TeeJet ®
TECHNOLOGIES

AEROS
FIELD COMPUTER

AEROS 9040

RELEASE NOTES

Aeros v4.42

April 2020
Associated Documentation:
- Manual 98-05304 R7
- Guide 98-01504 R7
- Software Update Instructions 98-01511 R1

New Features:
- Multiple changes to align nozzle specifications with international standard ISO 25358, including but not limited to changing the Coarse droplet size category color from Blue to Green, and the Very Coarse droplet size category color from Green to Blue. Previous alignment of nozzle specifications was with ASABE Standard S572

Fixes:
- Fixes problem where FieldPilot Pro and UniPilot Pro systems that are engaged and Autosteering at noon UTC time may disengage Autosteer

Aeros v4.41

October 2019
Associated Documentation:
- Manual 98-05304 R6
- Guide 98-01504 R6
- Software Update Instructions 98-01511 R1

Fixes:
- Corrects problem in v4.31 through v4.40 where UniPilot Pro and FieldPilot Pro users experienced accurate on-ground Autosteer vehicle positioning but the on-screen as-applied data showed skip/overlap/skip/overlap…on adjacent passes when run in alternating directions (back and forth).
- Corrects problem where UniPilot Pro and FieldPilot Pro users would enter a target heading in the Azimuth Degree guidance mode, but the machine would Autosteer a path that was several degrees different. If Heading was selected in the Guidance bar, the Heading values displayed were of the driven path and not the Azimuth setting entered.

Aeros v4.40

April 2019
Associated Documentation:
- Manual 98-05304 R5
- Guide 98-01504 R5
- Software Update Instructions 98-01511 R1

New Features:
- Internal temperature limit at which the system will automatically shut down the console is increased from 75°C to 85°C
- A USB Drive app can be used to limit the maximum brightness that the operator can set the display backlight to
- Addition of TTI60-110 nozzle (tip) range and update of nozzle (tip) colors
- Supports latest console production requirements

Fixes:
- Corrects problem where a boundary creation action that was paused before the machine started moving would cause the console to shut down.
- Corrects problem where on-screen keyboard did not support the Ň character
- Removes 'Tip Selection' from the Config->Implement menu when the implement selected is 'Spreader'.
  Note: unlock code required for Spreader ASC
- Corrects problem where the softkeys for some ISOBUS implements would sometimes flicker

Aeros v4.33

August 2018
Associated Documentation:
- Manual 98-05304 R4
- Guide 98-01504 R4
- Software Update Instructions 98-01511 R0

New Features:
- Support for SCM Pro v4.0.33995

RELEASE NOTES

- Supports machines with 4 wheel steering (4WS)
  - *NOTE: See document 98-01548 for the Release Notes for SCM Pro v4.0.33995*
- Support for 30 boom sections for systems running SDM v21.00 or later or SFM v21.00 or later
- Reversing camera support – if machine has a camera and a Reverse Sense Provider (SCM Pro, SCM, or RSM) the operator can select to have the camera view show whenever the machine is in reverse
- New GNSS Data Rate setting in Config->GNSS Receiver to set the serial port baud rate and NMEA message frequency for devices that source position data from the GNSS receiver internal to the console.
  - Settings:
    Fast – (Default) 115,200 baud rate, GGA@ 10 Hz, VTG @ 10 Ha, ZDA @ 1 Hz
    Slow – 19,200 baud rate, GGA @ 5 Hz, VTG @ 5 Hz, ZDA @ 1 Hz
    NOTE: GNSS Data Rate must be set to Fast if system includes FieldPilot Pro or UniPilot Pro.
- Night Mode setting added to Console Settings->Display so user can quickly toggle between preferred daytime display settings and a low light level mode better suited to night time operation
- Operator can select whether to allow Product Rate Control and ASC with ISOBUS rate controls when traveling in reverse
- Added new spray nozzle (tip) data
- Added warning if the application rate units from the rate controller do not match the units specified in the VRA map
- Restored option to Refresh GNSS Receiver Position when opening a job – USB Drive app required to turn feature on/off
- Added support for ISOBUS DDI 158 (Prescription Control State) – some ISOBUS implements require this DDI in order to accept Target Rates from the TC

