The database update subscription service is offered to provide current, accurate navigation information for your UNS System. Navigation databases are compiled from official State sources and supplied to Universal Avionics Systems Corporation by Lufthansa Systems. Navigation databases may also include customer tailored data not originating from a State authority, such as at private airports/runways and private arrival/departure procedures. The end user has the responsibility to verify the suitability of this data for the intended operation. Updates are available for download from Universal Avionics web site or are provided on 512MB USB Flash drives (SCN 603-604 and 703-704). The database updates are loaded into the UNS System via the Data Transfer Unit (DTU), the DTU-100 (SCN 603-604 and 703-704) or the SSDTU data transfer unit (see note below).

Regions: The accompanying map shows the ten ARINC areas used to describe coverage. The database region selected determines the geographic coverage.

Contents: **Standard DTU:** Airports, navaids, airways, terminal waypoints and enroute waypoints are included on the STANDARD disk, SIDs, STARs, approaches and runways are included on the EXTENDED disk(s) for each region.

DTU-100 and SSDTU: Airports, navaids, airways, enroute waypoints, SIDs, STARs, terminal waypoints, approaches, and runways are included on the Zip disk or USB Flash drive for each region.

Navigation information includes:

Airports: Public use airports with plain-language references for locations having one hard surfaced runway at least 2,000, 4,000 or 5000 feet long, depending on the coverage selected. Some private airports, and some airports with soft-surfaced and gravel runways are included.

Navaids: Navaids with plain-language references for: VHF navaids (VORs, VOR/DMEs, VORTACs, TACANs, DMEs, ILS/DMEs) and NDB navaids.

Airways: All high and low enroute airway routes published by government agencies.

Intersections/Waypoints: All enroute waypoints (intersections) published by government agencies for on-airway and off-airway navigation. All terminal waypoints (intersections) associated with SID, STAR, or approach procedures.

SIDs, STARs and Approaches: For included airports, SIDs, STARs, and approaches, including transitions and missed approach procedures. As specified for each part number, includes ILS, LOC, BC, GPS, VOR DME RNAV, VOR, VOR/DME, NDB and TACAN approaches. When procedures with multiple indicators exist, only one procedure will be included. For example, if there are two ILS approaches to runway 23 charted as “ILS Y Rwy 23” and “ILS Z Rwy 23” only the ILS Z Rwy 23 will be included and will be displayed as “ILS 23” on the FMS. RNAV (GPS) and RNAV (GNSS) procedures are included as GPS procedures. The navigation data contains a maximum of 99 SIDs, STARs or approaches at any particular airport. Some private and some special permission required SID, STAR and approach procedures are included.

Runways: Runways at included airports with a minimum length of 2000, 4000 or 5000 feet, as applicable. Some private runways, and some soft-surfaced and gravel runways are included.

Navigation information <u>does not</u> include:

- Vector only procedures
- Visual procedures
- VFR reporting points
- BC Circle to Land, Localizer Circle to Land, LDA, and SDF approaches
- NDB approaches outside the USA and Canada that are not approved for GPS overlay by the State authority
- Approaches having final approach course changes greater than 6.0 degrees, or a course change within the final approach coding at a waypoint other than the FAF
- Step-down fixes as part of the final approach coding
- SIDs, STARs or approaches using waypoints or navaids outside the database coverage area

Updates: The annual subscription service includes thirteen updates shipped on a 28-day cycle. The navigation information is only valid for the 28-day period for which it was produced. New updates are sent from Universal Avionics prior to the effective date of each cycle update.

NOTAMs/ALERTS: NOTAMs and Navigation Database Flight Safety Alerts (FSAs) are available at http://fms-info.lhsystems.com/FSA_NDA.htm.

RTCA/DO-200A Universal Avionics complies with applicable RTCA/DO-200A and FAA requirements as they apply to navigation databases for use by end customers in Universal Avionics' flight management systems with software control number 601.x/701.x or later. Universal Avionics publishes the compliance status and information concerning any data problems found during processing or after delivery on the company website at http://www.uasc.com.

