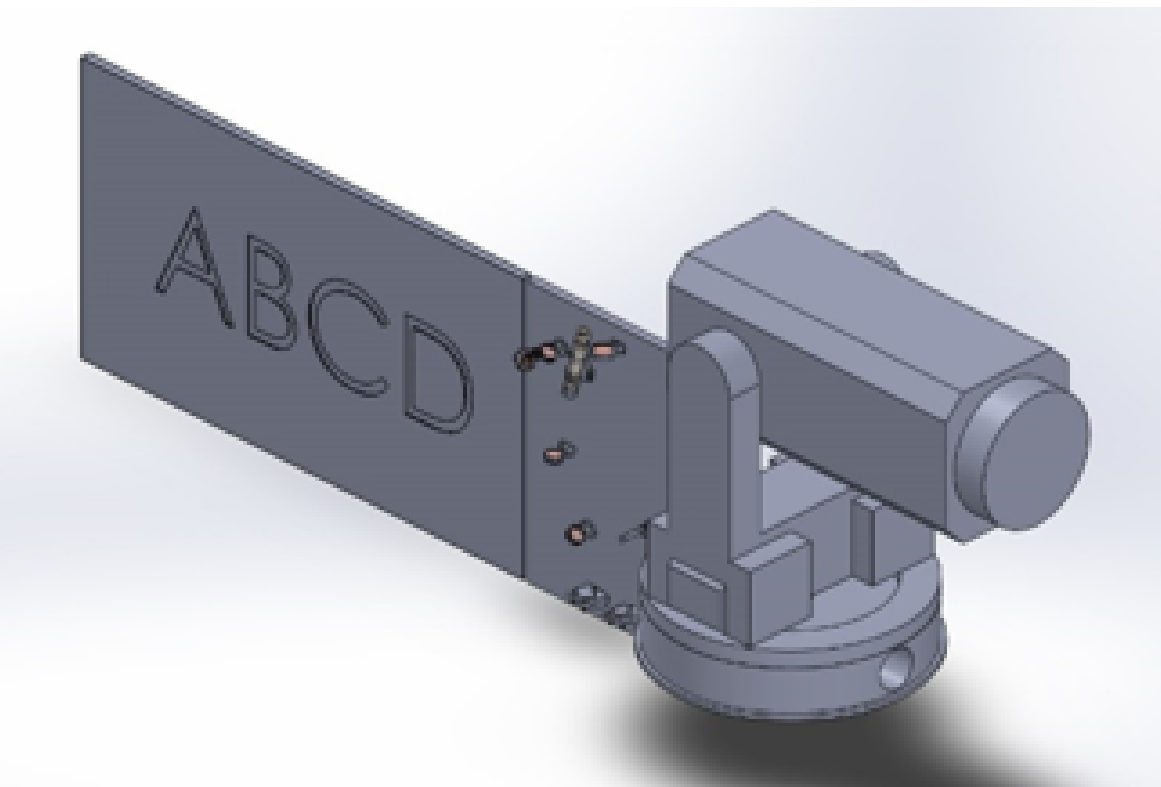




Goal: XXX (Tahoma, 72pt)

Sub-Title (Arial, 36pt)

- Bullet (Arial, 24pt)



Preliminary testbed design concept with 60 cm diameter RCOS (M=6) beam director

- XXXX
- XXXX

Title (Arial, 36pt)

More effective optical design



Need recognized by Air Force and DoD

US National Space Policy

"The United States will employ a variety of measures to help ensure the use of space for all responsible parties, and consistent with the inherent right of self-defense, deter others from interference and attack, defend our space systems and contribute to the defense of allied space systems, and if deterrence fails, defeat efforts to attack us"

Awareness of the space environment is critical to ensuring the responsible use of space

Gen. John Hyten, the Air Force Space Command commander, speaks to the audience on maintaining space and cyber capabilities during the 2014 Air Force Association Air and Space Conference Technology and Exposition, Sept. 16, 2014, in Washington, D.C.

