



## Antenna, Optical and Sensor Positioning Systems and Components

### Applications

- Air Traffic Control (ATC)
- Military Radar (Land/Air/Sea)
- Satellite Communications (TT&C)
- Unmanned Aerial Vehicles (UAV)
- Test and Instrumentation (RF/Optical)



## COMPANY PROFILE

Rotating Precision Mechanisms, Inc. (RPM) was formed and incorporated in 1975 as a California Corporation.

For over 31 years RPM has provided customers a broad range of precision products and accessories in the field of RF/Microwave, Electro-Optics and similar areas requiring positioners.

RPM has assembled a team of degreed senior level engineers and production specialists to cover each of the disciplines necessary to produce and deliver high quality, precision systems and sub-systems.

*RPM has over 250 years of combined direct mechanical and electrical control engineering experience in pedestal and rotator design.*

in fixed, transportable, and vehicle mounted configurations. Positioners are available in both post and split yoke styles with options for dual drive and multiple axis arrangements. Designs use conservative performance ratings, resulting in trouble free, long-life operation.

In addition to our standard proprietary lines, RPM supplies modified and custom designs to meet the customer's specific requirements. RPM provides spare parts and product support for all products manufactured since the company's inception. *In addition, complete refurbishment and upgrades to pedestals and hardware manufactured by other companies can be provided in a timely and cost effective manner.*

*Over 1500 positioners in use worldwide provide a complete array of standard, Commercial Off The Shelf (COTS) and Non-Developmental Items (NDI) for both commercial and military applications.*

## PRODUCT DEVELOPMENT

Typically, RPM assists customers in the definition phase of a program. We help our customers identify specific positioner requirements and then select designs and hardware approaches which will meet the overall system objectives in a cost effective manner.

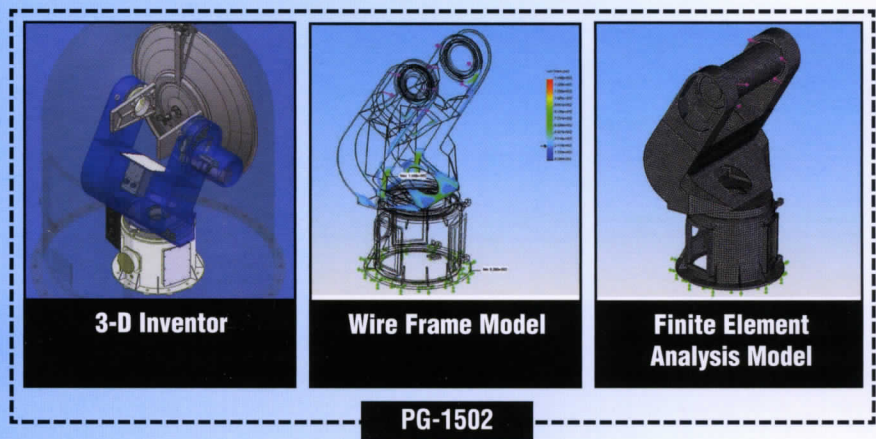
Our modular approach to hardware development often makes it possible to adapt existing designs to new requirements. *This reduces development time and cost, while assuring high quality sub-systems using proven components.*

The positioner product line includes rotators, pedestals, gimbals and stabilized platforms in both geared and direct drive configurations.

RPM's product line has been used for both tracking and non-tracking applications. We have provided positioners for use in ground based, airborne and shipboard applications. Ground based systems come

## ENGINEERING

RPM uses the most modern computer design tools such as AutoCAD 2007® (CAD), Mechanical Desktop 2007® and Inventor 11® (Parametric Solid Modeling), OrCAD 9.1® and Multisim 9® (Electronics), COSMOS/DesignSTAR 2006® (FEA), Lab Windows® (Instrumentation), and SURFCAM 2005® (CAM).







## *The System Integrators Choice For Best Value Products and Timely Solutions*

**Experience + Value Added Manufacturing = BEST VALUE PRODUCT**

- Computer Aided Engineering
- 31 Years & Over 500+ Standard Products
- Many Current Programs in Production
- In-House Precision Machining
- Lowest Net Cost
- Rigorous Performance Testing
- Best Value Awards
- All Units Burned In

### **MANUFACTURING AND TESTING**

RPM provides precision manufacturing and testing of the positioner/pedestal and its control system. *In addition, we provide turnkey integration of antennas, sensors, optics, rotary joints, sliprings, waveguide and other associated equipment.*

Precision operation and optimum performance is assured by critical inspection of each part. Each product is subjected to a rigorous final inspection and performance test. Each standard model is designed to be modified at minimum cost and integrated into the most demanding specification requirements.

As a team member, we provide extended expertise related to positioning equipment, freeing the prime contractor's engineering staff to concentrate their efforts on the overall system.

Experience and a detailed understanding of the environment in which the product will be used is a key part of engineering quality hardware. Having this experience gives RPM's staff of engineers the background needed to design and manufacture the highest quality positioning products for your application.

### **FACILITIES**

RPM is housed in 30,000 sq. feet of modern, secure, totally air conditioned buildings in Northridge, California, a Los Angeles suburb. An additional 20,000 sq. foot rear fenced yard is available for static and dynamic testing.

*RPM is recognized by customers in the commercial, government and scientific communities as the preeminent supplier of positioning systems and components.*

RPM, operating as a small business, maintains a quality assurance program in compliance with RPM-I-45208A, based on MIL-I-45208 and is an approved vendor by DCMAO, the FAA and many large prime contractors. RPM business practices and accounting methodology are consistent with the requirements of FAR.

*A well equipped machine shop with modern CNC machining centers for the manufacture of all parts is on the premises, allowing quick response and delivery cycles.*



