



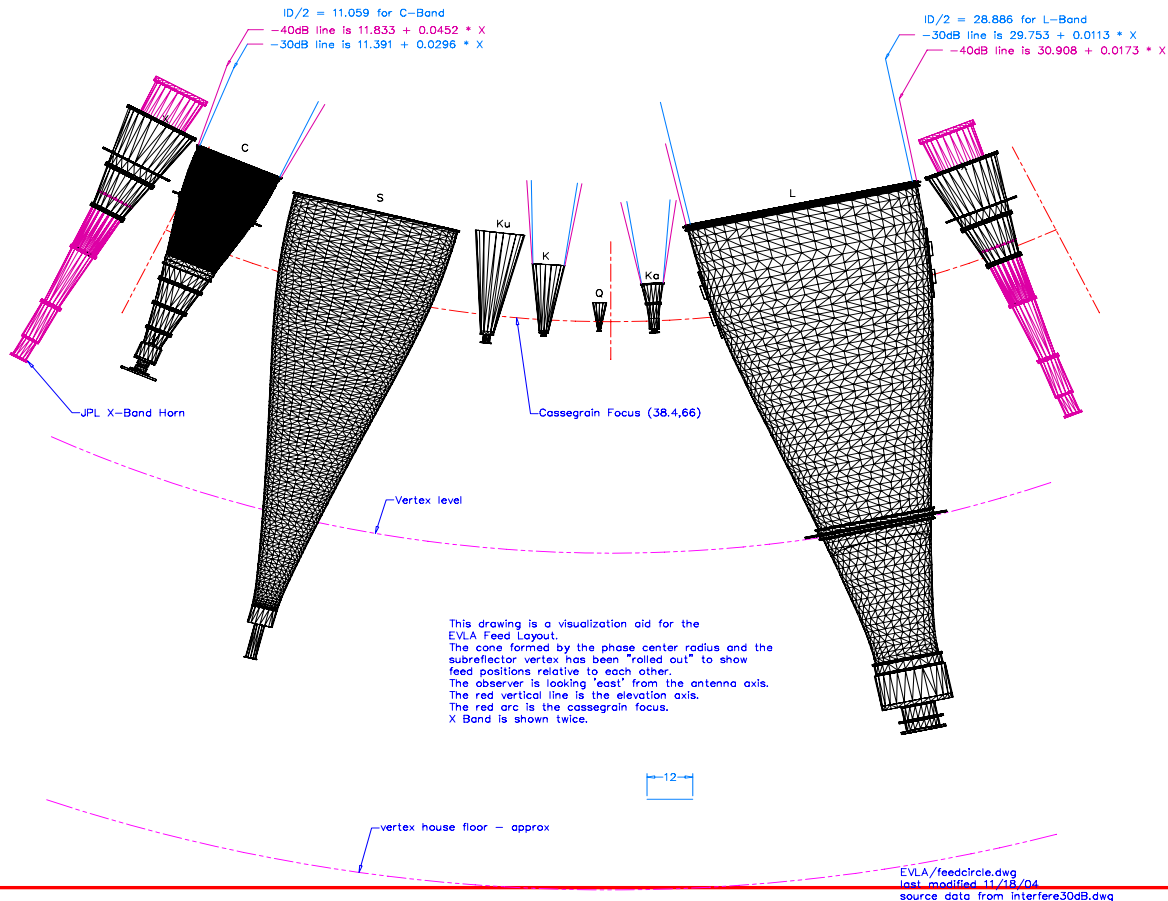
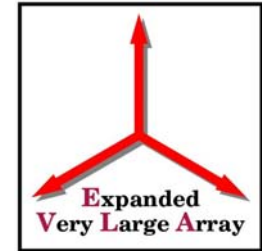
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# EVLA Front-End CDR

