Unbemanntes Kampf Flugzeug (UKF/RPV) All three main airframe manufacturers are working on general risk-reduction research into unmanned combat aircraft of various kinds and ideas have progressed well beyond the rather costly and vulnerable remote-piloted fighter. Dornier and VFW-Fokker are following broadly similar lines and are co-operating in a target-location and navigation experiment to be carried out with a modified G.91T. MBB is investigating rather different concepts, possibly involving control from airborne command stations. This effort forms part of the KEL and ZTL programmes initiated by the German ministries of defence, economics and technology and might lead to a seven to ten-year development programme starting in 1979 or 1980.

Work began in 1972 and all three manufacturers made a presentation to the German defence ministry late that year. It was decided that air-to-air RPVs were too complex and costly and that the critical technical areas in the air-to-ground role were target acquisition, en route navigation, target approach, weapon delivery and a secure RPV-ground data link. Hardware trials were called for, with VFW-Fokker being appointed prime contractor for the preparation of a manually piloted G.91T two-seat-daert.

VFW-Fokker is proposing this unmanned combat aircraft. It has a normal undercarriage and a semi-enclosed weapon bay

This will carry an AEG-Telefunken underwater pod containing television, an Eltro forward-looking infra-red (FLIR), a basic two-axis stabilisation system and a video transmitter. From Oldenburg airfield the G.91T will be trained to containing television, an Eltro forward-looking infra-red (FLIR), a basic two-axis stabilisation system and a video transmitter. From Oldenburg airfield the G.91T will be trained to mean peak picture to the ground operator whenever the Sevas detected a heat-radiating target. The operator would quickly examine the picture and simply reply “Attack” or “Ignore.” It is felt that he would not have time to observe a continuous visual image or to exercise real-time control. The aircraft could also carry passive-warning radar to identify transmitting SAM vehicles amidst a large armoured force.

The low data rate of the proposed link might allow the use of HF or even lower frequencies, which would eliminate the need for line-of-sight contact. Control range could be extended 200km (120 miles) into enemy territory and there would be no need for airborne relay stations. Countermeasures would be made extremely difficult by both the low frequency and the low transmission rate.

Mini-RPV Various mini-RPV roles have been envisaged, mostly in the USA, including laser target designation and the “Kamikaze” method of attacking enemy radars. VFW-Fokker has investigated various mini-RPV applications and suggests one for reconnaissance and fire control. It is possible to produce a mini-RPV capable of flying high or at night to avoid visual detection and slowly enough to avoid radar moving-target indication systems. Using a heat-radiating target. The operator would quickly examine the picture and simply reply “Attack” or “Ignore.” It is felt that he would not have time to observe a continuous visual image or to exercise real-time control. The aircraft could also carry passive-warning radar to identify transmitting SAM vehicles amidst a large armoured force.

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Kiebitz can be used to carry other sensors, communications and ECM devices (including the Decca RDL-2 radar-warning receiver), and civil equipment. A further current development is the DBP Seekielbich, which would provide ships with a greatly extended detection and guidance capability. German Army trials of Argus are to be held towards the end of 1979 or 1980.

Sevens would give the aircraft a degree of “intelligence,” but it could be diverted by decoy targets.

Only at the third stage is a live air-to-ground data link envisaged. The link would be triggered to transmit a still picture to the ground operator whenever the Sevas detected a heat-radiating target. The operator would quickly examine the picture and simply reply “Attack” or “Ignore.” It is felt that he would not have time to observe a continuous visual image or to exercise real-time control. The aircraft could also carry passive-warning radar to identify transmitting SAM vehicles amidst a large armoured force.

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