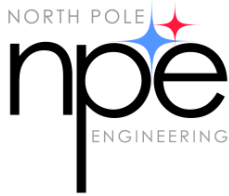
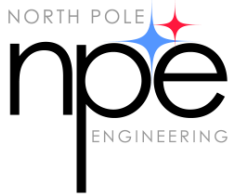
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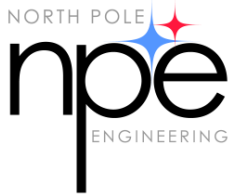
Version	PLog#	Type	Description
5.4.29	WASP-308	Feature	WASP will never require a passphrase when creating a network.
	WASP-228	Bug Fix	Fixed issue that could sometimes prevent configuration update.
	WASP-282 WASP-296	Bug Fix	Fixed issue with hard lockup of firmware.
	WASP-171 WASP-254	Bug Fix	Fixed issue where WASP would stop forwarding sensor data.
			Fixed issue where WASP would back up sensor data on poorly performing Wi-Fi networks. This was causing stale and out-of-sync sensor data to arrive at applications.
5.4.28		Feature	Modified disable encryption command to only work over USB and decrypt all USB traffic.
5.4.27		Bug Fix	Driver for UART interface nRF radio now suspends radio by holding reset line rather than toggling sleep and suspend.
	WASP-155	Feature Request	Added operation complete notification messages for Wi-Fi scan and event log flush.
	WASP-155	Bug Fix	Fixed Wi-Fi scan operation to not block system.
5.4.25	WASP-182	Feature	Added high/low watermark messages for ANT TX buffer operating on radio 0.
	WASP-182	Bug Fix	Bug fix to flush ANT burst data immediately across control connection if a terminating sequence number is seen in burst packet.
		Bug Fix	Bug fix in UART radio driver to correctly report TX buffer level and not add partial packets.
		Bug Fix	Improved efficiency on parsing of control connection input buffer.
	WASP-145	Feature	Added hybrid mode for easier management of ANT radios.

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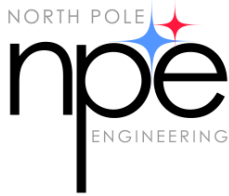
	WASP-150	Bug Fix	Two bug fixes for WASP resetting under heavy traffic conditions.
	WASP-121	Bug Fix	Fix for WASP reset when radio 0 has high traffic and radio 1 is inactive.
5.4.24		Bug Fix	Two-fold fix to address issue with WASP reverting to factory defaults. Fix 1: Backup of current config before writing new config. Fix 2: Change to prevent failures from occurring during SetConfig operation.
		Bug Fix	Change to not modify passphrase if iOS app sends SetConfig with passphrase length = 0 but non-empty passphrase data.
		Bug Fix	Modified code to drop packets when ANT/BLE traffic is high and Wi-Fi connection is poor. Also fixes problems with lack of responsiveness and random resets.
		Bug Fix	Change to allow operation even if external flash chip has failed (event logger data will not be available).
5.4.23		Feature Request	BLE radio is now in active scan by default.
6.1.2 5.4.22			New event logger implementation. See WASP Packet Protocol 2.3.29 for usage details.
	390	Bug Fix	Assertion on button power-off if no OEM assigned. (Affects manufacturing and development only.)
6.1.1 5.4.21	355	Bug Fix	FW upgrade to 5.4.20 could erroneously cause battery dead detection with forced battery charge timeout.
	358	Bug Fix	Draining battery to auto-shutoff caused forced wait for battery charge timeout when connected to charger. This has been removed. Forced wait now only occurs when battery is dead AND charger supplies insufficient current.
5.4.20	348	Bug Fix	Disabled event logger due to issues with system lockup.
6.1.0	231	Bug Fix	Migration to GainSpan Embedded Platform Software 5.2.5. Fixes network connectivity issues.
6.0.3 5.4.19	254	Bug Fix	Modifications to battery monitor to prevent latch-up condition.
6.0.2	317	Bug Fix	Interaction with ANT device using radio 1 can cause lockup in radio

