



U.S. Department
of Transportation

Federal Aviation
Administration

Airworthiness Concern Sheet

Date: July 24, 2019

<p>Reply to: Name: Jacob Fitch Title: Aerospace Engineer Office: Fort Worth Aircraft Certification Office Department: AIR-7F0 Street Address: 10101 Hillwood Parkway City, State, ZIP: Fort Worth, TX 76177 Telephone: (817) 222-4130 Email: jacob.fitch@faa.gov</p>	<p>Make: FreeFlight systems Model / Series: FDL-978-XVR Serial Numbers: N/A</p> <p>Reason for Airworthiness Concern:</p> <p>Latent failure of FreeFlight Systems ADS-B unit, model number FDL-978-XVR, to display air traffic or transmit location to other aircraft with active ADS-B In.</p>
<p>Federal Aviation Administration (FAA) Description of Airworthiness Concern</p>	
<p>Request for Information (For example: Proposed alternate inspection or repair procedures, cost impact, etc. Your comments or replies to the FAA need to be as specific as possible. Please provide specific examples to illustrate your comments or concerns.)</p> <p>We have received reports of latent failures of FreeFlight model FDL-978-XVR ADS-B units. Troubleshooting determined that some units failed completely, while other units failed intermittently. Attempts to update the software and change any unit settings failed, as most parameters were “greyed out” and unable to be changed. Additionally, the failed units gave no indication of failure to the pilot.</p> <p>This failure will result in loss of ability to see airspace traffic on the ADS-B display, or be seen by other aircraft on their ADS-B display, which may reduce the capability of the airplane or the ability of the crew to cope with adverse operating conditions to the extent that there may be a significant reduction in safety margins or functional capabilities.</p> <p>We request that any users of the FreeFlight Systems model FDL-978-XVR ADS-B units who have experienced similar failures contact the FAA point of contact listed above with the unit’s model, serial number, whether ADS-B In and/or ADS-B Out fails to function, and whether or not an error was detected by the unit’s self-diagnostic.</p>	
<p>This Airworthiness Concern Sheet (ACS) is intended as a means for FAA Aviation Safety Engineers to coordinate airworthiness concerns with aircraft owners/operators through associations and type clubs. At this time, the FAA has not made a determination on what type of corrective action (if any) should be taken. The resolution of this airworthiness concern could involve Airworthiness Directive (AD) action or a Special Airworthiness Information Bulletin (SAIB), or the FAA could determine that no action is needed at this time. The FAA’s final determination will depend in part on the information received in response to this ACS.</p> <p>The FAA endorses dissemination of this technical information to all manufacturers and requests association and type club comments.</p>	

<p>Attachments:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Service Difficulty Report <input type="checkbox"/> Accident/Incident Data System <input type="checkbox"/> Service Letter / Bulletin <input type="checkbox"/> Special Airworthiness Information Bulletin <input type="checkbox"/> Federal Aviation Administration or National Transportation Safety Board Safety Recommendation <input type="checkbox"/> Airworthiness Directive <input type="checkbox"/> Alternate Means of Compliance <input type="checkbox"/> Risk Analysis 	<p>Transmittal:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Federal Aviation Administration <input checked="" type="checkbox"/> Airplane Owners and Pilots Association <input checked="" type="checkbox"/> Experimental Aircraft Association <input type="checkbox"/> Type Club <input type="checkbox"/> Type Certificate Holder <input checked="" type="checkbox"/> Other: Flight Standards District Offices 	<p>Response Requested By:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Emergency (10 days) <input type="checkbox"/> Alert (30 days) <input checked="" type="checkbox"/> Information (90 days)
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