

## **PRECISION APPROACH RADAR** **(PAR-2020)**

### **Military Air Traffic Control Radar**

**During inclement weather, pilots and air traffic control must have critical information for safe landings. L3Harris' PAR-2020 radar provides precision approach landing services worldwide.**

PAR provides accurate azimuth and elevation position for approach and landing aircraft. L3Harris supplied the first PAR to the U.S. Army Air Corps in 1943 to help pilots land safely during inclement weather. Our PAR-2020 series continues to evolve through the process of progressive technical refresh, which provides the best available technology with long-term, cost-effective sustainability. The L3Harris AESA PARs are in use globally by over 20 armed services.

Today, L3Harris is the world's leading supplier of precision approach radars with more than 2500 PAR systems fielded over the past 75 years.

#### **RAPID DEPLOYMENT**

The L3Harris PAR-2020 system deploys quickly in challenging, rapidly evolving conditions to ensure mission success.

#### **PROVEN**

L3Harris' solution provides pilots and air traffic controllers confidence for safe landings even in the most severe weather conditions.

#### **MISSION TESTED**

The L3Harris system is field proven for survivability and is easy to operate and maintain in harsh environments.



## **Tactical Air Traffic Management**

### **BENEFITS**

- > Provides rapid global response and can be transported via air, land or sea anywhere in the world
- > Delivers high availability through active electronically scanned array (AESA) technology with transmit/receive modules
- > Supports six runway approach directions for rapid, precision landings
- > Deploys in fixed, transportable and mobile configurations for versatility



## PRECISION APPROACH RADAR (PAR) SYSTEMS

Features of the current generation PAR-2020 / AN/FPN-68A include:

### OPERATIONAL

- > Proven reliable, safe CAT II operation in low-visibility conditions
- > Available in fixed, transportable and mobile configurations
- > Changes to one of six runway approach directions in less than three minutes
- > Deployable via a single C-130H aircraft for expeditionary deployment with interim control via radio. Full operations with two C-130H aircraft loads.
- > Three-level weather display
- > Full compliant to ICAO Annex 10, Vol. 1, 3.2 specification for precision approach radar system

### TECHNICAL

- > Active electronically array technology
- > Solid-state gallium arsenide transmit/receive modules
- > Multiple waveforms and moving target detector (MTD) processing
- > Modular, open system architecture
- > Graceful degradation
- > Extensive built-in-test (BIT) capabilities

### USER-FRIENDLY DISPLAY AUTOMATION SYSTEM

Off-the-shelf US DoD and NATO-accepted PAR human machine interface (HMI) to ease controller work load

### OPTION

Radar-assisted instrument landing system (RAILS) uses the ground-based PAR-2020 to determine the horizontal and vertical deviations of a specific aircraft and transmits that data on standard instrument landing system (ILS) frequencies.

- > The aircraft ILS receiver interprets PAR data as normal ILS signals
- > Multiple runway coverage three minutes to change to one of six runway ends
- > Combined PAR/RAILS operation
- > Supports multiple glideslopes

## FEATURES

- > Fully compliant to ICAO Annex 10, Section 3.2 precision approach radar
- > Category II, 100-foot decision height, 0.25 nmi minimum
- > Coverage azimuth 30°, elevation -1° to +7°
- > Range 20 nmi in clear mode, 15 nmi in rain mode
- > Update period less than one second
- > Target speed 40 to 240 knots



### PAR-2020 MK

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Nonexport-controlled Information

L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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