



PRODUCT GUIDE

20 YEARS OF INNOVATION



Zulu PFX®



Tango™

Reflecting our passion for performance and value, every Lightspeed

Finely tuned ANR

Streaming Quiet™ ANR has firmly established Lightspeed as the leader in noise reduction technology, but every Lightspeed headset incorporates finely tuned ANR for exceptional quieting.

Engineered for comfort

All Lightspeed headsets feature comfort-designed headbands as well as plush ear seals with larger openings, 20% more surface area, and up to 50% more space for your ear inside the ear cup than our closest competitor. The result is superior distribution of weight and side pressure for maximum comfort, even on long flights.

Full Bluetooth® integration

We started adding both Bluetooth cell phone and streaming music capability as standard equipment on our Zulu headsets in 2007! Now every Lightspeed headset delivers excellent wireless call clarity, music fidelity, and access to critical audio alerts from aviation apps on mobile devices.

“Our vision for the company when we started in 1996 was to create innovative, high-performance products at a reasonable price. Coupled with this is a drive to serve customers in an extraordinary way. This is what continues to drive our efforts and we appreciate all of the customers that have put their faith in our ability to deliver on this. You are the reason for our success.”

— Allan Schrader, President & CEO of Lightspeed Aviation



Zulu.2

Sierra

ed headset comes with a long list of innovations:

FlightLink compatibility

FlightLink is the free, proprietary app developed by Lightspeed that turns your iPad® or iPhone® into an in-cockpit recorder, seamlessly capturing incoming and outgoing communications for instant playback or later retrieval. A great tool for training or videos, when combined with Zulu PFX FlightLink also allows users to personalize their headset by customizing a variety of audio and operational preferences.

ComPriority™

Never miss important radio communications with patented ComPriority, which lowers the volume of any auxiliary device automatically during radio or intercom transmissions.

Auto Shutoff™

Lightspeed's proprietary Auto Shutoff feature saves battery life by automatically shutting down the headset power when not in use.

Tango™ wireless ANR Headset



"Excellent, best of any headset I've used. It's amazing!"

Mike Kincaid
Commercial, SES, CFII

The first premium **wireless** aviation headset, Tango blends outstanding noise cancellation, renowned Lightspeed comfort, and wireless convenience. With no cables to get in the way and critical controls located on the headset, Tango creates an entirely new level of flying enjoyment and untethered freedom.

Outstanding quiet — Tango delivers the advanced noise cancellation you expect from Lightspeed.

Remarkable comfort — Tango features plush ear seals with large openings and nearly 10 square inches of surface area for a better seal and greater distribution of side pressure.

FlightLink compatible — Capture and retrieve incoming and outgoing communications with Lightspeed's free FlightLink recording app for the Apple® iPad® and iPhone® via the supplied patch cable.

Choice of auxiliary inputs — Enjoy excellent call clarity, music fidelity, and access to critical alerts from aviation apps on mobile devices using either the supplied patch cable or Bluetooth.

ComPriority™ — Never miss important radio communications with patented ComPriority, which lowers the volume of any auxiliary device automatically during radio or intercom transmissions.

Auto Shutoff™ — Lightspeed's proprietary Auto Shutoff feature saves battery life by automatically shutting down the headset and panel interface power when not in use.

Reversible microphone — A unique design allows microphone placement on the left or the right.

Accessory batteries and charger — Fresh batteries are always on hand with Tango's accessory battery and single-battery accessory wall charger.

Available Configurations — Dual GA battery power (rechargeable lithium ion); LEMO panel power*; U-174 (heli) battery power (rechargeable lithium ion).

30-day money back guarantee — Lightspeed Aviation headsets are designed to be the best available anywhere, for any price. But we know that every cockpit and pilot is different. That's why we offer a 30-day money back guarantee. If you are not completely satisfied with your purchase for any reason, return the product for a full and prompt refund.

**Panel power is only provided to the panel interface. The headset still requires a rechargeable lithium ion battery (included).*



TECHNICAL SPECIFICATIONS

General

- Battery power supply: 3.7V rechargeable lithium ion battery
- Headset Weight: 18 oz. (including battery, ear seals and mic boom)

Headphone

- Transducer: 40mm moving coil
- Frequency response: 20 Hz-20 kHz
- Nominal impedance when wired with backup cable at 1 kHz:
Mono: 180 ohms, Stereo: 250 ohms

Microphone

- Transducer principle: Noise-canceling electret
- Frequency response: 200 Hz-6000 Hz
- Maximum SPL: 114 dB
- Terminating impedance: 220-2200 ohms
- Operating voltage: 8V-16V DC

ANR

- Maximum SPL: Greater than 120 dB at 100 Hz

Bluetooth Enabled Phone

Yes

Bluetooth Audio (A2DP)

Yes



Included — Custom molded carrying case, music patch cord, cord clip, two lithium ion batteries (only one included with LEMO panel power headsets), two charging cables, dual-port wall charger.