## Feed Circle & Receiver Mounting

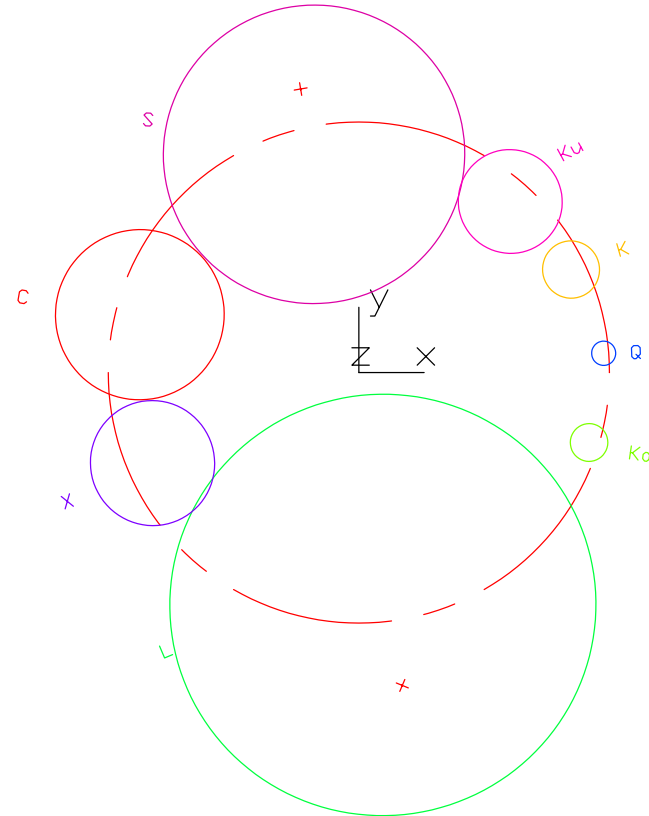
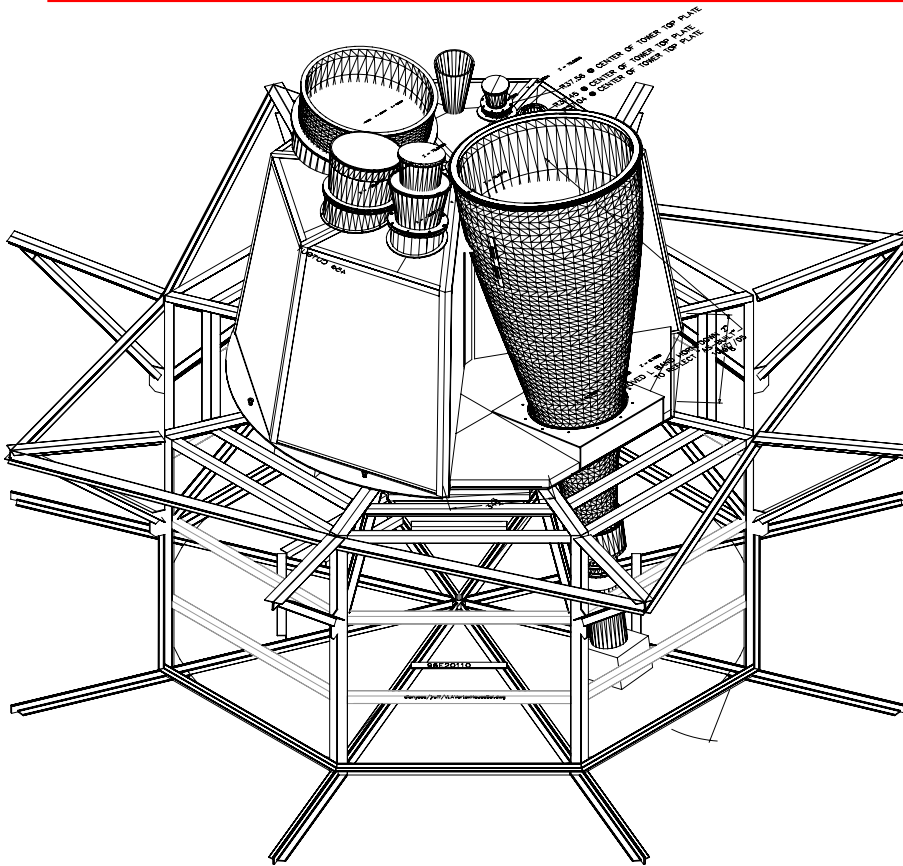
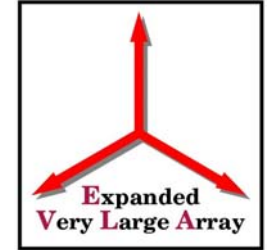


