

# 6.2 Conformal Antennas



### OBJECTIVES:

- Provide flexible, reasonable cost, low-observable apertures for ground vehicles
- Develop low-cost, low visual profile broadband R/T antenna technology
- 30 – 512 MHz with reasonable gain and impedance match
- Provide easy upgrade to higher frequencies
- Terrestrial and satellite
- Produce breadboard prototypes for testing

### PAYOFF:

- Reduced visual signature
  - IR & RADAR?
- Co-site interference mitigation
- Easier integration of Joint Tactical Radio System (JTRS)

### TECHNICAL APPROACH:

- Apply advanced inductive backplane materials and antenna designs to deliver broadband performance
  - Artificial magnetic conductors
  - Low-temperature co-fired ceramic
- Two efforts to be awarded in this area
  - Increase chances for success
- Take advantage of earlier successes with UHF broadband designs

Tasks	FY03	FY04	FY05	FY06
Ind. VHF/UHF Design	△		△	
Ind. test, integrate, demo		△		△
Univ. Design	△△	△△	△△	
Univ. Test/lab demo		△△	△△	△△

PERFORMERS: Titan Corporation; university performer in contract negotiation phase