

Summary Report on SARGAL

An extensive description of the possibilities of satellite navigation within the SAR sector has been given in the SARGAL study (Sofreavia, 2000). It can be derived that not the positioning / navigational aspect of the application, but the communication functions are the added value of a Galileo-based system. Thus, only the benefits of the communication functions can be attributed to Galileo.

The communication aspects are twofold:

1. An autonomous cancel function: With the (limited) two-way data communication that will

be proposed, it will be possible to implement special procedures using only SAR/Galileo equipment, to cancel the distress in case of false alerts (beacon mishandling, malfunction, mounting failure, extreme weather conditions, etc.).
2. A Rescue Co-ordination Centre (RCC) contact check function: the possibility for the RCC to initiate a communication with a user whose beacon is not triggered, and eventually to trigger itself the beacon to locate it. This function is mainly intended to be used in case of worry expressed by relatives.

In the SARGAL study it has been estimated for the maritime part, that due to the autonomous cancel function about 100 “useless” SAR operations could have been avoided in 1999 world-wide, if all the concerned vessels had been fitted with SAR equipment integrating the autonomous cancel function and 80 operations with the RCC contact check function. For this analysis it is assumed that this ratio (between useless operations and all the concerned vessels) is applicable to the aviation and personal sector too.

The results show that on a societal level the benefits of reduced “useless” operations do not exceed the costs of the application for the application users (vessels, aircraft etc). It should be taken into account that these application users do have an other motive to purchase the application: the navigation function. However, the benefits of this navigation function are not attributable to Galileo since this does not pass the “delta test”.

Finally, the related reduction of emissions can be considered negligible.