Updates & Downloads

Heliwise software version 1.26.03
as of January 27th, 2022

Changes History

From version 1.26.02 to 1.26.03:

- Solved bugs
    - FDM parameters export order re-aligned

From version 1.26.01 to 1.26.02:

- Solved bugs
    - Solved limitation in FDM conversion for AW169 PH6

From version 1.25.04 to 1.26.01:

- New implementation
    - AW189 Phase 8

From version 1.24.04 to 1.25.04:

- New implementation
    - RTB Missing Data notification
    - AW169 PH6 software phase support
    - AW189 Failure Monitoring population update

- Solved bugs
    - User MNG function Customers – Fixed bug of blank popup merging two Customers
    - AW139 TVM Trends – Fixed issue of the occurrences with date time 2003 or 2000
    - AW169/AW189 RTB Trends – Fixed issue of the visualization of invalid track value

From version 1.23.03 to 1.24.04:

- ✺ New implementation
    - o AW189 Phase 7 Software supported

- ✺ Solved bugs
    - o For AW139 LHD HUMS, temporary timeout and server crash during data debriefing are solved
    - o Wrong Acquisition reported into DARF are resolved
    - o For AW139 LHD HUMS, x-axis frequencies displayed in the time history FFT chart

From version 1.22.04 to 1.23.03:

- ✺ New implementation
    - o Query attachment function: for each kind of query (TCR excluded) the user can attach up to 20 Mb (maximum 4 Mb per file). Attachments are stored in LH Server and they can be downloaded by consulting the historical exchange of queries. Preview function is enabled only for jpg/jpeg/png format.

- ✺ Solved bugs
    - o AW169/AW189 RTB Trend – Solved the bug which visualizes arising generated by coupled AcqId (i.e. MR LAT, MR VERT) on no-coupled AcqId trends (i.e. "Main Rotor")
    - o AW139 arising list - Solved (by occurrence invalidation) an issue at occurrence time stamp level with the effect to not allow the visualization of arising list in Fleet Detail dialogue
    - o All H/C - Solved an issue of timeout (due to system performance) when a TVM Trend is open from arising list of Fleet Detail dialogue by using Analyze function
    - o AW139 PMCIA Management - Solved an issue on INIT.HSD creation (PMCIA Management Dialog) due to an un-correct CRC generation
    - o AW189 Debriefing - Solved an issue at file aggregation level during download process with the effect to fail the integrity file check and so to fail the commit of a valid raw data
    - o AW139 GE Debriefing – Modified invalidation process in order to allow the debriefing even if the raw data is provided with an un-correct temporal sequence of operations

- ✺ Upgrades
    - o All H/C - Reduced system response time to visualize trend for a selected AcqID

- ✺ Trial Functions (Beta-version)
    - o As alternative of HDD (Heliwise Data Downloader) tool, Heliwise will be provided with the function "FDM download and conversion" (applicable for AW189 and AW169 models only): Heliwise application (online and offline) is provided with following capabilities:
        - ✓ to enable the process of FDM data download from the H/C. FDM and HUMS data are downloaded in the same session.
        - ✓ Automatic conversion in CSV files of the downloaded FDM files
        - ✓ conversion in CSV files on-demand of a targeted FDM file

From version 1.22.03 to 1.22.04:

* Solved bugs
    - AW189/AW169 EPC Traffic light on fleet dialogue not highlighted when EPC Arising generated
    - AW169 NG trend not visualized in EPC dialogue
    - AW189/AW169 Arising not generated when the occurrence value is the same of the threshold value
    - AW189/AW169 EPC Trends – added on the top bar of the "All Engines" plot the legend to identify Engine 1 and Engine 2 trends
    - AW189/AW169 EPC Trends – Health Index "°C" renamed in "ITT"
    - AW139 GE ESUM Fault - Arising not generated for Exceedance Failure

* Upgrades
    - AW169/AW189 - EPC Arising shall be
        ✓ Not generated for all AW169 phases because on board ECP calculation is still not certified
        ✓ Generated for AW189 PH4 or higher

From version 1.21.09 to 1.22.03:

* New implementation
    - AW189 Phase 6 Software supported
    - Visualization of thresholds history for "TVM trends" Steady and Close/Far plots
    - AW189/AW169 Engine Power Check
    - Graphical layout updated Heliwise of Settings dialogue: settings for AW139 GE and family (AW189, AW169, AW139LH) clearly separated
    - All labels referred to Structural Usage Monitoring data are replaced with the acronym ESUM (correction applicable to different dialogues)

