

ARCHIVED REPORT

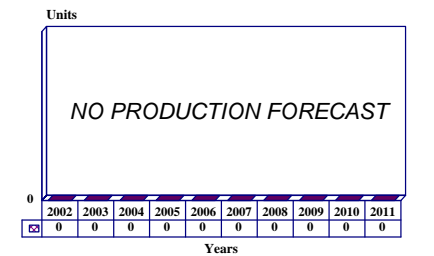
For data and forecasts on current programs please visit
www.forecastinternational.com or call +1 203.426.0800

SOKO G-4 Super Galeb – Archived 2/2003

Outlook

- G-4 production has apparently not resumed
- The Yugoslav Air Force may upgrade at least some of its G-4s to the G-4M configuration

10 Year Unit Production Forecast
2002 - 2011



Orientation

Description. Single-engine, two-seat training/light strike aircraft.

Sponsor. Air Force of the Federal Republic of Yugoslavia.

Contractors. Vazduhoplovna Industrija SOKO, Mostar, Bosnia and Herzegovina. Some machinery and jigs were transferred in 1992 to Utva Aircraft Industry, Pancevo, Serbia. Utva is currently called LOLA Utva Aircraft Industry.

Status. Production halted in May 1992 with abandonment of the SOKO factory in Mostar. Some Super Galeb airframes were left uncompleted.

Total Produced. Through May 1992, approximately 123 G-4s had been produced.

Application. Intermediate/advanced flight and weapons training; light attack.

Price Range. Estimated at \$4.25-\$4.5 million in 2002 US dollars.

Technical Data

(G-4)

Design Features. Although sharing the Galeb (Seagull) name of its G-2 predecessor, the G-4 Super Galeb was actually an all-new design resembling the BAE Systems Hawk in both size and layout. It is a

cantilever low-wing monoplane with swept wing and vertical and horizontal stabilizers. An all-moving, downward-canted horizontal tail is employed to enhance pitch and yaw control.

	<u>Metric</u>	<u>US</u>
Dimensions		
Length overall	11.86 m	38.92 ft
Height overall	4.28 m	14.04 ft
Wingspan	9.88 m	32.42 ft
Weight		
Empty, equipped	3,134 kg	6,909 lb
Max internal fuel	1,307 kg	2,881 lb

	<u>Metric</u>	<u>US</u>
Max TOW, training	4,600 kg	10,141 lb
Max TOW, combat overload	6,300 kg	13,889 lb
Max payload	1,280 kg	2,822 lb
Performance		
Max level speed at altitude	Mach 0.81	Mach 0.81
Range ^(a)	2,499 km	1,347 nm

Propulsion

G-4 (1) Rolls-Royce Viper 632-46 single-shaft turbojet engine rated 17.8 kN (4,000 lbst), built under license in Yugoslavia by Orao Air Depot.

Armament

One 23 mm twin-barrel rapid-fire cannon, with 200 rounds, in ventral gun pod. Four underwing hardpoints can carry bombs, rockets, gun pods, or (on inner attachments only) auxiliary fuel tanks. Outer attachments stressed to 250 kilograms; inner attachments stressed to 350 kilograms.

Crew

Two, seated in tandem.

^(a)With two drop tanks.

Variants/Upgrades

G-4M. Improved variant featuring wingtip missile rails, a maximum payload of 1,680 kilograms (3,704 pounds), a new head-up display, improved cockpit ergonomics, an identification friend-or-foe (IFF) system, and upgraded fire control, sighting, and avionics systems. It is powered by the same Viper turbojet that powers the G-4 aircraft. First flight had been planned for mid-1992 but did not occur.

Program Review

Background. The G-4 Super Galeb was developed as a replacement for SOKO's earlier G-2 Galeb as well as for the Lockheed T-33. Two G-4 prototypes were built, plus a third airframe for ground testing. The initial prototype flew for the first time in July 1978; first flight of the second prototype followed in December 1979. A series of six preproduction aircraft was also built. Full production of the G-4 began in 1983. Myanmar has a total of 12 Super Galebs and is the only operator of the aircraft besides the Yugoslav Air Force.

Super Galeb manufacturer SOKO is based in Mostar in the breakaway republic of Bosnia and Herzegovina.

The SOKO factory was mostly destroyed or evacuated to Serbia in the spring of 1992. The Yugoslav Army stripped the factory, and some jigs and machinery were transported to the Utva plant in Pancevo, Serbia.

The Yugoslav Air Force has been planning to upgrade its existing G-4s with provisions for air-to-air and air-to-surface missiles, improved electronic equipment, and improved powerplant de-icing. The status of the G-5, an advanced trainer (mostly derived from the G-4) that had been under development, is uncertain.

Funding

Not available.

Recent Contracts

None

Timetable

<u>Month</u>	<u>Year</u>	<u>Major Development</u>
Jul	1978	First flight of initial Super Galeb prototype
Dec	1980	First flight of initial preproduction aircraft
	1983	Full production begun
May	1992	Production halted due to Yugoslav conflict

Worldwide Distribution

Myanmar	12
Yugoslavia (Serbia-Montenegro)	88 ^(a)

^(a)Estimate

Forecast Rationale

Production of the Super Galeb was halted in May 1992 with the abandonment of the SOKO factory in Mostar. With the removal of some jigs and machinery from the G-4 production line to Serbia, LOLA Utva may have the capability to resume production of the aircraft. However, such production appears not to have resumed. The company Yugoimport-SPDR is marketing both the G-4 and the G-4M.

Financial difficulties could prove to be an obstacle to additional new production of the Super Galeb for the Yugoslav Air Force. New production of the G-4M

and/or G-5 versions is equally problematic. However, retrofits to existing Super Galebs in Air Force inventory might occur.

Plans are being formed to upgrade at least part of the Air Force's G-4 fleet to the G-4M configuration. The modified G-4Ms would replace the service's J-1 Jastrebs in light attack duties.

Although an eventual resumption of Super Galeb new production cannot be completely ruled out, no forecast is issued for such production.

Ten-Year Outlook

ESTIMATED CALENDAR YEAR PRODUCTION

Aircraft	(Engine)	thru 01	<u>High Confidence Level</u>			<u>Good Confidence Level</u>			<u>Speculative</u>			Total 02-11	
			02	03	04	05	06	07	08	09	10		11
SOKO, MOSTAR G-4	VIPER MK 632-43/46	123	0	0	0	0	0	0	0	0	0	0	0
Total Production		123	0	0	0	0	0	0	0	0	0	0	0