

SR20 Airplane Flight Manual (AFM)

Temporary Change

Information in this Temporary Change adds to, supersedes, or deletes information in the basic Pilot's Operating Handbook.

Affected Publications: SR20 Basic Airplane Flight Manuals:

- PN 11934-004 Rev 2 (FAA Approved)
- PN 11934-004E Rev 2 (FAA Approved on Behalf of the European Aviation Safety Agency (EASA))
- PN 21399-004 Rev 2 (FAA Approved on Behalf of ANAC Brazil)

Filing Instructions: Insert the following changes adjacent to the first page of each affected POH Section and retain until further notice.

Purpose: This POH Temporary Change adds Limitations and descriptions associated with the following systems and components: "2+1" Rear Seat Installation, Cargo Net, GMA 350 Audio Panel, GSR 56 Iridium Global Satellite Datalink.

Affected Sections:

- Section 1- General
- Section 2 - Limitations
- Section 7 - Airplane and Systems Description
- Note •

This revision dated Revision 02: Jan 24, 2012, supersedes and replaces Revision 01 of this TPOH Supplement dated Jan 12, 2012.

FAA Approved

Joseph C. Miesse
for Charles Smalley, Manager

Date

Jan 24, 2012

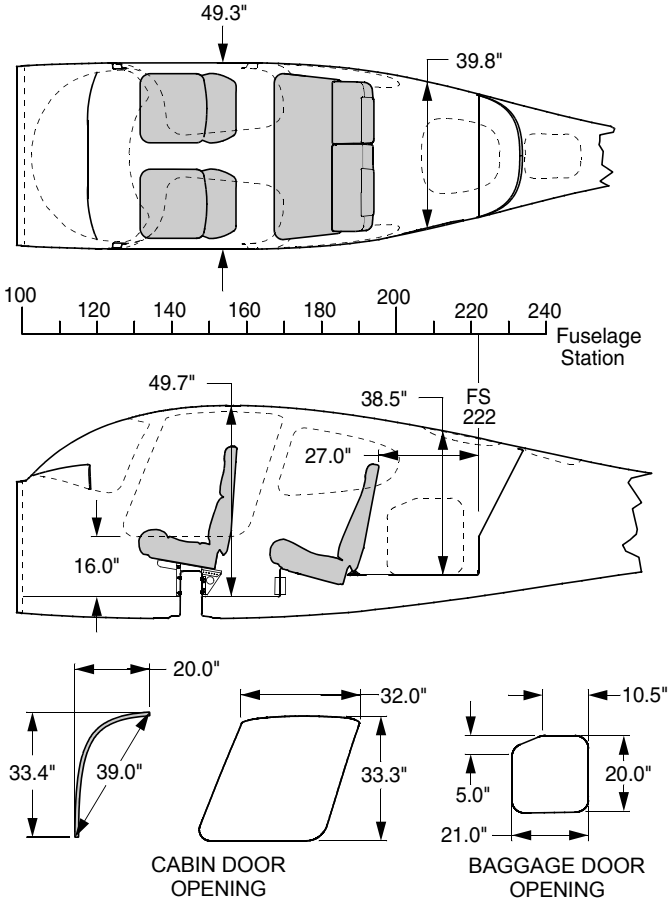
Chicago Aircraft Certification Office, ACE-115C
Federal Aviation Administration

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Section 1 - General

Introduction



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Location	Length	Width	Height	Volume
Cabin	122"	49.3"	49.7"	137 cu ft
Baggage Compartment	36"	39.8"	38.5"	32 cu ft

Figure 1-2
Airplane Interior Dimensions



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Section 2 - Limitations

Maximum Occupancy

Serials w/o 2+1 Rear Seat

Occupancy of this airplane is limited to four persons, the pilot and three passengers.

Serials w/ 2+1 Rear Seat

Occupancy of this airplane is limited to "4+1" persons, the pilot and four passengers. If carrying three rear seat passengers, occupants must be wearing a seat belt and shoulder harness with their hips and back firmly against the seatback as show in the following illustration. If three rear seat passengers cannot meet these requirements, occupancy is limited to four persons.