From version 1.21.08 to 1.21.09:

* Solved bugs
    - RTB adjustment: fixed bug impacting the capability to save adjustment (visualization of an exception) and then the impossibility to perform a new RTB adjustment by using the same data set file

From version 1.20.08 to 1.21.08:

* New implementation
    - AW169/AW189 Tail Rotor Duplex Bearing Monitoring
    - Heliwise Settings dialogue: "Use Heliwise Local Data Manager" replaced with "Heliwise Offline History Trends", "Use Automatic ESUM File Manager" replaced

with "Send ESUM Data Deferred" and "AAD Data Replication" (label, toggle and free text field) removed

- o "SERVICEABLE" and "UNSERVICEABLE" (H/C Status) labels replaced with "READY" and "UNAVAILABLE" respectively
- o Visualization of thresholds history for "TVM trends" Steady and Close/Far plots

- ☀ Solved bugs
  - o AW139 GE: A06/A10 and A20/A21 swapped indication in "TVM Accelerometer Summary" form and "System Status Synoptic Chart" form
  - o TVM traffic light yellow in case of MISS DATA arising generation

From version 1.20.07 to 1.20.08:

- ☀ New implementation
  - o New certificates supportability

From version 1.19.04 to 1.20.07:

- New implementation
    - AW169 Phase 5 Software supported;

- Solved bugs
    - RTB Configurations: nomenclature update, management of the new AW139 Family HUMS swashplate installation;

> ***Note***
> *The AW139 config sintax is the following: AW139/Standard Tail Rotor or Tail Rotor with Slip Ring Full Protection System - GE Aviation system or Leonardo Helicopters on-board system equipped - Swashplate P/N installed on the aircraft (*332 old swashplate, *333 new swashplate) – Last RTB Config Version Available*

From version 1.18.04 to 1.19.04:

- New implementation
    - DARF RTB: capability to generate queries type DARF on RTB trends
    - TVM DARF Navigation: when a DARF is open from TVM trend, the user will be able visualize (by using the navigation commands in the form) all reply/requests including those are generated before the last 200 FHs
    - Query Management TQ Revision: added H/C TN field and based on multi-revision approach (request-reply-new request-reply- ….)
    - Capability to plot AW139 with GE HUMS on ESUM trend
    - Capability to implement Quick Assessment on line for AW139 (with HUMS GE)

- Solved bugs
    - Solved the issue causing AVDM spikes
    - Correct positioning of AVDM reset flag

From version 1.17.02 to 1.18.04:

- New implementation
    - AVDM backward learning – Capability to learn by using last TVM occurrences
    - AW139 – Supported model with LH HUMS equipment (AMMC)
    - AW139 – Generation and visualization on ESUM plots of ESUM exceedances (only for model installing GE HUMS equipment)
    - AW139 – On-board thresholds management and real time transfer to the H/C (only for model installing Skytrac equipment)

From version 1.17.01 to 1.17.02:

- New implementation
    - AW169 – Software Phase 4 supported

From version 1.16.05 to 1.17.01:

* New implementation
  * AW139 – Automatic download and debriefing through Skytrac Wifi transfer
  * AW139 – Visualization with historical trend (200 FH) of in-flight exceedances generated by real time HUMS (RT HUMS)
  * AW189 – Software Phase 5 supported

* Solved bugs
  * 39684 - AW189 PH5 (H/C 49057) - TVM occurences validity modification
  * 39607 - Offline RTB Adjustment - In the Save Adjustments Popup label is displayed correctly
  * 39578 - USER MNG – Correct credentials are reported in Default Profiles for new Customer added
  * 39435 - USER MNG – Removed the capability for a Master User to enable themselves to AVDM
  * 39431 - ESUM Server - ESUM Data correctly visualized
  * 39359 - RTB Adjustments - Changed label in the Save Adjustments Popup
  * 39347 - Fleet TVM Trends – Removed exception when a Premium HC is selected by an user without AVDM enabled
  * 39346 - Offline Application correctly installable
  * 39204 - [AW139] TVM Trends – Resolved the anomaly of Arising wrongly generated without any exceedance
  * 39196 - [AW139] Azimuth Sensor Status – Correct association of Failures to Azimuth sensor
  * 39099 - Heliwise Fleet Fault - Filter page displayed
  * 38867 - RTB Trends - Arising are not generated for invalid occurrences
  * 38617 - USER MNG – When a HC is moved into a main fleet, the server doesn't crash and the warning message is not shown
  * 38513 - USER MNG – Removed the warning message when a HC is moved into a main fleet
  * 37807 - USER MNG - Groups dialog – When two or more Customer Groups are merged, the correct number of aricraft for the merged Group is shown
  * 37615 - QUERY MNG – It is not possible to empty the field "Description" for each kind of query

