The New Real Time Surveillance System within the French Forces in French Guiana

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OBJECTIVE

This paper describes the new real time surveillance system, which has been installed within the French Forces in French Guiana.

BACKGROUND

The development of a real time surveillance system for Forces on duty areas is one of the 5 initiatives of the November 2002 Prague's NATO meeting [1]. The French Military Health Service has decided to implement a military demonstrator within Forces in operations in a tropical area. This military prototype has three main objectives : i) to study the feasability of real time surveillance system within Forces in operations ii) to evaluate the benefit of such a system and iii) to develop a interoperable system for NATO. This French real time system has been developped by a multidisciplinary team, with military people but also with civilian experts from Pasteur Institute and Mediterranean University of Marseille [2].

METHODS

The military real time surveillance system has been implemented in French Guiana, because of the local extreme conditions (forest, humidity), the number of French soldiers (more than 3,000) and the high prevalence of infectious diseases. This system, called 2SE FAG ("Surveillance Spatiale des Epidémies au sein des Forces Armées en Guyane") is a real time surveillance system for fever. It takes part into the French Guiana civilian dengue fever surveillance network, but it permits also to study outbreaks of malaria, viral diseases and unknown fevers. In front of a case of fever, military general practitioners and nurses record medical and georeferencing data on their desk computer or laptop or personal digital assistant and send them as soon as possible to a server in Pasteur Institute in Cayenne, using classical or satellite communication system. There is a permanent link between the Cayenne's server and the Marseille's one, and the epidemiology team in Marseille can study the data in near real time. The data are integrated into a geographical information system and a specific and operational report file is automatically produced for the military commandors. A periodical feed-back is sent to all the stakeholders.

RESULTS

The new system has been installed in French Guiana within the Forces in October 2004.
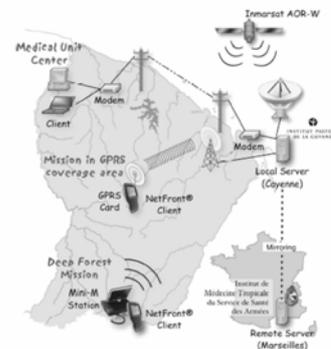

Figure 1 – Deployment schema of the military surveillance system in French Guiana

It produces in first approximation 30% more data than the classical military weekly surveillance system. It is useful for help to decision and the automatized analysis permits to have an early warning system to detect outbreaks. This system has also permitted to create an operational military network. The field experiences are very productive to develop the next generation system, for all the French Forces on duty areas.

CONCLUSIONS

The new real time surveillance system within the French Forces in French Guiana is a part of the work made by NATO nations to improve the surveillance for Forces against mass destruction weapons. This system will take part into a multinational exercise in 2006 and will have an international evaluation.

REFERENCES

[1] NATO. Prague summit declaration. Press Release 2002;127 21 nov.2002. www.nato.int/docu/pr/2002/p02-127e.htm
[2] Meynard J-B, Texier G, Sbai Idrissi K and al. La surveillance épidémiologique en temps réel pour les armées. Médecine et armées 2004;32:360-5.

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