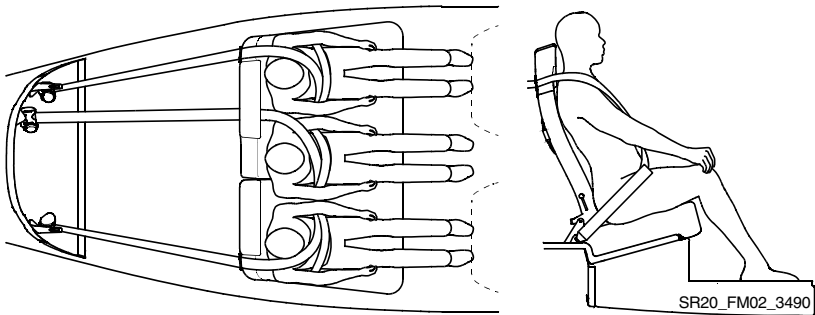


Figure 2-2
Rear Passenger Seat Arrangement

Child Restraint System

1. Rear seat configuration for LATCH / ISOFIX compliant child seats is limited to two seats in the outboard positions.
2. A single non-LATCH / ISOFIX compliant seat may be installed in the center seat position.
3. Installation of three child seats in the rear seat is prohibited.

Refer to Section 7 - Seats for additional information.

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Section 7 - Systems Description

Baggage Compartment

Baggage Tie-Downs/Cargo Net

• **Caution** •

If not adequately restrained, baggage compartment items may pose a projectile hazard to cabin occupants in the event of rapid deceleration. Secure all baggage items with tie-down straps or cargo net.

Four baggage tie-down straps are provided to secure items in the baggage compartment. Each strap assembly has a hook at each end and a cam-lock buckle in the middle. The hook ends clip over loop fittings installed in the baggage floor and in the rear bulkhead. The tie-down straps should be stowed attached and tightened to the fittings.

Serials w/ 2+1 Rear Seat:

The aircraft is equipped with a retractable cargo net to secure items in the baggage compartment. Integral inertia reels attached to the rear bulkhead allow the cargo net to be extended forward, placed over baggage, and secured to the seat back via four latch assemblies. The cargo net should be stowed attached to the seat back fittings.

The cargo net is not functional when rear seats are folded forward. Use conventional tie-down straps in this configuration.

For baggage area and door dimensions see Section 1, Airplane Interior Dimensions

Seats

The seating arrangement consists of two individually adjustable seats for the pilot and front seat passenger and, *Serials w/o 2+1 Rear Seat:* two individual rear seats with fold-down seat backs or, *Serials w/ 2+1 Rear Seat:* a “2+1” configuration with a one-piece bench seat and fold-down seat backs for the rear seat passengers.

Rear Seats

Serials w/o 2+1 Rear Seat:

The passenger seats have a fixed seat bottom and seat backs that fold forward independently for each side. Seat backs can be folded forward, with detent pins removed, to provide a semi-flat surface for

bulky cargo extending forward from the baggage compartment. The detent pins are located at the base of the backrest.

To fold seat back forward:

1. From the baggage access, lift the carpet panel at lower aft edge of seat to reveal the seat back locking pins (attached to lanyards).
2. Remove the locking pins and fold seat forward.

Serials w/ 2+1 Rear Seat:

The rear seats employ a one-piece bench seat and two seat backs configured in 60/40 split. This “2+1” seating configuration provides for a center seat/restraint area for a third passenger on the wider left hand seat.

Each seat back reclines independently of each other and can be folded forward to provide a semi-flat surface for cargo extending forward from the baggage compartment. Recline position is controlled through a lever located on either side of the seat.

To fold seat back forward:

1. With no pressure on the seat back, rotate the lever to the recline position and fold the seat back forward.

Seat Belt and Shoulder Harness

Integrated seat belt and shoulder harness assemblies with inertia reels are provided for the pilot and each passenger.

The front seats use a 4-point inflatable restraint system. Forward seat belts are attached to the seat frame. The shoulder harnesses are attached to inertia reels mounted in the seat back.

