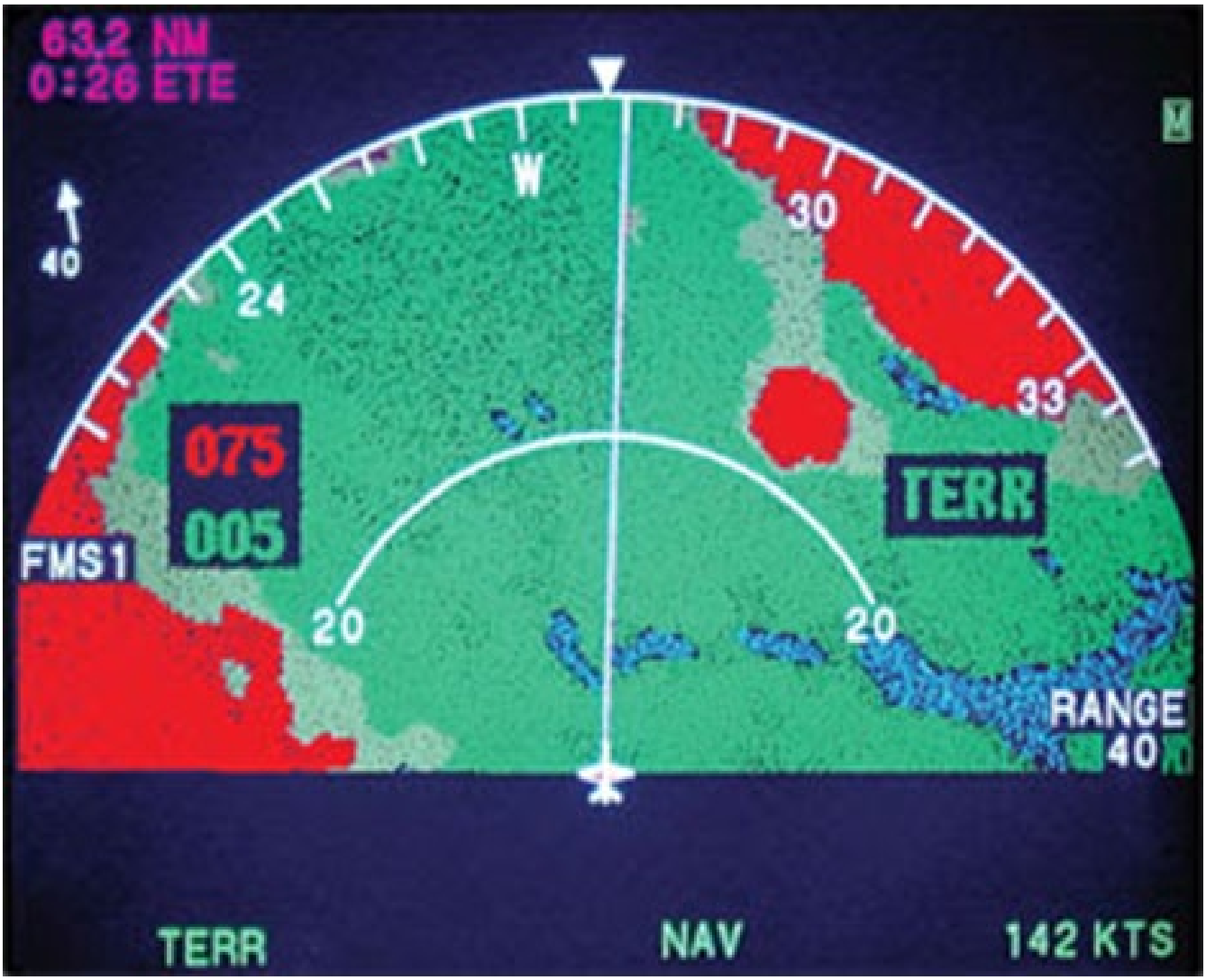
# Enhance Access to EGPWS / TAWS Database Information