**Electrical Assembly**



**Mechanical Assembly**

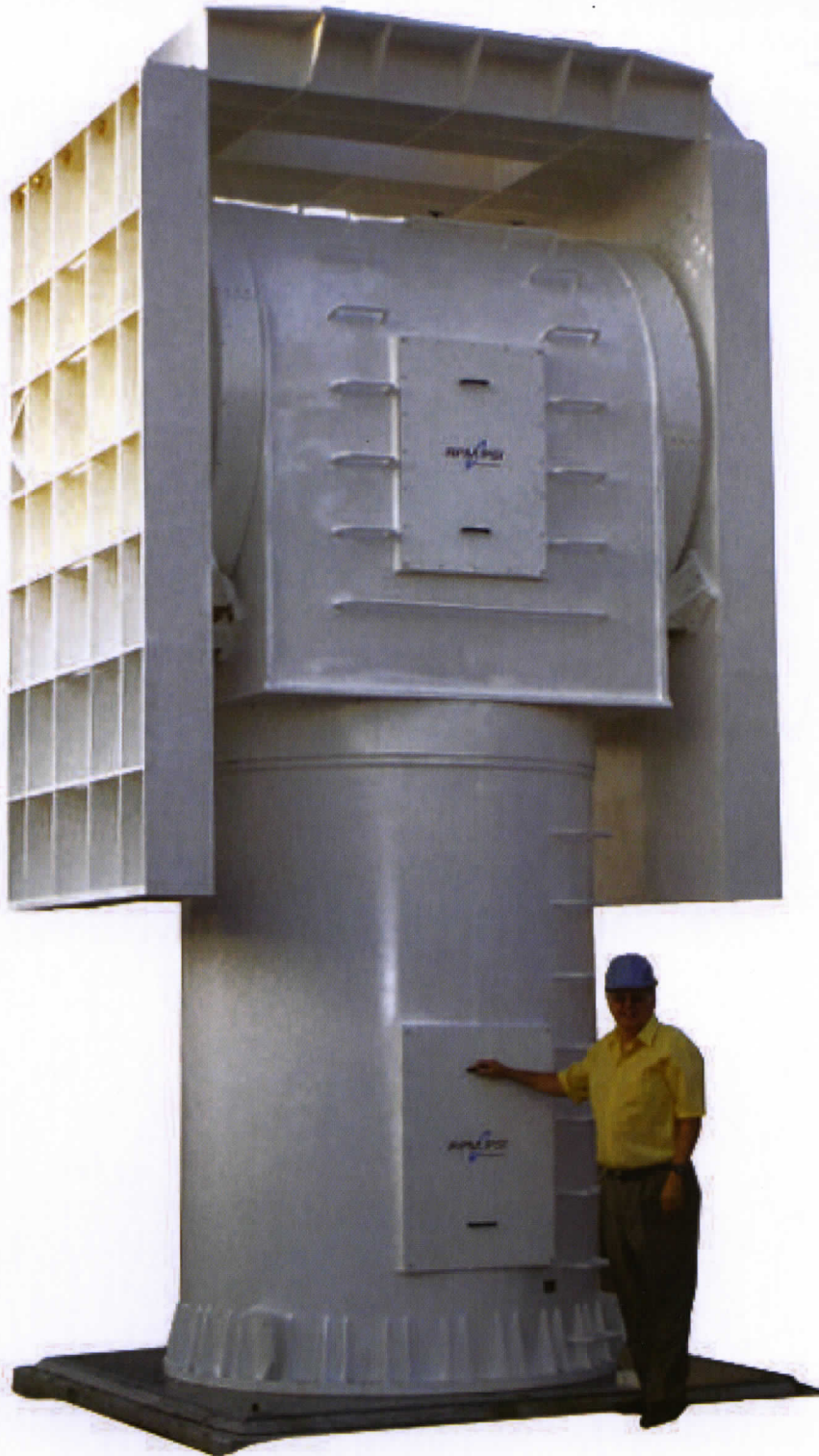


**CNC In House  
Machine Shop**



Each model series has many standard designs; only a few are shown here. Please contact factory for additional information. All specifications shown in this catalog are general in nature and subject to change without notice.

# PEDESTALS



13m Telemetry Tracker  
PMRF/Oceantronics  
RPM PG-5001

## MODEL/SERIES DESCRIPTIONS

- PG** - Pedestal, Geared:  
High output drive torque, servo controller applications.
- PT** - Pedestal, Torque Motor:  
Direct drive, EL/AZ pedestal (no gearing/ no backlash) for high accuracy with exceptional low and high velocity performance.

Post/split yoke, dual drive and multi-axis (up to 6) designs are available.

*\* Most popular standard EL/AZ Pedestal Model Series*



PEDESTALS, GEAR DRIVE (PG)



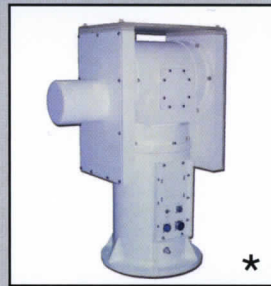
- PG-0200 Series**
- Overturn Moment 974 lb-ft
  - Rated Gear Torque 37-250 lb-ft
  - Compliance  $1.3 \times 10^{-5}$  rad/lb-ft



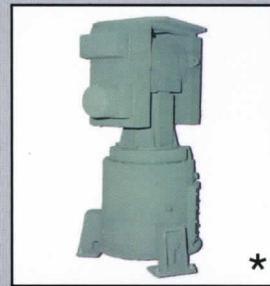
- PG-0400 Series**
- Overturn Moment 60 lb-ft
  - Rated Gear Torque 150 lb-ft
  - Compliance  $8 \times 10^{-5}$  rad/lb-ft



- PG-0500 Series**
- Overturn Moment 1,100-1,760 lb-ft
  - Rated Gear Torque 250-400 lb-ft
  - Compliance  $8 \times 10^{-6}$  rad/lb-ft



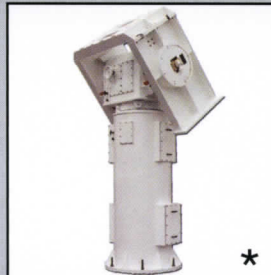
- PG-1000 Series**
- Overturn Moment 4,000 lb-ft
  - Rated Gear Torque 50-500 lb-ft
  - Compliance  $6 \times 10^{-6}$  rad/lb-ft



- PG-1050 Series**
- Overturn Moment 12,000-18,000 lb-ft
  - Rated Gear Torque 1,400-2,000 lb-ft
  - Compliance  $1 \times 10^{-6}$  rad/lb-ft



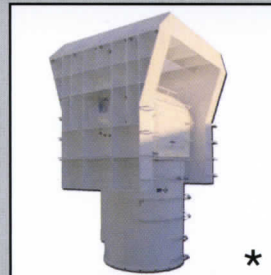
- PG-1500 Series**
- Overturn Moment 7,600-10,200 lb-ft
  - Rated Gear Torque 344-478 lb-ft
  - Compliance  $6.0 \times 10^{-6}$  rad/lb-ft



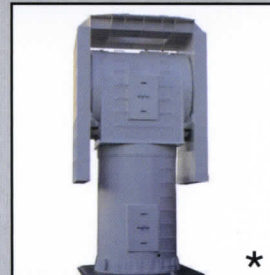
- PG-2050 Series**
- Overturn Moment 90,000 lb-ft
  - Rated Gear Torque 9,000 lb-ft
  - Compliance  $3.5 \times 10^{-7}$  rad/lb-ft



- PG-2500 Series**
- Overturn Moment 90,000 lb-ft
  - Rated Gear Torque 9,000-14,000 lb-ft
  - Compliance  $2.3 \times 10^{-7}$  rad/lb-ft



- PG-4000 Series**
- Overturn Moment 400,000 lb-ft
  - Rated Gear Torque 20,000-100,000 lb-ft
  - Compliance  $4 \times 10^{-8}$  rad/lb-ft



- PG-5000 Series**
- Overturn Moment 1,500,000 lb-ft
  - Rated Gear Torque 200,000 lb-ft
  - Compliance  $1 \times 10^{-8}$  rad/lb-ft

PEDESTALS, DIRECT DRIVE (PT)



- PT-0513 Series**
- Overturn Moment 1,000 lb-ft
  - Output Torque 11 lb-ft



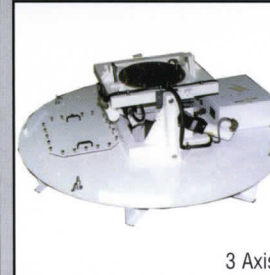
- PT-0500 Series**
- Overturn Moment 2,000 lb-ft
  - Output Torque 6.5-28 lb-ft



- PT-1050 Series**
- Overturn Moment 12,000 lb-ft
  - Output Torque 80-150 lb-ft



- MPG-2500 Series**
- Overturn Moment 90,000 lb-ft
  - Rated Gear Torque 12,000-40,000 lb-ft
  - Compliance  $2.3 \times 10^{-7}$  to  $5.4 \times 10^{-8}$  rad/lb-ft



- SPG-3000 Series**
- Travel: Pitch  $\pm 15^\circ$ ; Roll  $\pm 23^\circ$
  - AZ 360° cont.
  - Velocity 20-25°/SEC
  - Rated Gear Torque 60-100 lb-ft