DISTRIBUTION A: Approved for public release; distribution is unlimited

AFRL 1516

• Related Research Complements Our's

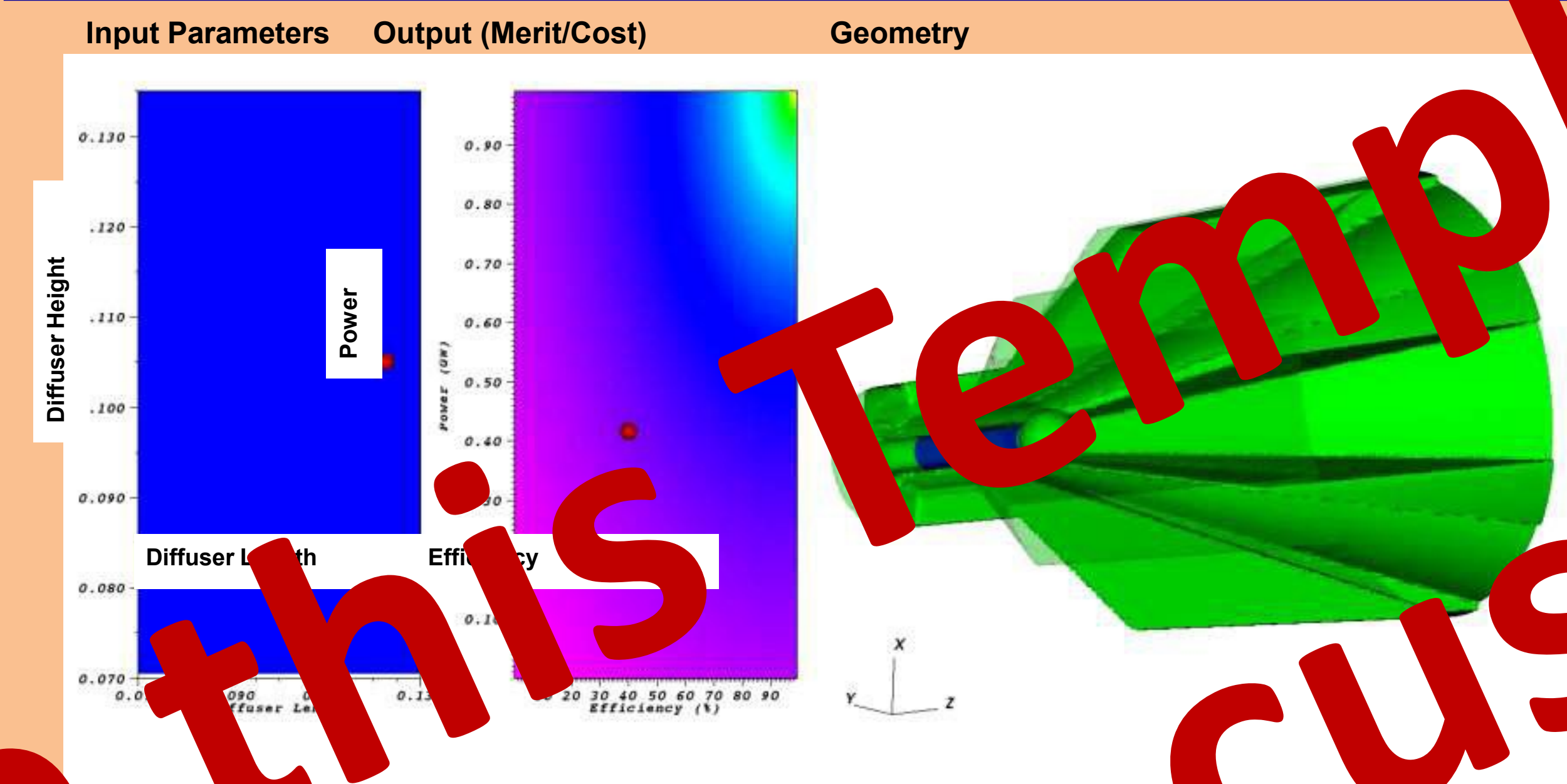


AF and DoD needs define goals

Title (Arial, 60pt)