The Tango headset

The Tango headset offers luxurious comfort while delivering the excellent noise cancellation you expect from Lightspeed. Key controls — including volume and ComPriority™ — are located on the headset, not a control box, for even greater freedom.



Lightspeed Link™ technology

At the heart of Tango is Lightspeed Link. Developed by Lightspeed engineers to ensure the reliable communication pilots demand, Lightspeed Link is not Bluetooth or WiFi, but incorporates existing technologies chosen for both signal reliability and audio quality for the aviation environment. The Lightspeed Link connection is so robust, as many as six Tango headset can be operated in the same aircraft, letting everyone onboard experience the true freedom of wireless flight.



Panel Interface

The panel interface is the vital hub of the Lightspeed Link system, routing communication between the headset, the intercom, and auxiliary devices. Wrapped in an attractive and durable case, it houses the lower cable, which is adjustable to 31 inches.

Weighing just 7 ounces and with multiple mounting points, no upper cables, and critical controls located on the headset, the panel interface can be mounted conveniently and securely in any aircraft.



21st century power

In yet another Lightspeed first, Tango is the first aviation headset powered by rechargeable lithium ion batteries, a power source trusted in countless critical applications.

Lightspeed's rechargeable lithium ion batteries deliver twelve hours of continuous operation while offering earth and wallet friendly reusability in a compact size.



The Tango dual-port wall charger can quickly charge both the headset and panel interface batteries at the same time, providing 75% charge in less than an hour and a full charge in two hours. The batteries can also be charged while the headset is in use or easily replaced on the go.



The battery for the headset and panel interface are interchangeable and spare batteries can be purchased separately.

Built-in redundancy

The panel interface also stores the backup cable, instantly available for uninterrupted communication, in the event the batteries become depleted.

Zulu PFX[®] with Streaming Quiet[™] ANR



The noise canceling of the Zulu PFX is superior, but what I really liked was the improved mic. The company base station commented that the transmissions using the PFX headset were noticeably better than other headsets.

Jim Gruneisen
Flight Instructor and Owner of FlyJim flight training

Zulu PFX[®]
PERSONAL FLYING EXPERIENCE

We know pilots; Zulu PFX knows **you**.

The world's quietest aviation headset actively conforms to your ears, your environment, and your preferences to deliver stunning clarity, quiet, and audio quality.

- Streaming Quiet ANR continuously adapts to your environment, extending the amount, consistency, and frequency range of noise cancellation.
- Firmware enhancements are just a download away, giving Zulu PFX unlimited potential to evolve with new innovations.

A headset finely tuned to you

- Acoustic response mapping measures your unique auditory landscape, personalizing the audio response for maximum noise attenuation, voice clarity, and music fidelity.
- Enhanced capabilities in our FlightLink app allow you to configure and save key audio and operational settings to a personal profile.



Engineered for comfort

- At less than 14 ounces, Zulu PFX is the lightest over-the-ear headset we have ever made and features plush ear seals that provide 20% more surface area and 30% more space for your ear inside the ear cup than its closest competitor, creating a better seal and more comfortable distribution of weight and side pressure.

Zulu PFX also includes the award-winning comfort and advanced features that have made the Zulu family the choice of pilots around the world — made even better.

Enhanced durability — Rugged cables, constructed of silver-coated copper alloy wrapped around a Kevlar® core, deliver extraordinary flexibility, strength, and audio quality.

Full Bluetooth® Integration — Enjoy excellent call clarity, music fidelity, and wireless access to critical audio alerts from aviation apps on mobile devices.

Music fidelity — The Front Row Center™ feature combined with advanced digital processing makes the concert-class fidelity even better.

Auto Shutoff™ — Lightspeed's proprietary Auto Shutoff feature saves battery life by automatically shutting down the headset power when not in use. Zulu PFX users can use FlightLink to enable Auto Shutoff or disable the feature.

Cell phone / music connection — The integrated control box auxiliary input for connecting a cell phone, music player or other audio device now has controls for bass, treble, and intercom priority, thanks to the enhanced FlightLink app.

Included — Custom molded carrying case, cellphone/music patch cord, USB cord, steel CPU clip, cord clip, four AA batteries, foam windscreen.