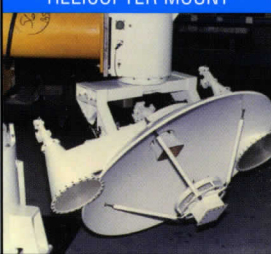
GIMBALS (AIRBORNE)

AIRCRAFT MOUNT



- PG-0504 Series**
- Travel: AZ  $\pm 45^\circ$ , EL -90 to  $+10^\circ$
  - Rated Gear Torque 100 lb-ft
  - Compliance  $6 \times 10^{-5}$  rad/lb-ft
  - Velocity 15°/sec

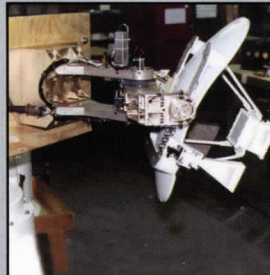
HELICOPTER MOUNT



- PT-0900 Series**
- Travel: X (AZ)  $\pm 60^\circ$ , Y (EL)  $\pm 30^\circ$
  - Output Torque AZ 2.5 lb-ft
  - Velocity 120°/sec



- PG-0905 Series**
- Travel: X (AZ)  $\pm 60^\circ$ , Y (EL)  $\pm 30^\circ$
  - Rated Gear Torque 8 lb-ft
  - Velocity 120°/sec



- SPG-2000 Series**
- Travel: AZ  $\pm 95^\circ$ , EL  $\pm 21^\circ$
  - Rated Gear Torque 55-60 lb-ft
  - Compliance  $6 \times 10^{-5}$  rad/lb-ft
  - Velocity 10°/sec



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# ROTATORS



Rotator for  
100 x 100 ft Antenna  
RPM RG-4003

## MODEL/SERIES DESCRIPTIONS

- RG** - Rotator, Geared:  
High torque, free  
running and servo  
controlled applications
  
- RT** - Rotator, Torque Motor:  
Direct drive rotator  
(no gearing/no backlash)  
for high accuracy with  
exceptional low and high  
velocity performance



ROTATORS, GEAR DRIVE (RG)



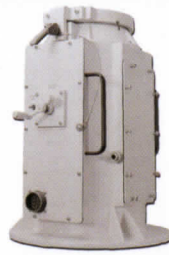
**RG-0200 Series**

- Rated Gear Torque 200 lb-ft



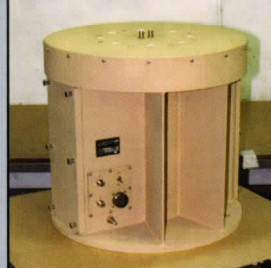
**RG-0400 Series**

- Overturn Moment 1,200 lb-ft
- Rated Gear Torque 50 lb-ft
- Compliance  $8 \times 10^{-5}$  rad/lb-ft



**RG-0500 Series**

- Overturn Moment 1,760 lb-ft
- Rated Gear Torque 250 lb-ft
- Compliance  $6 \times 10^{-5}$  rad/lb-ft



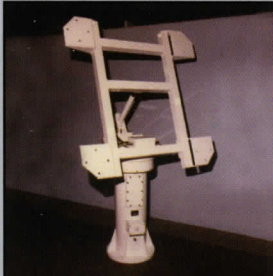
**RG-0600 Series**

- Overturn Moment 20,000 lb-ft
- Rated Gear Torque 3,500 lb-ft
- Compliance  $6 \times 10^{-6}$  rad/lb-ft



**RG-0700 Series**

- Overturn Moment 1,000-3,000 lb-ft
- Rated Gear Torque 70-200 lb-ft
- Compliance  $1 \times 10^{-5}$  rad/lb-ft



**RG-1000 Series**

- Overturn Moment 60,000 lb-ft
- Rated Gear Torque 5,000 lb-ft
- Compliance  $6 \times 10^{-6}$  rad/lb-ft



**RG-1050 Series**

- Overturn Moment 12,000 lb-ft
- Rated Gear Torque 1,200 lb-ft
- Compliance  $1 \times 10^{-6}$  rad/lb-ft



**RG-1500 Series**

- Overturn Moment 53,000 lb-ft
- Rated Gear Torque 4,000 lb-ft
- Compliance  $1.5 \times 10^{-6}$  rad/lb-ft



**RG-2500 Series**

- Overturn Moment 90,000 lb-ft
- Rated Gear Torque 9,000 lb-ft
- Compliance  $2.3-3.5 \times 10^{-7}$  rad/lb-ft



**RG-4000 Series**

- Overturn Moment 155,000-926,000 lb-ft
- Rated Gear Torque 37,000-95,000 lb-ft
- Compliance  $1.6-8 \times 10^{-8}$  rad/lb-ft

ROTATORS, DIRECT DRIVE (RT)



**RT-0400 Series**

- Overturn Moment 1,200 lb-ft
- Output Torque 2.2-11 lb-ft



**RT-0500 Series**

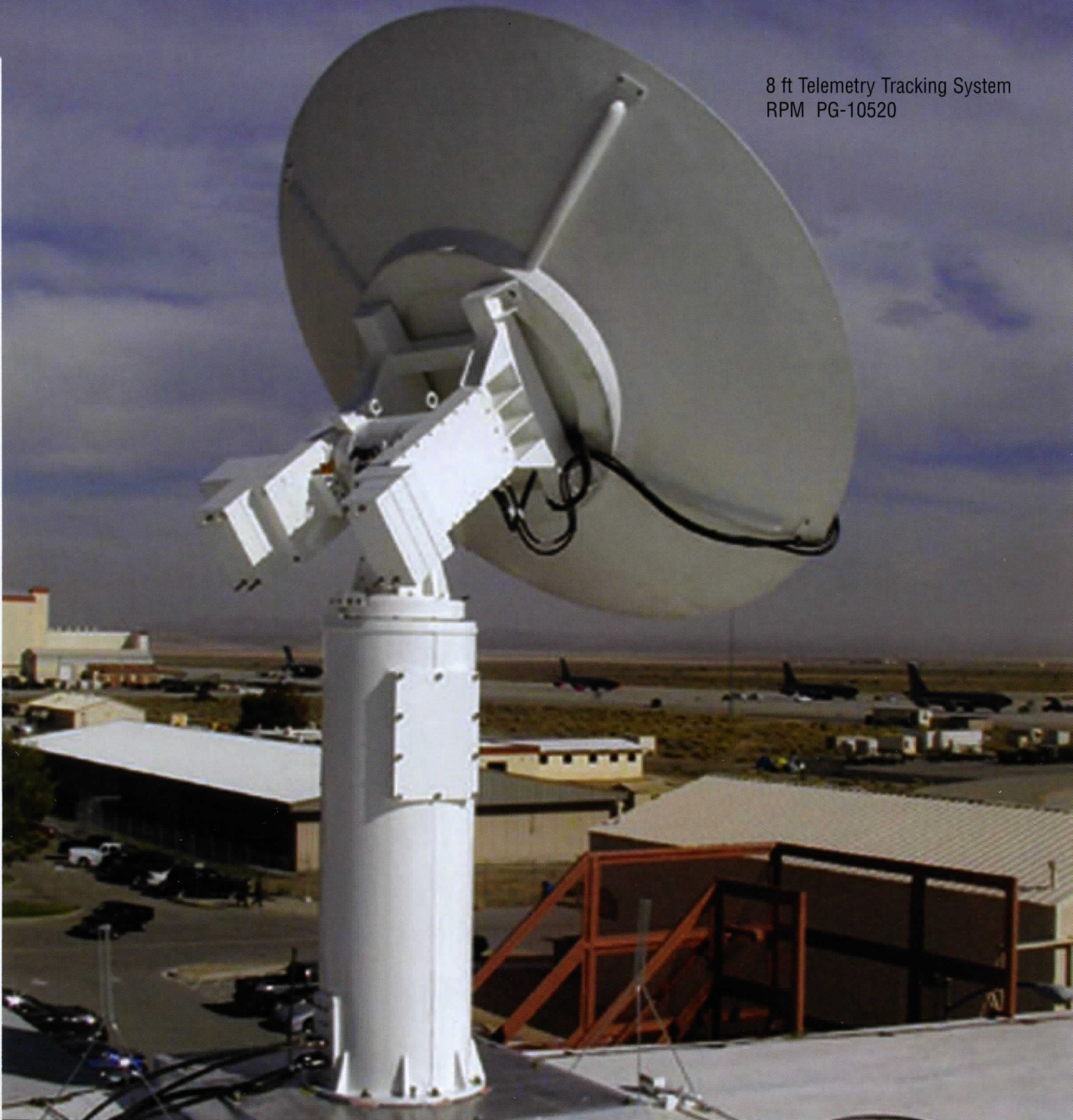
- Overturn Moment 2,000 lb-ft
- Output Torque 2.2-14 lb-ft



