This photograph, taken by the Royal Norwegian Air Force over the Barents Sea near Kola, is the first to show an operational Sukhoi Su-27 Flanker. In the F-15 class, Flanker is a long-range air-superiority fighter with long-range look-down/look-down capability. The production model differs from the prototype (see Flight, December 14, 1985) in having a rear fuselage redesigned to resemble that of the F-15, plus an extended tailcone, cutback fin-tips, large ventral fins, and a higher-aspect-ratio wing with squared off tips and full-span leading-edge flaps. Weapons on this aircraft include infrared-guided AA-10 Alamos on the wing pylons and radar-guided Alamos under the engines and on the centre-line pylon. A large-calibre cannon is carried internally, and an infrared sensor ball is just ahead of the cockpit, as on the MiG-29 Fulcrum.

**Propfanned G2 takes to the air**

**MARIETTA**

The first flight of the Nasa/Lockheed Propfan Test Assessment (PTA) aircraft with its eight-bladed Hamilton Standard propfan attached took place last week, reports Julian Moxon. The event marks the first time a single-rotation propfan has taken to the air.

Lockheed test pilot Frank Haddon tells Flight that the 136min flight went without a hitch. During the first of two functional checkouts the Gulfstream 2 reached a maximum altitude of 10,000ft and a top speed of 210kt. The propfan operated for 38min at around 75 per cent torque.

The second functional test, due to be carried out this week, should clear the propfan's flutter performance. During subsequent flights the 6,000s.h.p. Allison Model 501-M78 engine will gradually be opened up to full power to test the 9ft diameter propfan at its Mach 0-89 maximum speed. A 150-hr test programme is planned, during which the propulsor's structural and acoustic performance will be evaluated.

After the second of two inflight engine starts, the G2 was taken to 10,000ft for initial evaluation. Faddon says he felt a "slight vibration" from the propfan at one point, but otherwise the test revealed nothing of note. He said that the flight engineer (seated in the aft cockpit) pulled his soundproofed helmet away from one ear during the flight and heard a "very sharp, piercing sound". All soundproofing has been removed to enable measurement of cabin noise.

- The first flight of the General Electric Unducted Fan engine, mounted on the port side of a McDonnell Douglas MD-80 is due next week. The engine is an improved version of that tested on a Boeing 727.