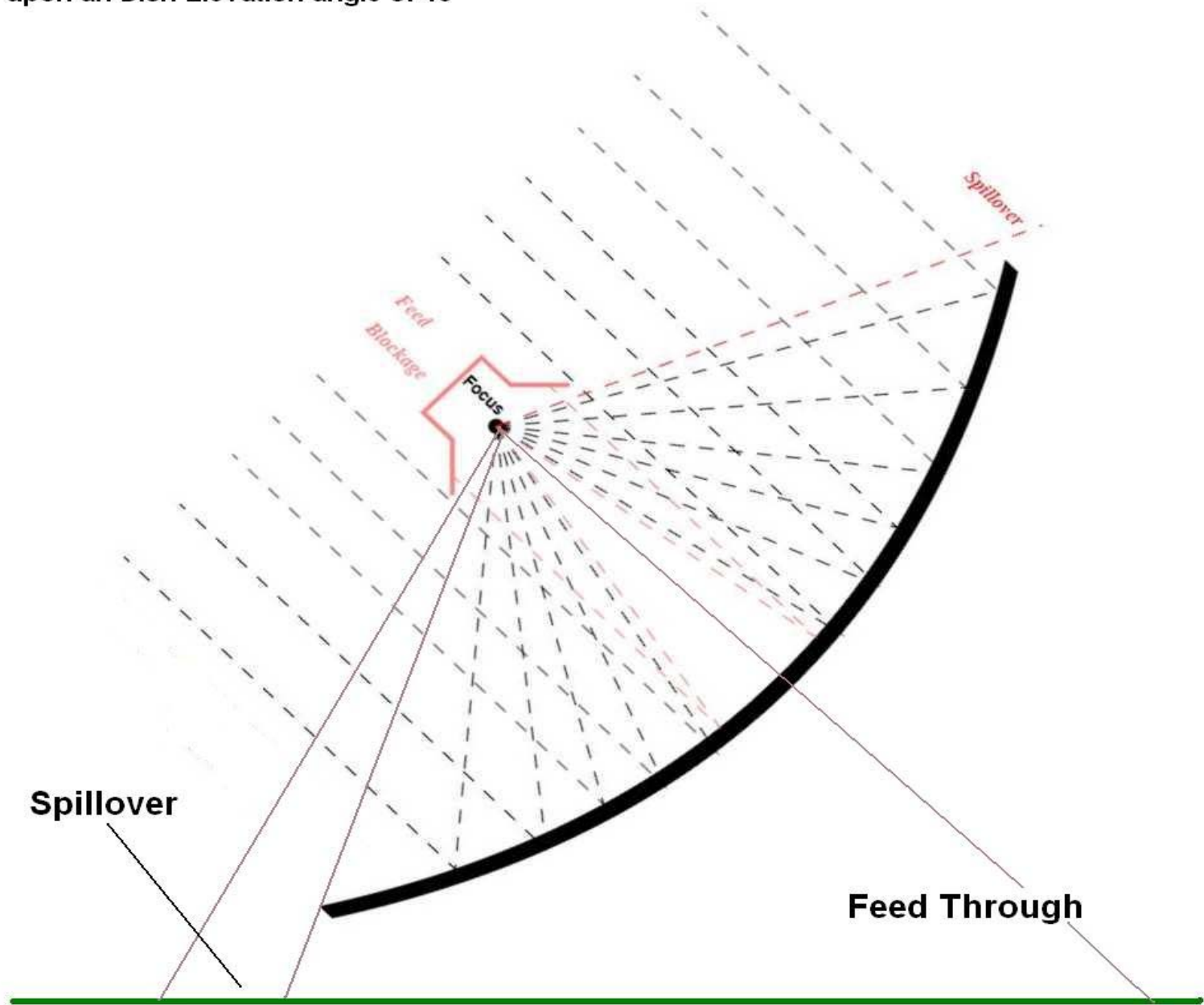


VK3UM EME Performance Calculator

- Overview of Features
- Demonstrate fundamental calculations
 - Receiver Noise Temperature
 - System Noise Temperature
- Sky Noise
 - Galactic Noise .. [Cosmic Microwave Background 3.4°K.]
 - Why is it so important for our calculations.
 - Current Work on using COMRAD Data Base
[304k sources]
 - Determining total Aperture Noise.