The rear seats use, *Serials w/o 2+1 Rear Seat:* a 4-point safety harness consisting of two shoulder harness and a lap belt or, *Serials w/ 2+1 Rear Seat:* a 3-point safety harness consisting of one shoulder harness and a lap belt. The rear seat belts are attached to fittings on the cabin floor. The shoulder harnesses are attached to inertia reels mounted to the baggage compartment rear bulkhead.

Each front and rear seat shoulder harness is attached to the seat belt. The inertia reels allow complete freedom of movement of the occupant's upper torso. In the event of a sudden deceleration, the reels lock automatically to protect the occupants. It is recommended that the seat belts be stowed in the latched position when not in use.

Child Restraint System - Serials w/ 2+1 Rear Seat

The aircraft is equipped with provisions for installing two LATCH compliant child seats in the outboard rear seat positions, OR one non-LATCH compliant seat in the center rear seat position.

Lower anchors for the LATCH compliant seats are located in the outboard seat positions. The non-LATCH compliant seat must be installed using the center seat belt. Three top tether anchors for the child seats are located on the rear bulkhead.

To install a child seat:

1. Fasten lower seat attachments to bench seat:
 - a. *LATCH Compliant Outboard Seat:* Fasten lower seat attachment to the outboard anchors in the bench seat.
 - b. *Non-LATCH Compliant Center Seat:* Using the center seat belt, fasten lower seat attachments to the bench seat as described by the manufacturer's instructions
2. Locate top tether pass-through - a narrow slit in the seat back upholstery - near the top, outboard section of the seat back.

• Caution •

Do not route child seat top tether over or around seat back. The top tether must be routed through the seat back pass-through for the child seat to function properly.

3. Route child seat's top tether through the seat back pass-through.
4. Fasten top tether to rear bulkhead anchor.

Firmly tension the child seat straps according to the manufacturer's instructions.

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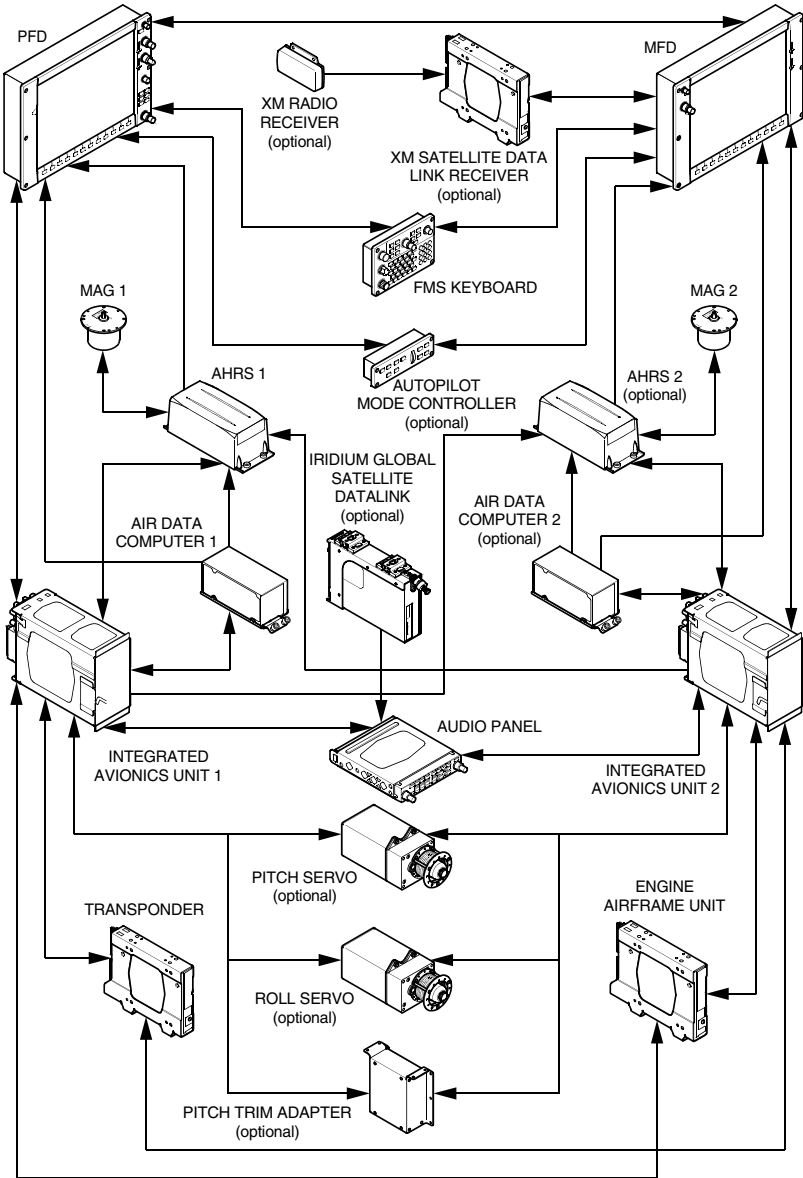
Avionics

