

SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Fixed and Broadcast Communications (4)

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ECONOMIC EFFECT OF SATELLITE COMMUNICATIONS BASED ON THE GREAT EAST JAPAN
EARTHQUAKE

Abstract

A magnitude 9 earthquake hit the east coast of Japan on March 11th, 2011. The earthquake damaged many buildings and the tsunamis over 10-m class uprooted the terrestrial communications infrastructure. As it was impossible to communicate by using the terrestrial communication network any more from the affected area where the terrestrial infrastructure was destroyed physically, the satellite communications happens to play an active role in the disaster rescue. The satellite communications is independent of the damaged terrestrial infrastructure and could establish the global communication networks using satellite mobile phones, transportable VSATs, and vehicular VSATs by many organizations and companies. In order to show the significance of satellite communications under the disaster situations, the economic effect of satellite communications is evaluated based on the cost estimation in the Great East Japan Earthquake. The avoidable economic loss is examined if the terrestrial networks would be sustained by satellite communications.