- Spill Over and Feed Through
 - Why it is important
 - What is “Edge taper”
 - How to correctly match your dish with a feed to obtain the best performance.

The VK3UM EME Calculator default Spillover and Feed through calculations are based upon an Dish Elevation angle of 45°



PRIME FOCUS FEED

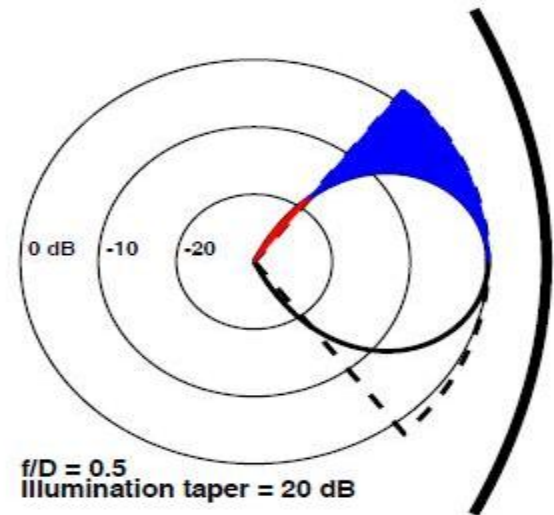
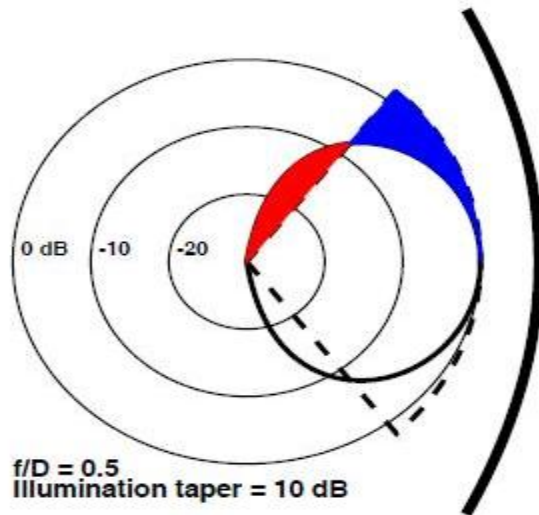
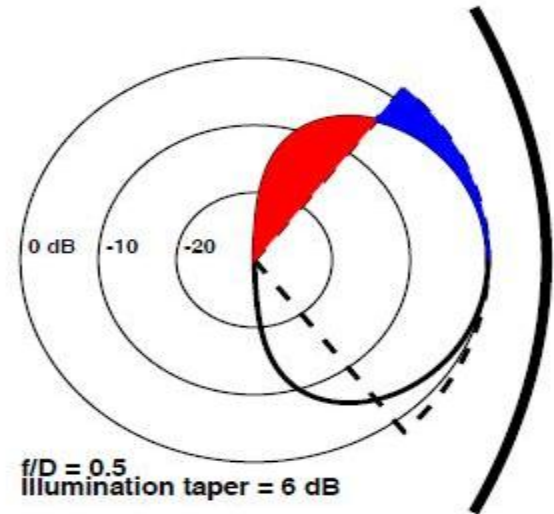
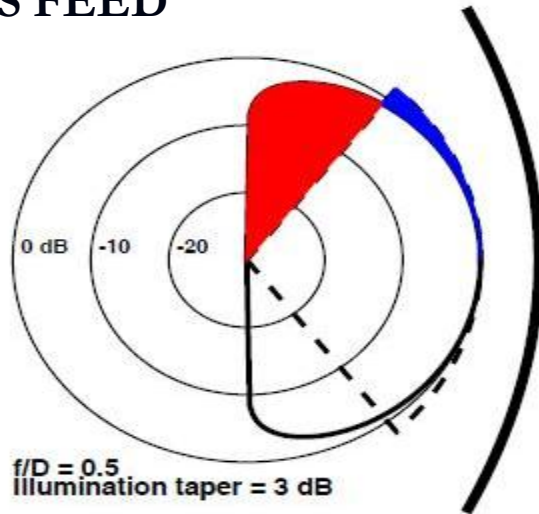
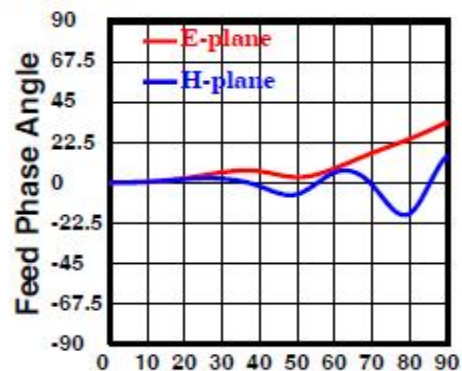
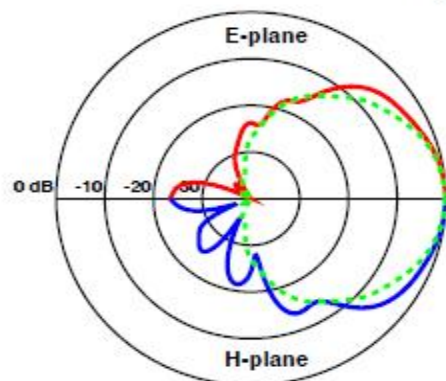