Perspective Integrated Avionics System

The Perspective Integrated Avionics System provides advanced cockpit functionality and improved situational awareness through the use of fully integrated flight, engine, communication, navigation and monitoring equipment. The system consists of the following components:

- GDU Primary Flight Display (PFD)
- GDU Multifunction Display (MFD)
- GCU 478 Flight Management System Keyboard
- GRS 77 Attitude and Heading Reference System
- GDC 74A Air Data Computer
- GIA 63W Integrated Avionics Units
- GEA 71 Engine Airframe Unit
- GTX 32 Mode A, C Transponder
- GMA 347 or 350 Audio Panel with Marker Beacon Receiver
- GFC 700 3-Axis Autopilot and GMC 705 Controller (Optional)
- GTX 33 Mode S Transponder (Optional)
- GSR 56 Iridium Global Satellite Datalink (Optional)
- GDL 69/69A XM Satellite Weather/Radio Receiver (Optional)
 - GRT 10 XM Radio Remote Transceiver (Optional)
 - GRC 10 XM Radio Remote Control (Optional)
- S-Tec System 55X Autopilot (Optional)
- S-Tec System 55SR Autopilot (Optional)
- Traffic Advisory System (Optional)
- Weather Information System (Optional)
- Bendix/King KR 87 Automatic Direction Finder (Optional)
- Bendix/King KN 63 Distance Measuring Equipment (Optional)
- Synthetic Vision System (Optional)
- Max Viz Enhanced Vision System (Optional)

Refer to the Perspective Integrated Avionics System Pilot's Guide for a detailed description of the system and its operating modes.



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Figure 7-16
Perspective Integrated Avionics System Schematic

GMA 347 or 350 Audio Panel with Marker Beacon Receiver

The 347 or 350 Audio Panel, installed on the center console below the Flight Management System Keyboard, integrates NAV/COM digital audio, intercom and marker beacon controls. The VHF communications portion of the unit interfaces with both Integrated Avionics Units to provide external radio communication, receive and demodulate VOR, Localizer, and Glide Slope signals.

28 VDC for Audio Panel operation is supplied through the 5-amp AUDIO PANEL circuit breaker on the AVIONICS bus.

• Note •

COM swap mode is not available in this installation.

For a detailed operating instructions, refer to the GMA 347 or 350 Audio Panel Pilot's Guide.

Optional Avionics

GSR 56 Iridium Satellite Network Transceiver

The Iridium Satellite Network Transceiver, mounted in the empennage avionics compartment, communicates with the primary Integrated Avionics Unit and Audio Panel to provide near real-time weather, voice, and data services to the cabin audio system and integrated displays. The GSR 56 receives near real-time satellite weather information for display on the MFD and PFD and can also provide telephone/voice communications and text messaging (SMS) through the Iridium Satellite Network. The voice service is available through the audio panel via the TEL (telephone) input selection. SMS and weather products are displayed on the MFD.

28 VDC for Iridium Satellite Network Transceiver operation is supplied through the 5-amp DATA LINK/WEATHER circuit breaker on AVIONICS BUS. Refer to the Perspective Integrated Avionics System Pilot's Guide for a complete description of the system, its operating modes, and additional detailed operating procedures.