# Flattened Feed Circle Layout





# Feed Circle Layout



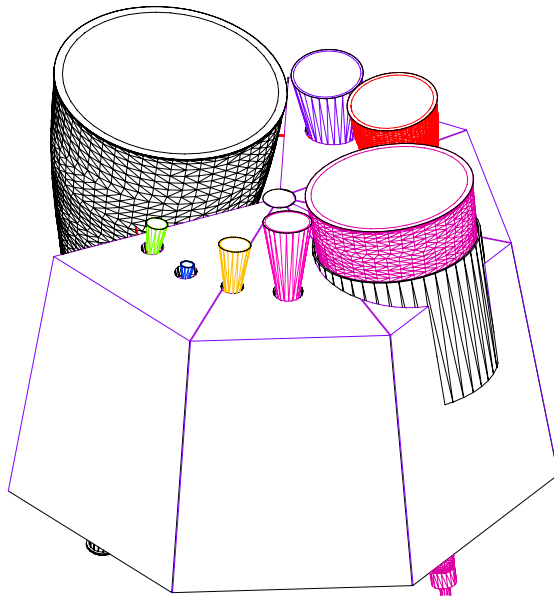


# Vertex Cabin





# Vertex Cabin



- Each Feed is Tied into the Vertex Cabin Except the L-Band
- The Size and Receiver Weights Determine the Mounting Method for the Feeds and Receivers



# Receiver Weights



Receiver Weights	
Receiver	Weight (lbs)
L	173
S	TBD
C	84
X	49
Ka	TBD
K	76
Ku	TBD
Q	79
Chuck Kutz	205



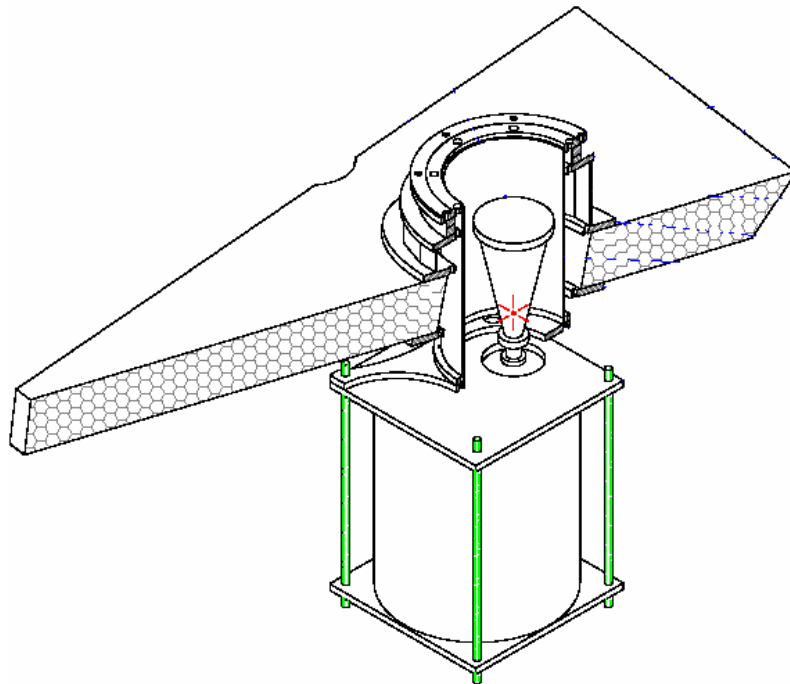
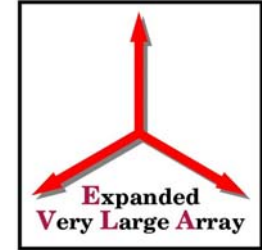
# Receiver Mounting