- 37583 - USER MNG – When a Customer Group is divided into different Customer Groups, each new Customer Group is provided with the same Fleet of the initial Customer Group

- 36988 - DTC downloading - Begin validation correctly completed

- 36408 - [AW139] DTC Download – Removed the unexpected error message during the upload of a file already present

- 35492 - [AW169] RTB blade order - Blade order is the same in both Online RTB Trends and Offline RTB Adjustment dialogues

- 31934 - Weight on Wheels flag correctly stored in DB

From version 1.15.2 to 1.16.05:

- ❋ New implementation
    - o Advanced Vibration Data Mining (AVDM)
    - o AW139 RTB: Save Adjustments
    - o Query Management: AOG Flag
    - o AW139 ESUM (Aircraft Parameters)

- ❋ Solved bugs
    - o 39127 - Heliwise Offline application - Added "Save"/"Print" function for Manual Acquisitions in RTB Adjustment function
    - o 39116 - AW139 TVM Trends - "Bandpassed Enveloped Signal Spectrum" correctly displayed for All Acq THIST type
    - o 39019 - Query Mng - "Maintenance on Interested Area" fields disabled
    - o 38939 - Flight Hours for a flight during the Daylight Saving Time (DST) are correctly calculated
    - o 38884 - Query Mng - When an user (in the reported order):
        - ✓ Open "TVM Trends" dialog.
        - ✓ Select an AcqId and an HI
        - ✓ Click on "Open DARF" icon
        - ✓ Compile the fields and click on the green check icon.

      The DARF request shall be created.
    - o 38835 - AW139 TVM Trends - data for AcqID from 018 to 029 are correctly calculated and shown
    - o 38955 - AW139 Heliwise Offline application - Old RTB Config File v.1.8 not available in the drop menu
    - o 38743 - AW139 DTC Download – Following the download process, in the DTC Overview each Operation is VALID and the "Start Date&Time" field is filled with the correct data.
    - o 38679 - AW139 Heliwise Offline application – Removed exception shown during RTB file opening
    - o 38655 - AW139 Aircraft Arisings – when an user opens "Aircraft Arising" dialog and selects the DSNs by Smartlink, the message "Unable to access Arising" is not displayed and the data are correctly shown
    - o 38130 - Fault Arisings - Arisings of type ALARM are correctly generated
    - o 37370 - RTB Arising - When an user (in the reported order):
        - ✓ Select a RTB Arising available
        - ✓ Right-click with mouse

      The "Analyse..." option will be displayed for this profile to navigate on "RTB Trends" page.

- 37203 - AW169/AW189 TVM Trends - "Bandpassed Enveloped Signal Spectrum" correctly displayed for "AcqID" 101

- 36880 - Data Debrief - Error 9050 during the commit: when debriefing process is implemented, the H/C doesn't remain in "Download_In_Progress" status and the procedure is correctly completed

- 38444 - AW139 Aircraft Arisings/Faults – Following a debriefing process, if the user open first "Aircraft Arising" dialog and then "Aircraft Faults" dialogue, data are displayed and the warning "Unable to access to Arising" is not shown

- 38270 - AW139 Heliwise Offline application – when the QUICK Assessment is executed Data invalid are not displayed anymore

- 38959 - TVM Signal – When an user (in the reported order):
  - ✓ Select an H/C with TVM Signal data in fleet menu.
  - ✓ click on TVM Trends form in the HUMS menu
  - ✓ select an acquisition and health index with TVM signal sample.
  - ✓ Click on the Signal sample.
  - ✓ In the TVM signal popup select a chart type and request the AXIS CURSOR option

  The axis Cursor will enable vertical and horizontal lines in the chart that should follow the mouse pointer