GDL 69/69A XM Satellite Weather and Radio

The XM Datalink Satellite Receiver, mounted in the empennage avionics compartment, receives and transmits near real-time weather information to the MFD and PFD. If GDL 69A option is installed, this unit also provides digital XM audio entertainment to the cabin audio system via the GRT 10 XM Radio Remote Transceiver, mounted in the

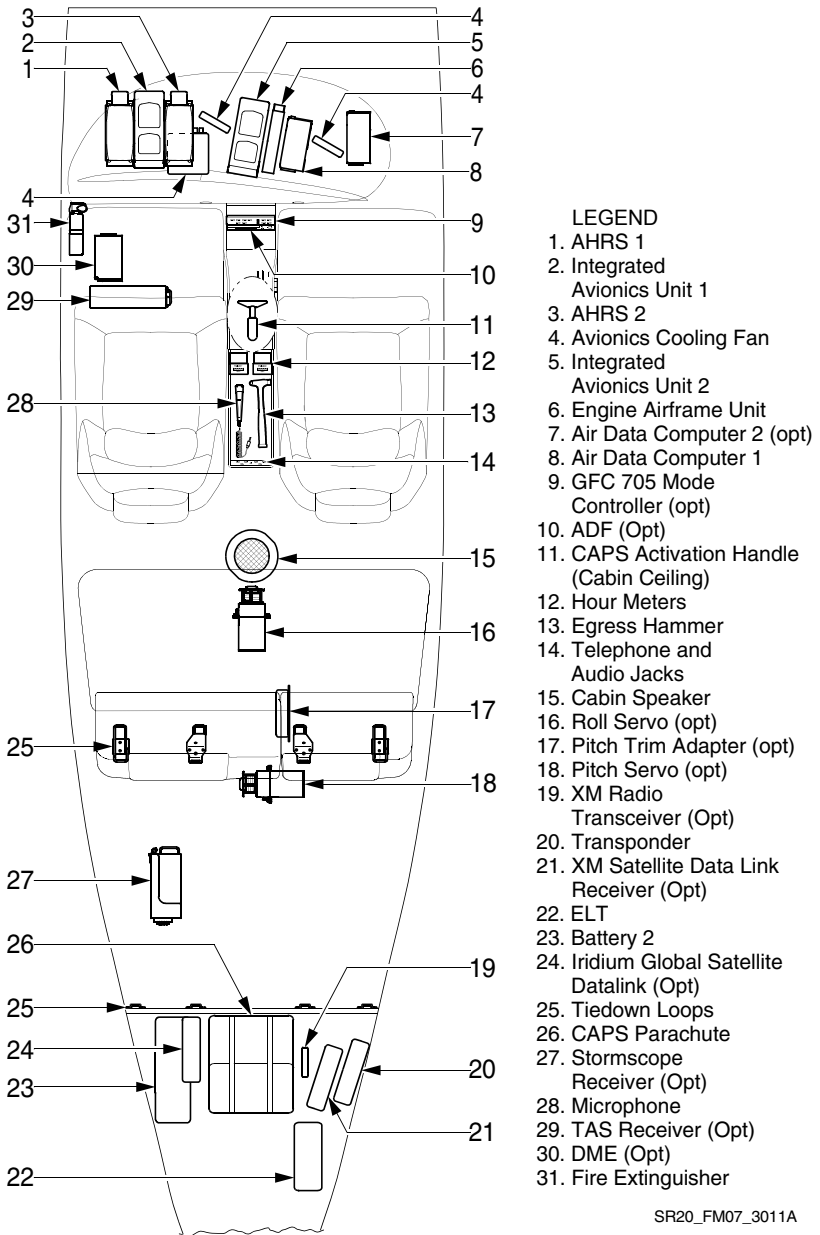
empennage avionics compartment and controlled by the GRC 10 Remote Control.

28 VDC for Satellite Datalink Receiver operation is supplied through the 5-amp DATA LINK/WEATHER circuit breaker on AVIONICS BUS. Refer to the Perspective Integrated Avionics System Pilot's Guide for a complete description of the system, its operating modes, and additional detailed operating procedures.

