

# Boeing flies Seek Spinner

Boeing has flown the US Air Force Seek Spinner anti-radar cruise missile in free flight for the first time. The vehicle, launched from a ground-based container, flew for 1hr 20min.

Boeing Military Airplanes is testing Seek Spinner (which is based on its Brave 200 unmanned air vehicle) under a \$63 million, 18-month USAF contract awarded in September 1987. The vehicle is intended as a low-cost, propeller-driven anti-radar missile, capable of loitering until the radar is activated, when it dives into the attack.

This is a similar concept to the Tacit Rainbow missile currently undergoing full-scale development by Northrop. Although Tacit Rainbow is air-launched, and powered by a small jet engine, Boeing,

Northrop, and Raytheon are studying a ground-launched version for use by the Army and Marines.

The current Pentagon plan for anti-radiation cruise missiles is to buy the air-launched Tacit Rainbow for the Navy and Air Force and begin development of a ground-launched Tacit Rainbow system for the Army in 1990. This idea ran into difficulties in Congress, when the House of Representatives argued that Seek Spinner was cheaper, and available sooner, for certain missions. A compromise with the Senate was agreed, and Seek Spinner remains funded—for the present.

Seek Spinner is a member of the Boeing „robotic air vehicle (Brave) family of low-cost multi-purpose drones.



Boeing's Seek Spinner ground-launched anti-radar drone has completed its first free flight

## Indian interceptor progresses

India is about to begin the design phase of its ambitious light combat aircraft (LCA), programme according to Defence Ministry scientific advisor Dr V. S. Arunachalam.

The definition of dimensions, weight, performance, and other parameters was now complete and represented 50 per cent of the total project, he said.

The statement followed severe criticism of the project's progress by the Auditor General. Dr Arunachalam conceded the definition phase was behind schedule, but insisted: "We will catch up in the design stage".

LCA was originally conceived in 1978, but it was only sanctioned and entrusted to the Aeronautical Development Agency (ADA) in August 1983 for completion in eight to ten years. The original budget was Rs5,600 million (\$378 million). Now, however, Dr Arunachalam says that he will be happy if the final cost is inside Rs20,000 million, and critics warn that it could be still more.

Despite having developed the HF-24 Marut fighter in the late 1950s, India has since fallen behind in fighter design. The ADA is having to approach

Western companies for assistance to plug the gap. It has already talked with Dassault and signed an agreement on "mission area" co-operation with the USA. A mainframe computer urgently needed for research arrived at Bangalore in March and the US Government has cleared a number of high-technology manufacturers to offer items such as brakes and ejection seats.

General Electric is to supply 11 F404 engines for prototype development and Ericsson of Sweden has agreed to co-operate in producing the multi-mode radar.

## Bush to name Tower for defence

The next US defence secretary looks almost certain to be former Texas senator and Senate Armed Services Committee chairman John Tower.

President-elect George Bush is under pressure to appoint a defence secretary who is interested and able to carry out the procurement reforms called for by the Packard Commission. Tower has strong management experience, and is on the boards of directors of several major companies (including British Aerospace Inc).

With his strong power base inside the Pentagon and on Capitol Hill, Tower faces criticism from moderates that he

might have too much influence over policy issues. For this reason, the Bush transition team is trying to ensure that the deputy secretary and principal undersecretaries are Bush, rather than Tower, appointees.

Tower, 63, is known to be a strong supporter of continued high defence expenditure, casting him in much the same traditionalist Republican mould as former Reagan defence secretary Caspar Weinberger. "I don't think we put balancing the budget as our number one priority," he once said. "We put national security first."

The new secretary will have to preside over a difficult era in

defence spending, however, in which programmes begun under the Reagan administration may have to be stretched, curtailed, or eliminated to accommodate reduction of the US budget deficit.

Tower was chairman of the Senate Armed Services Committee from 1980 to 1984. But he is perhaps better known as the man who headed the investigation into the Iran-Contra affair last year—a difficult brief that he is generally considered to have discharged well. Following his resignation from the Senate in 1984, he became part of the Reagan arms negotiation team in Geneva.

## Iraq requests Fencer

The Soviet Union is considering the sale of Sukhoi Su-24 Fencers to Iraq. The Iraqi request to buy this advanced fighter is part of a comprehensive plan aimed at restructuring the Iraqi Air Force after the long war with Iran. An Israeli source says, "the Russians are ready now to sell this aircraft, and others, to any ally country that is capable of paying for them".

Iraq is the second Middle Eastern country likely to buy the Su-24. Syria signed a contract at the end of 1987 to buy the Russian-made strike fighter, although no deliveries have been made yet. Israeli sources indicate that Syria is again unable to meet the Russian payment requirements.

The planned purchase of Su-24 deep-penetration interdiction aircraft is intended to upgrade the Iraqi Air Force's ability to perform accurate long-range strikes, the need for which was brought home in the war with Iran when the Iraqis made massive use of surface-surface missiles.

The Iraqi Air Force operates at least one squadron of the MiG-29 Fulcrum fighters and has additional MiG-29s on order.