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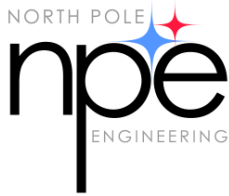
5.4.18			driver.
6.0.1 5.4.17	315	Bug Fix	Bug in event logger could brick WASP. This release resolves the issue and will unbrick a bricked 5.4.15.
6.0.0		Feature Request	Flexible packet protocol now in use for outgoing sensor data. Control connections still managed using old packet protocol.
		Feature Request	WASP now allows for configuration of secondary SSID.
		Feature Request	WASP now allows for USB only operation with Wi-Fi shut off.
		Limitation	Flexible packet protocol only supported for outgoing UDP traffic. All other traffic uses traditional packet protocol.
		Limitation	FW update to a previous FW version is not supported.
		Known Problem	Corrupted flex packets have been observed. Flex packets with a bad payload or header checksum must be discarded to avoid this issue. This issue is rare and will affect only a few packets when it occurs.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
5.4.16		Feature Request	Flexible packet protocol now used for outgoing sensor data and query responses sent over UDP.
		Limitation	This is a beta release.
		Limitation	Flexible packet protocol only supported for outgoing UDP traffic. All other traffic uses traditional packet protocol.
		Limitation	FW update to a previous FW version is not supported.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
5.4.15	266	Bug Fix	TCP connection manager was causing unwanted resets.
	268	Bug Fix	WASP-N, when used in conjunction with .Net framework, could get stuck in reset loop in USB mode.

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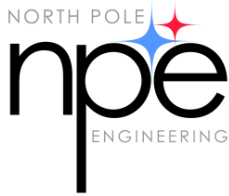
		Limitation	FW update to a previous FW version is not supported.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
5.4.14	261	Bug Fix	Increased radio comm loss timeout to prevent false reload of BLE radios.
		Limitation	FW update to a previous FW version is not supported.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
5.4.13	259	Bug Fix	WASP would suddenly stop operating and reflash radio 1 without warning.
		Limitation	FW update to a previous FW version is not supported.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
5.4.12	177	Bug Fix	OTA FW upgrade could cause WASP to power off.
		Limitation	FW update to a previous FW version is not supported.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
5.4.11		Bug Fix	Setting radio 0 to BLE no longer bricks WASP.

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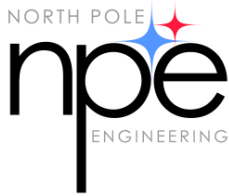
		Limitation	FW update to a previous FW version is not supported.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
5.4.10 5.5.1		Bug Fix	Fixed watchdog reset issue.
		Bug Fix	Will allow pass of manufacturing tests if Nordic radio HWIDs mismatch as long as they both still correspond to the same WASP product type.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
5.3.18		Bug Fix	Fixed watchdog reset issue.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Base Station mode still in Beta.
5.3.17		Bug Fix	Will allow pass of manufacturing tests if Nordic radio HWIDs mismatch as long as they both still correspond to the same WASP product type.

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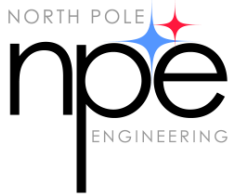
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.16		Workaround	Automatic detection of 2-second data dropout in Base Station mode with automatic firmware reset.
		Workaround	Reduction of firmware watchdog timer to 2 seconds. Reduction of system quality monitor timeouts to 4 seconds.
		Limitation	Beta release with limited external availability. Do not release to forum.
5.5.0		Feature Request	New Operational Mode: Wi-Fi Off (USB Only)
		Feature Request	Secondary SSID Configuration
		Feature Request	ANT/BLE data normally forwarded over UDP now also forwarded over USB (without needing to enable Base Station).
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.

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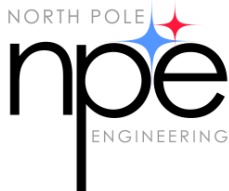
5.4.9		Bug Fix	Fixed handling of button and LEDs on wakeup button press.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.4.8	231	Bug Fix	Workaround to prevent condition where WASP stops receiving network traffic.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.4.7	204	Feature Request	Encryption no longer applied when using NPE OEM key.
	207	Feature Request	Multiple QUERY_RESP and EXT_QUERY_RESP packets are sent over multicast whenever there is a change in control connection state.
	185	Bug Fix	The UDP payload for encrypted no longer will exceed 500 bytes.

