IAF SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Space-Based Navigation Systems and Services (5)

Author: Mr. Bob Banik
Canadian Space Agency, Canada

COMMERCIAL PROVISION OF SPACE-BASED AUTOMATIC IDENTIFICATION SYSTEM (SB-AIS) DATA SERVICES TO THE CANADIAN GOVERNMENT: RECENT EXPERIENCES AND LESSONS LEARNED.

Abstract

In recent years the Government of Canada (GoC) has increasingly relied on commercial suppliers of space-based automatic identification system (SB-AIS) data services for serving national needs related to sovereignty, transportation safety, and the protection of the marine environment. We describe the evolution of GoC end user needs with respect to SB-AIS, which is influenced by trends in industrial capacity; we identify the procurement considerations and challenges; and describe the need for using objective verification methods towards ensuring the required system performance while ensuring contractual compliance.

This paper describes the experience gained from the use of commercial SB-AIS constellations, composed of small satellites, to serve the needs of the GoC. This approach is demonstrating good value-for-money in terms of an enhanced level of maritime domain awareness (MDA), an improved capacity for vessel tracking in areas not serviced by terrestrial AIS systems, and is encouraging new studies towards gaining a better understanding of the effects of maritime shipping on marine ecosystems and the environment. Notwithstanding these public benefits, the procurement process is complex and presents unique challenges for government to implement. Based on our experience, we offer some recommendations for other countries planning to use this strategy.