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## ANTENNAS, CONTROLLERS & MISC.

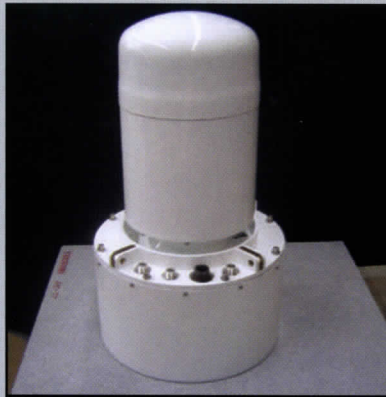
8 ft Telemetry Tracking System  
RPM PG-10520





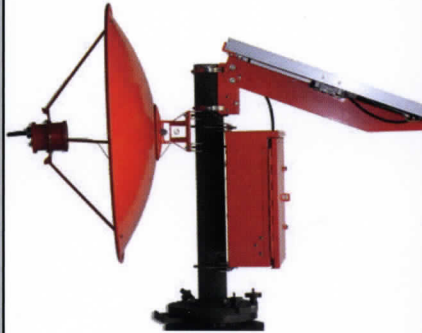
## ANTENNAS

*RPM works with Antenna and RF vendors to develop solutions for specific customer requirements.*



**FC-2002**  
S-Band ConScan Autotracking Feed

### Moving Target Indicator (MTI) Reflectors Autonomous Solar Powered



Model A-150 S-Band  
Model A-160 L-Band  
Model A-170 S/X-Band

#### Options:

- Severe Environmental Power
- Commercial Power with Battery Back-up
- Severe Environmental Assemblies

ANTENNAS & MISC.

## CONTROLLERS



### CM-2000 Series

- ATX Form-Factor Motherboard
- Windows® based Software
- Local/Remote Operation
- Customer-Defined Screens, Menus, Functions & Interfaces
- Tracking & Non-tracking Use

®Microsoft Registered Trademark



With Rate Knobs

### CD-2000 Series

- 19" Rack Mount
- Digital
- 8051 or X86 Based
- Joystick or Rate Knobs



### DE-2000 Series

- Exterior Environmental Enclosure (NEMA 4x)
- Digital/Analog
- 8051 or X86 Based



### CB-2006 Series

- Hand Held Control Unit
- Digital/Analog
- 8051 Based
- Rate Knob or Joystick

## TRIPODS



### T-100 Series

- AN/MSW-13-19
- 200+ lb Capacity
- Adjusts From 40-60" High
- Night Leveling
- Net Wt 41 lbs



### T-102 Series

- TOW-Type Tripod
- Quick Release Clamp
- 400 lb Capacity
- Adjusts From 13.5-28" High
- Net Wt 24 lbs

## MASTS



### MA-100 Series

- Portable, Manually Extending, Quadripod
- Adjusts From 6-19.5 ft
- 50 lb Capacity
- Net Wt 120 lbs

## JACKS



### J-150 Series

- AN/TPQ-36/37
- 3,000 lb Capacity
- 36" Travel
- Net Wt 32 lbs

### Product Lines

#### Not Shown:

Antenna Test Range Equipment

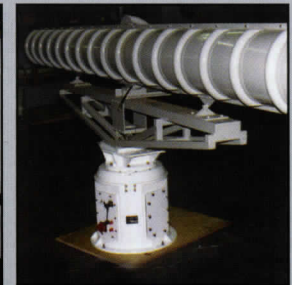
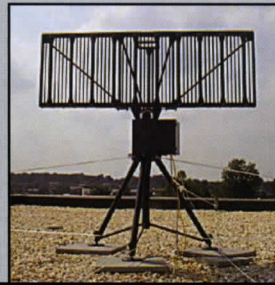
Position Accuracy Test Set PA-1000

Center Head Boresight Laser Set PA-1500

Slip Rings SRU/SRH



## AIR TRAFFIC CONTROL (ATC)



**RG-0525**

IFF Antenna Rotator

**RG-0703**

JTE-IFF Antenna Rotator

**RG-1052**

IFF Antenna Rotator



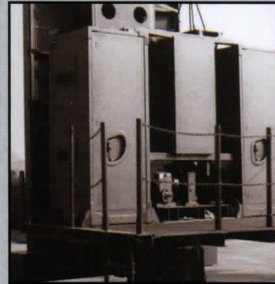
**RG-1520**

IFF Antenna Rotator



**RG-1521A**

IFF Antenna Rotator



**RG-2504**

PAR 80 Antenna Rotator



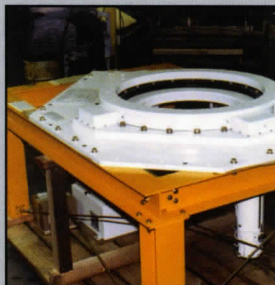
**RG-2504B**

Antenna Rotator



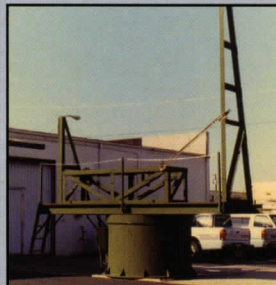
**RG-2509**

Tower Mounted SSR  
Antenna Rotator



**RG-3501**

Antenna Rotator with  
Mechanical Limits



**RG-4004**

MPN-14( ) Antenna Rotator



Transport

**PG-2000A**

AN/MPN-25  
Operational

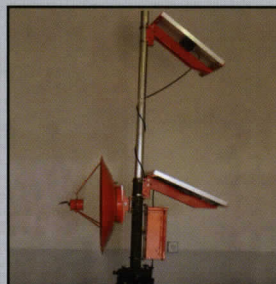


## AIR TRAFFIC CONTROL (ATC): MOVING TARGET INDICATOR (MTI) REFLECTORS



**A-150C**

S-Band Solar Power  
with SB-200



**A-150C**

S-Band Enhanced Solar Power  
with SB-200A



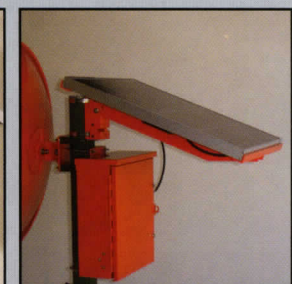
**A-170**

S/X-Band Commercial Power  
w/ Battery Back-up & LB-100



**A-170D**

S/X-Band Solar Power  
with SB-201A



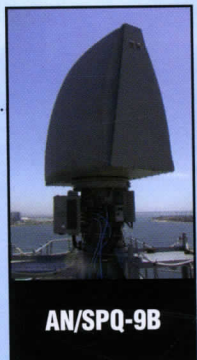
**SB-200**

Solar Power Module



# MILITARY RADAR LAND/AIR/SEA

Typical examples of RPM Pedestals, Rotators, Antennas and Controls used for Military Radar.