## EGPWS / TAWS Suppliers



# Problem Statement

IATA conducted a Safety Risk Assessment and identified concerns about the use of the Enhanced Ground Proximity Warning System / Terrain Avoidance and Warning System (EGPWS/TAWS) that must be addressed to ensure that timely warnings to accident avoidance are always available. One of the EGPWS/TAWS safety issues that has been identified is the concern over the upkeep of software on which EGPWS/TAWS depends, as well as the obstacle, runway, and terrain database (TDB). Although the database updates are issued regularly by the EGPWS/TAWS suppliers, the concern is that these updates are not being implemented by all Holders of Air Operators Certificate (AOC) in a timely manner.

IATA together with certain EGPWS/TAWS Suppliers, teamed up to provide information about:

1) How and where to find the latest EGPWS/TAWS Terrain Data Base (TDB)
2) TDB release schedules
3) How to view what has changed in the TDB
4) The link to download the TDB

# Action by IATA

IATA's position is that this concern, and its related safety issues, requires immediate attention and to address these serious shortcomings. IATA met with EGPWS/TAWS manufacturers and suppliers: Collins, Honeywell, L3Harris, Thales, and ACSS to facilitate the application of database/software updates and their frequency. It revealed that each of the suppliers has a schedule and a certain method for communicating the terrain database updates with their customers, e.g.:

*From the TDB, some updates are provided on a 28-day cycle and are available for download approximately a week prior to the effective date, while others require a 56-day cycle and are available for download approximately a month before the effective date.*

*Each supplier communicates the update differently with their customers, but they all have common procedures.*

*Each supplier also offers an obstacle DB, applicable to some EGPWS/TAWS models.*