Fixes:
- Multiple changes to enhance Automatic Section Control (ASC) performance
- Multiple changes to enhance ISOBUS compatibility
- Corrects problem where the boom section widths from an IC18 Sprayer may not be correctly recognized by Aeros
- Corrects problem where the presence of an Adaptive Curve A-B guidance line in a job may cause the screen to go black and the console to stop responding until repowered
- Significant reduction in the time required to reload a large job that has Adaptive Curve A-B guidance line(s)
- Corrects problem where VRA application rates were previously based on the position of the GNSS antenna and not the position of the boom
- Area in PDF reports is now reported in gal/1000 ft2 when IC18 Sprayer is set to Turf mode
- Corrects problem where the Total Applied Mass from an IC18 Spreader was not reported in the PDF report
- Corrects problem where the Total Applied Mass from an IC18 Spreader is not displayed in the guidance bar
- Corrects problem where an IC18 Spreader system with Remote Master may stop responding if Remote Master is ON and the user toggles ASC ON (BoomPilot icon Green) and OFF again (BoomPilot icon Red)
- Corrects problem where sometimes a VRA job is not shown on the Home page when the job is the only job on the console
- Corrects problem where first opening a VRA job while positioned in a zero rate zone may not result in the Target Rate in the guidance screen updating to the zero rate
- Icons are aligned better in the Navigation Bar on 570GS consoles
- Corrects problem where a VRA job for an IC18 Sprayer is opened with the machine already inside one of the rate zones and the applicable target application rate is not displayed in the guidance bar
- Corrects problem where the guide path drawn to the display while running the Adaptive Curve A-B guidance mode was not exactly the same path sent to the SCM Pro
- Corrects problem where kml report generation would sometimes fail
- Corrects problem where the 'PRN' value (GGA Station ID value) reported in the GNSS Status window when using TerraStar-C or TerraStar-L was reported as value '0'. Now reported as 'TSTR' or 'TSTL' respectively.
- Corrects problem where PDF reports from consoles set to Metric defaulted to paper size 8.5 x 11.0 inch instead of A4
- Corrects problem where changing the mode from Sprayer to Turf on IC18 Sprayer or IC34 would result in the units of application remaining at the Sprayer setting
- Changes to several boundary and area setting labels
- Corrects problem where Straight A-B guidelines were not drawn in reports
- Removes setting for BoomPilot Icon Enable/Disable when an ISOBUS implement (e.g. IC18) is connected to the system.   i.e. BoomPilot icon will always be displayed when an ISOBUS implement is connected.
- Corrects problem where some job settings are not restored correctly if the job is closed, the language is changed, and the job is opened again.

⚠ WARNING! USB DRIVE RESTRICTIONS

TeeJet labeled 16 GB USB Drives that have a blue loop (Figure 1) are suitable for transferring job data and reports on/off TeeJet Aeros consoles, but they are **NOT** suitable for loading Aeros console software updates.

TeeJet labeled 8 GB USB Drives with a yellow loop (Figure 2) are suitable for job data/reports transfer and for loading Aeros console software updates.

Please contact TeeJet Technologies Customer Support with any questions.

Figure 1: TeeJet 16 GB USB Drives

Figure 2: TeeJet 8 GB USB Drives

WARNING!: Do not use a USB storage device with U3 technology (also known as "U3 smart drives") as U3 technology could cause downloading or job storage issues.

