

# Contest Station Layout & Design



**NCCC Contest Academy  
Session A  
International DX Convention  
Visalia California  
April 19 2013**

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**Contest Academy**

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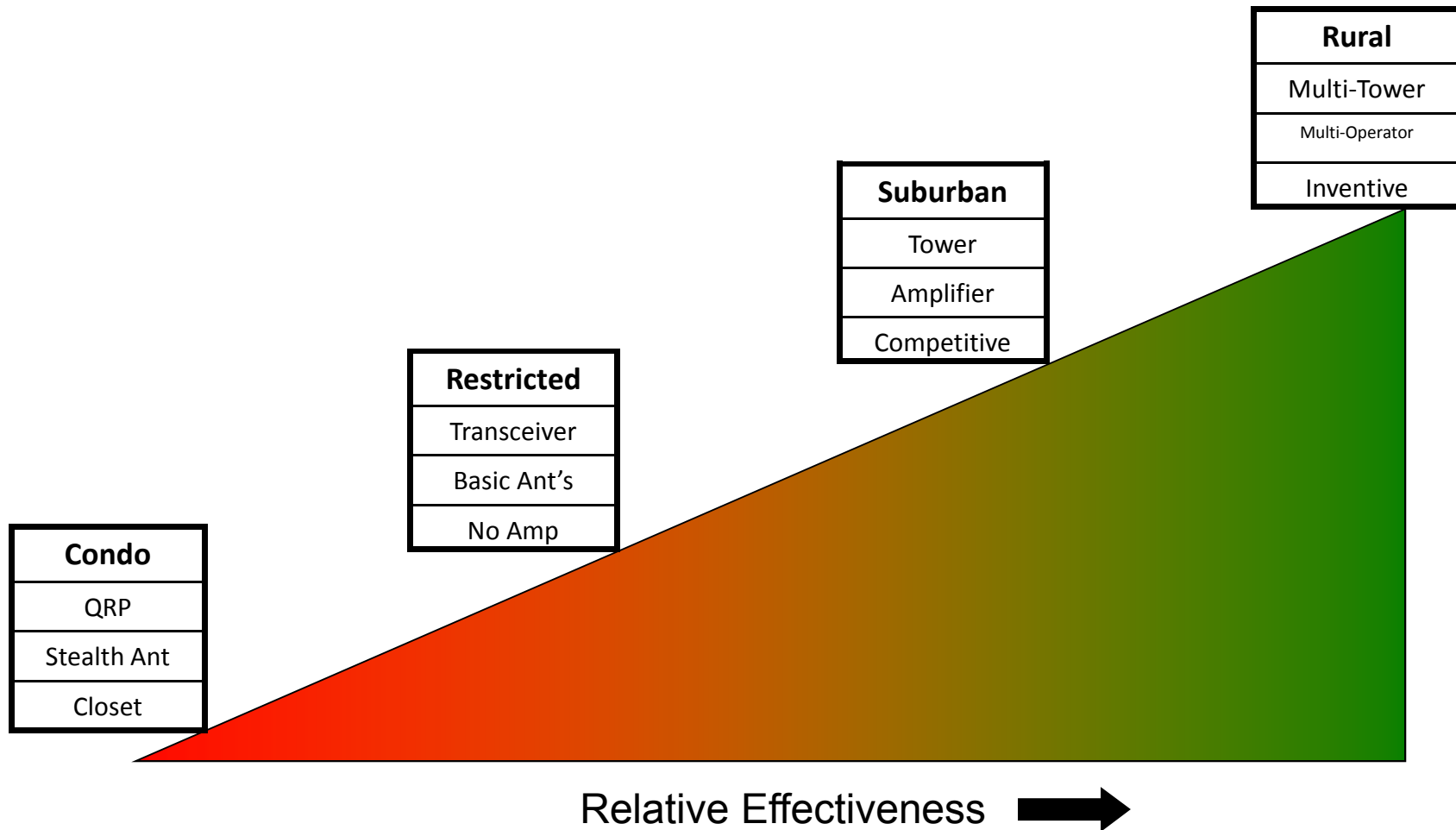
- Defining Your Needs and Requirements
- Scalability: Now and the Future
- Station Layouts
- Antenna Layouts

# Incontrovertible Truths for Contesters

- There is no such thing as being loud enough
- Technology compels us to upgrade our equipment every year
- Competition forces us to build more, bigger and higher antennas
- There ARE contests every weekend
- He who dies with the most toys, WINS!



