



U.S. Department
of Transportation
**Federal Aviation
Administration**

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MAY 05 2011

Mr. Bob Perrin, Director of Engineering
All Weather Inc.
1165 National Drive
Sacramento CA 95834

Subject: Type Certification of All Weather Inc.'s AWOS 3000 Non-Federal AWOS Systems

References: All Weather Inc. Engineering Change Proposal (ECP) No. P501180, dated September 2, 2009.
FAA Advisory Circular 150/5220-16C, Automated Weather Observing Systems (AWOS) for Non-Federal Applications, dated December 13, 1999.

Dear Mr. Perrin:

The Federal Aviation Administration (FAA) has reviewed the subject submission materials (Ref. 1) and subsequent materials as modified.

All Non-Federal AWOS requirements (Ref 2.) have been satisfactorily completed for Class 1 (re Ref. 2, section 18c(1)) systems having the following configurations (re Ref. 2, section 2):

AWOS-A
AWOS-A/V
AWOS-I
AWOS-II
AWOS-III
AWOS-III P
AWOS-III T
AWOS-III P/T
AWOS-III P/T/Z

AWI is hereby granted type certification approval of the following AWOS 3000 system components and documentation for use in existing and future AWI Non-Federal AWOS 3000 installations.

AWI Part Number	Description	Manufacturer Name/ Part Number	ECO	Revision
1190 (M403316)	Data Collection Platform	AWI	1745	U
3000	Central Data Platform	AWI	1535	A

AWI Part Number	Description	Manufacturer Name/ Part Number	ECO	Revision
2020	Micro Response Wind Vane	AWI	1369	H
2030	Micro Response Anemometer	AWI	1369	J
2040 (M482185-00)	Ultrasonic Wind Sensor	Gill Instruments 1390-PK-006/10M	0535	A
2040H (M482184-00)	Heated Ultrasonic Wind Sensor	Gill Instruments 1390-PK-007/10M	0504	A
2040HH (M482184-01)	High Heat Ultrasonic Wind Sensor	Gill Instruments 1390-PK-079	1745	A
7190 (M482101)	Barometric Pressure Sensor	Vaisala PTB220ABB1B4A1AB	0312	B
5190 (M482100)	Temperature / Relative Humidity Sensor	Rotronics RO21/HPO43-03	4795	B
5190-D (M482149)	Temperature / Relative Humidity Sensor	Rotronics HYGROCLIP-S3	1888	C
5190-F (M482207-00)	Temperature / Relative Humidity Sensor	Rotronics HC2S3	1844	A
8190 (M403312)	Motor Aspirated Radiation Shield	AWI	0733	F
8190-01 (M403312-01)	Motor Aspirated Radiation Shield	AWI	1402	B
M105037	Quad Plate Pressure Port	AWI	4995	B
8329-A	Ceilometer	AWI	0098	F
8339-FAA	Ceilometer	AWI	1769	B
8364-C	Visibility Sensor	AWI	4536	A
8364-E	Visibility Sensor	AWI	0538	D
83339-A	Day/Night Sensor	AWI	0564	F
M403326	Day/Night Sensor	AWI	5072	B
M403326-00	Day/Night Sensor	AWI	0300	C
6490 (M403319) (M482178)	Present Weather Sensor	AWI Optical Scientific OWI-121-DR	1769	K
6021-A	Rain Gauge	AWI	1544	D
6495	Freezing Rain Sensor	Rosemount Aerospace 0872C3 MOD 1	1526	B
6500 (M460104)	Lightning Sensor	AWI BF Goodrich WX-500	1526	G
1792 (M489143-00)	VHF Radio	Technisonic 860605-5-000	1535	A
20980 (M489110)	UHF Radio	Teledesign Systems TS19600	4637	A
20980-A (M489115)	UHF Radio	Teledesign Systems TS4000C02B45SBB	5008	C

