

**-ALERT-**

**Service Bulletin Number 3010.( )-34-3715**

**TSO Non-compliance with TAWS which Inhibit  
Forward Looking Terrain Alerts (FLTA) at 2  
Airports Located in Switzerland**

**NOTE:** Revision A to this Alert Service Bulletin updates the status and action that has been taken to resolve the problem and also mitigation of the problem until the updated Airport Database is installed in the TAWS system.

**A. Effectivity**

This Service Bulletin applies to the Terrain Awareness and Warning System, P/N 3010-0X-0X.

**B. Compliance**

All flight crew personnel operating Universal Avionics TAWS systems noted above should read and be aware of this scenario and how to avoid it.

**C. Description**

Please be advised, as currently designed, the TAWS software inhibits Forward Looking Terrain Alerts (FLTA) and Obstacle Alerts in the vicinity of the Locarno (LSZL) and Lugano (LSZA) airports, both located in Switzerland.

The LSZL airport has three inhibit regions; LSZA has one inhibit region. When the airplane is inside an FLTA inhibit region and the TAWS destination airport is the airport associated with the inhibit region, the flight deck effects of the problem are as follows:

- All visual and aural indications of Forward Looking Terrain Alerts of the Universal Avionics TAWS are inhibited when flying in the neighborhood of the Locarno (LSZL) and Lugano (LSZA) airports
- None of the flight deck TAWS inhibit lamps (indicating inhibition of terrain alerts, inoperative terrain alerts, inhibition of obstacle alerts, or inoperative obstacle alerts) are illuminated.
- The pilot is unaware of the inhibition of the FLTA alerts.
- Coloring of the terrain (red/yellow/green) and obstacles are **not** affected by the FLTA inhibits.

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- Ground proximity alerts (GPWS) and MGCB alerts are **not** affected by the FLTA inhibits.

The un-announced automatic inhibition of the FLTA function of TAWS in regions around the Locarno and Lugano airports may lead a pilot to conclude that terrain and obstacles ahead do not threaten the airplane, particularly when the TAWS depictions of the terrain and obstacles are not selected for display in the cockpit. When TAWS views of the terrain and obstacles are selected for display in the cockpit, the pilot may receive conflicting information (yellow/red colored terrain, but absence of alerts). The un-announced loss of TAWS warning functionality is a major failure condition per TSO-151b, and may adversely affect the safety of TAWS.

Locarno is primarily a General Aviation airport with no instrument approaches available, and Lugano requires a special authorization to fly the IGS approach due to the 6.7 degree flight path angle.

## **D. Action**

It is highly recommended pilots use extreme caution when flying into either Locarno (LSZL) or Lugano (LSZA) airports and do not rely solely on TAWS to announce terrain or obstacle threats. It is also recommended that pilots flying into Locarno (LSZL) or Lugano (LSZA) airports select TAWS imagery shown on the applicable display device to provide situational awareness.

Universal Avionics has removed Locarno (LSZL) and Lugano (LSZA) airports from the TAWS Airport Database beginning with Cycle 1812. This enables normal enroute Forward Looking Terrain Alerting (FLTA) within the vicinity of these airports. Removal of these two airports has the following side effects:

1. FLTA alert function: TAWS will not be able to use either LSZL or LSZA as the destination airport, therefore TAWS will generate nuisance FLTA alert(s) when approaching either airport.

**Mitigation:** The nuisance alert(s) can be cancelled by the terrain inhibit annunciator-switch.

2. PDA Alert function: Un-announced missed PDA alert when approaching either LSZL or LSZA because TAWS cannot use either airport as destination.

**Mitigation:** None

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3. Flight Plan Intent Alert (FPIA) function: TAWS will not be able to exclude this destination airport and the flight plan leg to this airport from the FPIA alert, and will therefore likely generate a nuisance FPIA advisory alert on the last leg of the flight plan when the last waypoint is one of these airports that has altitude constraint in the flight plan. The advisory alert is on the terrain display only.

**Mitigation:** None

4. QFE Operation: TAWS QFE operations will not be available whenever LSZL or LSZA is used as the origin or destination airport because the airport identifiers are not in the TAWS airport database.

**Mitigation:** None required

The current Airport Database (Cycle 1812) is available on UniNet for download. Customers who have a TAWS Airport Database subscription should download the new database now. For customers who have a subscription and receive the database updates in the mail, those updates have been shipped. For customers who do not have a TAWS Airport Database subscription, it is highly recommended to contact Universal Avionics to order a copy or set up a subscription, see Service Letter No. 2809, *TAWS Airport Database Updates*. Instructions on how to update the Airport Database in TAWS are contained in the applicable TAWS Operator's Manual. Any questions about loading the Airport Database in TAWS can be addressed by Customer Support. Contact information is located below.

## **E. Status**

Universal Avionics has taken action to remove Locarno (LSZL) and Lugano (LSZA) airports from the TAWS Airport Database as detailed above. Any further action taken will be detailed in another amendment to this Alert Service Bulletin.

## **F. Approval**

TAWS SCN 10.X meets the requirements of TSO-C92c, TSO-151a and JTSA-C92c

TAWS SCN 11.X Class A meets the requirements of TSO-C92c, TSO-C151b, ETSO-C92c and ETSO-C151a

TAWS SCN 11.X Class B meets the requirements of TSO-C92c and TSO-151b

TAWS SCN 12.X Class A meets the requirements of TSO-C92c, TSO-C151b, ETSO-C92c and ETSO-C151b

TAWS SCN 12.X Class B meets the requirements of TSO-C92c, TSO-C151b, ETSO-C92c and ETSO-C151b

Software version SCN 10.X, 11.X and 12.X is developed to DO-178B, Level C (Major)

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