# Information for Operators

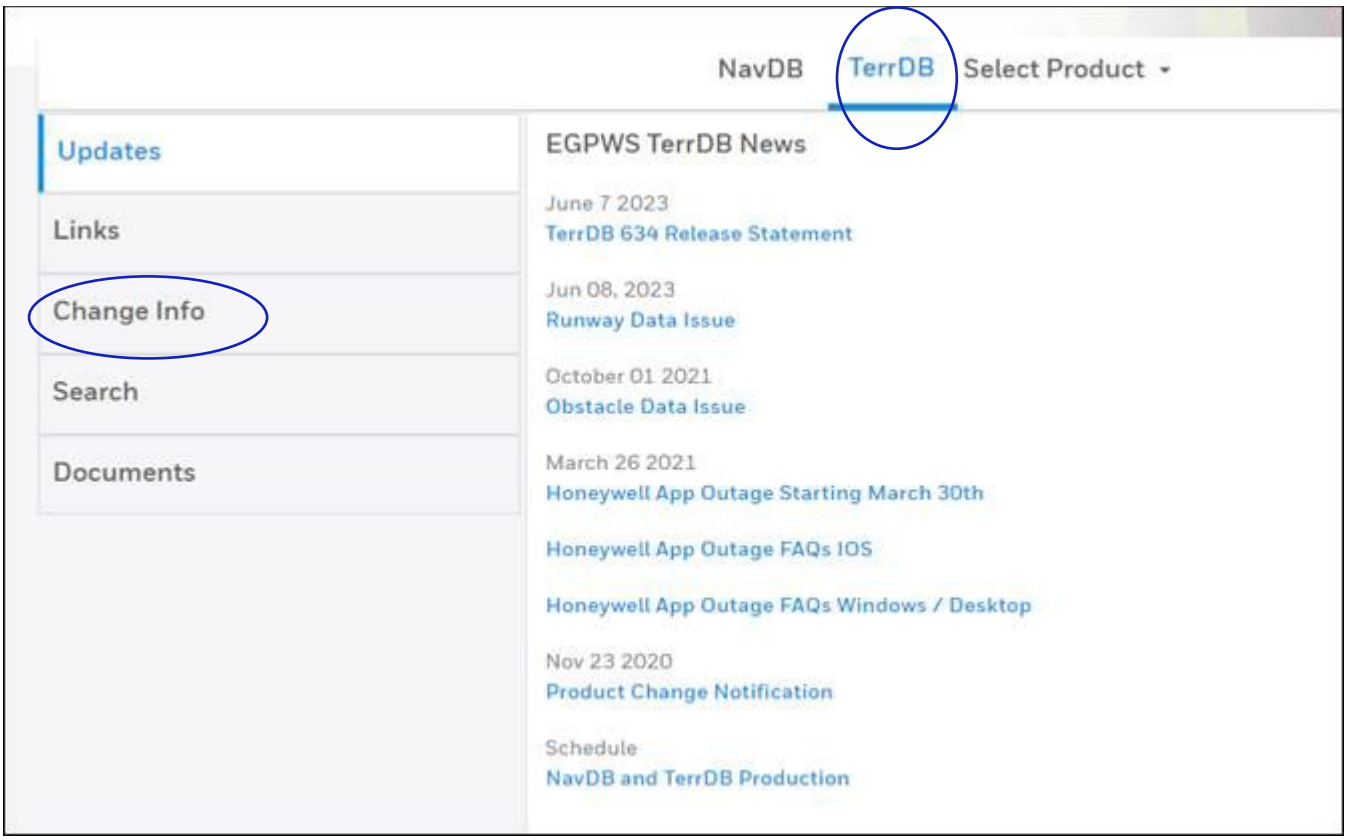
## Honeywell and Collins

These suppliers provide the Obstacle and TDB update every 56-day cycle and are available for download approximately a month before the effective date. The EGPWS operators are able to sign up for an email notification that a new database download is available. The database is available through the internet and takes up to 30 minutes to complete once downloaded onto a card that interfaces with the EGPWS system.

Collins provides the Integrated Surveillance System (ISS) on certain aircraft and the TAWS component of the ISS is sourced by Collins from Honeywell.  Database updates for the TAWS are available from Honeywell.

The link to Honeywell website is https://ads.honeywell.com/login

Once users are at the website they can select 'TerrDB' to see the latest News.




There are tabs and links on the left pane which provide additional information. Under Documents for example, users can find the latest Database Release Statement, which has been published on 5 October 2023.

One of the tab on the left menu is a "Change Info" Tab, once selected a list of terrain database versions are available for download. Select the appropriate version changes that you wish to change. Then an excel spreadsheet containing the change information will be downloaded that can either be opened or saved on your computer from your download folders. After opening the various change information. The User can then review the customer report issues that have been addressed, the added/removed airports, the added/removed runways, modified runways and much more can be viewed by selecting the appropriate tab at the bottom of the spreadsheet.