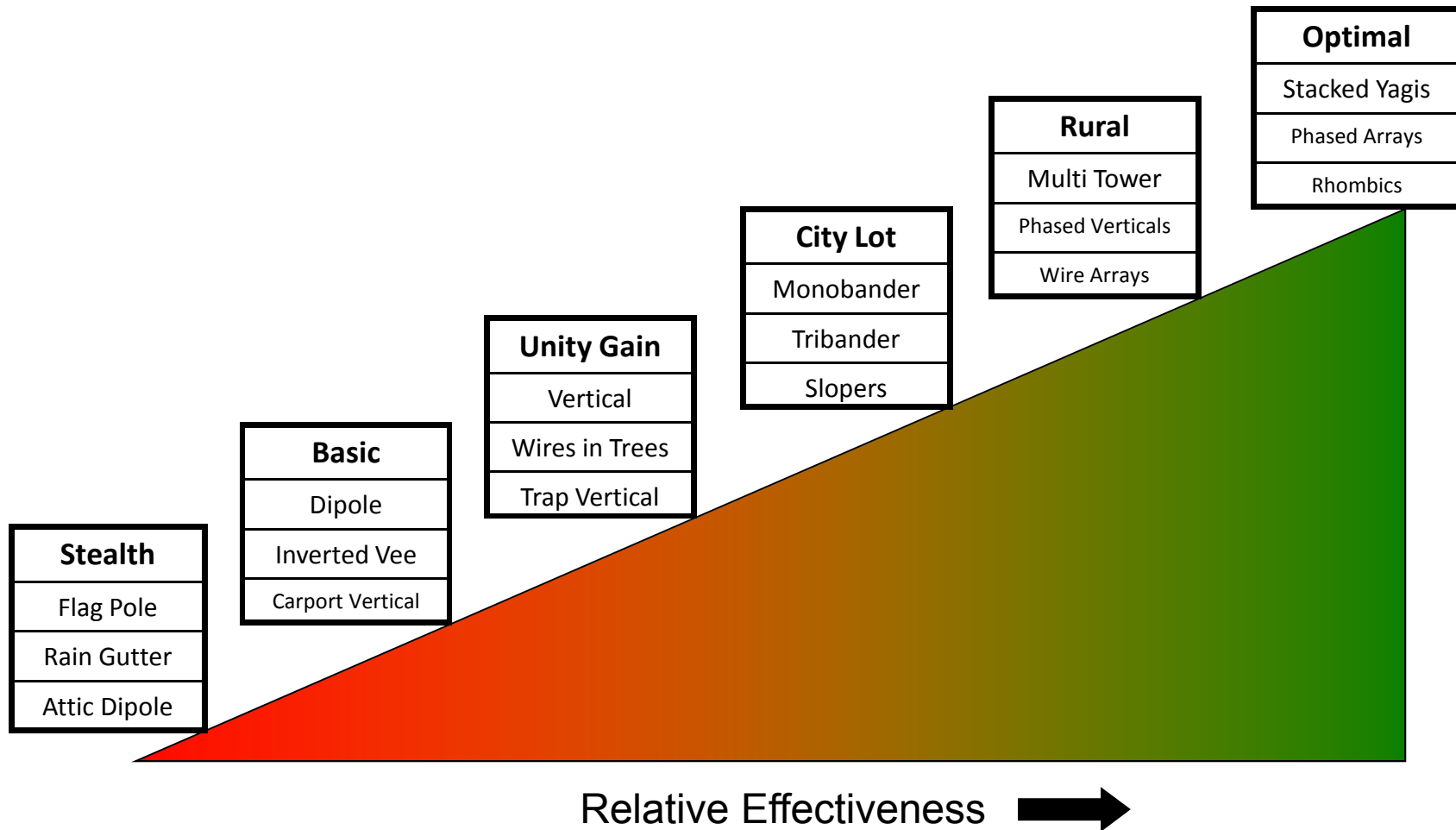
# Defining Needs Environment



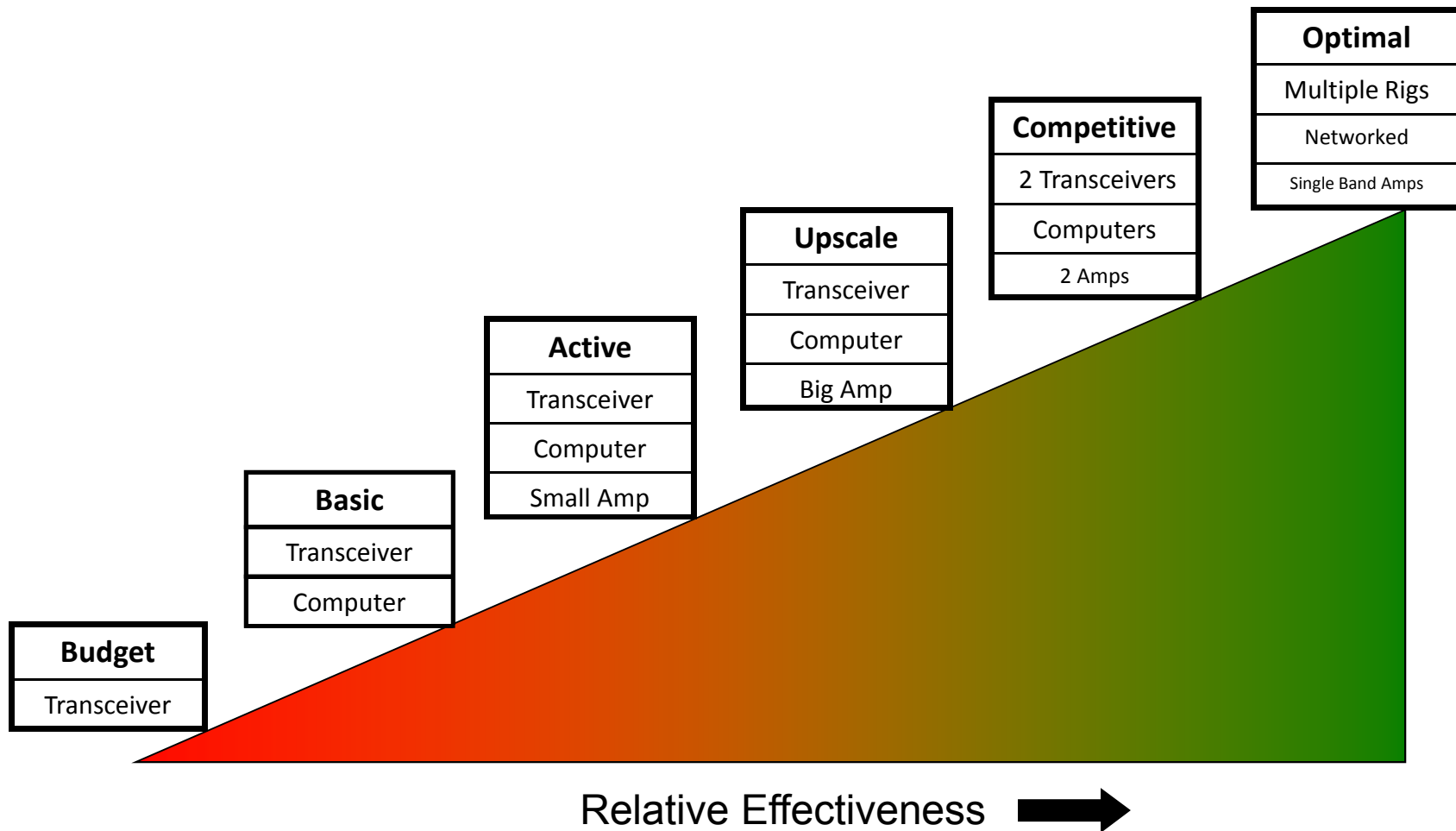


# Defining Needs

## Antennas

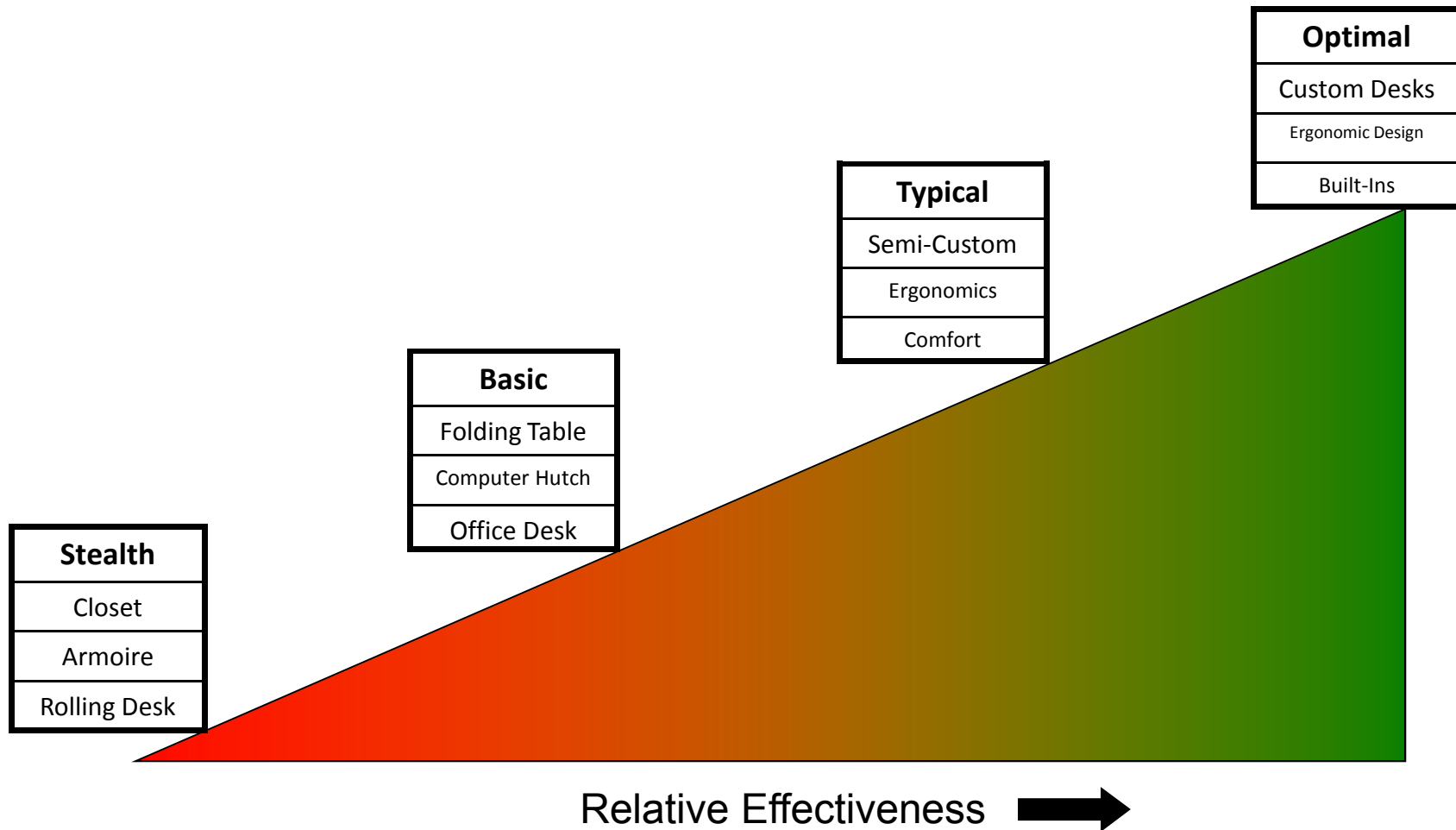


# Defining Needs Equipment



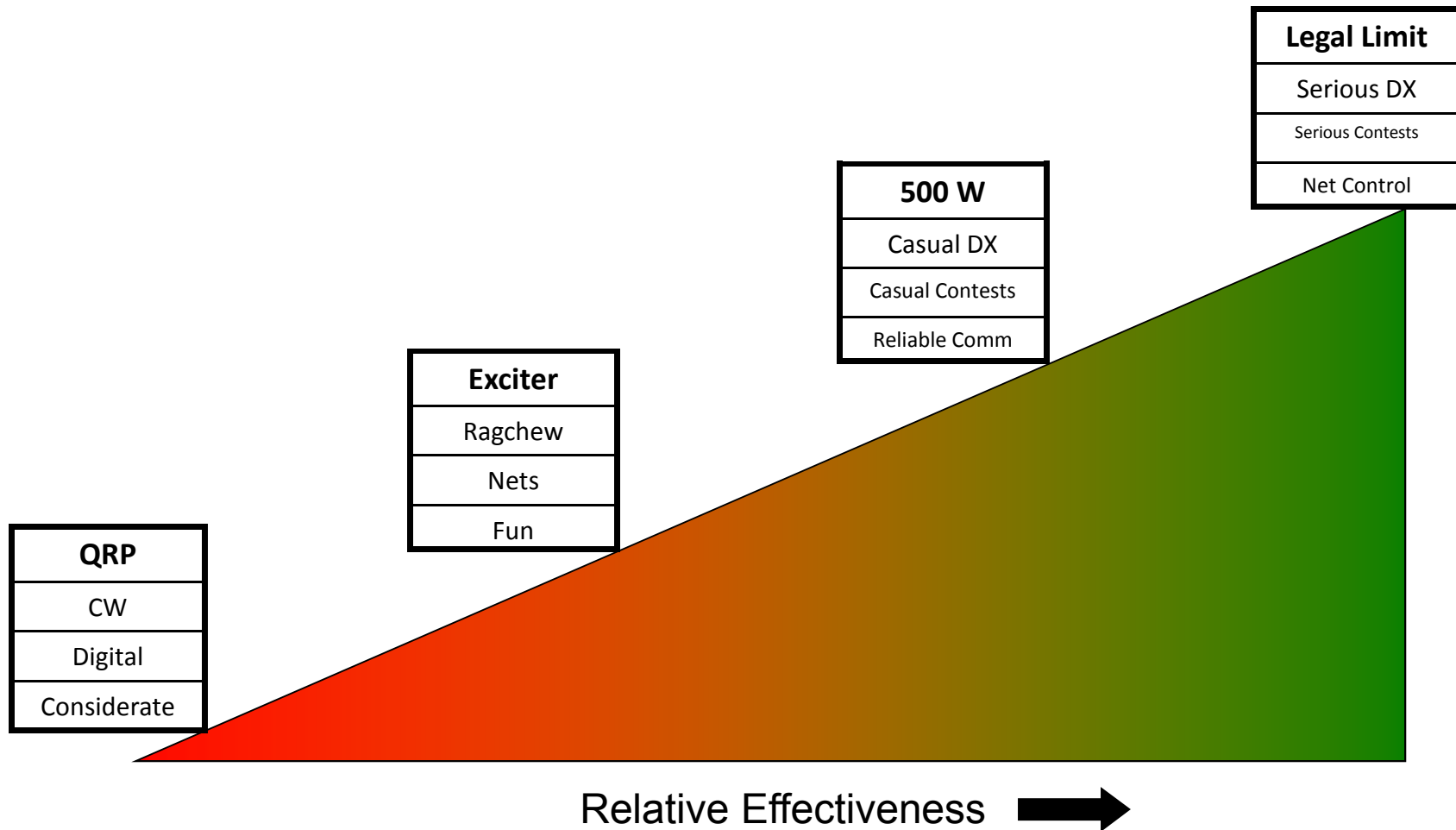