**AN/SPQ-9B**

AN/SPQ-9B Fire Control and Search Radar on the U.S.S. NIMITZ  
RPM RG-1522



**RPM RG-1522**



**RPM Factory Burn In Test**

Photo courtesy of Northrop Grumman



**MILITARY RADAR (FIXED SITE)**



**PG-0503**  
Doppler Radar  
Factory Test



Fielded



**PG-10522**  
Doppler Radar  
Inertia Load Test



Fielded



**RG-4003**  
For 100 ft x 100 ft Antenna



16 ft S-Band



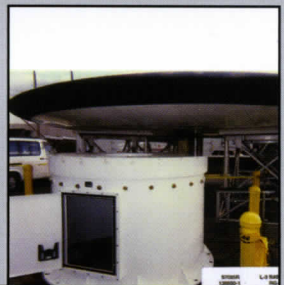
**PG-2510**  
Precision Range Radar



16 ft X-Band



**RG-4005**  
With Simulated Inertia Load



E-3 Aircraft Antenna  
Test Rotator

**MILITARY RADAR (MOBILE)**



**PG-10522**  
Doppler Radar

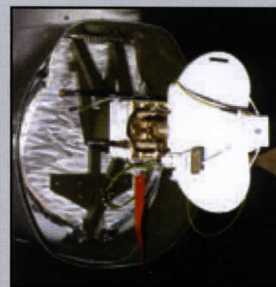


**PG-2059**  
Artillery Locating Radar

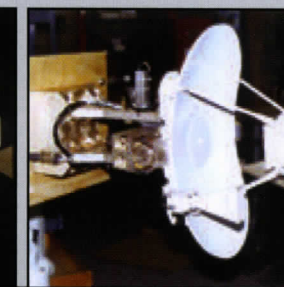


**PG-3001**  
MIRTS

**MILITARY RADAR (AIRBORNE)**



**SPG-2002**  
A3D Aircraft



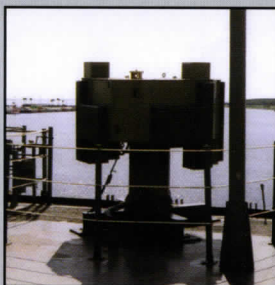
**MILITARY RADAR (SHIPBOARD)**



**RG-1522**  
AN/SPQ-9B Lightweight



**SPG-2001**  
Ship Missile Attack Detector



**PG-4002**  
COBRA GEMINI

MILITARY RADAR



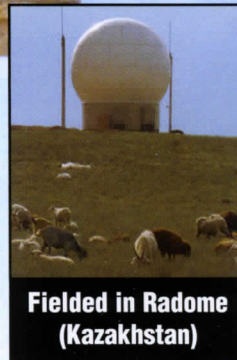
# SATELLITE COMMUNICATIONS (TT&C)

Typical examples of RPM Pedestals, Rotators, Antennas and Controls used for Satellite Communications.

Satellite  
Communication  
Antenna  
RPM PG-2508



**RPM PG-2508**

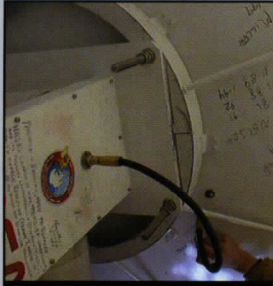


**Fielded in Radome  
(Kazakhstan)**

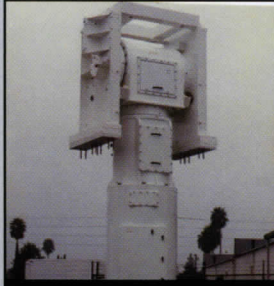
Photo courtesy of ORBCOMM & MFGRATECH



**SATELLITE COMMUNICATIONS (FIXED SITE)**



**PG-1000**  
NASA (South Pole)



**PG-2504A**  
NASA/DRYDEN 16 ft Space Shuttle & Station Communication



**PG-2508**  
ORBCOMM Gateway



**PG-4000**  
30 ft LANDSAT



**SATELLITE COMMUNICATIONS (MOBILE)**



**PG-10511**  
OKEMAH



**PG-10513**  
Extreme High Frequency (EHF)



**PG-2052**  
Operational  
5m Antenna



**PG-2052**  
Shipping Configuration

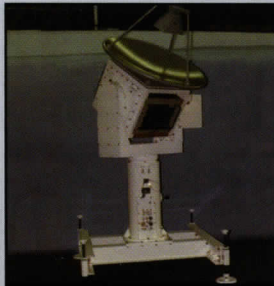


**PG-2506**  
Transportable Ground Station (TGS)

**SATELLITE COMMUNICATIONS (TRANSPORTABLE)**



**PG-0512**  
Roll Theta (Differential) Mount



**PG-1018**  
Air & Spaceborne Tracker



**PG-1058**  
Mark IV B; 10 ft  
Satellite Tracker



**PG-2001**  
Mark IV B; 17 ft  
Data Receiver



**PG-2509**  
Ka-Band 6.1m

**SATELLITE COMMUNICATIONS (SHIPBOARD)**



**PG-1501**  
3 Axis; 1.2m SATCOM



Ship Simulation Test



**PG-1502**  
2 Axis; 1.0m Lightweight



**PG-2507**  
2 Axis; 10 ft SEAKING



**PG-2512**  
3 Axis; EL/POL/AZ



# UNMANNED AERIAL VEHICLES (UAV)

Typical examples of RPM Pedestals, Rotators, Antennas and Controls used for Unmanned Aerial Vehicles.

Ground Data Terminal (GDT)  
RPM PG-1019

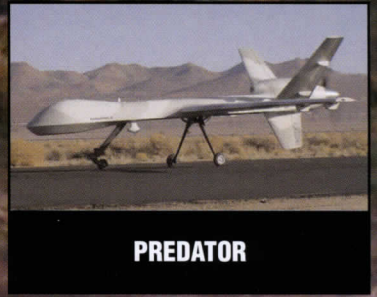


Photo courtesy of General Atomics Aeronautical Systems, Inc  
All rights reserved.



UNMANNED AERIAL VEHICLES (MOBILE)

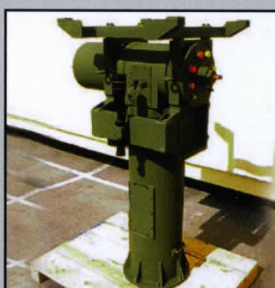
(FIXED)