- Corrects problem where an uncommon sequence of events while transferring a VRA job onto the console while in a location multiple UTM zones away from the job would result in the job showing 'Out of Range' on the Home Page once the user was located close to the job again
- Corrects problem where GNSS Receiver data was not being displayed in Config->GNSS Receiver Configuration->Program
- Cosmetic change that makes it easier to see which item is currently selected in IC18/IC34 Implement ECU drop-down dialogs
- Corrects problem where the Time/Date broadcast on the ISOBUS was off by one day at certain times of the day
- Prevents console speaker from humming when no tone is being generated
- Corrects problem where the needle on some Implement ECU rotary-style gauges was pointing backwards
- Corrects problem where the needle on some ISOBUS meter objects was not visible
- Corrects problem where Lifetime totals used by some ISOBUS devices were not being handled correctly in TASKDATA.XML files
- Corrects problem where an ISOBUS Implement with more than 16 boom sections may not respond to boom commands from the TC on Boom 17+ if power to the system is not cycled after the implement is connected
- Corrects problem where an alarm from an ISOBUS device may not be completely visible if the user is entering data in a dialog box
- Corrects problem where creating a Shape File report from a job with no applied data would cause an error
- Corrects problem where Boom Pilot Start Mode could be set to Automatic when no Boom Pilot device was connected to system

Aeros v4.32

November 2017

Associated Documentation:
- Manual 98-05304 R3
- Guide 98-01504 R3
- Software Update Instructions 98-01511 R0

Fixes:
- Corrects problem where certain page changes after a Refresh GNSS position activation can cause the console to stop responding

Aeros v4.31

July 2017

Associated Documentation:
- Manual 98-05304 R2
- Guide 98-01504 R2
- Software Update Instructions 98-01511 R0

New Features:
- New Adaptive Curve guidance mode added
- Hungarian language added
  - Russian and Lithuanian language additions no longer require additional Language Update
- User can now reset the ClearPath Filter using GNSS Refresh button in the Navigation and Guidance tab options
- Multiple new mapping functions:
  - Now supports a combined total of 100 External/Internal boundaries
  - New polygon mapping feature – up to 100 polygons
  - Up to 15 Polygon names can be saved and selected from a drop-down list
  - Boundary mapping location on the machine is user selectable
  - Boundary & Polygon mapping functions moved to a new slide-out panel
  - 50 m^2 minimum polygon size has been removed
  - Added Polygons to Shape, KML and PDF exports
  - Boundary and Polygon mapping can now be paused and resumed
- Automatic Section Control now allows product application when an Internal Boundary exists but an External Boundary has not yet been created
- Added ISOBUS compliant Implement Connection Point set-up parameters so that ISOBUS compliant implements correctly display and operate with the correct geometry
- Users of TeeJet ISOBUS rate control systems can manually turn boom sections OFF while Automatic Section Control (ASC) is in Automatic mode, and ASC will remain in Automatic mode
- Added pop-up message when in a job to remind users that some settings cannot be edited while the job is open
- Added ability for user to enable the broadcast of ISOBUS messages 'Navigation based speed' and 'Machine based speed'
- The position data used in Demo GNSS mode has been changed to better illustrate Automatic Section Control
- ISOBUS machine configurations that utilize FUNCTION in the DDOP are now supported (single boom (product) only)

Fixes:
- Multiple changes to enhance ISOBUS compatibility
- Corrects problem where Automatic Section Control would momentarily turns the booms off when the GNSS signal changed from Quality Indicator 1 to Quality Indicator 2 when the GNSS settings were a) GPS/DGPS or b) DGPS Required was not checked
- Corrects problem on some systems where ASC would toggle from Automatic to Manual when the Boom Master switch was turned OFF
- Corrects problem where the as-applied mapping while running ASC may display large skips when turning booms on & off
- Corrects problem where Total Area, Effective Total Distance, and Effective Total Time were not reloaded in IC18 Sprayer when a job was resumed
- Corrects problem where Applied Area and Mass were not reloaded into IC18 Spreader when a job was resumed
- Corrects problem where changing the language could cause the Implement to not be shown correctly on the console until console power was cycled
- Corrects problem where Demo GNSS sometimes could not be restarted without repowering the console