Figure 4-6. Dish Illumination with Various Illumination Tapers

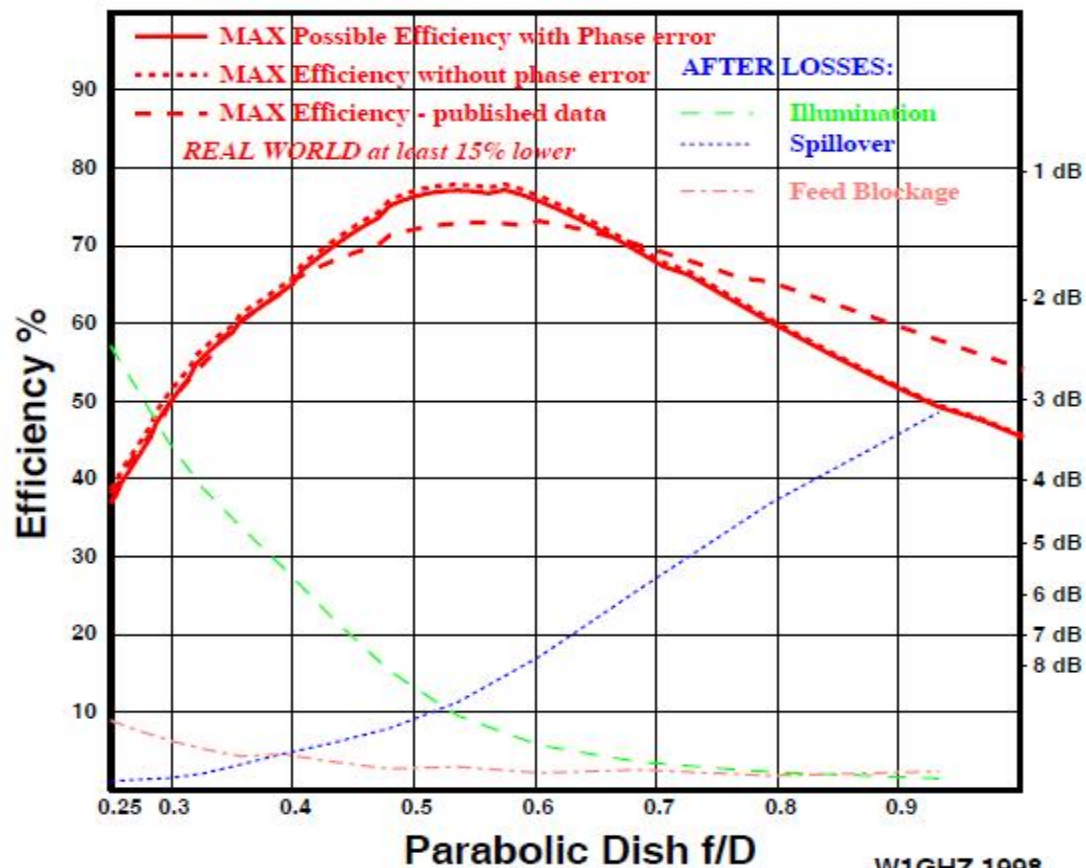
W2IMU dual-mode feedhorn, 1.31λ diameter, by NEC2

