



Rapid Interference Pattern Simulator (RIPS)

What RIPS Does:

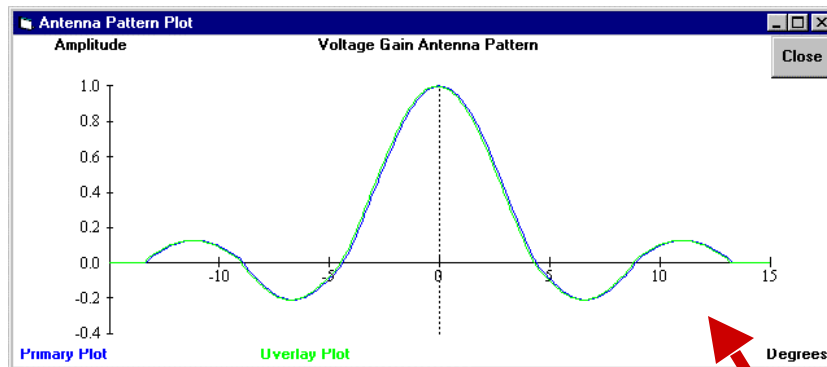
- Uses **polynomial models** to simulate electromagnetic interference patterns, such as **RADAR antenna gains**, or bi-directional reflectivity distribution functions (**BRDFs**)

RIPS Applications:

- RIPS is a practical solution for **reducing computational burdens** and improving execution speeds, while **maintaining simulation accuracy**.

RIPS is Unique:

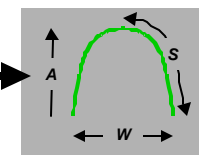
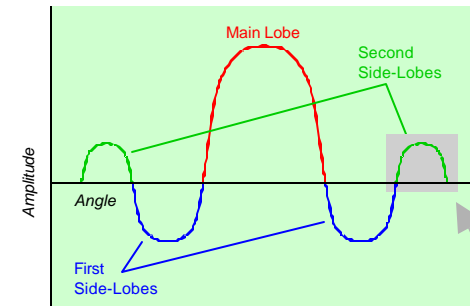
- RIPS is **orders of magnitude faster** than rigorous computations and uses only **a fraction of the memory** required for look-up tables



RIPS Simulated Pattern (Primary)
Compared to
Actual Pattern (Overlay)

Lobe
Coefficients
Define:

- **Width (W)**
- **Amplitude (A)**
- **Shaping (S)**



Constructed
Lobe

RIPS H/W-S/W Configuration: **PC-based** under **Windows** O/S; written in Visual Basic.

Customer: Air Force Research Lab - Dayton, OH for AECM Monopulse Radar Simulation

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