- 
- Three Options for Receiver Mounting
    - Fully Fixed to Vertex Cabin
    - Fixed to Feed and Fixed to Vertex Cabin
    - Fixed only to Feed



# Receiver Mounting Q and Ka

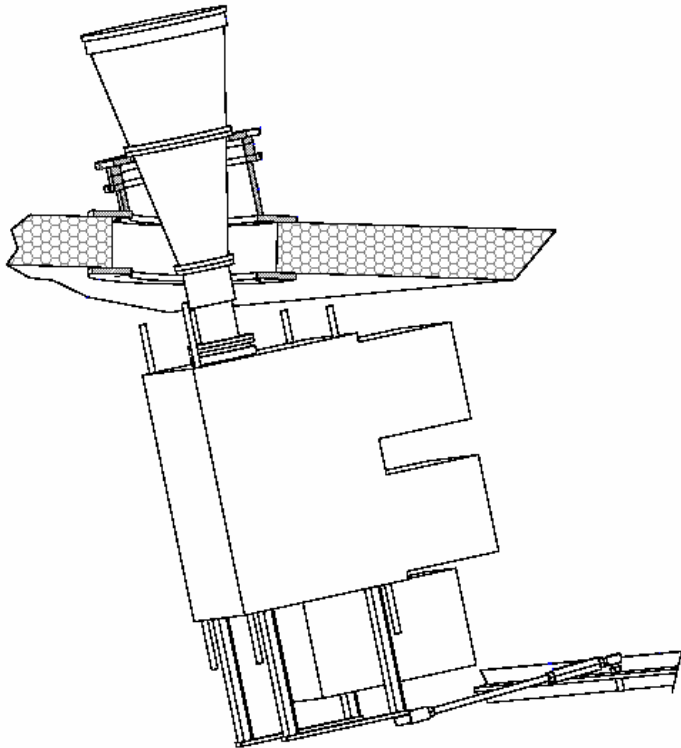


- The Receiver is Directly Mounted to the Feed Tower.
- The Feed Holds No Structural Load
- The Receiver is Attached to Side of Vertex Cabin
- No Major Stress Concentrations





# Receiver Mounting K and Ku



- Feed Attached to the Feed Tower
- Receiver Attached to the Vertex Cabin Wall
- No Significant Stress in Feed