First year: We are concentrating on the daytime surface layer

Baseline Model



• Part 1: Partitioning Heat Energy



• Part 2: Nonlinear Effects

• Part 3: Optical Turbulence Parameters



Areas that require further investigation

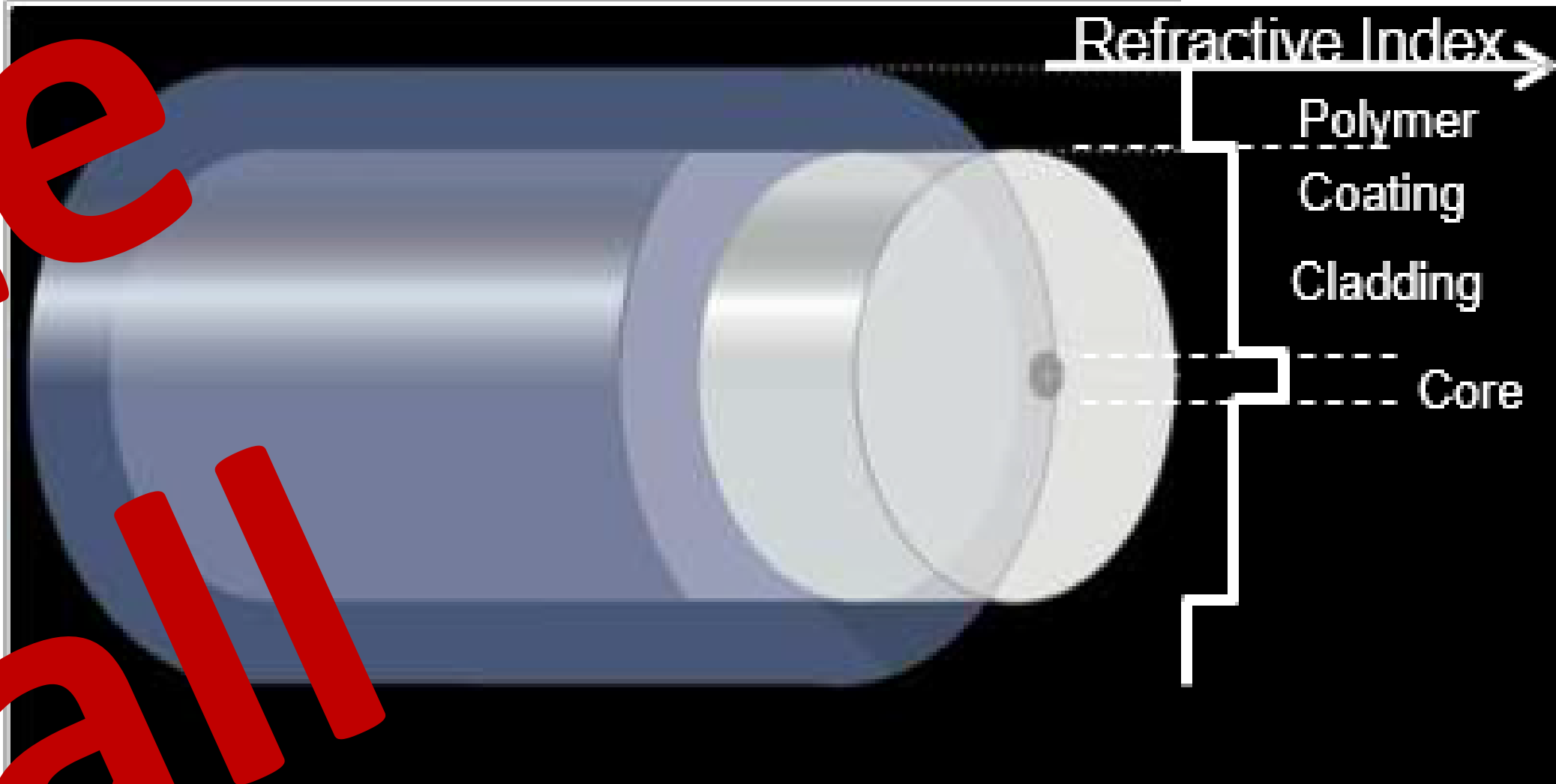
- XXXX
- YYYYY
- ZZZZZ

Research Successful

Title (Arial, 60pt)