**PG-1014A**  
UCAV



**PG-1021A**  
TIGDL/EAGLE/ASTOR/MIST II A



**PG-1021B**  
5 ft Drone Control

UNMANNED AERIAL VEHICLES (TRANSPORTABLE) GEAR DRIVE



**PG-0503**  
TC DL



**PG-0507**



**PG-0602**  
MP-CDL

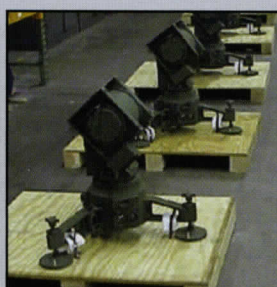


**PG-1019**  
Predator GDT

UNMANNED AERIAL VEHICLES (TRANSPORTABLE) DIRECT DRIVE



**PT-0513A**  
UCARS



**PT-0513A**  
TALS



**PT-0513B**  
UCARS/V2



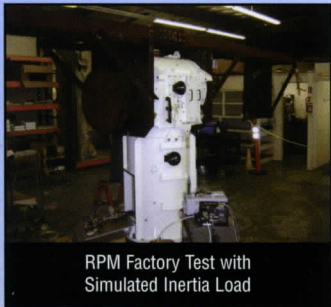
Ship Landing  
of Fire Scout

UNMANNED  
AERIAL VEHICLES

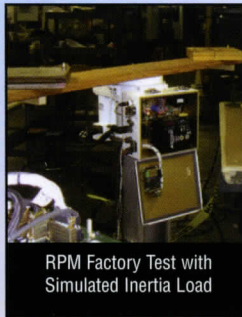


# TEST & INSTRUMENTATION

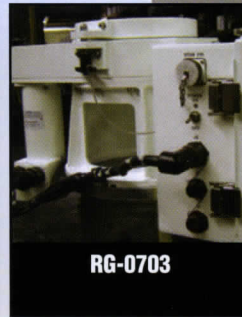
Typical examples of RPM Pedestals, Rotators, Antennas and Controls used for Test & Instrumentation.



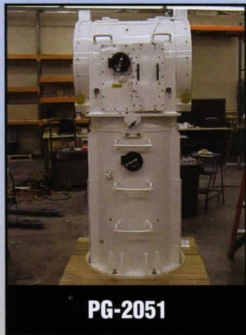
RPM Factory Test with Simulated Inertia Load



RPM Factory Test with Simulated Inertia Load



RG-0703



PG-2051

Joint Threat Emitter (JTE)  
RPM PG-2051 & RG-0703

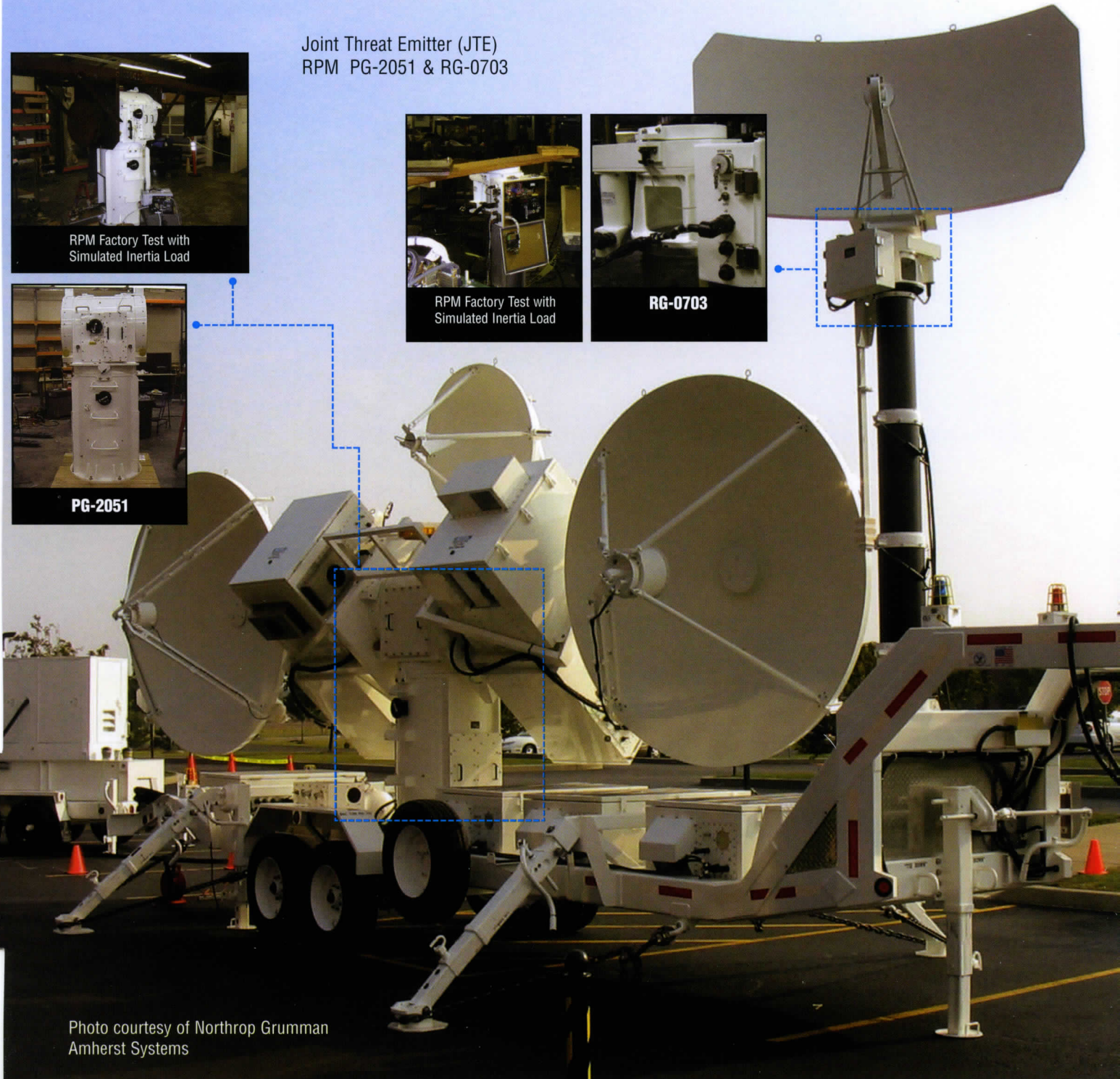
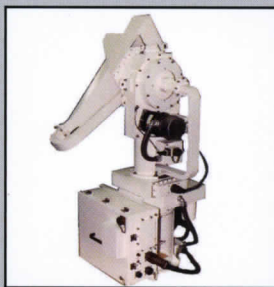


Photo courtesy of Northrop Grumman  
Amherst Systems

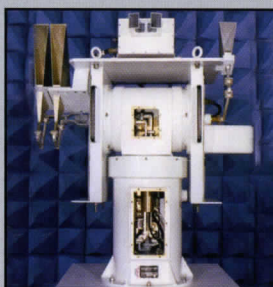




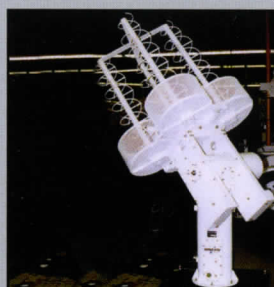
**PG-0503**



**PG-0701**  
ARME



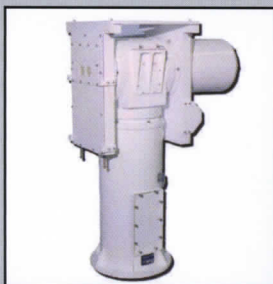
**PG-1008**  
JHU/APL



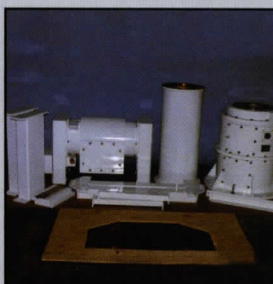
**PG-1010**  
Quad Helix Flight Termination