# Receiver Mounting

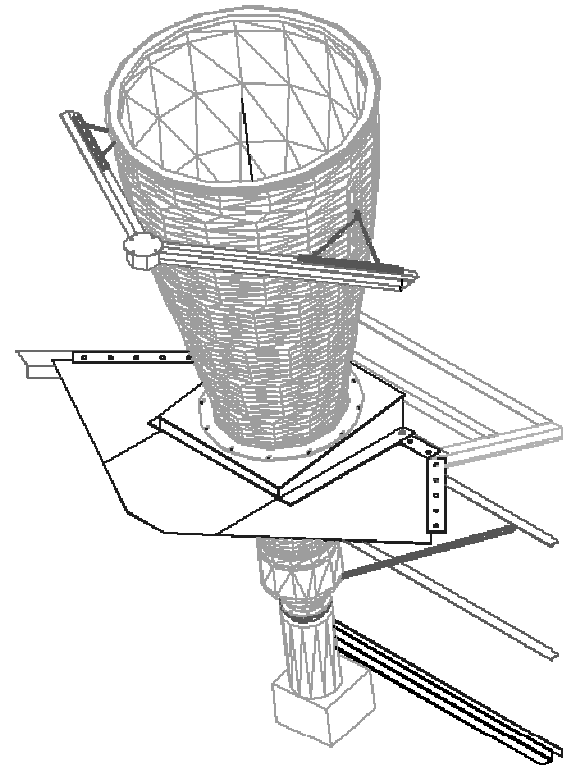




# Receiver Mounting L S C X

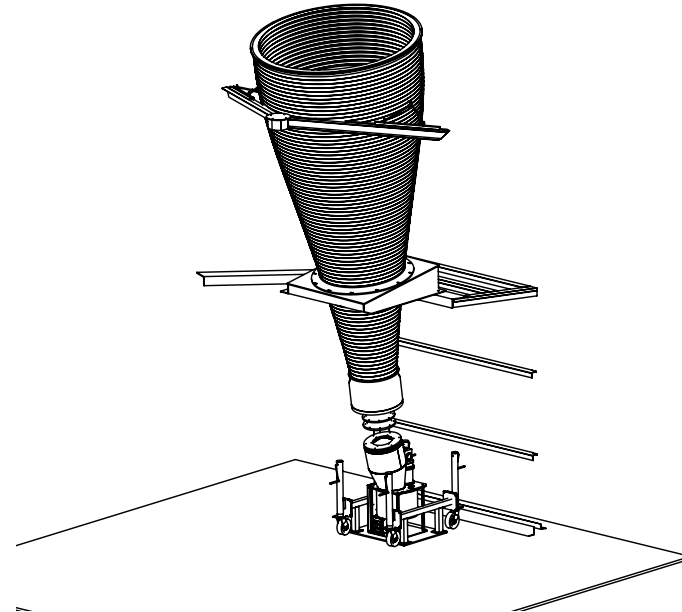
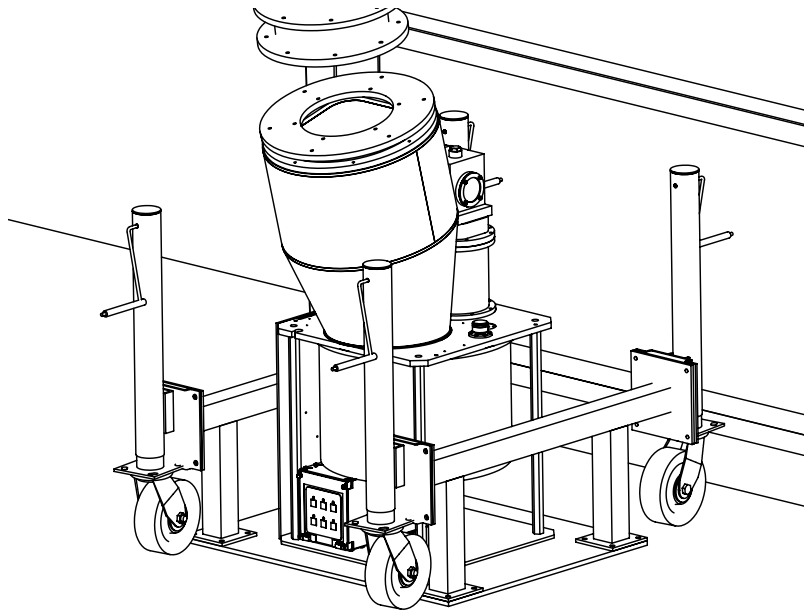


- The Feed is Secured at the Mounting Flange and the Throat Section
- The Receiver is Attached Solely to the Feed





# Mounting the L-Band





# Keeping the Feeds Dry Radome

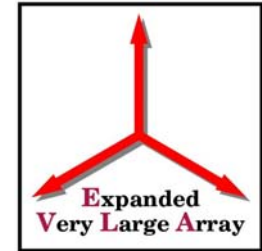


- Sealing The Feeds
  - All Feeds or Feed Towers are Sealed with Radome to Keep Moisture Out
- Types of Radome
  - Esscolam 10 for L, S & C
  - Gore RA7906 for X, Ku & K



# Keeping the Feeds Dry

## Dry Air Systems



- All Metal Feeds  
Sealed with O-Rings
- Desiccants
- Dry Air Compressors
  - Costly
- Positive Pressure  
Vertex Cabin
  - Experimental

