

06 september 2015



SUBJECT / SUJET: Telecommunication systems – Knowledge regarding the technologies

SOURCES & METHODS INVOLVED / SOURCES ET METHODES EMPLOYEES

- | | |
|---|---|
| <input checked="" type="checkbox"/> Investigation / Enquête | <input type="checkbox"/> Strategic planning / Planification Stratégique |
| <input type="checkbox"/> Documentary monitoring / Veille documentaire | <input type="checkbox"/> Instruction / Instruction |
| <input type="checkbox"/> Lobbying / Action lobbyiste | <input type="checkbox"/> Profiling Simulation / Simulation Profilage |
| <input type="checkbox"/> Field Intervention / Intervention terrain | <input type="checkbox"/> R&D / Recherche & Développement |

CONFIDENTIALITY LEVEL / NIVEAU DE CONFIDENTIALITE

- Classified / Classifié
- Declassified / Déclassifié
- Sensitive / Sensible
- Confidential / Confidentiel
- Secret Top Secret

STATUS / STATUT

- | | |
|---|--|
| <input type="checkbox"/> Pre-project study / Etude avant-projet | <input type="checkbox"/> Started / Démarré |
| <input type="checkbox"/> Stand-by / Mise en attente | <input type="checkbox"/> Adjourned / Ajourné |
| <input checked="" type="checkbox"/> Completed / Finalisé | |

RESULT / RESULTAT

- Achieved / Atteint
- Partially met / Partiellement atteint : ... %
- Not Achieved / Pas atteint

AREA / ZONE : Worldwide



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1- CONTEXT

- Telecommunications devices are today primarily based on systems that transmit information using radio frequencies. Two issues have been identified by our Owl unit assigned to the study of these technologies (see report 5850R_IRRA001_REDE):
 - Limited Range: inefficient over long distances, requiring the use of wired connections (e.g., submarine cables).
 - Alteration of quality transmission due to potential electromagnetic interferences.
 - Low data transfer rate in comparison with other existing technologies.
 - Electromagnetic disturbance: researchers are warning since 2013 about the particularly harmful impact of electromagnetic waves on the human body.
- Conclusion: radio frequency-based telecommunications methods are highly prejudicial to living organisms and obsolete given the significant technological improvements of the past few years.

2- OBJECTIVES

- Investigate alternatives to the existing radio frequency technologies, targeting a global replacement, in a few weeks' time frame.

3- ACTIONS

- Oct. 2019: Training of the first Raven units (see report 5850R_IRRA002_REFO).
- Feb. 2020: worldwide infiltration of civilian and military research and development centres (permanent assignment).
 - **High level of carefulness strictly required.**
 - The trained units are allowed to take radical measures under the conditions written in the intervention protocols.
 - Mission will be aborted in case of detection of a Raven team.
 - Any contact possibility with the Head Quarter will be automatically & immediately cut, as well as with all other Raven units.
- Jun. 2020: the information reported by the Raven units have been studied by the Owl unit.

4- RESULTS

- Focus have been made on the two following technologies:
 - Li-Fi (Light Fidelity), an optical communication method under development since 2012:
 - Advantages:
 - Wider frequency range compared to radio frequencies, in a significative way.
 - Does not generate electromagnetic disturbance: no harm to living organisms.
 - Disadvantages (before researches restart):



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- Short range (about ten meters).
- Does not pass through walls and clothing.
- Possible interference with other light sources.
- Lower data rate compared to Wi-Fi technologies.
- Research and development suddenly stopped after this.
- Quantum technologies:
 - Advantages:
 - Significantly higher data rate than any other telecommunication system.
 - Nearly instantaneous transmission through processes using quantum entanglement.
 - Does not generate any electromagnetic disturbance: no harm to living organisms.
 - Disadvantages:
 - None
 - Quantum technologies are already mature and used by numerous clandestine paramilitary organisations.
 - Some countries have been working on the development of these technologies for a long time, aiming for confidential use and deployment in their critical infrastructure.
- The power and efficiency of quantum technologies outperform, from far, those of Li-Fi technologies. However, a complete replacement of current smart electronic devices (PCs, smartphones, etc.) will require many years. The implementation plan is already fully design.

Report writer

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