Radar (Spoon Rest D [P-18]) -

Russia [1992-]

Type: Mobile Vehicle(s)
Commissioned: 1992
Operator: Air Force
Length: 6 m
Width: 4 m
Crew: 0



Sensors / EW:
- Spoon Rest D [P-18] - (1972, 1RL131) Radar, Radar, Air Search, 2D Long-Range, Max range: 370.4 km

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OVERVIEW: The P-18 radar (NATO name: SPOON REST D) is an mobile, 2-D early warning and target acquisition radar operating in the "A" Band at 150-170 MHz.

DETAILS: The P-18 provides improved angular discrimination and ECCM capabilities over the earlier P-12. It uses a single antenna for both transmission and reception. A complete system is usually composed of an antenna/shelter vehicle, a generator vehicle, and a secondary vehicle-mounted radar for IFF. Weapons systems frequently associated with the P-18 include the SA-6 GAINFUL and the SA-3 GOA SAMs.

Specifications:

Frequency: 150-170 MHz
Power output: 500-540 W (average), 200kW (peak)
PRF: 360 Hz
Range Resolution: 926 m
On/Off time: 3/5 min
Detection Ranges
Fighter size aircraft
500 m altitude: 60 km
10000m alt.: 270 km

NOTES: The P-18 entered service in 1970 and was widely exported. VHF radars such as the P-18 remain important, as they can be better at detecting stealth aircraft than more recent, higher frequency radars. Additionally, The operating

frequencies of the P-18 allows the radar signal to diffract 5 - 10 % further around obstacles and the earth's curvature than higher frequency radars.

SOURCES: Janes Radar and Electronic Warfare Systems "P-12/P-18 series early-warning radars, 08 December 2004; "SPOON REST." GlobalSecurity.org - Reliable Security Information. Accessed February 28, 2015. http://www.globalsecurity.org/military/world/russia/spoon-rest.htm; Dr Carlo Kopp, Russian VHF counter stealth radars proliferate, www.ausairpower.net/SP/DT-Rus-VHF-Radar-2008.pdf ; P-18 Radar." Wikipedia, the Free Encyclopedia. Accessed March 2, 2015. http://en.wikipedia.org/wiki/P-18_radar ; "Radar Basics." Grundlagen Der Radartechnik. Accessed March 2, 2015. http://www.radartutorial.eu/19.kartei/karte909.en.html ; "Russian / PLA Low Band Surveillance Radar Systems (Counter LowObservable Technology Radars)." Air Power Australia. Accessed March 2, 2015. http://www.ausairpower.net/APA-Rus-Low-Band-Radars.html.