The N4-4 Antenna System has been designed to minimize bearing errors in the reception of VOR and ILS signals. It provides considerably more gain at the horizon (particularly during banks) than do fuselage mounted “deerhorn” or “vee” antennas. It has substantially greater discrimination against vertically polarized signals; and when properly installed on helicopters it provides much greater rejection of rotor modulation than can be obtained with these other antennas. As a result, it provides better signal to noise ratios and smaller errors than is otherwise available.

The N4-4 Antenna consists of two (approximately semicircular) center-fed half-loops and a cable harness. In use, the half loops are horizontally mounted opposite each other on the sides of an aircraft (usually the vertical stabilizer) or on the sides of a helicopter tail boom, and connected together by the cable harness to provide a single low VSWR 50 ohm input.

Because the N4-4 has been designed specifically for light planes and helicopters, lightweight rugged construction has been stressed. It is built of round magnesium tubing and weighs only 2 pounds.

In order to obtain maximum performance from the N4-4, it is essential that its location on the aircraft be carefully selected. Because the N4 series antennas have been tested both in the model range and in service on many aircraft (including FAA flight inspection, i.e., SAFI aircraft) Exelis engineers have a large reservoir of experience and data to bring to the selection of the best locations which is available upon request.

### SPECIFICATIONS FOR: N4-4 ANTENNA SYSTEM

#### ELECTRICAL

- **Frequency Range**: 108 – 122 MHz
- **VSWR**: <5.0 to 1
- **Gain**: 0 ± 2 dB
- **Impedance**: 50 Ohms
- **Polarization**: Horizontal
- **Radiation Patterns**: Omnidirectional in the azimuth plane. Approx cos. q in the vertical plane.
- **Efficiency**: 95%
- **Power Handling**: Receive Only

#### MECHANICAL

- **Connector**: BNC
- **Mounting**: On opposite vertical surfaces of aircraft.
- **Weight (without cable)**: 2 lbs

#### ENVIRONMENTAL

- **Military**: MIL-E-5400, MIL-T-5422
- **FAA**: TSO-C40a
N4-4
Antenna System

INCHES [CENTIMETERS]

Consult with factory for mounting specifications.