The navigation databases may contain customer tailored data not originating from a State authority, such as private airports and runways or private arrival or departure procedures. The end user has the responsibility to verify the suitability of this data for the intended operation.

As defined in RTCA/DO-200A, the end user has the ultimate responsibility to ensure the data requirements are met. These responsibilities are satisfied, in part, by obtaining navigation data from an RTCA/DO-200A–compliant supplier such as UASC. By using UASC navigation data, the end user accepts the data quality requirements defined by UASC in the UASC *RTCA/DO-200A Compliance Plan for the Navigation Databases,* a copy of which can be obtained from UASC upon request. **Further, per RTCA/DO-200A, the end user should verify the navigation data is current, valid, and appropriate for the intended operation. The end user also should become familiar with applicable notices to airmen (NOTAMs), Lufthansa Navigation Database Alerts, NFD alert notifications, and UASC Navigation Data notices and alerts that may affect operation. Finally, the end user should notify UASC if it discovers an error or inconsistency in the data.**

Equipment Capability:

- Operators using this software level are strongly encouraged to consider equipment upgrades to our WAAS capable FMS software levels 1000.X or greater.
- Via UniNet - Welcome you may find relevant Service Letters regarding repair capability and part obsolescence.
- Please reference sections above (page 1) regarding procedures not included in this database.
- Operators using a Zip or Floppy disk data transfer unit are strongly encouraged to consider an equipment upgrade to a Solid State Data Transfer Unit using a USB or SD Card for database loading
- For pricing and lead time on new equipment installations our Sales team sales@universalavionics.com or Authorized Dealers Find a Dealer can provide support as needed.

Pricing:

- Pricing is noted on page 10
- Charge is for the first database region part number. Additional part numbers included at no charge for the same aircraft.
- Per Universal Avionics End User License Agreement any in-service aircraft requires a separate subscription.
- Quarterly or semi-annual subscriptions available upon request. $125 short term fee applies.
- One-cycle trip kit available at $750 with cash in advance payment terms.
- **All subscriptions are non-refundable**

STANDARD DTU (SCN 601-604 or 701-704)
SSDTU (SCN 601-602 or 701-702)
Long Range Coverage—Runways 5000' and Longer

Contains VHF and NDB navaids with plain language references, enroute and terminal waypoints, high and low altitude airways, airports (runways 5000' and longer), SIDs, STARs, and approaches.

1350-D5 (SET)

CAN-LAM-PAC-SAM-USA

Includes one approach per runway using the following priority:
GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

STANDARD DTU (SCN 601-604 or 701-704)
SSDTU (SCN 601-602 or 701-702)
Intermediate Coverage—Runways 4000' and Longer

Contains VHF and NDB navaids with plain language references, enroute and terminal waypoints, high and low altitude airways, airports (runways 4000' and longer), SIDs, STARs, and approaches.

1350-A4 (set)

AFR-EEU-EUR

Includes two approaches per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

1350-B4 (set)

CAN-EEU-EUR-PAC

Includes one approach per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

1350-F4 (set)

LAM-SAM-USA
See Note Below

USA includes two approaches per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

All approaches in LAM-SAM

1350-G4 (set)

CAN-LAM-USA
See Note Below

USA includes two approaches per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

All approaches in CAN-LAM

STANDARD DTU (SCN 601-604 or 701-704)
SSDTU (SCN 601-602 or 701-702)
Regional Coverage—Airports 2000' and Longer

Contains VHF and NDB navaids with plain language references, enroute and terminal waypoints, high and low altitude airways, airports (runways 2000' and longer), SIDs, STARs, and approaches.