- The .prj file contained in Shape File exports is now in a single line and ends with <CR><LF>
- Demo GNSS app updated to provide position data at 10 Hz
- Jobs with large boundaries load significantly faster
- Corrects potential problem where a user creating a new job in Advanced Mode with other jobs already saved may inadvertently open the last job rather than the intended new job
- Corrects problem where the ISOBUS Implement pressure display may display in Metric units when the console is set to US units
- Corrects problem where the GNSS requirements could not be set when the receiver type was set to External
- Corrects problem where systems with a FieldPilot Steering Control Module (SCM) or Reverse Sense Module (RSM) may not correctly sense reverse vehicle movement
- Corrects problem where ISOBUS speed messages were sometimes not handled correctly
- Corrects problem where the lateral boom projection was not correct when the machine is equipped with FieldPilot Pro / UniPilot Pro and is traveling in reverse
- Corrects problem where the ISOBUS Section X-offset was being used instead of the Device X-offset when both offsets are available
- Corrects problem where the where-applied swath painting spanned the distance traveled while the GNSS signal did not meet the minimum Quality Indicator requirement set by the user
- Several corrections to Help Text
- Corrects problem where Spreader or Staggered booms operating in ASC Auto mode would momentarily turn on and off again when first backing up over an already applied area
- Corrects problem where a job containing Circle Pivot and/or Straight AB guidelines that was closed and opened again in the same session may not allow FieldPilot Pro / UniPilot Pro to engage on those same guidelines
- Corrects problem where sometimes the hourglass was not being displayed when it should have been, so that users know that the system is still functioning correctly
- Corrects problem where an ISOBUS Implement configured with more boom sections than is supported by Aeros would cause Aeros to stop responding

NOTES:
- Rate control using TeeJet's DCM and related components no longer supported
- It is recommended that IC18 systems be running IC18 v1.10 in order to benefit from some of the changes in the v4.30 release for Aeros
- All IC18 & IC34 users must refer to the User Guide for v4.30 to ensure that Connection Point and Implement geometry is set correctly for this version

Aeros v4.21 Language Update v10.02

March 2017
New Features:
- Russian and Lithuanian languages added

Language Update v10.01

November 2016
- Update to support Production requirements

Aeros v4.21

August 2016
Associated Documentation:
- Manual 98-05304 R1
- Guide 98-01504 R1
- Software Update Instructions 98-01511 R0

New Features:
- Curved AB guidance mode added for FieldPilot Pro and UniPilot Pro systems
- Support for optional External Lightbar
- Enhanced Reverse Sense performance when operating FieldPilot Pro and UniPilot Pro
- SCM Pro can be enabled from the GUI – no need for USB Drive app
- Support for US Turf units (gal/1000 ft^2) – requires companion rate control device that also supports these units
- Polish language added

Fixes:
- Corrects problem where the CAN speed message used by some connected devices stopped being broadcast at zero speed.
- Multiple changes to FieldPilot Pro and UniPilot Pro GUI pages, Help Text, and pop-up dialogs
- Corrects problem where the Target rate displayed after power-up was the last rate from the VRA job in the previous session
- Corrects problem where some systems would fail to consistently recognize SCM Pro at console boot
- Corrects problem where time was not saved to the Real time clock
- Corrects problem where the As-applied painting did not toggle off with the Spread (Master) switch when connected to IC18 Spreader
- Corrects problem where the Circle-Pivot guidance mode guideline in pdf reports was sometimes rendered poorly
- Manual PRN selection has been removed from the GUI when the receiver port is set to External
- Corrects problem where some NovAtel external receivers would be errantly reconfigured during console boot
- Cosmetic enhancements to multiple pages

NOTES:

- Several of the changes in v4.21 require updates to the ISOBUS Implement ECUs in order for the changes to be completely implemented. IC18 Sprayer must be v1.08 or later, IC18 Spreader must be v1.08 or later, and IC34 must be v1.15 or later.
- Several of the changes in v4.21 require that Fieldware Link users update to Fieldware Link v5.02.