Stormscope WX-500 Weather Mapping Sensor

The Stormscope WX-500 System detects electrical discharges associated with thunderstorms and displays the activity on the MFD. The system consists of an antenna located on top of the fuselage and a processor unit mounted under the aft baggage floor. The antenna detects the electrical and magnetic fields generated by intra-cloud, inter-cloud, or cloud to ground electrical discharges occurring within 200 nm of the airplane and sends the "discharge" data to the processor. The processor digitizes, analyzes, and converts the "discharge" signals into range and bearing data and communicates the data to the MFD every two seconds via the secondary Integrated Avionics Unit.

28 VDC for Weather System operation is supplied through the 5-amp DATA LINK/WEATHER circuit breaker on AVIONICS BUS. Refer to the Perspective Integrated Avionics System Pilot's Guide for a general description of the system and its operating modes. If applicable, refer to the L-3 Stormscope WX-500 Weather Mapping Sensor Pilot's Guide for a detailed discussion of the system.



**Figure 7-18
Equipment Locations**

Avionics Support Equipment

Antennas

A sled-type marker beacon antenna is mounted below the baggage compartment floor and provides a signal to the marker beacon receiver located in the audio panel. If the optional air conditioning system is installed this antenna is located below the baggage floor inside of the airplane.

GPS 1 antenna is mounted directly above the passenger compartment. If the optional XM system is installed, a combination GPS 1/ XM antenna is installed in this location. GPS 2 antenna is mounted just forward of the baggage compartment window. *Serials 2127 and subs.*, a combination GPS 2 / Iridium antenna is installed in this location. These antennas are connected to the two GPS receivers contained in the Integrated Avionics Units.

The optional Lightning Detection antenna is mounted directly above the passenger compartment.

Headset and Microphone Installation

Serials 2016 thru 2126: The airplane is equipped with provisions for four Active Noise Reduction (ANR) and four conventional (MIC/ HEADPHONES) headsets. Headset jacks for the pilot and front seat passenger are located in the map case and on the aft portion of the center console for the rear passengers.

Serials 2127 and subs: The airplane is equipped with provisions for five Active Noise Reduction (ANR) and three conventional (MIC/ HEADPHONES) headsets. Headset jacks for the pilot, front, and rear seat passenger are located in the map case.

The forward headset mics use the remote Push-To-Talk (PTT) switches located on the top of the associated control yoke grip. The rear headsets do not have COM transmit capabilities and do not require PTT switches. Audio to headsets is controlled by the individual audio selector switches on the audio control panel

Audio Input Jack

The aircraft contains multiple audio input jacks which can be used to connect personal entertainment devices into the cabin sound system. Two 3.5 mm audio input jacks (AUDIO INPUT) are provided on the center console. One jack is located near the convenience outlet for use by the pilot and forward passenger, and the other is located on the aft portion of the center console for the rear passengers.

Serials w/ GMA 347: A device connected to the forward jack is automatically distributed to pilot and copilot only. The rear jack is automatically distributed to rear passengers audio only. Volume is controlled by the connected entertainment device.

Serials w/ GMA 350: Distribution of a device connected to the forward jack is through the MUS 1 selection on the audio panel. Distribution of the rear jack is by the MUS 2 selection on the audio panel. A third jack on the audio panel will also accept an entertainment input. A device connected to this jack is distributed by selecting the *Entertainment button* (shown as a phone and music-note symbol) on the audio panel. Audio volume can be controlled by the device itself and can be further refined by the audio panel distribution volume control.

Cell Phone Input Jack

Serials w/ GMA 347: One 2.5 mm cell phone jack (CELL PHONE INPUT) is provided on the aft portion of the center console near the convenience outlet and is distributed by the TEL selection on the audio panel.

Serials w/ GMA 350: One 2.5 mm cell phone jack is located on the front of the audio panel and is distributed by selecting the *Entertainment button* (shown as a phone and music-note symbol) on the audio panel. Volume is controlled by the volume selector on the audio panel.

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