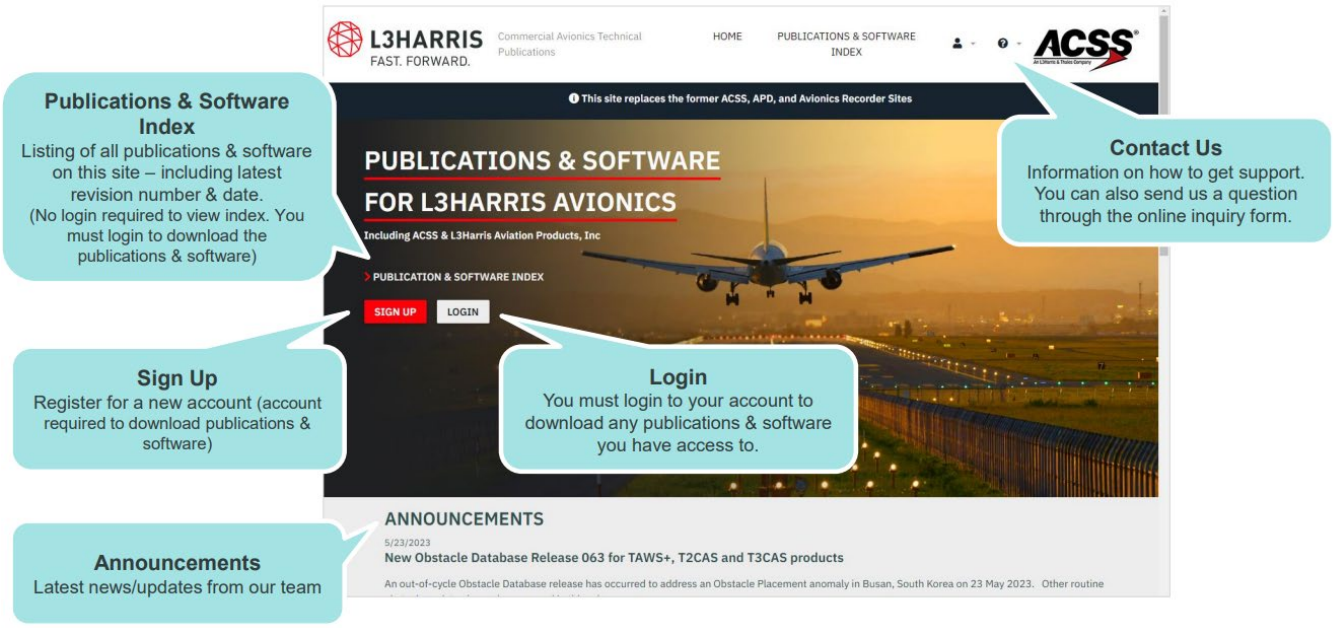
Furthermore, there are quite a few videos on the Honeywell YouTube channel which provide information on the EGPWS Database website, once on the channel users can search 'EGPWS Terrain Database' to find specific videos. https://www.youtube.com/@HoneywellAviation/videos.

## L3Harris and Aviation Communication & Surveillance Systems, LLC (ACSS) :

These suppliers provide the Obstacle and TDB updates on a 28-day cycle and are available for download approximately a week prior to the effective date. The TAWS operators who have signed up for a website account automatically receive an email notification that a new database download is available. The database is available through the internet and takes up to 30 minutes to complete once downloaded onto a card that interfaces with the TAWS system.

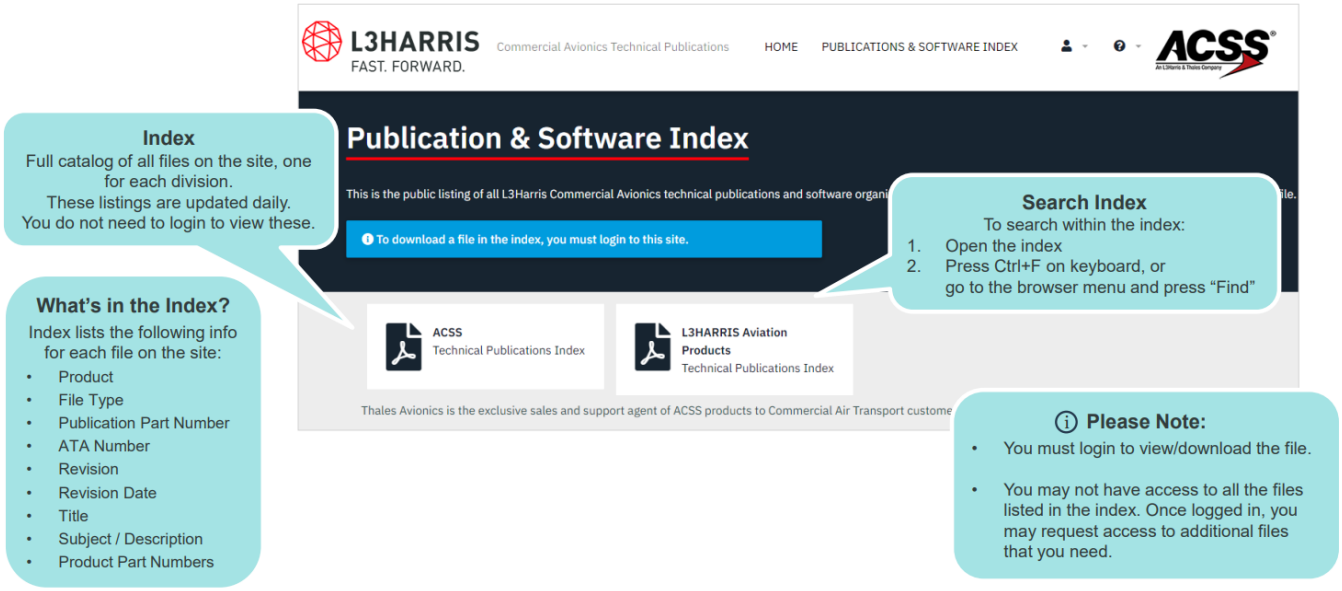
ACSS is an L3Harris and Thales Company, managed by L3Harris Technologies, Inc. ACSS, an L3Harris Technologies and Thales Avionics joint venture, designs, manufacturers and provides support for surveillance and communication products used in aircraft, helicopters and UAVs.

