

Subject:	Installation of transponder antennas at the fuselage behind or lateral to the landing gear on an aircraft with CFRP fuselage
Affected:	ASW 27 TCDS EASA A.220 all serial Nos.
Urgency:	none, optional on customer request
Classification:	minor change
Reason:	<p>Aircrafts being operated in the German airspace have to be equipped with instruments according to the German FSAV (regulation of flight safety equipment). For operation in foreign airspace the national valid regulations have to be followed.</p> <p>This technical note is based on the following approval: EASA.A.C.08991 of January 29th, 2008.</p>
Action:	<p>The antenna is located outside the fuselage behind or lateral to the landing gear. For installation of the antenna a hole has to be drilled into the fuselage shell. The correct position on the individual aircraft is described in the latest version of the document „AW 17 Installation of transponder antennas“ (German translation: Einbau Transponderantenne“) issued by Schleicher Company.</p> <p>Following components are appropriate:</p> <p>Antennas: Rod Antenna 1030-1090, Becker GAV 101, Garrecht AV-22, RAMI or similar antennas.</p> <p>Antenna cable: Aircell 7 or similar cables</p> <p>Further suitable antennas and cables might be listed in the document „AW 17 Installation of transponder antennas“.</p>
Material & Drawings:	Document „AW 17 Installation of transponder antennas“ in the latest issue Sheet metal for transponder antenna (ground plate) AS-Part-No. 99.000.1026
Mass an C.G.:	Due to additional weight the C.G data has to be re-determined by weighing or calculating.
Notes:	<p>Transponders have to transmit a specific minimum radiated power but for higher values they can differ quite substantially. The use of maximum cable length and the change of the transponder device or type may then cause a too low radiated power output at the earlier installed antenna.</p> <p>The manufacturers of transponders are requiring as well different maximum power attenuation by the antenna cable. The range varies between 1,5 to 3 dB. Antenna position, type of cable and transponder has to be chosen according to that.</p>

As there is any scientific proof of health issues available in regard of the place of the installation of antennas, the Schleicher Company can not take or offer any liability for health issues, restrictions or influences caused by the radiation of the transponder-antenna system.

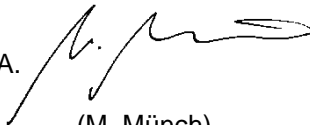
A twice shielded cable (e.g. Aircell 7) lowers the electro-magnetic load and influence on the crew.

After installation a functional test by a certified aircraft inspector with the relevant entitlement is mandatory and has to be documented in a form according to the applicable national law (e.g. LBA Form 22 for Germany).

All structural measures have to be checked by a certified aircraft inspector with the relevant entitlement according to the rules for minor changes and have to be documented in the flight log book of the aircraft, the flight and maintenance handbook of the aircraft and its inspection documents and signed there by the inspector.

Poppenhausen, January 31, 2008

Alexander Schleicher
GmbH & Co.

i.A. 
(M. Münch)

The translation into English has been done by best knowledge and judgement; in any case of doubt the German original is controlling.