# Defining Needs

## Operating Setup



# Defining Needs

## Power Level



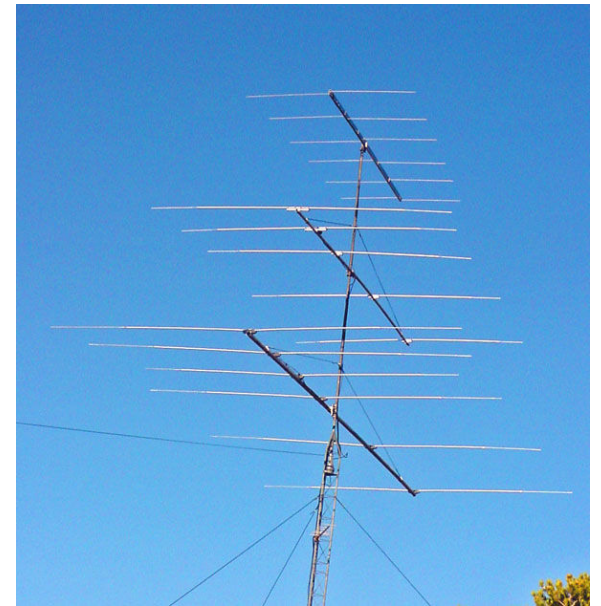
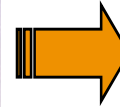
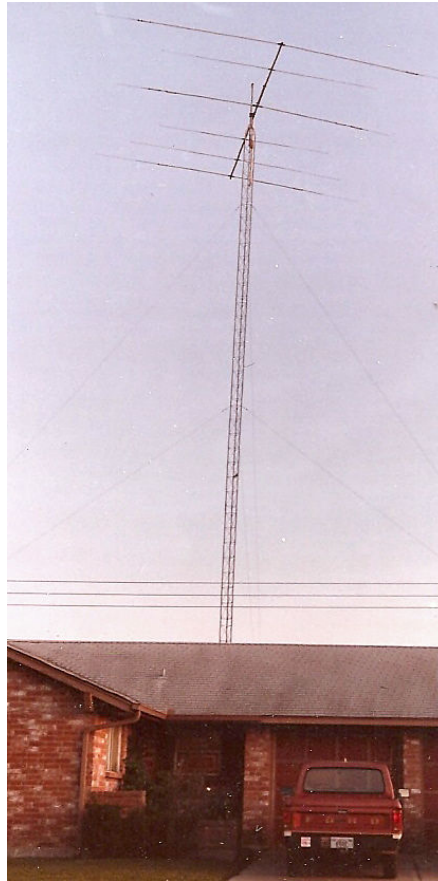
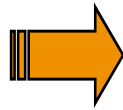
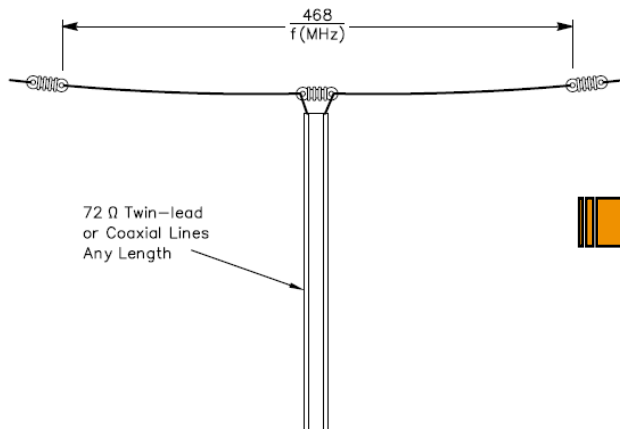
# Defining Needs

## Now and the Future

	Budget – Basic	Active	Upscale – Competitive	Optimal
Equipment	Older Transceivers QRP Rigs Homebrew	Newer-Used Transceivers Legacy Equipment	Full-Featured Rigs Peripherals Standard Amps	Multiple Rigs Automation Rugged Amps
Antennas & Supports	Stealth Dipoles in Trees Verticals	Small Tribander Small Crankup Tower Inverted Vees	4-Band Tribander Tall Tower Slopers	Single Band Yagis Multiple Towers Phased Arrays
Station Design	What is Available	Comfort and Convenience	Ergonomic and Comfortable	Optimized for Performance
Compatible Activities	QRP, CW, Digital, Satellite	All Modes Fun in Contests Casual DXing	All Modes SO2R Contesting Serious DXing	Experimental Multiop Contesting Push the Envelope
Scalability	Requires a basic change in priorities and resources or Guest Op	Upgrade Radios Add Amps Add Peripherals	Usually requires selecting a Radio QTH	As the imagination and budget allow

