

6 FOOT HIGH GAIN ANTENNA
COLLINS GROUND BASED
DOPPLER WEATHER RADAR SYSTEM

Receiver/Transmitter

WRT-701CG

Signal Processor
Ground Clutter Suppression

Pulse Pair
Based on Pulse-to-Pulse amplitude
signature recognition of Doppler spectrum
width

Maximum Precipitation Detection
Maximum Doppler Turbulence and Mean
Velocity Detection
Doppler Detection

320 Nautical miles
50 Nautical miles
Pulse pair variances:
turbulence 5 to 12 meters per second (m/s)
in 1 m/s increments
4 bit Mean Velocity +/- 20 m/s in 2.5 m/s
increments

Operating Frequency Range
Output Power
Pulse Repetition Frequency

5350 - 5460 MHz
200 Watts peak (nominal)
181/362 precipitation

Pulse Width
Measured Field Power
Doppler Mode Pulse Width
RF Power, Peak

1448 Doppler turbulence
2 to 20 microseconds, variable
<1.5 mw/cm²
6.8 microseconds
170-250 Watts (peak)

bw? □

Antenna

6 foot parabolic

Antenna type

Parabolic dish with linear horizontally
polarized feed

Beam Width

2.20 degrees maximum

Gain

36 dB minimum

1st Side Lobe

-25 dB

Effective Radiated Power

554kw

TACTICAL WEATHER RADAR
DOPPLER WEATHER RADAR SYSTEM

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<u>Contract Number</u>	N00019-96-D-0159
<u>Delivery Order Number</u>	WG62 Mod 1B
<u>Contract Type</u>	IDIQ
<u>Customer</u>	US Air Force, Hanscom AFB, MA

The main scope of TWR Phase I is to procure and performance validate 1 fixed and 1 deployable TWR system. During this effort multiple systems engineering and logistical tasks must be executed in order to prepare this system for tactical (both fixed site and deployable site) deployment.

a. Procurement of One (1) Deployable Tactical Weather Radar (TWR)

The contractor shall procure 1 deployable Tactical Weather Radar (TWR) system. The contractor shall develop a Technical Requirements Document (TRD), Statement of Work (SOW), and Source Evaluation Plan (SEP) to facilitate a competitive source selection process. The selected vendor shall supply a Y2K compliant Commercial off the Shelf (COTS) solution to the TWR Technical Requirements Document (TRD). Due to the nature of a COTS solution, extensive technical discussions between ESC and RTS are envisioned to ensure that the best overall value is captured for the government. The system shall include all documentation and hardware needed to support the tasking of this Delivery Order. The planned source selection process shall be executed within 120 days after award of this delivery order. The system shall include all documentation and hardware needed to support Initial Operational Test & Evaluation (IOT&E). The deployable system shall be delivered to Raytheon within 180 days after award of the vendor contract. The contractor shall provide the required oversight of the vendor's activities and deliverables to ensure that the Air Force requirements are met. This shall include visits to the vendor's plant to monitor compliance of program standards and requirements.

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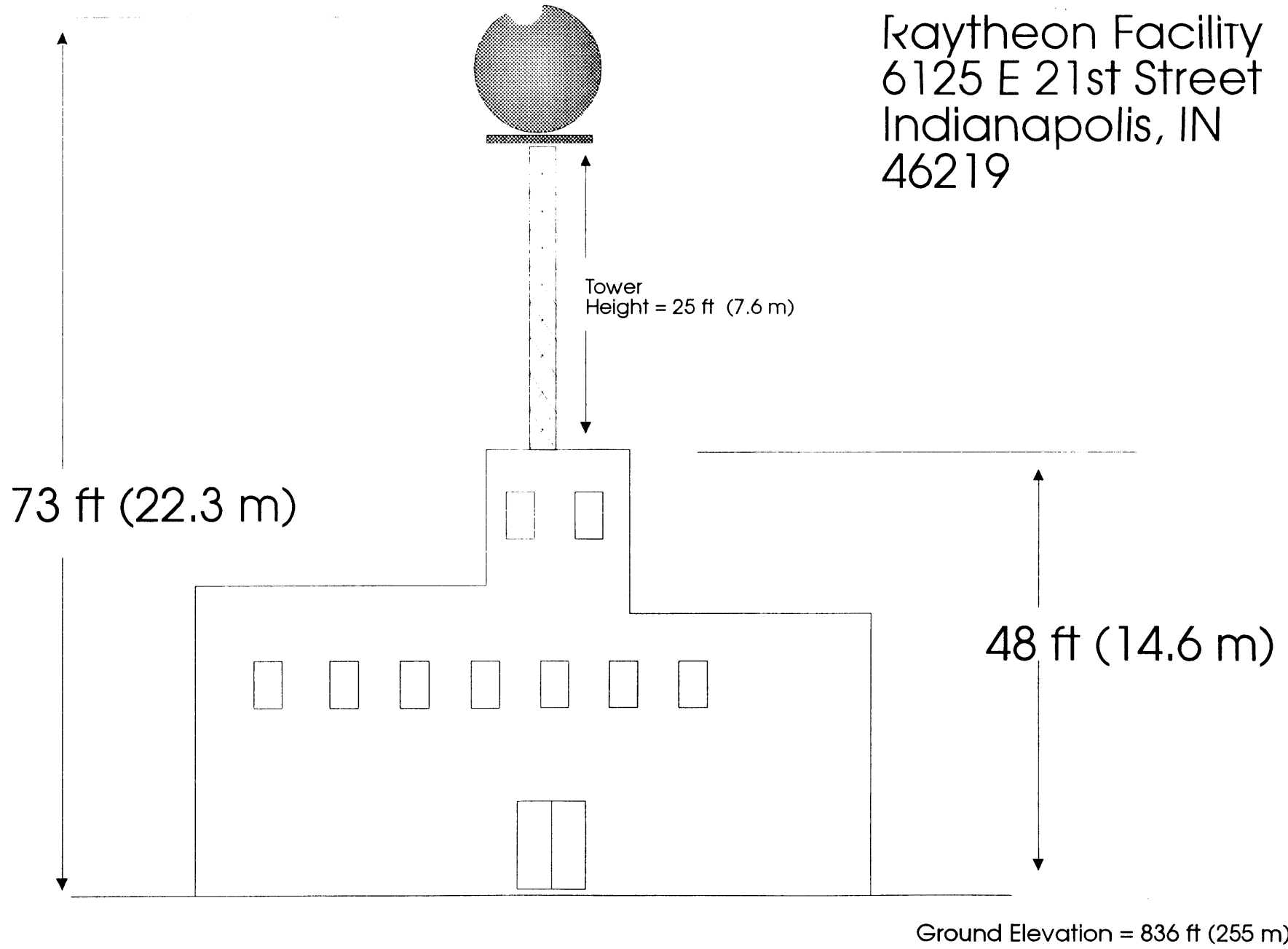


Exhibit Number 3

No Scale