

Telecommunication team

# Ecole Nationale de l'Aviation Civile

## Telecommunication team

Contributing to the joint emergence of new, secure, and efficient communication, navigation and surveillance, both in the air and on the ground.



The activities of the ENAC TELECOM team relate to aeronautical telecommunications systems, including signal processing and navigation, electromagnetism and antennas, and communication networks and systems. The TELECOM research team has the objective to develop knowledge both in telecommunication systems and civil aviation systems.

## Fields of Research

- **Signal Processing and Navigation (SIGNAV):** GNSS for civil aviation and terrestrial Navigation (Interference and spoofing, multi-frequency multi-constellation SBAS and GBAS, ARAIM, ground vehicles guidance, Hybridization, Integrity, Precise Positioning, Signals of Opportunity) - [Visit the SIGNAV website ///](#)
- **Electromagnetism and Antennas (EMA):** Electromagnetic models and antennas for CNS systems (compact antennas, propagation channels models in complex environments, impact of infrastructures on CNS system performance) - [Visit the EMA website ///](#)
- **Networks of Communicating Systems (RESCO):** dynamic and/or constrained wireless communication networks specifically in the aeronautical domain (Conception and

optimisation of communication architectures, Routing, Reliability and Quality of Service, Security Architecture, Distributed Systems) - [Visit the RESCO website ///](#)

## Applications and projects

- Support for the definition, development, and standardisation of the multi-frequency multi-constellation GBAS, SBAS, and ARAIM (DGAC, European Commission, ESA, SESAR JU)
- Support for the design of new Galileo signals for the European Commission and the CNES Development of hybrid localisation techniques for ground vehicles (GNSS, video, lidar, Signals of Opportunity)
- Support to the DGAC for studies on the propagation of CNS systems
- Antenna design
- Development of cockpit-to-cockpit and ground-to-cockpit communication systems for critical data
- Distributed systems for content based routing for AANET
- Studies of C2Link for drone communication

[More information on TELECOM Laboratory's site ///](#)

Documents

See as well

Contact

TELECOM team Manager

Christophe Macabiau

[05 62 17 42 77](tel:0562174277) 05 62 17 42 77

[christophe.macabiau@enac.fr](mailto:christophe.macabiau@enac.fr)

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