# Scalability

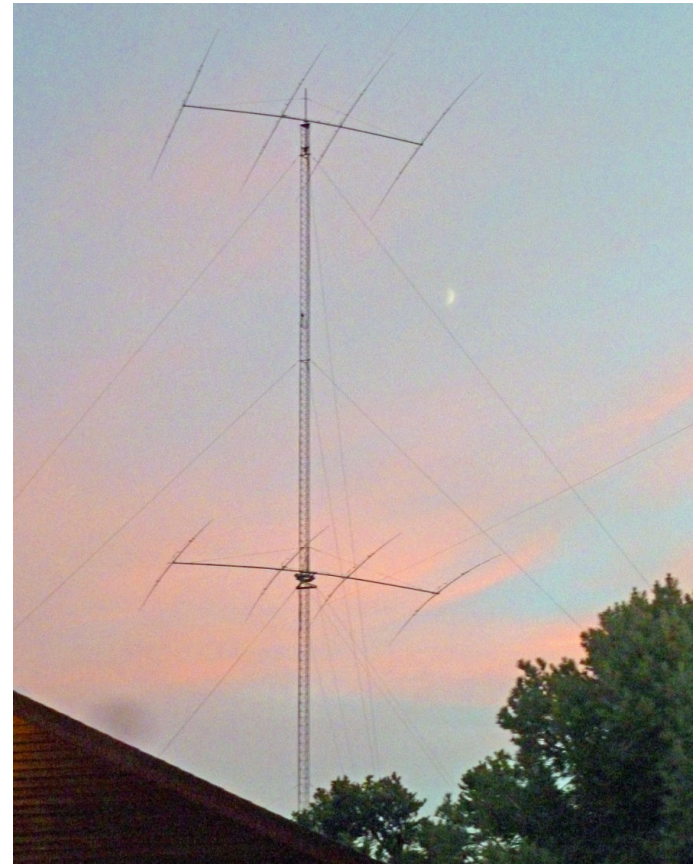
## The Next 3 db Theory



# What About The NEXT 3db on 40?



3 el Telrex 40@ 140' @ K5RC



4 over 4 on 40 on 140' Tower at W7RN



# Big Signal = Big Risk



# A Basic Contest Station



# Basic QRO



# High End





# Obsessive-Compulsive (SO6V)



W7RN Main Position

# Station Layouts





# Station Layouts





# Station Layouts – “SO2R”



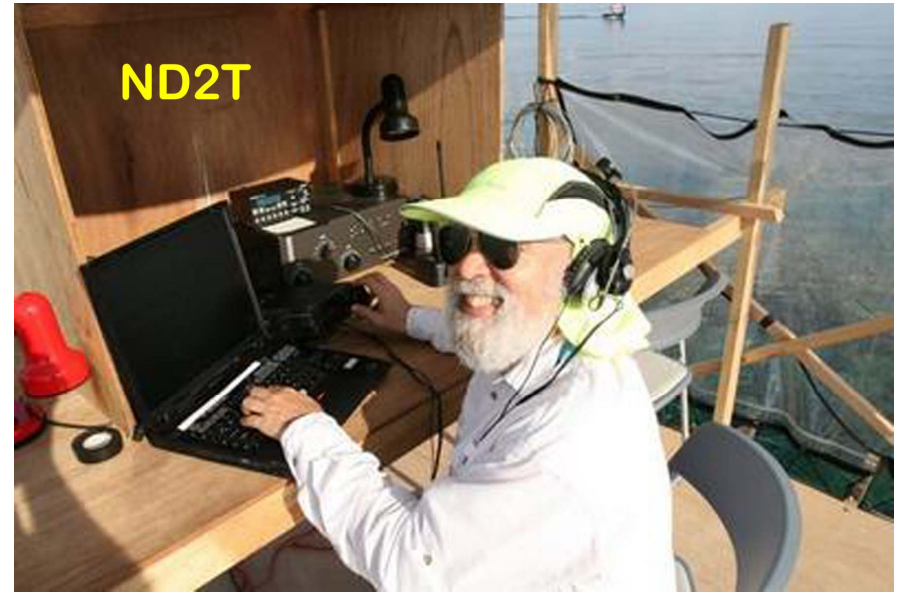