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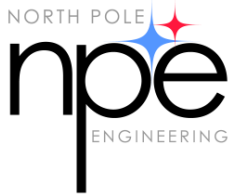
	212	Bug Fix	Back to back radio commands over USB could sometimes cause an exception reset.
	216	Bug Fix	10 second lockup would sometimes occur when entering Base Station mode.
	218	Bug Fix	LEDs would occasionally freeze up even though WASP remained operational.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.4.5		New Feature	HTTP FW update server is now automatically terminated when closing a control connection.
		Bug Fix	Button and battery monitor are disabled during FW update. This fixes FW update lockup issues.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.

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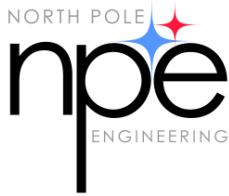
		Problem	
5.4.4		New Feature	Suspend mode implemented for ANT and BLE radios.
		Bug Fix	Radios now placed in suspend mode during over-the-air FW update. This prevents lockup scenario.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.4.3	62, 139, 159	Bug Fix	Packet saver is disabled while in Base Station mode (i.e. transferring data over USB). This prevents overflow of CP2110 buffer, which was causing checksum errors.
		Bug Fix	5.4.2 would get locked in a reset loop if USB control mode was active on reset (i.e. CP2110 gpio3 high). This has been fixed.
		Bug Fix	5.4.2 did not correctly stop HTTPD server and would assert. This has been fixed.
			UDP packet saver max packet size has been reduced to 500 bytes.
			Unnecessary code loop was removed thus reducing UDP processing overhead.
		Limitation	Over the air FW update has a high likelihood of failure if there is ANT or BLE sensor traffic.
		Limitation	This is an internal beta test release only.
5.4.2	168	Bug Fix	Additional fixes to workaround for BLE SPI FW bug (ticket 168). The workaround was not implemented correctly. This should fix any unexpected resets due to this issue.
		Bug Fix	Set Operating Mode command Restore Stored Config no longer causes WASP to reset.

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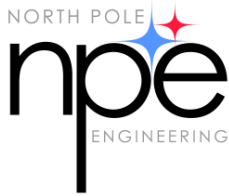
	172	Bug Fix	Attempted workaround for NOT_CONNECTED error when calling TCP socket accept. This will prevent assertion reset. This fix must be tested.
		Limitation	Over the air FW update has a high likelihood of failure if there is ANT or BLE sensor traffic.
		Limitation	This is an internal beta test release only.
5.4.1		New Feature	Added per module capability to app dbg log.
		New Feature	Added ability to request snapshot of app dbg log immediately prior to last reset.
		New Feature	Added reset function to radio APIs.
		Bug Fix	WASP will no longer lose part of its configuration when performing (USB or OTA) FW update from 5.3.11 or earlier FW version.
		Bug Fix	Workaround for lockup of BLE firmware when operating on radio 1/SPI-bus.
		Limitation	This is an internal beta test release only.
5.4.0		New Feature	Migrated to GEPS 5.2.1 GA
		Limitation	This is an internal beta test release only.
5.3.15		New Feature	Encryption is disabled when OEM is set to NPE.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.13	197	Bug Fix	WASP operating in standalone mode will no longer send interfering acks to Acknowledged Messages from ANT devices.

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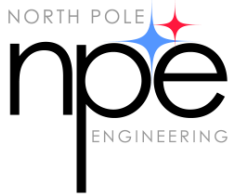
		Bug Fix	Manufacturing tests now recognize new ANT radio hardware ID.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.12		Bug Fix	No more lockups of BLE when operating on radio 1.
		Bug Fix	Base Station mode and burst transfers no longer have dropped bytes when streaming over USB.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.11		Bug Fix	Hangs in OTA firmware update fixed.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so may cause manufacturing tests to fail.

