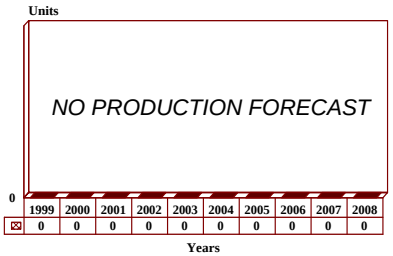
Anti-Navires Leger - Archived 6/2000

Outlook

- Pre-feasibility studies conducted; program shelved indefinitely. Main development focus now on larger supersonic missiles for use by fixed-wing aircraft and ships
- This program remained in preliminary design stage without ever receiving formal development go-ahead
- No production anticipated of a helicopter-launched supersonic anti-ship missile at this time

10 Year Unit Production Forecast
1999-2008



Orientation

Description. Lightweight anti-ship missile.

Sponsor. The Federal Republic of Germany's Ministry of Defense through the Bundesmarine (now the Deutsche Marine); private funds from both firms may be involved in the development.

Contractors. Euromissile was expected to act as managing agency for this program. DaimlerChrysler Aerospace was expected to be the prime contractor.

Major Subcontractor. Bayern Chemie.

Status. Pre-feasibility studies have been conducted. The Anti-Navires Leger (ANL) never left its preliminary design stage; no formal go-ahead was received. France had favored the program, but the Federal Republic of Germany was hesitant. Development of the ANL had hinged on a go-ahead for the ANS (see separate report).

Total Produced. Production never commenced.

Application. Light anti-ship missile suitable for integration with helicopters and light vessels. This missile is envisioned as a replacement for the Kormoran and the AS.15TT.

Price Range. Initially estimated at $594,700 in Fiscal 1994 dollars.

Technical Data

Design Features. The technical specifications for this missile were never available. The missile's weight was to be around 200 kilograms (440 pounds), while a speed in excess of Mach 2 was planned, and a range of 30 kilometers (about 18 miles).

Propulsion. Propulsion of the ANL was to have been by an unspecified solid fuel ducted ramjet, based on technology being developed by Bayern Chemie for the Anti-Navires Supersonique. Range was to be on the order of 30 kilometers (16.2 nautical miles), with a high degree of end-game maneuverability in order to evade the expected sophisticated defenses of ships in the latter nineties. The provision of a solid-fuel propulsion system on the ANL was a compromise between France and Germany, which satisfied France's requirement for a liquid-fueled missile (ANS) and Germany's need for a solid-fuel weapon (ANL).

Control & Guidance. An inertial guidance system was to be used for the missile's approach phase of flight,

with the missile switching to an active radar guidance system for the terminal stage. It was never known whether the Anti-Navires Leger missile would fly in a sea-skimming mode.

Launcher Mode. The ANL was being developed for use by helicopters, combat and maritime patrol aircraft, and surface vessels.

Warhead. The warhead's weight was approximately 50 kilograms (110 pounds) of high explosives. This warhead may well have been an enhanced type such as that used on the Kormoran to ensure the destruction of the target ship.

Variants/Upgrades

No variants or upgrades have been manufactured or are planned.

Program Review

Background. In mid-1986, the Bundesmarine of the Federal Republic of Germany concluded a study which indicated the need for a light anti-ship missile to replace the Kormoran and similar class missiles for introduction in the latter nineties. In response to the official request issued shortly thereafter, Messerschmitt-Bolkow-Blohm, already working on the Anti-Navires Supersonique replacement for the Exocet with Aerospatiale as the lead contractor, made an agreement with the French firm to jointly begin work on a new, lighter missile to meet the Bundesmarine requirement. Apparently it was decided that a good deal of the technology being developed for the Anti-Navires Supersonique could be incorporated in the design of the new missile. Even though Germany initially requested the study for this missile and Messerschmitt-Bolkow-Blohm (now part of DASA) was expected to be the prime contractor, it was Aerospatiale that made the initial announcement of the project in late 1986.

Funding

Funded by the Federal Republic of Germany's Ministry of Defense through the Bundesmarine and the French Ministry of Defense; possible private funds from both Aerospatiale and DASA.

Recent Contracts

No development contracts have been awarded pertaining to the ANL. Small feasibility study contracts may have been awarded to Aerospatiale and DASA, but no values have been announced.

Timetable

Month	Year	Major Development
	1985-86	Requirement developed
Mid	1986	Requirement study contract issued
Nov	1986	Anti-Navires Leger program revealed by Aerospatiale
	1987	Development continues
	1988	ANL in preliminary design stage
	1989-90	Matra unveiled Anti-Navires Futur program
	1993-94[(a)]	ANL awaits development go-ahead
	1995	Development postponed

[(a)] estimate

Worldwide Distribution

Distribution of the ANL was expected to be initially limited to **Germany** and **France**, with some export possibilities to NATO and its allies.

Forecast Rationale

The development of supersonic anti-ship missiles is currently focused on larger systems capable of being carried by fixed-wing aircraft and warships. Should these programs prove successful, the development of smaller versions for use by rotary-wing aircraft could follow.

For now, although interest does exist, no Western European country has immediate plans for the development of a helicopter-borne supersonic anti-ship missile. Some money has been provided for studies, but none for actual system development. With many Western European defense budgets stagnant, declining or experiencing very moderate increases, it is unlikely that any new helicopter-borne missile research effort will commence until after the turn of the century.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR PRODUCTION

			High Confidence Level				Good Confidence Level				Speculative			
Missile	**(Engine)**	**thru 98**	**99**	**00**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**Total 99-08**
EUROMISSILE													
ANL(a)	UNSPECIFIED	0	0	0	0	0	0	0	0	0	0	0	0
Total Production		0	0	0	0	0	0	0	0	0	0	0	0

(a)Thru years does not include RDT&E units.