**PG-1024**  
Antenna Test Section  
of Boeing 747



**PG-1010**  
Trident Missile Tracking System



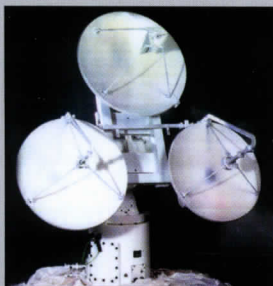
**PG-1055**  
Hatch Pass Thru Test



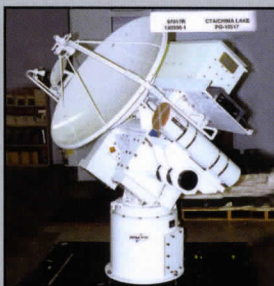
**PG-1055**  
Assembled



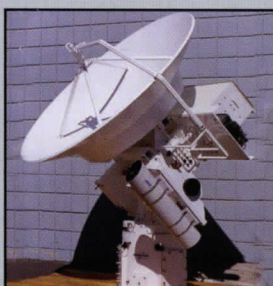
**PT-1052**



**PG-10512**  
ULM-4



**PG-10517**  
EW Test



**PG-10517**  
EW Test



**PG-10520**  
Flight Termination



**PG-10520**  
8 ft Tracker



**PG-10520**  
8 ft Tracker



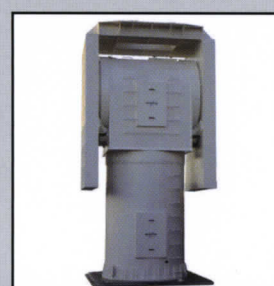
**PG-2511**  
Antenna Calibration



**MPG-2500**  
2 Axis Whole Aircraft Tester



**MPG-2500S**  
3 Axis Whole Aircraft Tester



**PG-5001**  
13m Tracker



TEST & INSTRUMENTATION (MOBILE)



**RG-0403**  
AN/VPQ-1 TRTG



**PG-1011**  
Lightweight Meteorological  
Data System



**RG-1001/PG-1012**  
AN/MSR-T4  
TRAINS



**PG-1014**



**PG-1050**  
AN/TMQ-31



**PG-10513**  
RF Tracker



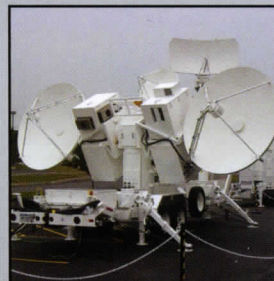
**PG-10515**  
EW Test



**PG-10519**  
AESAJ



**PG-10519**  
RSDME



**PG-2051**  
JTE



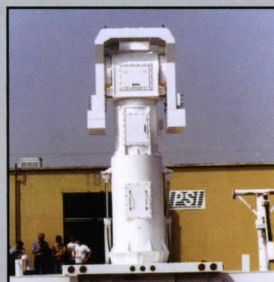
**RG-1003/PG-2052**  
EWITR



**PG-2503**  
G-TAMS



**PG-2504**  
20 ft Tracker



**(PG-2050)**  
Wake Island  
5m Tracker

TEST & INSTRUMENTATION (TRANSPORTABLE)



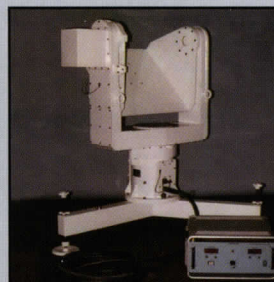
**PG-0401**  
Audio Surveillance



**PG-0508**  
EW Test  
Triple Ground Threat Emitter



**PG-0702**  
Multi-W/G  
EW Test



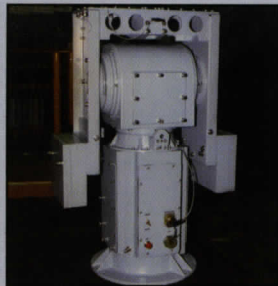
**PG-1001**  
mm Wave Hybrid Camera



**PG-1020**  
EW Test  
Triple Ground Threat Emitter



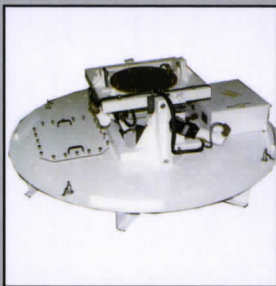
TEST & INSTRUMENTATION (SHIPBOARD)



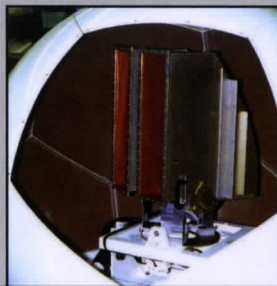
**PG-0509**  
Helix Flight Termination



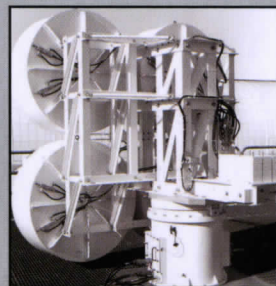
**PG-10518**  
EW Test



Factory Assembly



**SPG-3001**  
3 Axis In 6' Diameter Radome



**RG-2051**  
SEAKING

TEST & INSTRUMENTATION (AIRBORNE)



**PG-0504**  
A3D Aircraft



**PG-0905**  
POD Mounted EW Test



**SPG-2002**  
A3D Aircraft

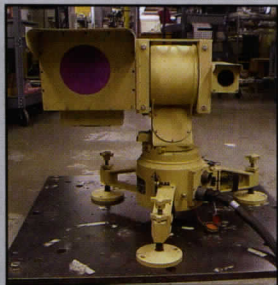
TEST & INSTRUMENTATION (OPTICAL)



**PM-0501**  
Manual Optical Tracker



**PG-0204**  
HMMWV (Humvee) Mounted



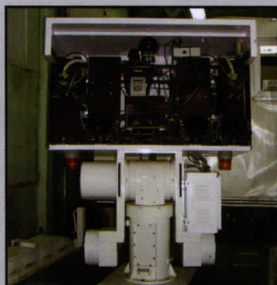
**PT-0513A**  
Ship Tracker



**PT-0514**  
Precision Video Tracker



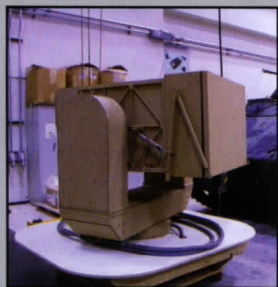
**PT-0515**  
Precision Video Tracker



**PG-1022**  
Test Range



**PG-2002**  
Laser Beam Director



**PT-1601**  
WILDCAT  
Laser Beam Director



**PG-2501**  
6 ft Diameter, 12 ft long,  
10,000 lb Telescope Mount

TEST & INSTRUMENTATION (ASTRONOMY)



**RG-0509**  
Deep Space Antenna  
Frequency Monitor



**PG-10516**  
Water Vapor Radiometer



**PG-4003**  
12m VERITAS (4x)



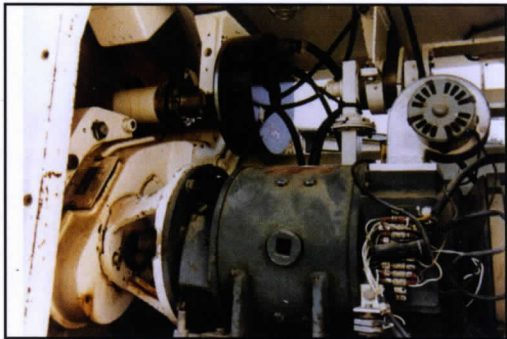
# REFURBISHMENT

## Upgrade of All Manufacturers' Pedestals

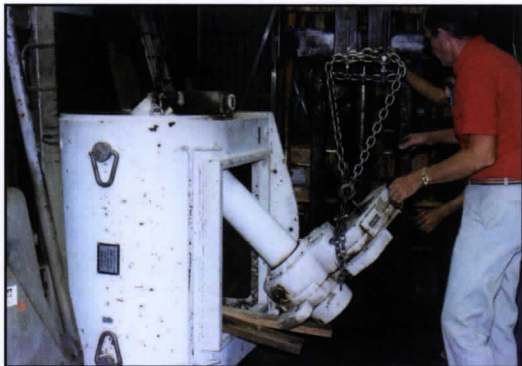
<b>Performance:</b>	Meeting or Exceeding Original Specs
<b>Motors:</b>	New DC Permanent Magnet, Brushless or Dual Bias Drive
<b>Gearboxes:</b>	New Bearings, Gears and Redesigned, Welded Steel Construction A/R
<b>Position Transducers:</b>	New A/R
<b>Wiring:</b>	New A/R



