# Radiofrequency Interference (RFI) Detection-Machine Learning (ML) System ("Truffle Pig")

## Assuring our Nation Remains a Global Leader in the Space Domain

### Independent Technical Solutions

Stephenson Stellar Corporation (Stellar) is a nonprofit, vendor-agnostic organization that can mitigate complex cybersecurity challenges to the DoD effectively with COTS hardware and tailored software. Stellar has developed a low-cost, low-SWaP Machine Learning (ML)-based RFI detection and classification system ("**Truffle Pig**"), enabling near-instantaneous ID of hostile interference.

### Machine Learning Expertise

Stellar's unattended artificial intelligence/ ML technologies allow operators to easily re-train algorithms and monitor parameters organically, without the need for field technicians or depot reach-back.

### Low-cost RF Monitoring

**Truffle Pig** software services provide automated, real-time detection for critical assets against RF attacks (jammers, spoofers, UAS), employing state-of-the-art compressed sensing combined with convolutional neural networks. Analysis takes seconds versus hours/days for traditional approaches that require time-consuming and error-prone SME analysis.

### The Future of Space Security

We can provide Tactics, Techniques, and Procedures to improve space resiliency and provide next-generation cybersecurity solutions for space systems.

*Truffle Pig: Government-trusted and ready to be tailored for your commercial needs, Contact Stellar!*



Jammer

C₂ Link
C₂ Link

Automated / Real-time Detect

Globally accessible alerts

Artificial Intelligence / Machine Learning

Edge Device *Current*

Edge Device *Future*

*Alerts returned over WAN via message traffic (JSON)*

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