Field Campaign—Chestnut Site, Kirtland AFB

Double Clad Fiber

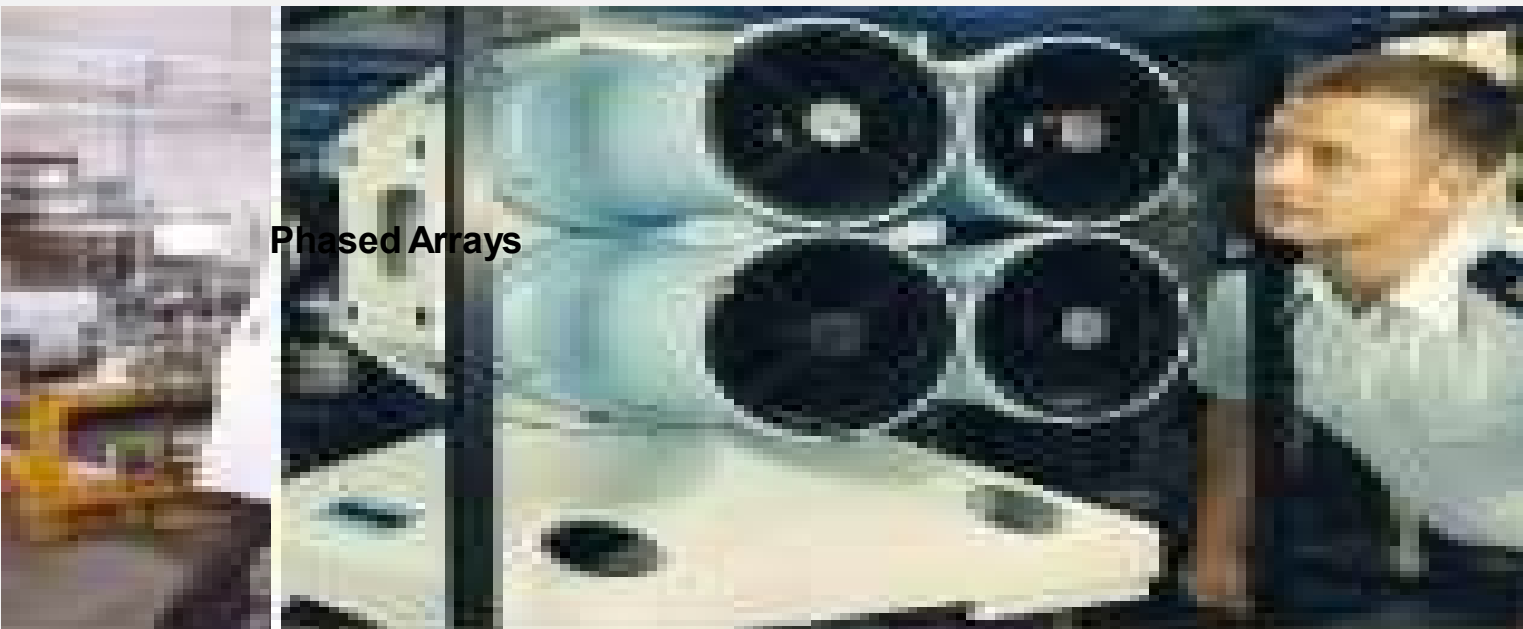


Challenges to scaling linewidth fiber laser amplifiers to high power: Stimulated Brillouin Scattering and Modal Instabilities

Anchoring model with field data

Longest Challenge: Calibration of QWERTY sensor

Progress After First Year



Validating a way to predict turbulence caused by Earth's boundary layer