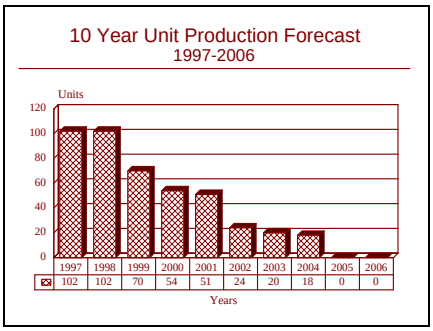
ARN-123 - Archived 8/98

Outlook

- In production
- VOR/ILS systems will be retired when GPS comes on line
- MLS cancellation will keep ARN-123 in place until 2000



Orientation

Description. VOR/ILS receiver.

Sponsor
US Army
Communications & Electronics Command
Fort Monmouth, New Jersey (NJ)
USA

Contractors
AlliedSignal Aerospace Co
Air Transport Avionics Division
2100 NW 62nd St
Ft Lauderdale, Florida (FL) 33309
USA
Tel: +1 305 928 2100
Fax: +1 305 928 3000

Status. In production.

Total Produced. Through 1996, approximately 5,977 units were produced.

Application. AH-1, C-130, CH-47, OH-58, T-42, UH-1, and UH-60 aircraft.

Price Range. Unit cost for the ARN-123(V)4 is US$7,800.

Technical Data

Design Specifications. The ARN-123 is a VHF omni range (VOR) and instrument landing system (ILS) consisting of a 200-channel solid-state VOR/LOC remote-mounted receiver, a 40-channel glide-slope receiver, a marker-beacon receiver and a cockpit control/display unit.

The Air Force uses the somewhat similar ARN-127 as its standard receiver. The packaging of the radios appears to be the main difference between the two systems, both having the same weight and volume. The ARN-123 is composed of a receiver and control unit. It has been sold to the Army's inventory of utility helicopters, as well as equipping various models sold as FMS.

Variants/Upgrades

There are four known variants: ARN-123(V)1; ARN-123(V)2; ARN-123(V)3; and ARN-123(V)4.

Program Review

Background. The ARN-123 was originally developed for commercial aircraft by Bendix. It was ruggedized and improved to meet stringent military requirements. Bendix had to modify the system, guaranteeing a specified mean time between failure (MTBF), and improving warranties or reliability assurances. The ARN-123 incorporates features from several other Bendix commercial products.

Funding

None identified in current US budget documents.

Recent Contracts

Contractor	Award ($ millions)	Date/Description
Bendix	0.7	Oct 1991 — ARN-123 radio receiver sets (DAAB07-91-C-P504/P00001)
Bendix	0.1	Dec 1992 — ARN-123 radio receiver sets (DAAB07-91-C-P501/P00008)

Timetable

	1977	Production of the ARN-123 began
Apr	1984	First Army production deliveries began
	1986	ARN-123 sold as FMS to Japan

Worldwide Distribution

Japan - Army: AH-1S, CH-47J, and UH-1H
South Korea - Army: AH-1S and UH-1B;
Air Force: UH-1H
United States - Army: AH-1S, EH-1H/X, EH-60A, OH-58D, UH-1H, and UH-60A; - Coast Guard: HC-130H

Forecast Rationale

The ARN-123 now equips various helicopters found in the US Army inventory, with production continuing at a declining rate to support new-production buys of the UH-60, the OH-58D AHIP program, and domestic and foreign spares support.

In light of the cancellation of MLS expansion and the still-developing status of current GPS technology, the expected phase-out of existing ILS systems will be considerably less sweeping and less hasty than had been envisioned. Now that the successor system has been bumped in favor of *its* successor, VOR/ILS systems such as the ARN-123 will need to remain in service at least through the remainder of the decade.

Activity beyond 2000 is predicated on the advancement of GPS. Once technological advances put a new GPS landing system into service, we expect the ARN-123 to be relegated to use as a back-up system, gradually being phased out entirely.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR PRODUCTION

High Confidence	Good Confidence	Speculative

			Level					Level				
Designation	Application	thru 96	97	98	99	00	01	02	03	04	05	06	Total 97-06
ARN-123	OH-58D (US ARMY)	360	24	24	24	18	15	0	0	0	0	0	105
ARN-123	UH-1H (JAPAN)	197	18	18	0	0	0	0	0	0	0	0	36
ARN-123	UH-60A/L/M (US ARMY)	1517	48	48	36	36	36	24	20	18	0	0	266
ARN-123	VARIOUS (UNSPECIFIED)	712	12	12	10	0	0	0	0	0	0	0	34
ARN-123	Prior Prod'n:	3191	0	0	0	0	0	0	0	0	0	0	0
Total Production		5977	102	102	70	54	51	24	20	18	0	0	441