Language Update v10.00
June 2016
- Update to support Production requirements

Aeros v4.20 Language Update
May 2016
Fix:
- Updated all languages with AutoSteer translations
- Corrections to several help text and pop-up dialogs for FieldPilot Pro & UniPilot Pro

Aeros v4.20
March 2016
WARNING: Prior to v4.20, consoles with an internal GNSS receiver operate the console com port at 19200 baud rate. v4.20 and later operates the console (with internal receiver) com port at 115200 baud rate. If you are connecting a device to the console com port to receive NMEA data from the internal GNSS receiver, and that device cannot be configured to operate at 115200 baud rate, you should not update to v4.20 or later.
Associated Documentation:
- Manual 98-05304 R1
- Guide 98-01504 R1
- Software Update Instructions 98-01511 R0
New Features:
- First Release for FieldPilot Pro & UniPilot Pro Autosteering systems
  - Supported Steering modes for FieldPilot Pro & UniPilot Pro
    - Straight-line AB
    - Circle Pivot
      NOTE: Last Pass and Curved AB modes are not supported for FieldPilot Pro and UniPilot Pro in v4.20
  - Autosteer Demo mode built into application
  - FieldPilot Pro & UniPilot Pro pages only supported in English language. Language updates coming soon for the other languages already supported by Matrix GS and Aeros. Note: non-AutoSteer pages supported in the same languages as v4.12
- Internal GNSS Receiver now operates at 115200 baud, 8-N-1.
  - GGA @ 10 Hz, VTG @ 10 Hz, ZDA @ 1 Hz
Fixes:
- Changes to GNSS subsystem result in faster boot times for many config-
  urations, and GNSS position continuity while opening and closing jobs
- Increased the speed at which FieldPilot setup values increase/decrease on the console
- Job must be closed before any Job Data can be transferred to/from console
- Corrected problem where Rate Adjust buttons & Pressure display from TeeJet ISOBUS ECUs sometimes did not display on the Guidance screen
- Corrected problem where vehicle profiles that did not include a BoomPilot device that were created in earlier versions would not load in later software versions. Note: loading profile the first time in v4.20 will generate a warning. Saving the profile again will prevent further warnings.
- Corrected problem where sometimes external GNSS receivers were being reconfigured during console boot.
- VTG enabled, and SBAS disabled for default Chinese configuration

Aeros v4.12
November 2015
Associated Documentation:
- Manual 98-05304 R0
- Guide 98-01504 R0
- Software Update Instructions 98-01511 R0
New Features:
- Boot time reduced by enhancements to GNSS receiver operation
Fixes:
- Automatic section control mapping improved at higher ground speeds when connected to ISOBUS application rate controller. IC18 sprayer must be running v1.08 or later, IC34 must be running v1.14 or later.
- Corrected problem where as-applied job data created with an ISOBUS application rate controller could be lost if a) the job was closed, system was powered down, and then the system and job were immediately started again, or b) the ISOBUS controller was disconnected and reconnected again with the job still open.
- Corrected problem where implements connected to the ISOBUS sometimes would not be recognized
- Several changes to boom section control state handling and display. IC18 sprayer must be running v1.08 or later, IC34 must be running v1.14 or later, and TeeJet ISOBUS boom switchbox (where used) must be v1.11 or later

RELEASE NOTES

Aeros v4.11
April 2015
Associated Documentation:
- Manual 98-05304 R0
- Guide 98-01504 R0
- Software Update Instructions 98-01511 R0