- 38755 - AW169 TUM Torque Spectra - When an user (in the reported order):
  - ✓ Implement a download.
  - ✓ Implement the debrief
  - ✓ Open "DSN Torque Spectra"

  In "Percentage" tab, null values are expressed as "0.00 %" rather than through the sting "NaN"

- 38898 - Close Moitoring Planned End FH shall be modifed by user when creating a new CM

- 38744 - Modified Offline RTB Adjusement for AW139 that searches in local PC folder any previuoses file adjustment (RTBADJUS*) and loads it is as a previous RTB Adjustment for that HC. A message will be popuped up noticing the user for this behaiviour. (Note: for AW169/AW189 no changes made , RTB file Adjustment will be expected within the selected DSN)

- 39045 - Implemented a way to unsubscribe from events in Signal view of "TVM Trends" and "Signal display & analysis".

- 36878 - AW169 and AW189 ESUM feature now works also without the deferred upload

- 39206 - System status Heliwise dialogs are now working and show proper data

- 38645 - AW139 Solved the Missing End Checkpoint. Now these operations can be processed

From version 1.14.44 to 1.15.2:

- ❈ New implementation
  - o Application OFFLINE 1.15.2 supporting configuration file Ver. 2 for RTB Adjustment AW139 (Lateral vibration adjustment) and configuration file Ver. 1 for RTB Adjustment AW189 and AW169

- ❈ Solved bugs

  - o [AWPSE-DIRF_2017Dec01-1] RTB Trends - Occurrences with date 1980 invalidated

  - o [AWPSE-DIRF_2017Nov27-1] [AW189 PH4.0.1] TVM Trends - data MAINTTVM shown in plot

  - o [AWPSE-DIRF_2017Nov17-1] TQ - Enable to create response

  - o [AWPSE-DIRF_2017Nov15-4] [AW169] Aircraft Fault - Added "Arising Number"

  - o [AWPSE-DIRF_2017Nov07-2] Sync Users - Updated all users

  - o [AWPSE-DIRF_2017Oct12-1] RTB Thresholds update to AMP procedure 69-A-18-10-02-00A-373C-A

  - o [AWPSE-DIRF_2017Nov15-1] User MNG - CustomerGroup - table Customers available

  - o [AWPSE-DIRF_2017Jun28-2] Resolved "Analyze..." option missing right-clicking an Arising in HC detail page

  - o [AWPSE-DIRF_2017Jun19-2] Login – Resolved exception during the Login with a corrupted local DB

  - o [AWPSE-DIRF_2017Jun13-2] [AW169/AW189] TVM Trends - "Bandpassed Enveloped Signal Spectrum" correctly displayed for "AcqID" 101

  - o [AWPSE-DIRF_2017May11-1] Signals visible

  - o [AWPSE-DIRF_2017Mar14-4] [AW 139] DTC Download – Resolved "Begin Validation" error ("Error calling validate Zipdescription")

  - o [AWPSE-DIRF_2017May10-2] [AW139] Aircraft Arisings/Faults – User enable to access to Arising data

  - o [AW139] Data Debrief - Notification displayed at the end of the commit

  - o [AW139] Quick Assessment – Resolved exception clicking on "Convergence" checkbox

  - o [AW139] Aircraft Arisings/Faults – Resolved Page empty issue

- o [AW139] RTB Trend - Chart correctly visualized navigating from "H/C Arising" list

- o [AW169] Fleet RTB Trends – User enable to access RTB Threshold Data

- o [AW189] Data Debrief – Resolved Error 9001 during the commit

- o Offline TVM Quick - Amber exceedances detected.

- o Query Management – Increased number of characters for query fields of DARF and TQ

- o Query Management – DARF fields composed by one only row provided with an expander button to visualize the whole text

From version 1.12.02 to 1.14.44:

- ☀ New implementation
    - o User Management
    - o Query Management
- ☀ Solved bugs
    - o [AWPSE-DIRF_2017Oct17-2]   DTC Download not performed - MNTFLR and RTBADJUS of 0 KB

    - o [UM] Modifying HC main Groups - SubGroup label is displayed

    - o Data Debrief - Exception loading the page - Low Space on disk

    - o [AW169] TVM Threshold Management - Reset to "Fleet Value" wrongly applied

    - o [AW139] TVM Thresholds - Low and High Thresholds values used for both Amber and Red Steady type