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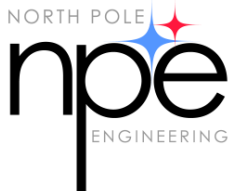
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.10		New Feature	Visual indication of live calibration failure.
		New Feature	Support for two-stage manufacturing flow.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so may cause manufacturing tests to fail.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.9		Bug Fix	When performing FW update to 5.3.8 (either over the air or through USB), the 5.3.8 FW would fail to resume operation. Manual intervention was required. This is fixed.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so

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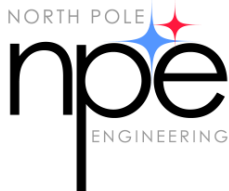
			may cause manufacturing tests to fail.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.8	45	Bug Fix	Fixed anomalies in button handling.
	141	Bug Fix	Fixed lockup issue when handling ANT-FS.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so may cause manufacturing tests to fail.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.7		Bug Fix	Bug in BLE was preventing forward of all BLE packets.
	131	Bug Fix	This firmware will autofix a bug with the factory defaults where the Limited AP SSID is improperly formatted.
	133	Bug Fix	This firmware will automatically reflash any ANT radios that are not loaded with the expected firmware version.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF,

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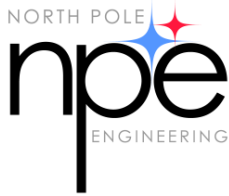
			and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so may cause manufacturing tests to fail.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.6	81	Bug Fix	Satellites will now fix connection to Base Station if Base Station resets.
	83	Bug Fix	WASP will now exit Base Station mode on USB disconnect.
	126	Bug Fix	WASP will now immediately transfer control connection if new host and current host share the same IP address.
	128	Bug Fix	UDP route entry of "192.168.240.1" no longer necessary for satellites WASPs as long as they have "239.78.80.1" as route 1.
	130	Bug Fix	Longer delay added for Restore Factory Defaults operation to protect against flash corruption.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so may cause manufacturing tests to fail.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
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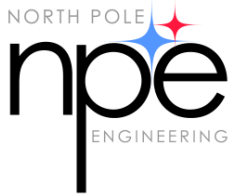
		Known Problem	Base Station mode still in Beta.
5.3.5	106	Bug Fix	Route table entry of "192.168.240.1" no longer required for USB mode.
	116	Bug Fix	WASP now automatically powers off at 3.65V.
	117	New Feature	Extended query response now available.
	118	Bug Fix	Battery level reporting now more consistent.
		Bug Fix	WASP will wait longer between resets when failing to join a network.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so may cause manufacturing tests to fail.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.4	120	Bug Fix	5.3.3 could not complete manufacturing tests. Fixed in this release.
		New Feature	BLE can operate on either N548 radio.
		Limitation	Battery reporting still non-ideal
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so may cause manufacturing tests to fail.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.

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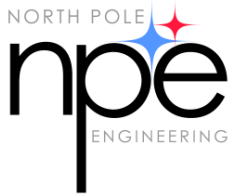
		Known Problem	Battery reading is inaccurate for the first 30 seconds following USB cable disconnect.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.3		New Feature	Allows faster data transfer for ANT. Can now support ANT-FS upload requests.
	91	Bug Fix	Battery level is now immediately re-read on charger connect/disconnect.
	105	Bug Fix	Invalid battery level ADC readings are ignored. Battery level is read immediately on startup.
		Limitation	Battery reporting still non-ideal
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so may cause manufacturing tests to fail.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Battery reading is inaccurate for the first 30 seconds following USB cable disconnect.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.

