

## The MA5B, Small Footprint—Big Signal

**MA5B.** Cushcraft's newest multiband HF antenna provides 5 band operation in a package small enough to mount to a tripod. The MA5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.

- I am delighted with the performance compared with other HF antennas I have been using!  
*Bob Swannell, MOBYA*
- Thank you for making a fine quality, powerful mini beam that can fit anyones budget.  
*Phil West, KF2WL*

SPECIFICATIONS	MA5B				
Frequency, Bands:	10	12	15	17	20
Elements per Band:	2	1	2	1	2
Gain dBi:	5.3	2	4.8	2	3.6
Front to Back Ratio dB:	10	0	12	0	22
Sidelobe Attenuation dB:	25	25	25	25	25
VSWR 2:1 Bandwidth, KHz:	665	>110	255	>100	90
Longest Element:	17.1ft (5.2m)				
Turning Radius:	88ft (2.7m)				
Boom Length:	7.3ft (2.2m)				
Boom Diameter:	1.5in (3.8cm)				
Max. Wind Surface Area:	3.22ft <sup>2</sup> (3m <sup>2</sup> )				
Max. Power Watts PEP:	1200W				
Weight::	26.5 lbs. (12kg)				

- **Easy To Tune**  
No complicated gamma matches to adjust
- **Low VSWR**  
Flat response across all 5 bands. VSWR minimum 1.2:1.
- **Single Feed Point**  
Only one coaxial feed line is necessary for all 5 bands.
- **Rugged Construction**  
Cushcraft's tried and true stainless steel mounting hardware and heavy wall aluminum tubing make for a rugged, long lasting antenna.
- **Easy To Turn**  
With a boom length of 7 feet and a longest element length of 17 feet, a lightweight TV rotor will do the trick.

High Front To Back Ratio  
On 10/15/20m

# BIG THUNDER TRIBANDER

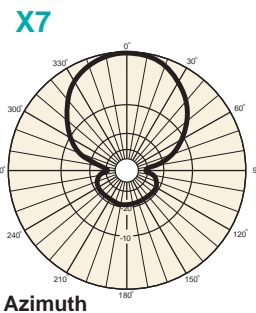


## X7

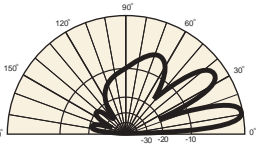
The X7 Triband Yagi is geared to set new standards in both radiating performance and mechanical reliability. Cushcraft's product development team has employed the latest computer modeling technology to achieve a superior electrical design as well as elegant new mechanical hardware and assembly techniques.

Each mechanical component was designed to 100+ MPH wind survival with a 1.25 safety factor. Traps were eliminated from the high current driven elements and reflectors using the new 4L Log Cell design, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high performance antenna which will easily handle the legal limit.

- ▶ **New High Efficiency Computer Optimized Design for Maximum Gain and Ultra Clean Radiating Pattern**
- ▶ **100+ MPH Construction for Best Reliability and Long Life**
- ▶ **NEW 4L Log Cell Driven Elements for better VSWR Bandwidth**
- ▶ **Trapless Driven Elements and Reflectors for Reliable Power Handling**
- ▶ **Interleaved Element Design for Mono-Band Performance**
- ▶ **Add-on kits available for 40 Meters**



**Azimuth**  
Typical radiation patterns.  
Height: One wavelength.  
Frequency: 20 M

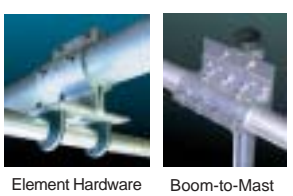


**Elevation**

SPECIFICATIONS	X7
Frequency Coverage (Meters):	10, 15, 20
Total number of Elements:	7
Maximum Gain (dBi):	20M 12.5 @ 14 deg 15M 13.0 @ 12 deg 10M 12.9 @ 14 deg
Maximum Front to Back Ratio (dB):	30
Number of Elements per Band:	3
VSWR at Resonance:	1.1:1
VSWR 1.5:1 Bandwidth (KHz):	20M 600 15M 750 10M 1700
Longest Element, ft (m):	37.2 (11.33)
Turning Radius, ft (m):	20.0 (6.09)
Boom Length, ft (m):	18 (5.49)
Boom Diameter, in (cm):	2-1/2 (6.35)
Maximum Mast Diameter OD, in (cm):	2-1/2 (6.35)
Maximum Wind Survival, mph (kph):	>100 (>161)
Maximum Wind Surface Area, ft <sup>2</sup> (m <sup>2</sup> ):	7.9 (7.3)
Windload @ 80 mph, lb (kg):	202 (92)
Maximum Power Watts PEP:	1500
Weight, lb. (kg):	60 (27.2)

40 Meter Add On Kits

MODEL	X740
Band	7 MHz
Element Length ft. (m)	41 (12.5)
Power (W)	2KW
Weight	20lbs. (9.1 kg)



Element Hardware    Boom-to-Mast