    - o [AWPSE-DIRF_2017Sep04-1] [AW139] DTC Download - Error 9001 Error reading ZipDescriptor

    - o Offline - "Unable to access Offline data" exception

    - o TVM Trends - No Data Returned

    - o [AWPSE-DIRF_2017Jul13-1] Arising not properly filtered with multi tab access

    - o [AW169 PH2] Update DB Population

    - o [AW189] TVM Azimuth - Uncorrect D/T for Azimuth Failures

    - o [AWPSE-DIRF_2017Jun28-2] "Analyze..." option missing right-clicking an Arising in HC detail page

    - o [AWPSE-DIRF_2017Jun20-1] [AW139] Data Debrief - Error 9004 shown at DSN commit

o [AWPSE-DIRF_2017Jun19-2] Login - Exception during the Login with a corrupted local DB

o [AWPSE-DIRF_2017Jun16-1] [AW189] Data Debrief - Error message 9001 : Commit DSN has returned an error

o [AWPSE-DIRF_2017Jun13-1] User Management - Special characters not properly shown

o [AWPSE-DIRF_2017Jun09-1] [AWPSE-DIRF_2017Jun29-2] [AW169] Data Debrief - Error message 9001 : Commit DSN has returned an error

o [AWPSE-DIRF_2017Jun06-1] [AW189] Data Debrief - Error message 9001 : Commit DSN has returned an error

o [AW189 PH4] RTB Trend - No arisings are generated

o [AW139] DTC Download - Blanck popup during debrief

o [AWPSE-DIRF_2017May26-2] TVM Fleet Close Monitoring - HI icon is disable

o RTB Trends - No message displayed when no data are present

o [AW139] Data Debrief - Error message 9004: Commit multiple DSNs not available

o [AWPSE-DIRF_2017Jan31-3] [AW139] DTC Download - "Proceed" button disable

o [AWPSE-DIRF_2017May18-2] [AWPSE-DIRF_2017May18-1] [AW169 PH3] TVM Trend - No arising is generated

o [AWPSE-DIRF_2017May17-2] [AW169 PH3] RTB Trend - No arisings are generated

o [AWPSE-DIRF_2017May11-1] Signals not visible

o [AW139] TVM Trends - data are not displayed in the graph

o [AW139] Data Debrief - Error debriefing an OPN with a Missing Operation Start (Event Code 116) in the DISCEV.hsd file

o [AWPSE-DIRF_2017May04-2] TVM Trends - "Close & Far Trend" thresholds tooltip not properly defined

o [AWPSE-DIRF_2017Apr13-2] Fleet Filter - H/C visualized even if not belonging to the filtered H/C model

o RTB - Blade track/Blade lead-leg invalid data shall not be included in trend calculation

o Fleet Filter - IN_BUILD H/Cs visualized even if not filtered

o TVM Thresholds - Same Low and High Thresholds values used for both Amber and Red Steady type. - copied from Algeria

o In Fleet Details Arising list is not correctly shown

o [AWPSE-DIRF_2017Apr03-2] [AWPSE-DIRF_2017Jun08-1] [AW139] Close Monitoring - Chart wrongly displayed navigating from "Missinga Data CM Arising"

- o [AW139] RTB Trends - Longitudinal Acceleration Parameter is not present in the plot

- o [AW 139] Data Debrief - Exception during the commit

- o [AW189/AW169] Data Debrief - error clicking on "Remove DSN"

- o [AWPSE-DIRF_2017Jan19-6] RTB Trends - Data Validation not managed

- o [AWPSE-DIRF_2017Feb15-1] [AWPSE-DIRF_2017May05-4] H/C Status - TVM icon not coherent wiht the Arising list

- o [AWPSE-DIRF_2017Feb17-6] User Management - "RTB Adjustment" not working for a Non-Supevisor User

- o Email Notification - H/C model logo not correctly displayed

- o [AWPSE-DIRF_2017May02-1] Server Log - Exception using the "Smartlink" button

- o [AWPSE DIRF - 2017Feb08-3] [AW 139] Last DSN Information - FH inserted during the "H/C Creation" not correclty reported

- o AWPSE-DIRF_2016Dec27-1 - Server Log - Page empty

- o [AW139] Fleet TVM Trends - Unexpected "NaN" Label for blue threshold in "SIG_CVG" Health Index

- o Threshold Setting Check - Page empty

- o [AW139] TVM Threshold Setting Check - DA Far Trend Not Displayed Limit Values

- o Certificate install - Installer does not work on Windows 10

- o Server - Server application stops after DSN commit with too much DSN Flight Hours.