*Old pedestals being received at RPM*



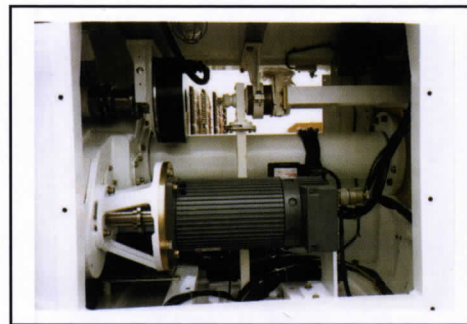
*Interior - Prior to refurbishment*



*Major disassembly*



*Complete detail inspection and cataloging of individual parts*



*Interior - After refurbishment*



*Pedestals tested and ready to ship from RPM*



# PARTIAL CUSTOMER LIST

AAI Corporation  
Aeroflex  
Airspace Technology  
American Nucleonics Corp.  
Anaren Microwave, Inc.  
BAE Systems (formerly Sanders Associates)  
Ball Aerospace & Technologies Corp.  
Boeing Company (Space & Defense Group)  
Broadcast Microwave Services, Inc.  
California Microwave (L-3 Communications)  
Chelton/Atlantic Microwave Corp.  
Cincinnati Electronics Corp. (L-3 Communications)  
Comptek Research, Inc. (Northrop Grumman)  
Cubic Defense Systems  
Datron Systems, Inc. (L-3 Communications)  
DESC  
Desert Research Institute  
Drev, Canada  
DRS Technologies  
DRS Training and Control (formerly Metric Systems)  
DYNCORP  
Dynetics, Inc.  
E W Associates  
EDO Reconnaissance (formerly Condor Systems)  
E.G.&G.  
E-O Imaging  
European Aeronautical Defense & Space Co. (EADS)  
EEO, Inc.  
EM Systems, Inc.  
EMC Corporation  
Emerson Electric Company  
Environmental Technology Group, Inc.  
ERI  
Federal Aviation Administration (FAA)  
GEC Marconi (formerly TRACOR Flight Systems)  
General Atomics Aeronautical Systems, Inc.  
General Atronics Corporation  
General Dynamics (Canada)  
General Electric  
Gould Electronics-NavCom Systems/3DBM  
GTE Government Systems Corp.  
Hanscom Electronic Systems Division (USAF)  
Harris (GCSD)  
Harry Diamond Labs  
Herley-Vega Systems  
INDRA (Madrid, Spain)  
ITT AES (Formerly Kaman Sciences, Colorado)  
ITT Gilfillan  
Jacobs Sverdrup  
Jet Propulsion Laboratory (JPL)  
Johns Hopkins University  
JT3  
Kaman/NRL  
L-3 Communications Systems—West  
L-3/EMP Systems  
L-3/Interstate Electronics Corp.  
L-3 Integrated Systems LP  
L-3/Microdyne Corporation  
L-3/Randtron  
Lawrence Livermore National Lab  
Lockheed Aeronautical Systems Company  
Lockheed Martin/WDL  
Lockheed/Comsat  
Lockheed Martin Integrated Systems and Solutions  
Lockheed Martin/General Dynamics  
Malibu Research Associates  
Metric Systems  
Micro-Sys  
MIT/Lincoln Laboratory  
MS Trading (formerly Sejin Trading, Korea))  
NASA (DFRC, Goddard, Ames)  
National Telecom & Info Administration  
NATO C3  
NATO MEWSG  
Naval Research Laboratory (NRL)  
NC3A Organization (formerly Shape Technical Center)  
Northrop Grumman  
Northrop Grumman-TRW  
Northrop Grumman—Amherst Systems  
Northrop/Litton Systems Canada Limited  
Oceantronics  
Ohio State University  
Orbit Technology (formerly Orbit/Flam & Russel, Inc.)  
Orbital Sciences Corporation/ORBCOMM  
Orbital Sciences/Space Data Division  
Pakistan Space & Upper Atmosphere Res. Comm.  
Radiation Systems, Inc.  
Raytheon/E-Systems  
Raytheon Canada LTD.  
Raytheon Co. Space and Airborne Systems  
Raytheon Technical Services Co. LLC  
SERCO (formerly RCI)  
Sea Space Corporation  
Sierra Nevada Corporation  
Sierra Technologies, Inc. (Sierra Res. Div.)  
SkyGuide (Zürich, Switzerland)  
Smithsonian Astrophysical Observatory  
Syndetix  
Syracuse Research Corp.  
TAMSCO  
TeAM, Incorporated  
Technology Service Corp.  
Telemus  
Telephonics Corp.  
Thales ATM, Inc. (Formerly Airsys, Cardion)  
Unicor/Federal Prison Industries  
University of Nevada  
University of Texas  
US Department of Commerce  
US Department of Transportation  
US DOD, DSCC Columbus  
US Air Force, Hill AFB  
US Air Force, McClellan AFB  
US Air Force, Columbus  
US Army, Fort Monmouth  
US Army, Missile Command  
US Army, CECOM  
US Army, Tobehanna  
US Army, White Sands Missile Range  
US Navy, China Lake (NAWCWD)  
US Navy, Corona Division (NSWC)  
US Navy, Crane Division (NSWC)  
US Navy, Dahlgren Division (NSWC)  
US Navy, OSO SESEF (NUWC)  
US Navy, Patuxent River (NAWCAD) (St. Inigos)  
US Navy, Pt. Mugu (NAWC)  
US Navy, Pt. Mugu (NAWCWD)  
US Navy, Port Hueneme Division (NSWC)  
US Navy, Barking Sands (PMRF)  
United Telecoms Limited  
Wenzlau Engineering  
Westinghouse Electronic Systems





8750 Shirley Avenue  
Northridge, CA 91324  
T: 818-349-8680  
F: 818-772-7577  
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## SYSTEM APPLICATIONS

- Airborne Gimbals
- Airport Surveillance Radar (ASR)
- Air Traffic Control (ATC)
- Communication Intercept (COMINT)
- Communication Systems
- Direction Finding (DF)
- Drone Control
- Electronic News Gathering (ENG)
- Electro Optical
- Electronic Warfare (EW)
- Infrared (IR)
- Low Earth Orbit (LEO) Ground Stations
- Meteorological Data Systems (MDS)
- Mobile and Shipboard Systems
- Optical Tracking
- Radar
- Radar Antenna Pedestals (search, scan, track)
- Remote Piloted Vehicles (RPV)
- Satellite Tracking
- Shipboard Stabilized Gimbals
- Signal Intercept (SIGINT)
- Simulation Systems
- Stabilized Platforms
- Telemetry Tracking
- Tracking, Telemetry & Control (TT&C)
- Unmanned Aerial Vehicles (UAV)

## PAYLOAD APPLICATIONS

- Antennas
- Cameras
- Forward Looking Infrared (FLIR)
- Lasers
- Mirrors
- Photo Cells
- Radiometers
- Sensors
- Telescopes