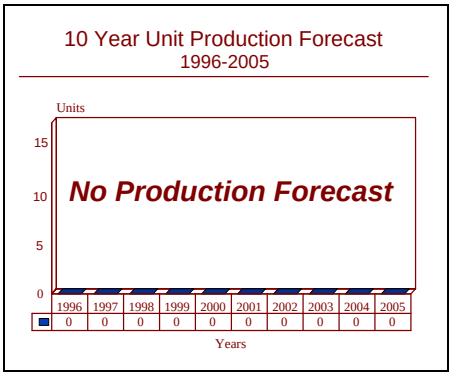
SSR-1A - Archived 8/97

Outlook

- Remains in active service aboard various US Navy combatants
- Production believed to be complete
- Spares/repair support services are ongoing



Orientation

Description. The AN/SSR-1/1A Satellite Signal Receiving System is a shipboard UHF satellite receiver.

Sponsor

US Navy
Space & Naval Warfare Systems Command
(SPAWAR)
Washington, DC
USA

Contractors

Motorola Inc
Government Electronics Group
8201 E McDowell Road
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USA
Tel: +1 602 441 3033
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(Prime: Development/production)

Status. In operational service; production complete.

Total Produced. An estimated 700 units have been produced.

Application. Surface ship SATCOM for worldwide fleet broadcasts.

Price Range. Unit cost is an estimated US$115,000 (in FY90 US dollars) based on contract cost averaging.

Technical Data

Design Features. The SSR-1 UHF downlink receive-only shipboard terminal is designed to receive teletype fleet broadcasts relayed via the Fleet Satellite Communication System (FLTSATCOM). The system receives satellite-relayed FM or phase-shift modulation transmissions. The incoming transmissions are decoded into teletype channels. The SSR-1 provides a capability to receive worldwide fleet communications.

The SSR-1 system consists of four AS-2815 miniloop antennas, the AM-6534 Amplifier-Converter, an MD-900

Combiner-Demodulator, and the TD-1063 Demultiplexer. The system permits constant worldwide reception of fleet broadcasts, and reportedly has an MTBF in excess of 5,000 hours.

Operational Characteristics

Mode	FM or PSK
Modulation bandwidth:	25 kHz (optional)
RF Frequency Band:	240-320 MHz
Frequency Channels:	Switch selection of one of six in-band
Noise Immunity:	Built-in Impulse Noise Blanking

Variants/Upgrades

The current production model is the SSR-1A; no variants have been identified

Program Review

Background. The SSR-1 was developed by the former Naval Electronics Systems Command and Motorola to provide all US Navy surface ships with the ability to receive worldwide fleet broadcasts 24 hours a day. Production began in 1974. The system is installed in virtually all ocean-going ships in the US Navy. The SSR-1A is nuclear-hardened, corrosion-resistant, and fully compatible with the electromagnetic environment found aboard ships. Impulse noise blanking circuits eliminate radar and other pulse interference. The last publicly confirmed contract was awarded in June 1990. Once this contract is completed, no further orders, except for maintenance and spares, are expected.

NOTE: The Navy is concentrating its effort on developing a new system, the High Speed Fleet Broadcast (HSFB). For further information, see the related report entitled **FLEETCOMMUNICATIONS (TACTICAL)** in our C^3I Forecast binder.

Funding

No specific funding information is available. Funding for support and maintenance is most likely supplied by the Navy's Fleet Communications (Tactical) program.

Recent Contracts

Contractor	Award ($ millions)	Date/Description
Motorola	0.7	Jul 1988 - SSR-1A Fleet Broadcast Receiver System FMS case (CN-P-CDH) (N00039-88-C-0246)
Motorola	4.7	Jun 1990 - For 41 SSR-1A Fleet Broadcast Receivers

Timetable

1974	Production initiated
1990	Last ordered awarded
1997	In active service; support and maintenance ongoing.

Worldwide Distribution

The SSR-1 inventory is limited to US Navy surface ships.

Forecast Rationale

The SSR-1A Satellite Signal Receiving system remains in active service aboard various US Navy combatants. With the Navy now accelerating the decommissioning of older classes of ships, as well as downsizing the fleet in general, those SSR-1s that are deemed salvageable may well be returned to the inventory for future installations, reducing procurement requirements for new receivers. Therefore, we are not forecasting any further production at this time. Motorola will of course continue to provide spares support for the remaining active units.

Ten-Year Outlook

Production is believed to have been completed by this time. No further production is expected; as such, this report will likely be dropped from coverage next year.

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