Low & Medium Power "T" Antenna System

Application

This antenna is intended primarily for use with low and medium powered Transmitter/Antenna Tuning Unit Systems in the LF and MF bands. It is particularly intended for use with aeronautical and marine non-directional radio beacons (NDBs).

General Description

Basically, the antenna system consists of two interconnected #2 ACSR aluminum elements 150 ft. (46 m) long, laterally spaced on 4 ft. (1.22 m) centers and supported by four high voltage insulators between two towers at ground potential. The RF signal is fed to the antenna via an aluminum jacketed downlead which is connected to both horizontal elements. The location of this connection point is not fixed so the downlead can be installed in the most convenient position for individual site requirements. One end of the antenna is attached directly to the tower, the other end is equipped with halyards which are passed over a set of pulleys fixed to the other tower. These are brought to ground level and attached to an anchor of appropriate weight (customer supplied) to prevent tower overload due to high winds and/or severe icing.

An optional ground plane of 8 - 250 ft. (76 m) 12 AWG copper radials and 35 ft. (10 m) of 8 AWG copper for a central connecting ring is recommended.

Electrical Specifications

Frequency Range

LF and MF bands

Input RF Power Rating

Up to 500 watts average; 2000 watts peak

Maximum RF Operating Voltage KV RMS WET*

20 kV

Antenna Capacity

600 pF

* This figure is maximum recommended under wet conditions. To obtain peak voltage allowed, multiply by a factor of 1.4. If station is 100% amplitude modulated, the voltage with unmodulated carrier should not exceed one half of that shown.

Mechanical Specifications

Recommended Tower Heights

60 ft. (18 m) to 100 ft. (30 m)

Tower Spacing

160 ft. (49 m) minimum

Radiator

Two #2 ACSR aluminum elements, 150 ft (46 m) long spaced horizontally on 4 ft (1.22 m) centers, spreaders, support assemblies etc. constructed of aluminum alloy.

Tower Specifications

To be capable of supporting a 350 lb (159 kg) horizontal force in conjunction with a vertical force of similar magnitude.

Shipping Information

1 crate 42 cm x 126 cm x 26 cm
0.14 m^3
67 kg

Specifications subject to change without notice.

Nautel Limited, 10089 Peggy's Cove Rd, Hackett's Cove, NS, Canada B3Z 3J4 Phone: +1.902.823.2233 Fax: +1.902.823.3183

Nautel Maine Inc, 201 Target Industrial Circle Bangor ME, USA 04401 Phone: +1.207.947.8200 Fax: +1.207.947.3693

Low & Medium Power "T" Antenna System

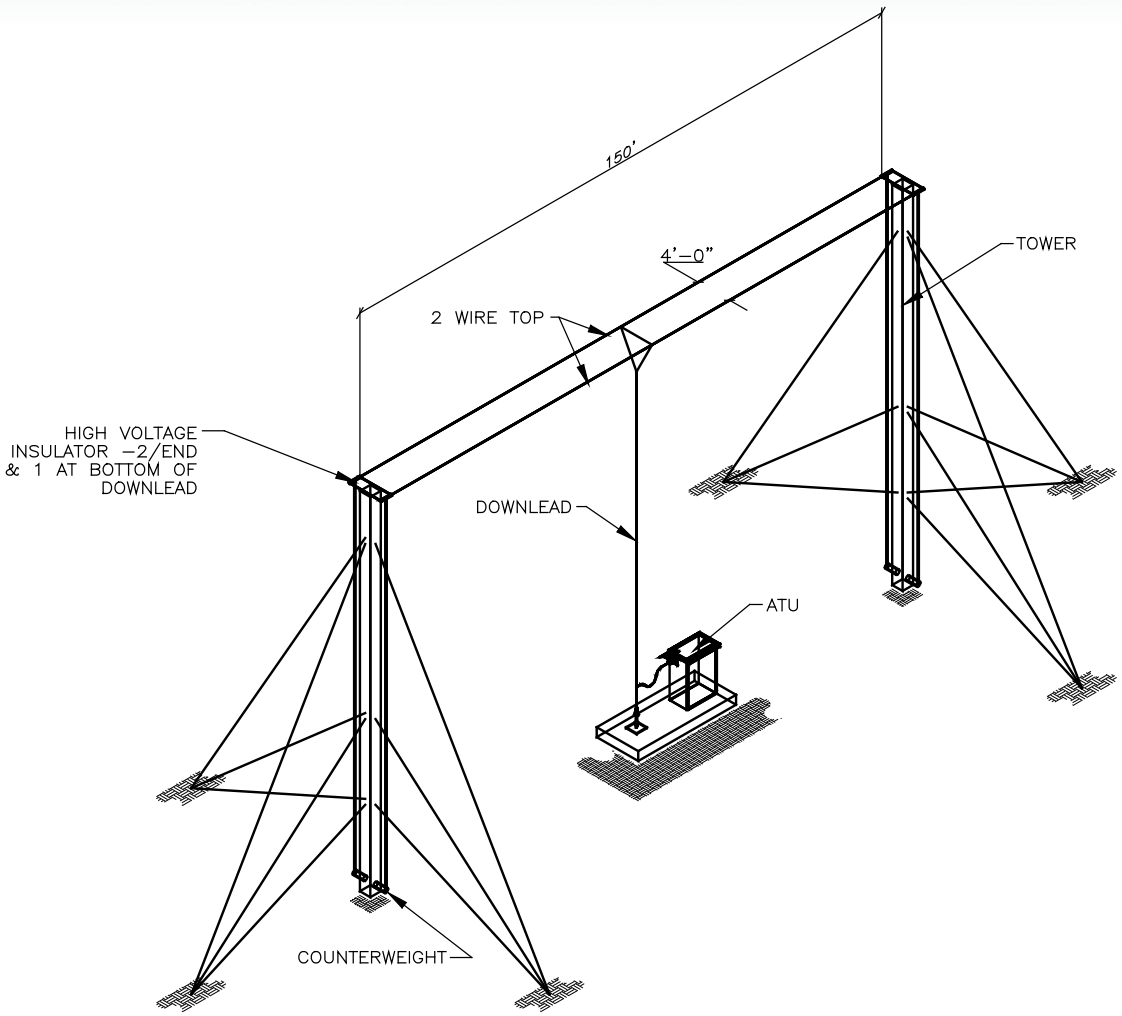

Diagram I - Two Wire Flat Top Antenna

Nautel Limited, 10089 Peggy's Cove Rd, Hackett's Cove, NS, Canada B3Z 3J4 Phone: +1.902.823.2233 Fax: +1.902.823.3183

Nautel Maine Inc, 201 Target Industrial Circle Bangor ME, USA 04401 Phone: +1.207.947.8200 Fax: +1.207.947.3693