In order to obtain the latest update, Users must login to the publication and index site. However, you may not have access to all the files listed in the index. At the time of sign-up or any time thereafter, you may request access to additional product publications that you need, such as the T3CAS or T2CAS Terrain and/or Obstacle databases.




The link to the L3Harris publications website is Landing Page - Technical Publications (l3harris.com) and the link to the L3Harris Commercial Avionics Technical Publications Website User Manual can be found here. This presentation will help users to be aware of the access requirements and how to navigate and get up to date information.
Check the Publication & Software Index which includes the latest revision number and date.

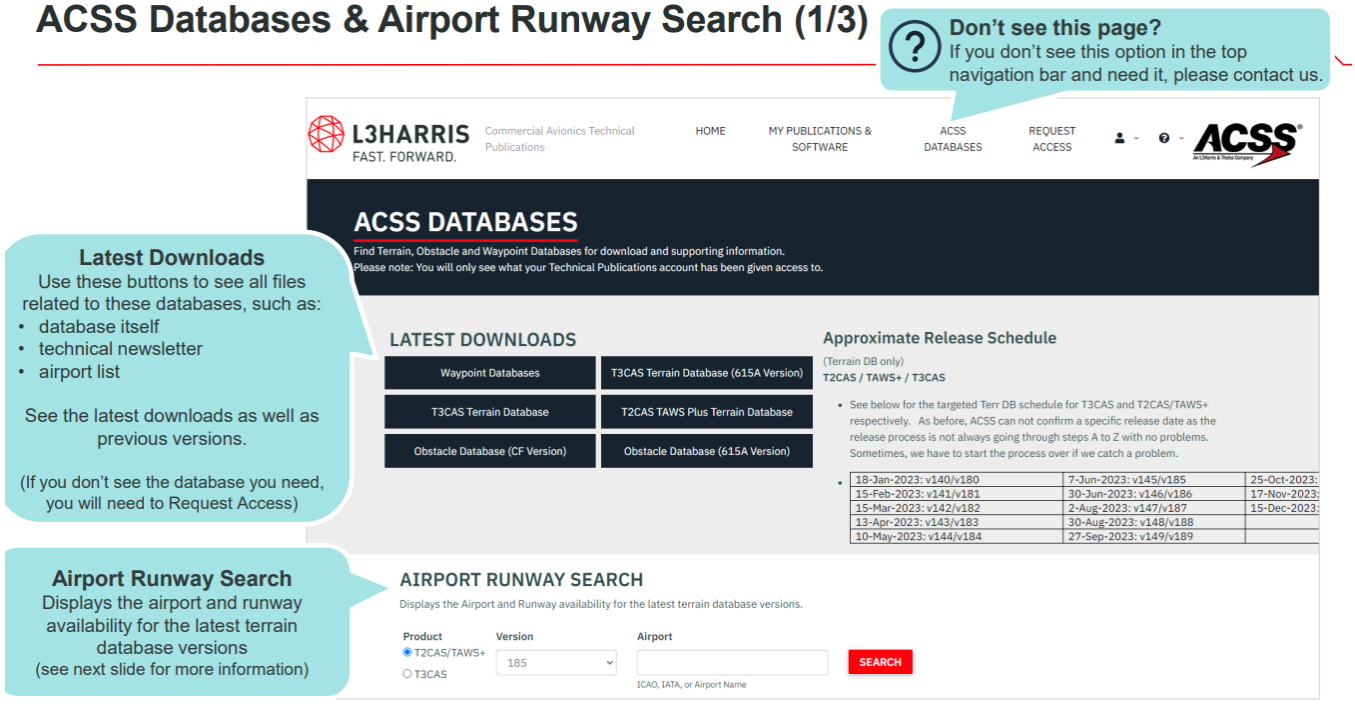
## Publication & Software Index



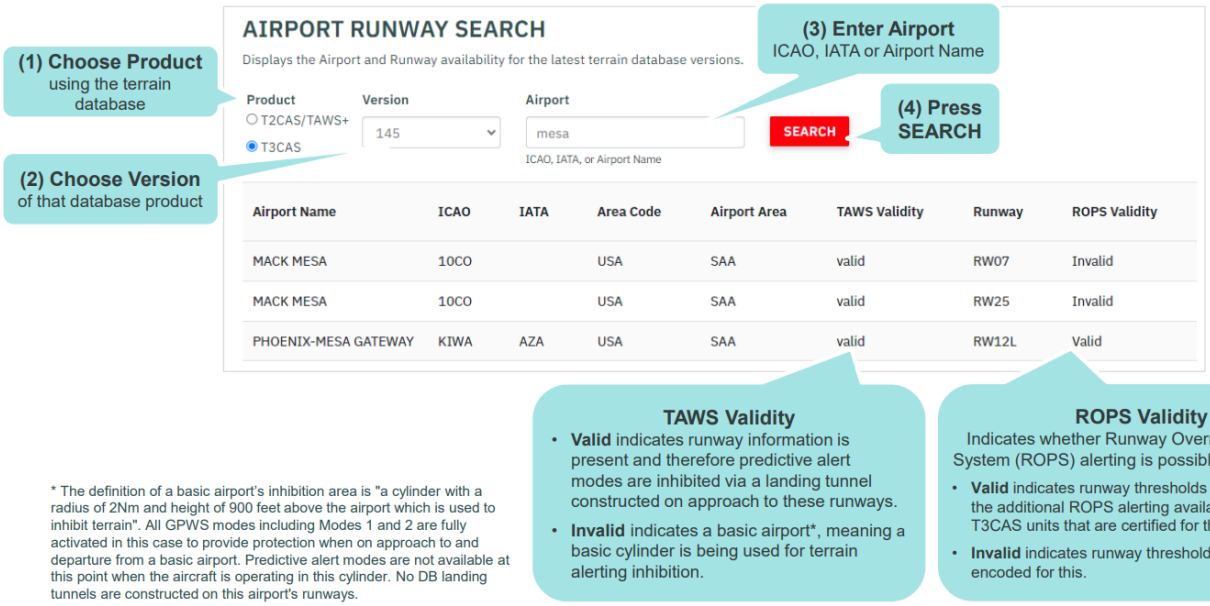

Once the user is logged in, select the ACSS Database & Airports Runway Search, to find the terrain, obstacle, and waypoint databases for download together with its supporting information. To aid in finding the changed airports, each Terrain DB release is accompanied by a Technical Newsletter (TNL) with a listing of changed or added/removed airports modified or added/removed runways and much more.

Use the TNL as a guide on what effect may occur if no update is made in a given period. For the latest downloads, see ACSS Database & Airport Runway Search.

## ACSS Databases & Airport Runway Search (1/3)



## ACSS Databases & Airport Runway Search (2/3)




**TAWS Validity**

- **Valid** indicates runway information is present and therefore predictive alert modes are inhibited via a landing tunnel constructed on approach to these runways.
- **Invalid** indicates a basic airport*, meaning a basic cylinder is being used for terrain alerting inhibition.