Figure 6.5-1



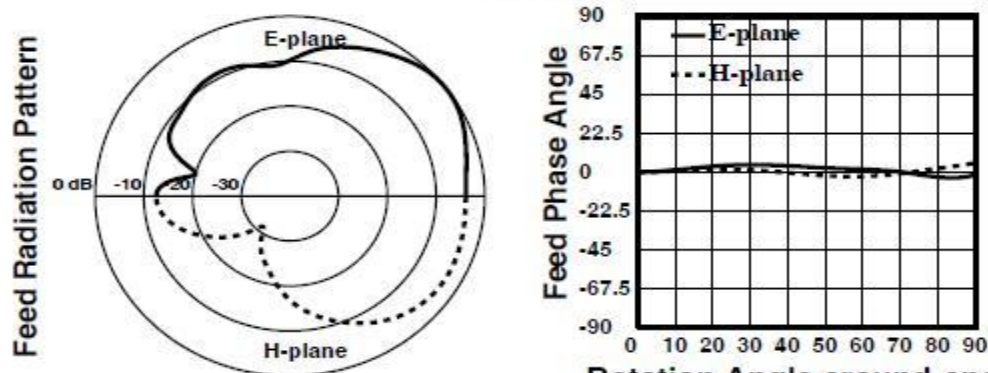
Dish diameter = 13λ Feed diameter = 1.3λ

Rotation Angle around specified Phase Center = 0λ beyond aperture



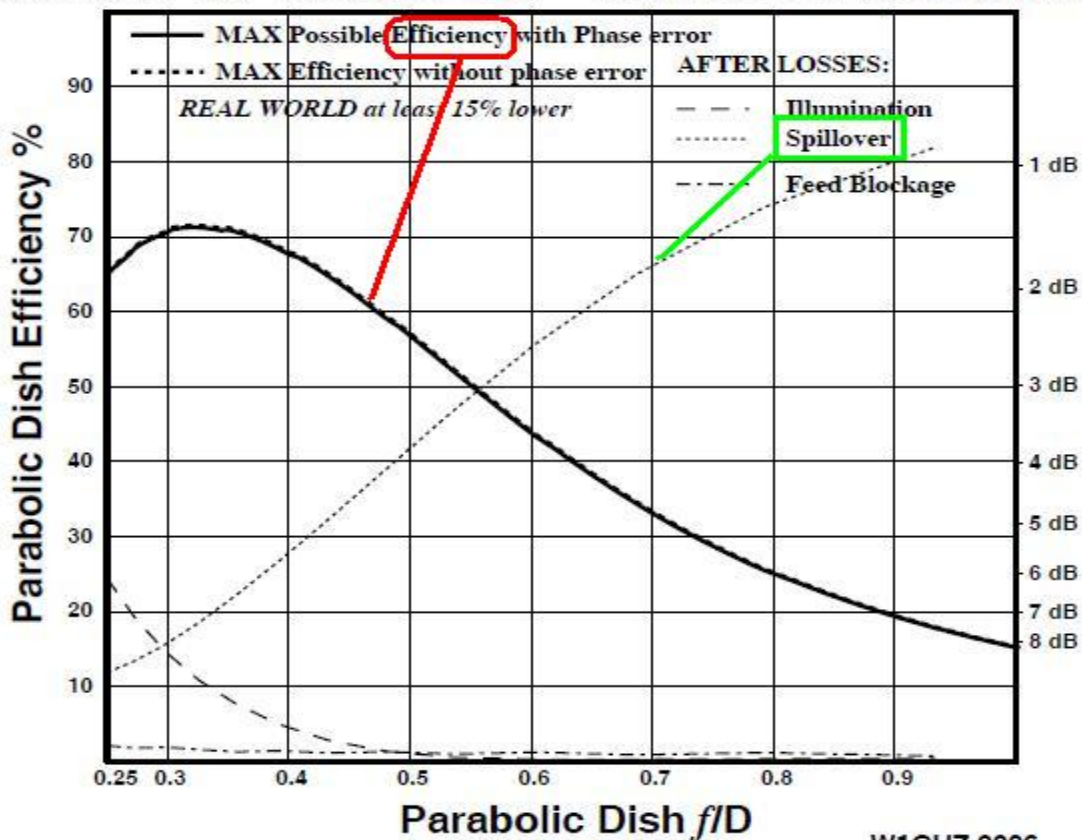
Original VE4MA Feed 0.77λ horn diameter
 Ring 0.50λ wide x 0.50λ deep, 0.15λ behind rim

