The AN/ZPY-1 STARLite is a small, lightweight SAR/GMTI radar used for supporting tactical operations. Developed by Northrop Grumman, STARLite is now under contract to the U.S. Army Communications and Electronics Command for its ERMP MQ-1C Sky Warrior Unmanned Aerial System (UAS) and MQ-8B Fire Scout FCS Class IV UAS programs. STARLite offers superior performance at low cost.

Weighing 65 pounds, this compact radar system is ideal for equipping a variety of manned and unmanned aerial system platforms for mission-critical tactical reconnaissance, including:

- All-Weather, Wide Area Surveillance
- Stationary and Moving Target Detection
- Maritime Sea Search

STARLite leverages Northrop Grumman’s experience in creating the proven AN/ZPQ-1 Tactical Endurance Synthetic Aperture Radar (TESAR), which was deployed on the U.S. Air Force Predator UAV, and the Tactical Unmanned Aerial Vehicle Radar (TUAVR).

By providing precise battlefield intelligence in all types of weather and in battlefield obscurants, day and night, STARLite significantly improves battlefield situational awareness and optimizes force maneuver and engagement for mission success.

STARLite weighs 65 lbs., occupies 1.2 cubic feet, and requires less than 750W of power.
AN/ZPY-1 STARLite
Small Tactical Radar - Lightweight

Radar Modes
STARLite’s radar offers three flexible modes for tactical reconnaissance:
- Synthetic Aperture Radar (SAR)
- Ground Moving Target Indicator (GMTI)
- Maritime Moving Target Indicator (MMTI, in development)

The radar provides two SAR modes: Strip and Spot. In Strip mode, the radar imagery is either parallel to the aircraft flight vector or along a specified ground path independent of the aircraft flight path. In Spot mode, the radar produces a high-resolution image at a specific geographic patch.

In the GMTI mode, the radar provides moving target locations overlaid on a digital map. The MMTI mode performs a similar function for targets over water.

Ground Control Station Compatibility
STARLite is designed to be compatible with a standard ground control station. The ground station has the hardware and software tools necessary to control the radar and record and display the downloaded SAR imagery and GMTI targets for increased situational awareness and battlefield management.