

# **GWX 68 Weather Radar Installed in Beech Queen Air/King Air Series**

## **STC Master Data List**

**Garmin Ltd. or its subsidiaries  
c/o Garmin International, Inc.  
1200 E. 151st Street  
Olathe, Kansas 66062 USA**

**Dwg. Number:  
005-C0171-00 Rev. B**

### **Record of Revisions**

<b>Rev.</b>	<b>Date</b>	<b>Description of Change</b>
A	3/7/06	Release for STC data submittal.
B	3/17/06	Revision for initial STC issuance.

1. INTRODUCTION.....	3
1.1 Purpose.....	3
1.2 Scope.....	3
1.3 Document Revision.....	3
1.4 Definitions .....	3
2. DATA AND EQUIPMENT LIST REQUIRED FOR INSTALLATION .....	3
2.1 Data Required for Installation .....	3
2.2 Substantiating Data .....	4
2.3 Equipment List .....	4
3. GENERAL INSTALLATION REQUIREMENTS .....	5
3.1 General .....	5
3.2 Prerequisite.....	5
3.3 Mechanical.....	5
3.4 Hardware .....	5
3.5 Wiring.....	5
3.6 Circuit Protection .....	5
3.7 Electrical Load Analysis.....	5
4. SPECIAL INSTALLATION INSTRUCTIONS .....	6
5. ADDITIONAL SYSTEM NOTES .....	6
Table 1 STC Data .....	4
Table 2 Related Data (Substantiating Data).....	4
Table 3 Required Equipment List .....	4

# 1. INTRODUCTION

## 1.1 Purpose

The purpose of this document is to list the data required to support STC installation of the Garmin GWX 68 Weather Radar in all Raytheon Beech Queen Air and King Air series aircraft listed on FAA TCDS 3A20 in accordance with STC requirements, and to list other data associated with the STC which is not required for installation.

## 1.2 Scope

This document applies to the installation of the GWX 68 when installed IAW the data listed in this document on the Raytheon Beech Queen Air and King Air series aircraft listed on FAA TCDS 3A20. This document includes general installation requirements, special installation instructions, and it provides an index of STC data including both data required for installation and data associated with the STC, but not required for installation.

## 1.3 Document Revision

This document shall be released, archived, and controlled in accordance with Garmin document control system. As such when this and other documents are revised, the entire document is revised and the new revision nomenclature is changed on each page of the revised document.

## 1.4 Definitions

The following terminology is used within this document:

- 1) **AC:** Advisory Circular
- 2) **AML:** Approved Model List
- 3) **DER:** Designated Engineering Representative
- 4) **FAA:** Federal Aviation Administration
- 5) **FARs:** Federal Aviation Regulations
- 6) **IAW:** In accordance with
- 7) **STC:** Supplemental Type Certificate
- 8) **TIA:** Type Inspection Authorization

# 2. DATA AND EQUIPMENT LIST REQUIRED FOR INSTALLATION

## 2.1 Data Required for Installation

### 2.1.1 GWX 68 Installation Data

All documents listed in Table 1 are required for installation purposes and must be of the revision listed or later FAA approved revisions.

**Table 1 STC Data**

Mfg.	Doc No.	Rev	Description
Garmin	005-C0171-00	B	GWX 68 Weather Radar Installed in Beech Queen Air / King Air Series Master Data List (this document)
Garmin	190-00286-04	B	GWX 68 Weather Radar Instructions for Continued Airworthiness
Garmin	190-00286-01	C	GWX 68 Installation Manual
Garmin	190-00286-05	A	GWX 68 Weather Radar Installed in Beech 90 Series Installation Data
Garmin AT	560-1025-09	D	MX 20 Multi-Function Display Installation Manual

**2.1.2 Continued Airworthiness**

Instructions for continued airworthiness are found in Garmin document number 190-00286-04 Instructions for Continued Airworthiness. See Table 1 for document revision.

**2.2 Substantiating Data**

The documents listed in Table 2, or later FAA-approved revisions, contain information related to this STC but are not required for follow-on installations.

**Table 2 Related Data (Substantiating Data)**

Doc No.	Rev	Description
005-00171-15	1	STC Project Specific Certification Plan (PSCP) for Installation of GWX 68 Weather Radar
005-00171-16	1	STC System Accomplishment Summary for Installation of the GWX 68 Weather Radar in King Air/Queen Air Series Aircraft
005-00171-17	1	GWX 68 System Safety Assessment in a Beechcraft King Air C90
005-00171-81	B	GWX 68 Sub-System Functional Hazard Assessment
005-00171-14	1	GWX 68 Digital Radar System in a King Air C90 Flight Test Plan

**2.3 Equipment List**

All equipment must have the Part Numbers and Software Versions contained in the following table, or later FAA Approved revisions or versions.

**Table 3 Required Equipment List**

Description	Part Number	Mfg.	Software/FPGA Ver. (or later FAA approved version)
GWX 68 Weather Radar 12"	011-00883-20	Garmin	SW PN 006-B0266-07 Ver. 2.01 FPGA PN 006-C0042-06 Ver. 3.01
OR MX20 Multi Function Display	430-0270-700 430-0270-701 430-0270-751	Garmin AT	SW Ver. 5.6 & 5.7
	430-0270-900 430-0270-901 430-0270-951	Goodrich i-link	SW Ver. 5.6 & 5.7

Note:

- 1) This STC supports interface with the MX20, but does not support the installation of the MX20. See paragraph 3.2 Prerequisite.

### **3. GENERAL INSTALLATION REQUIREMENTS**

#### **3.1 General**

The installation must be done in accordance with all applicable FARs. The installation shall conform to the data listed in Section 2.1, Data Required for Installation with exception of special instructions as defined in Section 4 Special Installation Instructions, which shall have precedence over the data listed in Section 2.1.

#### **3.2 Prerequisite**

This GWX 68 STC supports interface with the MX20 multifunction display unit. It does not support installation of the interfaced equipment. This STC requires previous or concurrent installation of the MX20 multifunction display installed under STC SA02154AK or other approved installation.

#### **3.3 Mechanical**

Mechanical installation, wiring, cable bundling and routing, and connections to existing aircraft systems must conform to those specific instructions or requirements found in the STC data. Those aspects of the STC where specific installation instructions or requirements are not provided in the STC data, the installer shall conform to the recommended practices and procedures found in AC 43.13-2A, Chapter 2, Radio Installations, and Chapter 3, Antenna Installations; AC 43.13-1B, Chapter 11, Electrical Systems, Section 3, 4 and 7.

#### **3.4 Hardware**

Hardware not supplied with the equipment, or otherwise specified in the appropriate installation manuals or other STC data (ie screws, nuts, tie wrap.... etc) shall be from standard aircraft hardware as described by AC 43.13-1B, Chapter 5, Aircraft Hardware.

#### **3.5 Wiring**

All wire used in the installation shall be of appropriate standard aircraft quality grade and size as described in AC 43.13-1B, Chapter 11, Sections 5-20.

#### **3.6 Circuit Protection**

All GWX 68 modification circuits shall be protected in accordance with AC 43.13-1B, Chapter 11, Section 4, Circuit Protection Devices.

#### **3.7 Electrical Load Analysis**

An electrical load analysis shall be performed on each aircraft, as described in AC 43.13-1B, Chapter 11 Section 3. The document P/N 190-00286-01 GWX 68 Installation Manual provides specifications on the GWX 68 power requirements.

#### **4. SPECIAL INSTALLATION INSTRUCTIONS**

None

#### **5. ADDITIONAL SYSTEM NOTES**

No other system notes.

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