Figure 3



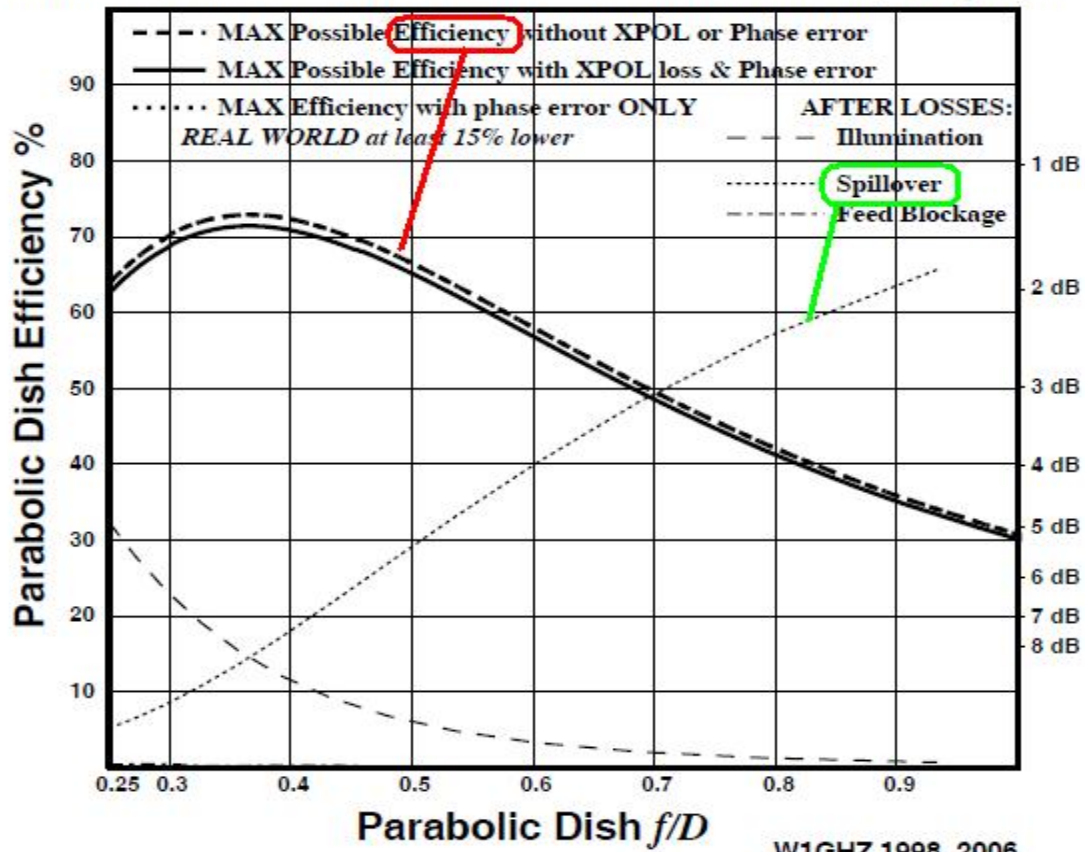
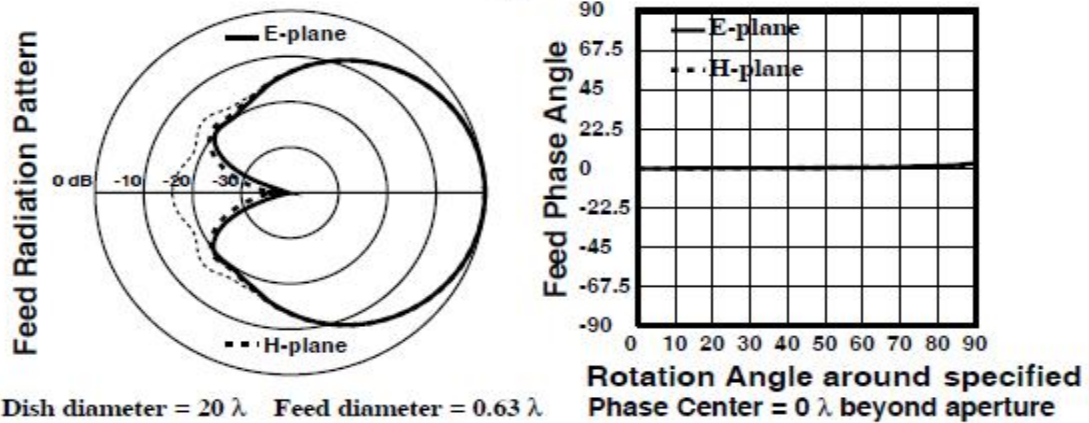
Dish diameter = 20λ Feed diameter = 1.7λ