# Station Layouts





# Alternative Station Layouts





# Antenna Layouts

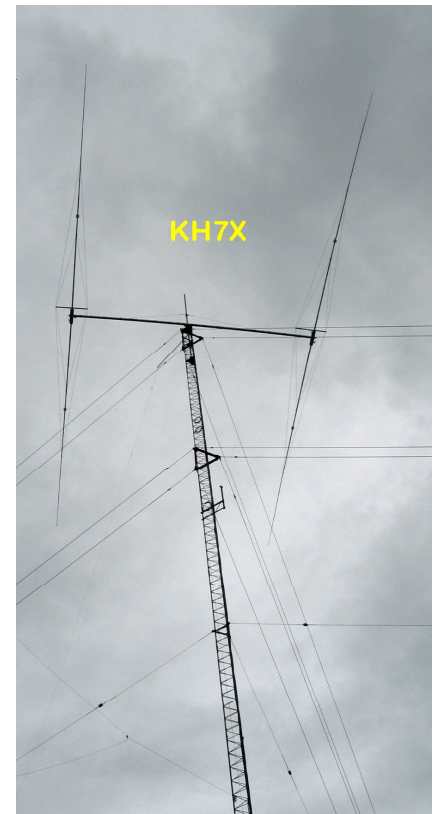


# Antenna Layouts



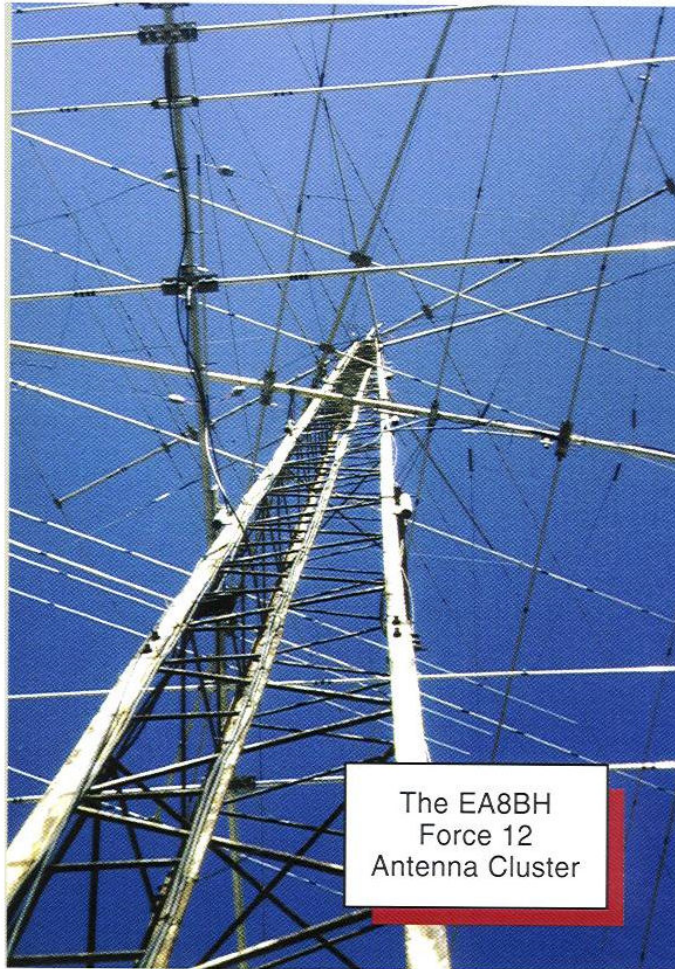


# Antenna Layouts





# Alternative Antenna Layouts





# Innovation



# Review

- Defining Your Needs and Requirements
- Scalability: Now and the Future
- Station Layouts
- Antenna Layouts



# And Remember...

## It's Just a Hobby!