- o ESUM Chart - Unit of Measure not provided on X and Y-axis

From version 1.12.01 to 1.12.02:

- ❋ Solved bugs
  - o AW 139 Offline - RTB Adjustment - Acquisition displayed
  - o Offline installation from Online
  - o Heliwise offline - Busy indicator
  - o Fleet Filter - IN_BUILD H/Cs visualized even if not filtered
  - o Fleet TVM Trends - Fleet DISTRIB Threshold
  - o [AW139] DTC Download - Exception downloading from a USB pendrive
  - o Aircraft Detail - Missing Analyze function for the first technical event
  - o [AW 139] RTB Trends - Wrong Order for Blades Color
  - o [AW 139] TVM Exceedance - No Background color for "Far Trend" exceedance
  - o Server Log - Filter by "Date&Time" not working properly

- o [AW139] Fleet RTB Trends - Warning message about the removed H/Cs incomplete
- o [AW169] OffLine - "RTB Adjustment" - Exception during a FreePlay
- o [AW139] OffLine - "RTB Adjustment" - AMMC Version not properly displayed
- o [AW 139] Quick Assessment - ToolTip wrongly displayed
- o [AW139] Data Debrief - Error debriefing an OPN with a Missing Operation Start
- o Fix for wrong validity code
- o [AW139] Data Debrief - Error message 9004: Commit multiple DSNs not available
- o DTC Download - Error processing an OPN
- o DTC Download - "No DTC files found..." message
- o Discev file management
- o Invalid operation detected if some flight parameters
- o Close Monitoring - Missing Data CM Arising
- o [AW139] DID FIles - Server is sometimes unable to write on dids folder
- o SUM - Wrong Flight Parameter label - Rescue Hoist Weight
- o SUM - Wrong Flight Parameter label - Cyclic Longitudinal Control Position
- o Added library for AW189 PH4 support
- o [AW189 PH4] Data Debrief - Error 9001 during the commit
- o Moved saveDidsFiles method in AW139 library.
- o Revert of changes for AW169/189 due to Heliwise different software architecture.
- o QDM - Time Total and Time Large fields not displayed in the QDM dialogue.
- o QDM - Arising number and status not reported in the QDM table
- o [AW139] INIT.HSD - "Operation Id" wrongly displayed .
- o [AW139] Data Debrief - "Overlapping Flight Time stamps" error during the commit
- o Updte getFlightHours with UTC modeView LISTUSERHCSERIALSVIEW modified
- o AW139 Update TVM Threshold for AcquisitionCode='060'
- o Fix TrackSplit validation Issue
- o Fixed Wrong RTBHIX query for 40001
- o Added population for missing arising generation on AW169 PH3 aircrafts
- o Hide RTB Invalid (0) values
- o Disabled arising AW169, ACQ 099 also for Close Monitoring
- o Disabling MISSINGDATA arising generation for AW169 Acquisition 099
- o AW189 Phase 4 Population Script
- o [AW139] Fleet TVM Trends - Unexpected "NaN" Label for blue threshold in "SIG_CVG" Health Index
- o Added VmAcquisitionCode for MissingData, MissingDataCM or ExpiredCM
- o In Fleet Details Arising list is correctly shown
- o Fixed issue on RTB Thresholds.

- o RTB Thresholds.aligned for all the aircrafts
- o RTB trend 139 (track split amber th, blade colour,)

From version 1.10.27 to 1.12.01:

- ☀ New implementation
    - o RTB Trend AW139 function
    - o Aircraft Details: "Arising Filter" applied
- ☀ Limitation:
    - o Failures of accelerometers relevant to TRB acquisitions are not identified
- ☀ Solved bugs
    - o Offline - Quick Assessment: Removed unexpected error message
    - o Offline - RTB: Solved exception due to selecting a Config file
    - o User Management: The "Enable AVDM" has effect for the selected User
    - o Accelerometer Status : Failure Status correctly detected
    - o Accelerometer Status : "Failure Cross Correlation" checks correctly applied
    - o Data Debrief: capability to select the AMMC source for a single metric is denied.
    - o Offline - RTB Adjustment : On each grid the correct label is "Fast Cruise" and "Slow Cruise" in order to align the Offline to Online application.
    - o Fleet RTB Trends: Data are correctly displayed, or a warning message about the max number of selectable H/Cs is displayed.
    - o RTB Trends: when the MainRotor (Pilot Lateral) acquisition is selected, RTB Trends Data are correctly displayed.
    - o Fleet TVM Trends: Each H/C shall have an identifying color
    - o OffLine "RTB Adjustment" – Resolved error during a Free Play
    - o The created "Init.hsd" file is provided with a correct CRC in the structure label "1041h Operation Number
    - o Offline - RTB Adjustment – Resolved Blank page problem
    - o DTC Download: "Begin Validation" procedure is successfully completed
    - o AW139 Offline - Quick Assessment: Data are correctly displayed without any unexpected error message
    - o AW139 DTC Download: Solved issue on commit procedure (Error 9001)

From version 1.10.25 to 1.10.27:

- ☀ In Aircraft Faults, tab Arising, solved bug on generation Date&Time for arising.

- Engine cycle data (BHUOM) correctly shown
- Solved bug on download of SUM data
- Solved accessibility issue to RTB data for a specific Helicopter
- Solved bug on Server Log
- Solved bug on AW139 (no FH in the DSN even if the relevant H/C was created with some FH)

From version 1.9.22 to 1.10.25:

- Support of AW139 - Operational software versions: STD 5.3.0 and 5.4.0, AGB 4.0.0 and 5.0.0
    - Download and Debrief - SLOW and FAST modes - with QA Off Line
    - TVM
    - RTB Adjustment (Off Line)
    - BHUOM
- Unique authentication on Leonardo Customer Portal [Single Sign On - SSO]
- ESUM(AW189/AW169) data management by FTP(fully supported and performance improved)
- RTB Adjustment improvements (Report, FIPS)
- User Interface improvements
- Metrics harmonization
- Bug fixed.

From version 1.8.53 to 1.9.22:

- Added RTB Adjustment (Off Line) to perform RTB tuning and to manage adjustment data file;
- Replaced HC UNKNOWN (Off Line) by generic HCs with Tail ID AW169 and AW189;
- Small bug fixes.

From version 1.8.1 to 1.8.53:

- AW189 equipped with operational software PH3 and version 5.1.4;
- New design for Faults page (available for single aircraft or entire fleet):
    - List of arising generated by consequent occurrences;
    - Faults list;
    - Exceedances view;
    - Alarm messages;
    - AMMC Discrepancy values;
    - All events history;

From version 1.7.2 to 1.8.1:

- Compatibility with AW169 operational software version 2.8.9;
  - o Data downloading and upload to Heliwise server;
  - o Transmission Vibration Monitoring;
  - o On board failures (Faults, exceedances, CAS);
  - o Basic Usage and Operation Monitoring;
  - o Transmission Usage Monitoring;
  - o Rotor Track & Balance trends;
- Added fleet filter into Home Page for filtering the aircraft owner, location, model and variant;
- Export in CSV file of TVM Health Index data;
- Download details into DSN Management page

From version 1.6.1 to 1.7.2:

- AW189 equipped with operational software PH2.1 with version 4.5.6 or 4.5.7.
- Login page – Added label containing the Heliwise software release.
- Home page – TVM indicator coloured in according to TVM arising severity.
- Arising Status – 'Accepted' term replaced by 'Open'.
- Basic Usage Monitoring Page – Added more grids to display
    - Avionic System cycles;
    - Electric Busses start and stop cycles;
    - APU start and stop cycles;
    - Engines start and stop cycles;
    - Rotor start and stop cycles;
    - Rotor Braking cycles;
    - Take-off and landing cycles;
    - Touchdowns browsers;
- New Fleet RTB Health Index Trend available online.
- RTB Adjustment offline – possibility to analyse download data placed on USB or a local folder.
- RTB HI Trend online – Complete set of data loaded from download folder.
- TVM Trend Exceedance – colours coding added to the TVM HI page.
- New desktop icon for Heliwise offline application.
- Other small bug fixes.

From version 1.4.3 to 1.6.1:

- Added RTB Adjustment offline – data available in read only mode waiting the validation of adjustment algorithm.
- Added TVM Quick Assessment offline.
- Home Page – Arising list ordered by TVM exceedance severity.