**ROPS Validity**

Indicates whether Runway Overrun Protection System (ROPS) alerting is possible at this airport.

- **Valid** indicates runway thresholds *are* encoded for the additional ROPS alerting available on some T3CAS units that are certified for this feature.
- **Invalid** indicates runway thresholds *are not* yet encoded for this.

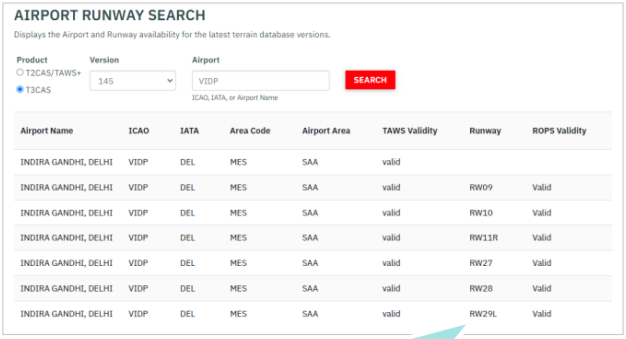
* The definition of a basic airport's inhibition area is "a cylinder with a radius of 2Nm and height of 900 feet above the airport which is used to inhibit terrain". All GPWS modes including Modes 1 and 2 are fully activated in this case to provide protection when on approach to and departure from a basic airport. Predictive alert modes are not available at this point when the aircraft is operating in this cylinder. No DB landing tunnels are constructed on this airport's runways.

## ACSS Databases & Airport Runway Search (3/3)

**Comparing Database Versions**

With a new database released every 28 days, customers often find it useful to compare one database to a previous one.

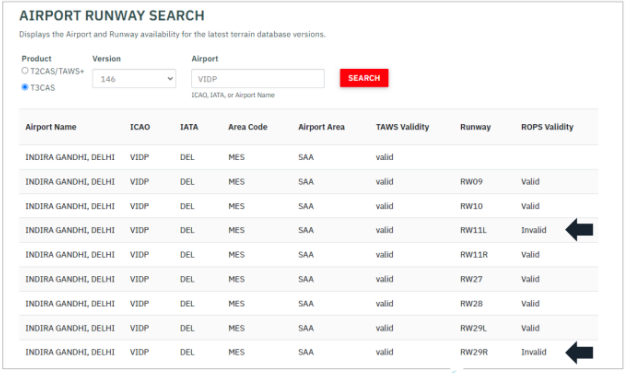
**VERSION 145**




**Version 145**

In this example, we see that the earlier version 145 of the database does not yet contain runways 11L or 29R.

**VERSION 146**




**Version 146**

By entering the current database version (146 in this case), the user could discover that the new runways 11L & 29R

# Summary Table

| SUPPLIER | UPDATE CYCLE * | READY FOR DOWNLOAD | USER GUIDANCE | WHERE TO FIND THE INFO |
|---|---|---|---|---|
| Honeywell | 56 Day Cycle | A month prior | EGPWS Database website | https://ads.honeywell.com/login |
| Collins | 56 Day Cycle | A month prior | EGPWS Database website | https://ads.honeywell.com/login<br><br>Aeronautical Data Services - Home |
| L3Harris ACSS and Thales | 28 Day Cycle | A week Prior | Commercial Avionics Technical Publications Website User Manual | Landing Page - Technical Publications (l3harris.com) |

** Note: IATA is working with EGPWS/TAWS manufacturers to align the TDB delivery schedule of all aircraft types to a maximum of 56 days.*

# Contact

Should you require further information, please do not hesitate to contact the supplier directly at the following email address:

For

Honeywell: TerrDB@Honeywell.com

Collins: avionicssupport@collins.com

L3Harris, ACSS and Thales: acss.techsupport@l3harris.com

IATA; Safety@iata.org

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