

- 1 - WIRE LOOP
- 2 - FEEDER
- 3 - PINS TO SET
- 4 - TUNING BOX
- 5 - TUNING KNOB
- 6 - TUNING INDICATOR
- 7 - T JUNCTION

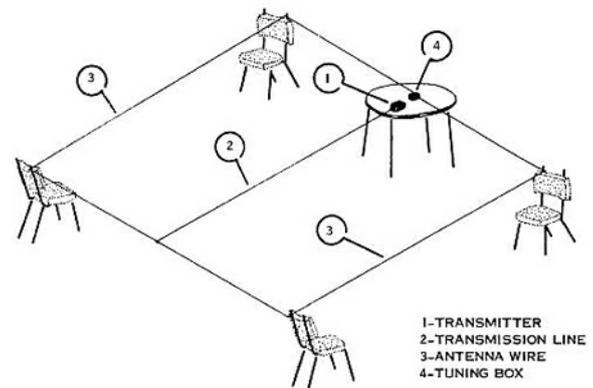
### AN-58 Country of origin: USA

#### DATA SUMMARY

**Organisation:** Central Intelligence Agency.  
**Design/Manufacturer:** Unknown USA production.  
**Year of Introduction:** Estimated mid 1960s.  
**Purpose:** Indoor loop aerial for low power (agents) transmitters and receivers.  
**Circuit features:** Tuned loop wire aerial using a tuning box.  
**Frequency coverage:** A basic AN-58 with 40ft loop covered 4-9MHz and cut to size for a higher frequency.

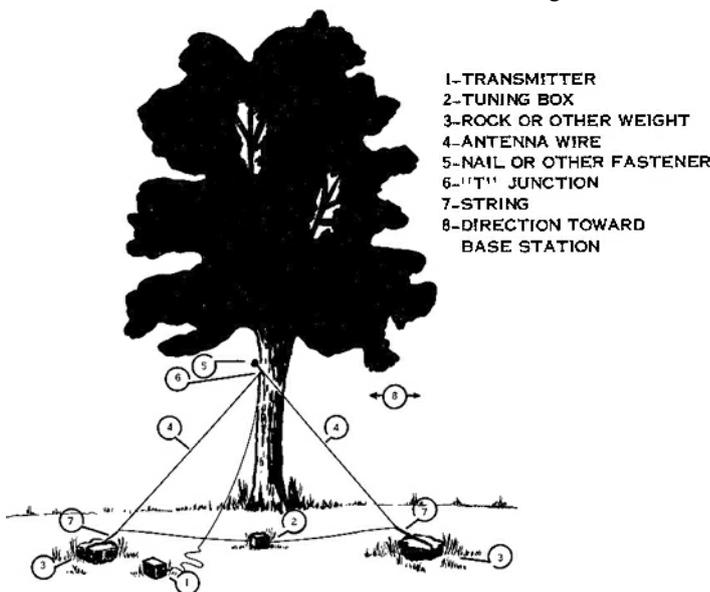
Length of loop wire	Frequency range
40 ft	12.2 M 4.0-9.00 MHz
35 Ft	10.7 M 4.5-10.2 MHz
30 Ft	9.16 M 5.0-11.3 MHz
25 Ft	7.63 M 5.5-13.2 MHz
20 Ft	6.1 M 6.0-16 MHz

Loop aerial AN-58 was designed for use with a low power transmitter of 5 to 10W RF output but could also be used for reception. It was principally intended for indoor but might be used outside under dry weather conditions as the tuning box was not waterproof, rather fragile and not suitable to withstand rough handling. The loop could be erected horizontally or vertically in the shape of a square, triangle or a diamond, providing that all sides should be of equal length. The AN-58 was comprised of a wire loop, a feeder with two connecting pins and a tuning box. The latter had a tuning knob and a neon lamp for tuning to maximum brilliance.



- 1-TRANSMITTER
- 2-TRANSMISSION LINE
- 3-ANTENNA WIRE
- 4-TUNING BOX

Recorded was the issue of AN-58 loop aerials and a 100ft emergency wire aerial with RT-48 agents transmitters. (See Chapter 115). It may be assumed that the AN-58 was issued with other similar agents sets.



- 1-TRANSMITTER
- 2-TUNING BOX
- 3-ROCK OR OTHER WEIGHT
- 4-ANTENNA WIRE
- 5-NAIL OR OTHER FASTENER
- 6-T JUNCTION
- 7-STRING
- 8-DIRECTION TOWARD BASE STATION

AN-58 loop aerial used outdoor, erected as a vertical triangle with the T junction on top.

#### Example of AN-58 loop aerial used indoor in the shape of a square, in this example supported by chairs.

2. The following instructions apply when the transmitter is used with the AN-58 Antenna:
- (a) Preset the transmitter as explained in para D. Insert the AN-58 Antenna Pin Connectors into the ANT and GND terminals of the transmitter. When using the AN-58 Antenna, the Antenna Load Switch must be preset to the numeral 2 and remain in that position.
  - (b) Press the TUNE button and adjust the DRIVER Tuning Control for a MAXIMUM indication on the Final Current Meter.
  - (c) Press the TUNE button and adjust the FINAL Tuning Control for a MINIMUM indication on the Final Current Meter.
  - (d) Press the TUNE button and adjust the AN-58 tuning control (on the antenna tuning box) for MAXIMUM brilliance of the AN-58

Excerpt from RT-48 User Instructions manual revealing the use of an AN-58 loop aerial with an agents set.

#### References:

-Information and illustrations were taken from the AN-58 Loop Antenna Users Instructions manual.