New Features:
- Language addition: English [INTL], English [US], French, German, Italian, Portuguese [BZ], Spanish [CA/SA]
- Additional GNSS Receiver mode that allows user to select GPS+GLONASS+SBAS
- Date/Time in job names changed to ISO date/time format
- Automatic Section Control Overlap % now defaults to 100%
- Default Job mode changed from Advanced to Simple
- Option to reset the ClearPath GNSS filter when opening job – USB Drive required to turn feature on/off
- GNSS Receiver model code identified in GNSS Stats
- Optional dual-frequency (L1/L2) GNSS receiver. This release supports the following options for this receiver:
  - GPS
  - GLONASS
  - SBAS
- When loading large ISOBUS object pools, a progress bar shows that the object pool is loading
- Additional IC18 & IC34 rate control data displays and functions in the Guidance screen:
  - Volume Applied
  - Tank/Bin Volume
  - Target Rate Boost changes
  - Pressure

Fixes:
- Tankmatic 'Start' button function corrected
- Non-critical ISOXML import errors no longer generate GUI pop-ups
- Laterally offset boom configurations correctly map boom location when running VRA and/or IC18/IC34 rate control
- In VRA applications, when available from the rate controller or the preplanned, job, the following data is now included in the pdf report:
  - Applied Area
  - Applied Volume
- Loads of the first object pool sometimes were not set as the active object pool
- Require minimum spreader boom length of 0.5m
- Some ISOBUS implement work screens not completely updating when loading for the first time
- Report generation no longer causes momentary 'Lost Communication' error pop-up
- GNSS Demo mode no longer cause intermittent failure of UT display to update

Aeros v4.10
September 2014
Associated Documentation:
- Manual 98-05304 R0
- Guide 98-01504 R0
- Software Update Instructions 98-01511 R0

New Features:
- ISOBUS Universal Terminal
  - IC18 Sprayer, IC18 Spreader or IC34 rate control
- TankMatic
- User editable calibration table
- TeeJet compatible ISOXML prescription maps can be imported for VRA applications

Aeros v4.00
June 2014
Associated Documentation:
- Manual 98-05304 R0
- Guide 98-01504 R0
- Software Update Instructions 98-01511 R0

New Features:
- First version to be used on Aeros console while continuing upgrade path for Matrix GS consoles
- Control of product application rates possible when Dual Control Module (DCM) and supporting devices are connected by CAN to Aeros console. Supported configurations detailed in table below
- Tip Flow Monitor
  - Errors are listed in pdf report

- Info available on Status Bar - information on status, tip count and tip faults
- BoomPilot in Reverse - Supports optional Reverse Sense module that allows BoomPilot to operate while the machine is traveling in reverse
- Ground Speed Override
- Jobs can be started with Automatic Section Control in Automatic mode
- Dual Control Module (DCM) Product Control (one channel only)
  - Liquid and Granular product application
  - Servo or PWM drive type support
  - Includes Calibration Table for granular applications
  - Primary sensor plus up to four (4) monitors
    - Optional monitors for Flow Meter, Shaft Speed, Product Detect and Pressure
  - Up to three (3) preset target application rates
  - Adjustable Application rate step
  - User selectable applied rate upper and lower limit values and colors
  - Rate Control Info available on Status Bar - quick access to channel status info, warning and errors
- Language Update version distinction in About screen
- Remaining disk space noted on About screen
- Upload software to attached devices on CAN including SDM, SFM, ISM, ASB
- Additional options added to Units Converter
- Selectable Job Information on guidance screens additions of Target Rate and Actual Rate
- Selectable on screen map displays including Where-applied coverage, prescription map zones, Target Rate, and Actual Rate
- Rate control screen
  - Four (4) selectable information boxes
  - Quick access to three (3) preset target application rates
  - One button press from automatic to manual rate control modes
- Favorite Button
- Languages available: English-US and English-International
- Updated PDF, SHP, and KML reports to include new map options
- Support for new tips including new images and updated, coordinated colors
- Show guideline name after activating next guideline
- X-Track error value can be customized, and can display greater resolution

Fixes:
- Approach to guideline when first engaging FieldPilot on each pass improved
- Ground speed now displayed when in Reverse

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