AWI Part Number	Description	Manufacturer Name/ Part Number	ECO	Revision
8509	Stacked Tower	Radian SB45G(Base) 45G (Tower Sections)	5120	F
8518-A	Fold-Over Tower	Glen Martin MF-1331	5120	C
M408527-00	Roof Mount	Radian FR45G	1635	A
20913-F	UPS	Minuteman E1000RM2U Tripp Lite SMART1000RM2U	1535	B
M489103	UHF/VHF Omni Antenna	RA Miller Industries AV-5	0642	A
M489145-00	UHF Yagi Antenna	Antenex Y4505	1476	A
1231	Wind Speed Calibrator	AWI	5024	B
1249-A	Wind Direction Calibrator	AWI	1994	A
5211	Sling Psychrometer	Wekslet Glass Thermometer Corp. 315-1CS	1552	A
5283	Psychrometric Calculator	AWI	1333	A
M104744	Visibility Calibrator	AWI	5076	C
M105548-00	Zero Wind Calibration Chamber	Gill Instruments 1277-00-052	5195	A
M488342-00	KVM Extender Kit	ATEN CE800B	1816	A
2940	AWOS/ATIS Switch	AWI	1840	C
2941	Remote switch for AWOS/ATIS Switch	AWI	1287	A
2942	AWOS/ATIS Interface	AWI	1287	A
2210	AWOS Net	AWI	1762	C
2210-R	RS-485 AWOS Net	AWI	1762	B
2210-U	UHF AWOS Net	AWI	1762	B
M595184-00	CDP Software	AWI	1535	1.00G
M595170-00	DCP Firmware	AWI	0866	9.0
M595141	RMM Software	AWI	1875	4.0
Manuals				
1190-001	DCP Manual	AWI	1888	W
1792-001	VHF Radio Manual	AWI	1535	A
20980-001	UHF Radio Manual	AWI	4870	B
20980-A-001	UHF Radio Manual	AWI	1077	B
2020-001	Wind Vane Manual	AWI	1369	N
2030-001	Anemometer Manual	AWI	1369	P

AWI Part Number	Description	Manufacturer Name/ Part Number	ECO	Revision
2040-001	Ultrasonic Wind Sensor Manual	AWI	1535	F
2210-001	AWOS Net Manual	AWI	2050	D
3000-001	CDP User's Manual	AWI	1535	C
3000-017	Installation and Checkout Manual	AWI	1535	C
3000-027	Maintenance Manual	AWI	1535	E
3000-044	Training Materials	AWI	1648	A
3000-1-025	AWOS I Site Preparation Manual	AWI	1535	A
3000-2-025	AWOS II Site Preparation Manual	AWI	1535	A
3000-3-025	AWOS III/IIIP Site Preparation Manual	AWI	1535	A
3000-A-025	AWOS A Site Preparation Manual	AWI	1535	A
3000-O-025	Oil Platform Site Preparation Manual	AWI	1535	A
3000-R-025	Roof-top Mount Site Preparation Manual	AWI	1535	A
3000-T-025	AWOS IIIT/IIPT Site Preparation Manual	AWI	1535	A
3000-Z-025	AWOS IIPTZ Site Preparation Manual	AWI	1535	A
50-104	Configuration Control Plan	AWI	1888	Y
5190-001	Temperature/Relative Humidity Sensor Manual	AWI	4787	C
5190-D-001	Temperature / Relative Humidity Sensor Manual	AWI	1888	D
5190-F-001	Temperature / Relative Humidity Sensor Manual	AWI	1888	B
6021-A-001	Rain Gauge Manual	AWI	1454	M
6490-001	Present Weather Sensor Manual	AWI	1541	C
6495-001	Freezing Rain Sensor Manual	AWI	1526	C
6500-001	Lightning Sensor Manual	AWI	1006	C
7190-001	Barometric Pressure Sensor Manual	AWI	4777	B
8190-001	Motor Aspirated Radiation Shield Manual	AWI	0733	H
8329-A-001	Ceilometer Manual	AWI	0825	G
83339-A01	Day/Night Sensor Manual	AWI	4777	B

AWI Part Number	Description	Manufacturer Name/ Part Number	ECO	Revision
8339-D-001	Ceilometer Manual	AWI	1317	I
8364-001	Visibility Sensor Manual	AWI	4777	F
8364-E-001	Visibility Sensor Manual	AWI	1597	J
8509-001	Stacked Tower Manual	AWI	1051	C
8518-A-001	Fold-Over Tower Manual	AWI	1051	C
M595141-001	RMM User's Manual	AWI	1875	A

All systems commissioned after the date of this letter are to be commissioned in accordance with this letter, the current advisory circular, and any relevant subsequent FAA approved ECPs.

All non-Federal technicians responsible for AWOS 3000 systems are to be trained, examined, and authorized by the FAA in accordance with the above approved training materials.

Please keep in mind, the advisory circular (Ref. 2) also contains siting and installation criteria that must be addressed before a site may be commissioned and allowed to disseminate weather information.

Should you have questions relative to this letter, please contact Dennis Kamin at 405-954-1815.

Sincerely,



Bettie Loudenslager
Manager, Weather Processors & Sensors

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