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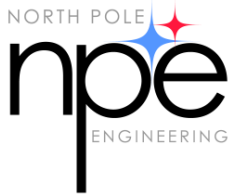
5.3.1	78	New Feature	AP mode SSID prefix can now be specified in the factory defaults file. The security mode (Open or WPA Personal) and passphrase for AP mode can also now be specified.
		Limitation	Any update from a 5.1.4 or earlier version to a 5.3.0 or later version will require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so may cause manufacturing tests to fail.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Battery reading is inaccurate for the first 30 seconds following USB cable disconnect.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.3.0			Full N1/N2 support. Migration to GEPS 5.1.6 (fixes a lot of association problems).
		Limitation	The first startup of this firmware after FW update(OTA or C# util) may require up to a minute of additional time for 1. recalibration of WiFi RF, and 2. rerun of Power On Self Tests (POST).
		Limitation	Do not reload to an earlier version after loading this version. Doing so may cause manufacturing tests to fail.
		Limitation	Unpopulated radios must be identified in the factory defaults area prior to being run or this FW will lock up.
		Known Problem	Battery reading is inaccurate for the first 30 seconds following USB cable disconnect.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known	FIN packet is not always sent when WaspN closes control socket.

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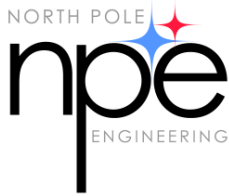
		Problem	
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.2.0			N1 support. This is a stopgap build that supports N1 only. It is not for general release.
5.1.4	6	Bug Fix	Fixed multiple issues with TCP socket management.
	47	Bug Fix	Fixed problem where WaspN would stop accepting new TCP control connections.
	77	Bug Fix	Existing TCP connections are now closed on WaspN reset or power-off. This does not apply to unexpected resets such as code failure or watchdog.
	87	Bug Fix	WaspN now automatically exits controlled mode on ANT and BLE radios when control connection is closed.
	N/A	Bug Fix	Incoming packet that is multiple of 64 bytes no longer causes reset.
		Known Problem	Battery reading is inaccurate for the first 30 seconds following USB cable disconnect.
		Known Problem	Heavy traffic over control connection will cause reset if system resources are overloaded.
		Known Problem	FIN packet is not always sent when WaspN closes control socket.
		Known Problem	Watchdog resets are occurring periodically.
		Known Problem	Base Station mode still in Beta.
5.1.3	45	Bug Fix	Increased time between resets from 9 seconds to 21 seconds when network association is failing.
	63	Bug Fix	Multiple fixes to button and LED handling to make user feedback more consistent, less ambiguous, and make LED timing closer to WaspB.
	90	Bug Fix	Fixed inactivity timers to correctly reset both radios when both are

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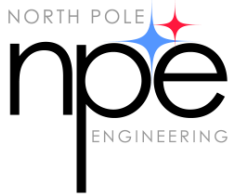
			set to ANT.
		Known Problem	Watchdog resets are still occurring.
		Known Problem	Base Station mode still in Beta phase.
5.1.2		Bug Fix	Set BLE Scan Window and Scan Interval to same value, 100ms, to observe behavior with continuous scan.
		Known Problem	Watchdog resets are still occurring.
		Known Problem	Base Station mode still in Beta phase.
5.1.1		Bug Fix	Dropout of BLE and ANT traffic no longer occur.
		Bug Fix	Frequent reset problem resolved.
		Feature	TCP based debug traces if client connects on port 55436. BLE timeout resets are currently the only messages being sent on TCP debug.
		Known Problem	Watchdog resets are still occurring.
		Known Problem	Base Station mode still in Beta phase.
5.1.0B/5.1.0C Test Release		Feature	Automatic reset of BLE radio if no traffic is detected for 5 seconds.
		Feature	TCP based debug traces if client connects on port 55436. BLE timeout resets are currently the only messages being sent on TCP debug.
		Bug Fix	Fix for dropout of data from BLE radio.
5.1.0		Feature	Implemented Base Station mode.
		Feature	COM port traces baud rate changed to 921.6k.
		Known Problem	Base Station mode has some critical bugs that make it not ready for customer release. It is for internal testing only. See software tickets 81, 82, 83, and 84.
5.0.9		Bug Fix	Hard lockup detection. Wasp will reset 30 seconds after detecting

