Tomorrow's Affairs
Analysis of today
Assessment of tomorrow

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The Pentagon extends Patriot production beyond the military sector

The American defence company Lockheed Martin, manufacturer of the PAC-3 MSE interceptor for the Patriot anti-aircraft system, announced yesterday that it had received the first batch of casings for this missile from GM Defense.

The contract was signed on 6 August, and the parts were delivered on 28 August.

General Motors' defence subsidiary completed the job in 22 days, using casting and precision machining capabilities developed for the automotive industry.

The companies have not disclosed the number of casings delivered, the contract value, the scrap rate or the results of the receiving inspection, so the size of the first batch cannot yet be estimated.

They have, however, released information important to the future pace of production: one of America's largest industrial systems is now making a part for the interceptor, whose annual output the Pentagon and Lockheed intend to raise from approximately 600 to about 2,000 units.

For such an increase, the existing military factories and their established circle of suppliers are not sufficient.

GM Defense manufactures the casings under this contract, while the engine, guidance system and final assembly remain with specialised military suppliers.

As the country increases its missile orders, each supplier must accelerate production. If even one cannot deliver enough parts on time, assembly of the missile is delayed.

The first shipment has yet to become regular production

The initial delivery shows that GM Defense can produce the required casing to Lockheed's specifications.

The real test will begin with the next series, when it will become clear how many casings GM can reliably ship each month, whether quality remains consistent and how many parts pass receiving inspection without rework.

Only those results will show whether the new supplier can genuinely accelerate production of the PAC-3 MSE interceptor.

In a memorandum of cooperation, Lockheed Martin and GM Defense agreed to determine which parts of the missile systems GM could produce in its factories.

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The PAC-3 MSE interceptor casing is the first part of that plan to reach contracted production and delivery.

The results of the next series will show whether the same model can be applied to other components and programmes.

This series will be more important than the first. A supplier for a missile programme must reproduce the same results across hundreds or thousands of units, with documented provenance of materials and control at each stage of work.

The automotive industry works with such discipline, but military standards add different checks, longer documentation-retention periods, and responsibility for a part that must function in extremely demanding conditions throughout its working life.

The supplier network determines the pace of production

The PAC-3 MSE is an interceptor missile in the Patriot system, designed to destroy ballistic and cruise missiles, as well as other airborne targets.

It primarily destroys its targets through direct impact and kinetic energy, unlike interceptors that rely on a traditional fragmentation warhead.

Lockheed Martin performs final assembly, while various suppliers produce the guidance system, rocket motor, electronic assemblies, casing and other parts.

Increasing overall production therefore requires expanding all these capacities simultaneously.

In recent months, the Pentagon has been concluding multi-year contracts with suppliers whose current capacity limits production of the PAC-3 MSE.

Boeing is to triple production of guidance systems, L3Harris is expanding production of rocket engines, and General Dynamics and other suppliers have been awarded multi-year contracts to increase capacity and accelerate deliveries of specialised parts.

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GM Defense won the casing contract because it can use GM's casting and precision metalworking equipment for the job while meeting military quality standards.

This gives Lockheed an additional supplier, and existing military factories can redirect personnel and equipment to the more complex parts of the interceptor.

This approach allows Lockheed to focus its capital and expertise on final integration, testing and components for which there are few alternative manufacturers.

At the same time, the number of factories that can support the programme in the event of a breakdown, labour shortage or disruption affecting an existing supplier is increasing.

For decades, American arms factories have adapted to relatively small, pre-planned annual orders and incremental production increases.

The wars in Ukraine and the Middle East, and the need for allies to replenish stocks, have sharply raised demand beyond the capacity built for peacetime needs.

A seven-year contract changes the investment calculus

Lockheed Martin delivered 620 PAC-3 MSE interceptors in 2025, more than 20 per cent above the previous year's output.

At the end of July, the US military concluded a seven-year framework contract that allows the United States and allied countries to order interceptors up to a total value of 58.6 billion dollars.

That figure is the upper limit of potential orders, not money already paid to Lockheed.

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To meet expected orders, Lockheed plans to increase annual production capacity to approximately 2,000 interceptors. Predictable demand changes producers' behaviour.

A factory, a new machine or an expanded foundry is hardly justified when the

government contracts small quantities year after year and leaves future orders undefined.

A seven-year timeframe gives companies a reason to hire people, reserve materials and invest in equipment that will pay for itself over a longer series of deliveries.

Lockheed Martin intends to invest between eight and nine billion dollars by 2030 in expanding missile and other munitions factories.

The investments will cover more than twenty plants, and their total production and storage space should increase by almost 50 per cent.

War spending pushes civilian factories towards defence production

GM's first delivery raises the question of how many jobs from the missile programme can be taken over by manufacturers that have so far worked mainly for the civilian market.

The limit is determined by the type of component, security requirements, necessary permits and the complexity of quality control.

The automotive industry has many production engineers, established supplier networks, equipment for precise metalworking and experience in rapidly scaling up serial production.

> GM's role offers a realistic picture of the future model

It can most quickly take over the manufacture of casings, castings, machined metal parts, cables and power systems.

Explosives, rocket engines, guidance systems and sensitive electronic assemblies must be produced in specialised facilities with the appropriate permits and professional staff.

GM's role offers a realistic picture of the future model. The Pentagon is not going to turn car factories into fully fledged missile plants.

They will be given tasks that they can carry out more effectively and quickly than overstretched military suppliers, while end-to-end integration and the most sensitive technologies remain within the existing defence system.

Quality control sets the pace

Series production will mark a more demanding phase of the business, as each new supplier must be qualified, their process approved, and parts inspected before installation.

If problems are not discovered until later, the higher initial speed can cause delays, rework and costs that negate the time gains.

GM has entered the production chain, but only regular series deliveries will show whether this has really accelerated production of the PAC-3 MSE

The success of the collaboration will be measured by the number of cases GM ships each month, the proportion of parts that pass Lockheed's inspection without additional processing, the time required to produce each batch and growth in the total number of completed interceptors.

The companies have not yet released this information. For now, it is confirmed that GM has entered the production chain, but only regular series deliveries will show whether this has really accelerated production of the PAC-3 MSE.

Demand for air defence from the United States and allied countries currently provides enough business to involve companies like GM.

Their long-term survival in military programmes will depend on regular annual orders that justify dedicated equipment, trained teams and tighter production controls.

The Pentagon is likely to continue awarding multi-year contracts to civilian manufacturers that meet the required standards.

The real test will come when current emergency purchases are reduced, because decisions by Congress and allied governments will then show whether there is permanent business for the newly created capacity.