1350-D2 (set)

AFR-EEU-MES-PAC

Includes one approach per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

1350-E2 (set)

AFR-MES-PAC-SPA

Includes two approaches per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

1350-F2 (set)

CAN-EEU-EUR

Includes one approach per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

1350-G2 (set)

CAN-LAM-USA

Includes one approach per runway in the USA ARINC area using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

1350-K2 (set)

EEU-EUR-MES

Includes one approach per runway using the following priority: G PS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

1350-L2 (set)

AFR-EUR-MES

Includes one approach per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

1350-M2 (set)

AFR-MES-SAM-SPA

Includes two approaches per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

DTU-100 and SSDTU
(SCN 603-604 or 703-704)
Long Range Coverage—Runways 5000' and Longer

Contains VHF and NDB navaids with plain language references, enroute and terminal waypoints, high and low altitude airways, airports (runways 5000' and longer), SIDs, STARs, and approaches.

604-D5

CAN-LAM-PAC-SAM-USA

Includes one approach per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

DTU-100 and SSDTU
(SCN 603-604 or 703-704)
Intermediate Coverage—Runways 4000' and Longer

Contains VHF and NDB navaids with plain language references, enroute and terminal waypoints, high and low altitude airways, airports (runways 4000' and longer), SIDs, STARs, and approaches.

604-A4

AFR-EEU-EUR

Includes two approaches per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

604-B4

CAN-EEU-EUR-PAC

Includes one approach per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

604-F4

LAM-SAM-USA

USA includes two approaches per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

All approaches in LAM-SAM

604-G4

CAN-LAM-USA

USA includes two approaches per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

All approaches in CAN-LAM

DTU-100 and SSDTU
(SCN 603-604 or 703-704)
Regional Coverage—Airports 2000' and Longer

Contains VHF and NDB navaids with plain language references, enroute and terminal waypoints, high and low altitude airways, airports (runways 2000' and longer), SIDs, STARs, and approaches.

604-D2

AFR-EEU-MES-PAC

Includes one approach per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

604-E2

AFR-MES-PAC--SPA

Includes two approaches per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

604-F2

CAN-EEU-EUR

Includes one approach per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

604-G2

CAN-LAM-USA

Includes one approach per runway in the USA ARINC area using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

604-K2

EEU-EUR-MES

Includes one approach per runway using the following priority: G PS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

604-L2

AFR-EUR-MES

Includes one approach per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

604-M2

AFR-MES-SAM-SPA

Includes two approaches per runway using the following priority: GPS, ILS, LOC, BC, VOR DME RNAV, VOR, NDB, TACAN

DTU-100 and SSDTU
(SCN 603-604 or 703-704)
Helicopter Coverage
Contains airports, runways and facilities not suitable for fixed wing aircraft