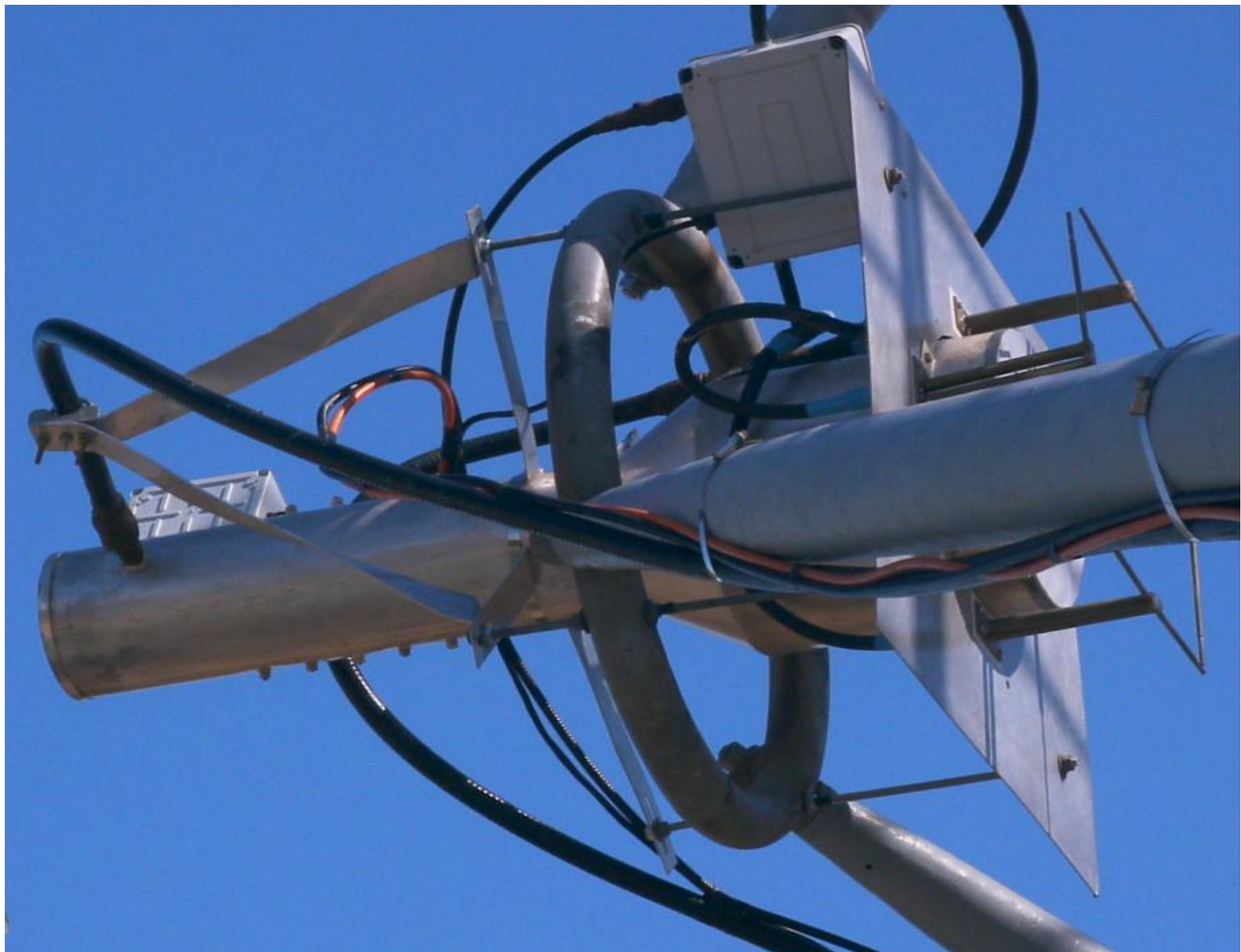
Rotation Angle around specified
 Phase Center = 0.014λ beyond aperture



OK1DFC square septum feed

Figure 32





Now back to the
demonstrations again!