

2/2/2024

**FOR YOUR INFORMATION**

2024-16/3-5

2061517

To: FAA (AFS-400), FLARM Corporation

Info: FAA (AVP-1, AVP-200, AFS-260, AFS-200), A4A, ALPA, AOPA, APA, ASAP, ATSG, ICAO, ICASS, NBAA, NTSB

From: Becky L. Hooey, Director  
NASA Aviation Safety Reporting System

Re: FLARM TCAS System Issues

We recently received ASRS reports describing a safety concern that may involve your area of operational responsibility. We do not have sufficient details to assess either the factual accuracy or possible gravity of the report. It is our policy to relay the reported information to the appropriate authority for evaluation and any necessary follow-up. We feel you should be aware of the enclosed deidentified report.

To properly assess the usefulness of our alert message service, we would appreciate it if you would take the time to give us your feedback on the value of the information that we have provided. Please contact Dr. Becky Hooey at (408) 541-2854 or email at [becky.l.hooey@nasa.gov](mailto:becky.l.hooey@nasa.gov).



Aviation Safety Reporting System  
P.O. Box 189 | Moffett Field, CA | 94035-0189



## ACN 2061517

### DATE / TIME

Date of Occurrence	202312
Local Time Of Day	1201 to 1800

### PLACE

Locale	ZZZ.TRACON
State	US
Altitude - MSL	18200

### ENVIRONMENT

Flight Conditions	VMC
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### AIRCRAFT / EQUIPMENT X

ATC / Advisory - TRACON	ZZZ
Make Model Name	Sail Plane
Operating Under FAR Part	91

### AIRCRAFT / EQUIPMENT Y

Make Model Name	Sail Plane
Operating Under FAR Part	91

### COMPONENT 1

Aircraft Component	TCAS Software
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### PERSON 1

Function - Flight Crew	Single Pilot
ASRS Report Number	2061517

### EVENTS

Anomaly	Aircraft Equipment Problem - Less Severe
Anomaly	Conflict - Airborne Conflict
Detector - Automation	Aircraft TA
Detector - Person	Flight Crew
Miss Distance - Horizontal	712
Miss Distance - Vertical	470
Result - Flight Crew	Overcame Equipment Problem

### NARRATIVE 1

I was flying my glider in mountain wave conditions within controlled airspace under a clearance. Another glider was also flying in the same area with the same clearance. We both had a TCAS system used in gliders called FLARM. The FLARM company requires a yearly firmware update which renders the system nonfunctional if the update is not made. The update is very complex and could not be done by either pilot prior to flight. So the FLARM units were nonfunctional on our big screen PFD's. Fortunately we both carried Stratus 2 ADSB-in devices connected to iPhones running Foreflight which give traffic information and alerts. I was monitoring my iPhone and watching the other glider approach and saw that we were going to miss each other by the above reported distances. Those distances are exact due to comparison between the two GPS tracklogs.

The fact that a firmware update is required to continue the operation of a traffic alert system is wrong and dangerous. The traffic alert system should continue to function even without the update since there is no

prior warning of an update requirement sent to the pilot and if discovered on the day of flight is unlikely to be performed successfully. I have emailed the FLARM company about this problem and await their reply. If NASA also contacted FLARM there would be more weight behind the conversation, and a correction by the FLARM company would be more assured.

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## **SYNOPSIS**

Jonker JS1 pilot reported a complex firmware update is required for the FLARM TCAS unit to provide traffic avoidance and advisories. The reporter stated no advance notice of the update is provided by the company.