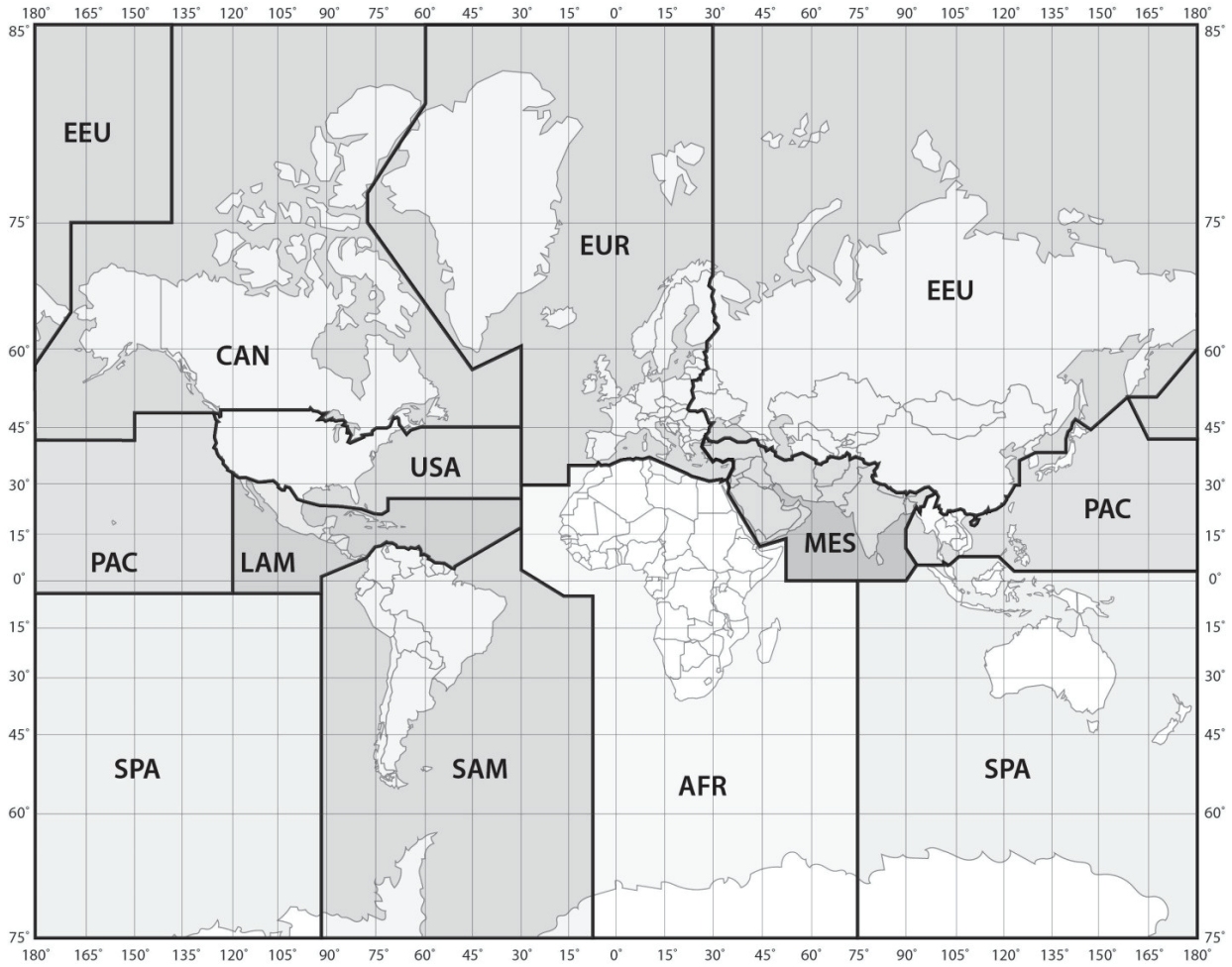
Contains airports (runways ζ2000 ft) and heliports with plain language references, VHF and NDB navaids, high and low altitude airways, SIDs, STARs, and approaches for Canada, Latin America, South Pacific and USA (East of W097) ARINC areas. Also includes selected heliports and additional airports (hard and soft surface runways ζ1000 ft) in the North American geographical area bounded by N50°, W95°, N23° and W65°. Two approaches per runway are provided using the highest priority in accordance with the following list: GPS, ILS (see notes), LOC, BC, VOR DME RNAV, VOR, NDB (see notes) and TACAN.

604-6H	604-6HI
CAN-LAM-USA	**CAN-LAM-USA**
NDB **USA coverage does not include ILS approaches** **Two approaches per runway in USA**	**ILS** **USA coverage does not include NDB approaches** **Two approaches per runway in USA**

STANDARD DTU (SCN 601-604 or 701-704)
SSDTU (SCN 601-602 or 701-702)
Helicopter Coverage
Contains airports, runways and facilities not suitable for fixed wing aircraft

Contains airports (runways ζ2000 ft) and heliports with plain language references, VHF and NDB navaids, high and low altitude airways, SIDs, STARs, and approaches for Canada, Latin America, South Pacific and USA (East of W097) ARINC areas. Also includes selected heliports and additional airports (hard and soft surface runways ζ1000 ft) in the North American geographical area bounded by N50°, W95°, N23° and W65°. Two approaches per runway are provided using the highest priority in accordance with the following list: GPS, ILS (see notes), LOC, BC, VOR DME RNAV, VOR, NDB (see notes) and TACAN.

1350-6H (set)	1350-6HI (set)
CAN-LAM-USA	**CAN-LAM-USA**
NDB **USA coverage does not include ILS approaches** **Two approaches per runway in USA**	**ILS** **USA coverage does not include NDB approaches Two approaches per runway in USA**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