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			lockup.
		Bug Fix	Requested Response Messages (i.e. Version 0x3E or Channel Status 0x52) are now forwarded over control connection rather than UDP.
		Bug Fix	SSID Length field in SetConfig command is now being handled correctly.
		Bug Fix	Stability fixes for ANT driver on SPI.
		Known Problem	Firmware update to a previous FW version may cause Wasp to become inoperable <u>unless</u> both radios are switched to ANT operation <u>prior</u> to update.
		Known Problem	Driver desynchronization may still occur on SPI bus. Wasp will reset if this is detected.
5.0.8		Bug Fix	Fix for sudden dropout in forwarding of BLE packets.
5.0.7		Feature	Extra traces at startup help determine whether network connection problems are occurring in Layer 2 (failure to associate with AP) or Layer 3 (failure to establish an IP address).
		Bug Fix	Legacy mode filters for forwarded ANT UDP/TCP traffic changed to mimic Controlled rather than Standalone mode.
		Bug Fix	Packets saver timeout for packets forwarded over TCP ctrl conn changed from 100 to 500ms.
5.0.6		Feature	Quick button press for battery indication now also sends identifying packet to iOS/.net frameworks.
		Feature	Limited AP mode switched to channel 1.
		Feature	Unexpected reset of Wasp will not switch back to Infrastructure mode if in Limited AP or ad hoc mode.
		Bug Fix	Malformed ANT packets no longer cause exception reset in controlled mode. They are silently rejected instead.
		Feature	User defined ANT Network Key masked on readout. Write of all 0s to ANT Network Key in SetConfig preserves currently stored key.
5.0.2		Feature	Hostname field in DHCP packets now populated with same string used for Limited AP mode SSID.
5.0.1		Feature	Added 0xED Control Command Response messages.
	44	Bug Fix	Fixed SPI radio lockup.
	46	Bug Fix	Changed Erase Manufacturing Record command to not erase radio

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			FW version strings. This prevents WaspN mistakenly thinking a radio loaded with BLE is in the ANT-loaded manufacturing state.
		Bug Fix	Changed SetConfig to accept any size packet without causing corruption
		Known Problem	Control connection can become unresponsive if too many devices attempt connections at the same time. Wasp-N must be reset to mitigate. If Wasp is inaccessible, powering down the network for 3 minutes will fix the issue.
		Known Problem	Modifying the UDP endpoint list will cause a reset in the ANT radios. This can cause an interruption in service in controlled mode. As a mitigation, expect the ANT radios to reset if the UDP endpoint list is modified.
5.0.0		Feature	Support for BLE devices! Limitations: BLE is supported on radio 0 only. BLE is supported in standalone mode only and only forward advertisement data. BLE does not support the Scan Request or Scan Response for BLE advertisements yet.
4.0.9		Feature	Support for dual ANT radios.
		Feature	Remote UDP addresses increased to four (4).
		Feature	Support for 802.11n data speeds.
		Feature	Increased throughput over UDP and TCP connections.
		Removed	WPS
		Removed	Ability to reset to defaults via button.
		Known Problem	Green LED will occasionally blink 4 times when attempting to associate to an access point rather than 2 times.
		Known Problem	Button pushes to switch mode from infrastructure to limited AP will occasionally not register
		Known Problem	TCP sockets can experience intermittent connection problems.
4.2.0		Feature	Over-the-air update supported.
		Feature	Added full manufacturing test and re-test capability.

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		Feature	Added ability to load ANT radio's from within firmware.
		Feature	Changed factory defaults to same settings as WASP-B.
		Feature	Increased range.
		Feature	Added ability to reject incoming control connections.
		Bug Fix	Fixed LED blink pattern when association cannot complete
		Bug Fix	Fixed bug where DHCP would continuously fail
		Bug Fix	Fixed discrepancies in SSID and passphrase configuration
		Bug Fix	Fixed bug where button presses would not be registered
		Bug Fix	Fixed bug causing unencrypted packets to be output in encrypted mode.
		Known Problem	Control connection can become unresponsive if too many devices attempt connections at the same time. Wasp-N must be reset to mitigate. If Wasp is inaccessible, powering down the network for 3 minutes will fix the issue.
		Known Problem	Modifying the UDP endpoint list will cause a reset in the ANT radios. This can cause an interruption in service in controlled mode. As a mitigation, expect the ANT radios to reset if the UDP endpoint list is modified.