Abstract Submitted
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Iridium Satellite Signal Exploitation PETER MCDONOUGH, University of Dallas — The Iridium Satellite constellation is unique to satellite communication networks in that it allows for transmission of data between satellites instead of relying on transmission by the bent pipe methodology. As such, this network is far more secure than other satellite communication networks, and forces interception to occur within the locale of the transmission from modem to satellite or within the locale of the downlink from the satellite other modem. The purpose of this project was to demonstrate the security weaknesses within the Iridium protocol, showing that it was possible to track one of these satellites with a high gain antenna, resulting in the ability to anticipate transmission, to acquire the location of that transmission, and to uncover the content of that transmission. This project was completed as part of the summer student program at the Southwest Research Institute. The presentation will demonstrate the thought process used in chronological order, essentially demonstrating how I achieved the result from my point of view as the summer progressed.

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