# Radar (Tin Shield A [5N59]) -

## Czechoslovakia [-1992]

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



Sensors / EW:
- Tin Shield A [5N59] - (ST-68M) Radar, Radar, Air Search, 3D Long-Range, Max range: 351.9 km

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OVERVIEW: The 36D6 / 5N59 / ST-68 / ST-68U radar (NATO name: TIN SHIELD) is a semi-mobile, 3-D air surveillance and missile control radar operating in the E/F Band.

DETAILS: The TIN SHIELD is intended to detect targets at low, medium and high altitudes. It is reportedly highly resistant to jamming and ARMs. The antenna can be mounted either on its trailer, or on a mast to increase the radar horizon. It can process up to 127 targets simultaneously. Weapons systems associated with the TIN SHIELD include the SA-10 GRUMBLE and SA-20 GARGOYLE.

Specifications:

Frequency: 2-4 GHz (E/F Band)
Power output: 3 kW(average); 2.5 MW (peak)
PRF: 750-1500 Hz
Range Resolution: 250 m (range), 0.33 degrees azimuth
On/Off time: unknown
Deploy/Stow Time 1 hour (trailer mounted antenna) or 2 hours (mast mounted antenna)
Detection Ranges, 0.1 m2 RCS target

60 m alt: 20-28 km (trailer mounted antenna)
60 m alt: 30-38 km (mast mounted antenna)

Detection Ranges, 1 m2 RCS target

# Radar (Tin Shield A [5N59]) -

100 m alt:  42-45 km (trailer mounted antenna); 52 km (mast mounted antenna)
1000 m alt: 120 km
8000m alt.: 165 km

NOTES:

SOURCES: Janes Radar and Electronic Warfare Systems 2002-2003 "36D6 air defence radar, 02 July 2001, pg. 1984-86 (http://librarun.org/book/30265/1984); http://www.ausairpower.net/APA-Acquisition-GCI.html#mozTocId