2T6