Available configurations:

Dual GA battery power; straight upper cable
LEMO panel power; straight upper cable
U-174 battery power; straight upper cable

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TECHNICAL SPECIFICATIONS

General

Battery power supply: 3V, four AA batteries
Weight: 13.9 oz. (including ear seals and mic boom)
Panel aircraft 8-40 VDC

Headphone

Transducer: 40mm moving coil
Frequency response: 20 Hz-20 kHz
Nominal impedance @ 1 kHz:
OFF—Mono: 200 ohms, ON—Mono: 280 ohms
OFF—Stereo: 400 ohms, ON—Stereo: 560 ohms

Microphone

Transducer principle: Noise-canceling electret
Frequency response: 200 Hz-6000 Hz
Maximum SPL (Sound Pressure Level): 114 dB
Terminating impedance: 220–2200 ohms
Operating voltage: 8V-16V DC

Bluetooth Enabled Phone

Yes

Bluetooth Streaming Music

Yes

Bluetooth Enabled FlightLink

Yes

Firmware upgradeability through PC and iOS platforms

**Lightspeed Aviation
ranked #1 in 2012
Headset Preference Survey
by Professional Pilot**



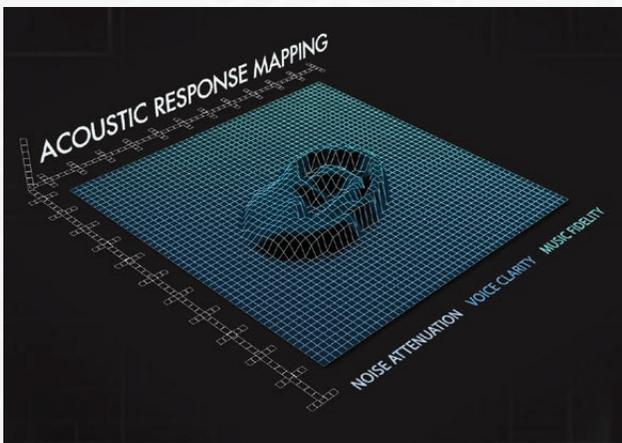
We know pilots. Zulu PFX knows *you*.



Your ears



Zulu PFX adapts to your ears through **acoustic response mapping**. This proprietary technology uses sound waves and advanced signal processing to measure your unique auditory landscape,

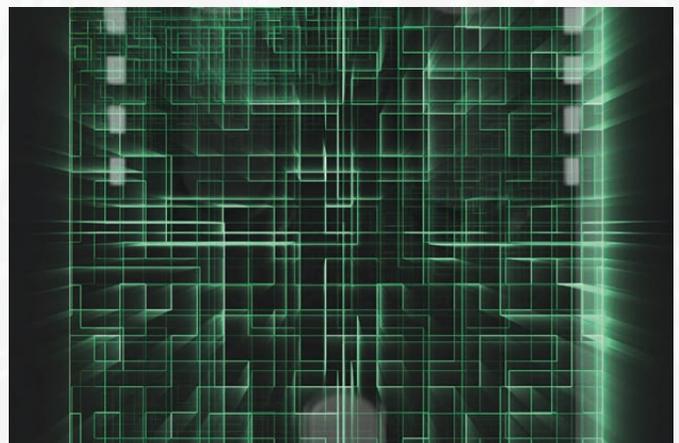


...adapting the audio response to your ear's size and shape for maximum noise attenuation, voice clarity and music fidelity.

Your environment



Streaming Quiet™ ANR allows Zulu PFX to adapt to your environment. Streaming Quiet uses ambient microphones to **continuously** sample cockpit noise before it penetrates the ear cup. An internal microphone placed near the ear canal monitors ANR performance.



The microphones feed information to the CPU, a powerful digital processor that analyzes a stream of both the external ambient noise and internal residual noise at a rate of one million times a second...

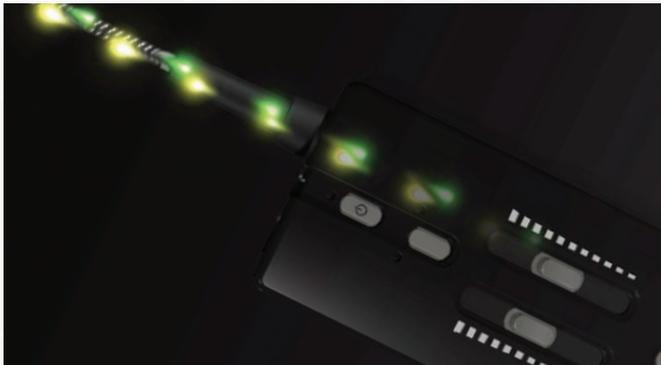


The Zulu PFX CPU

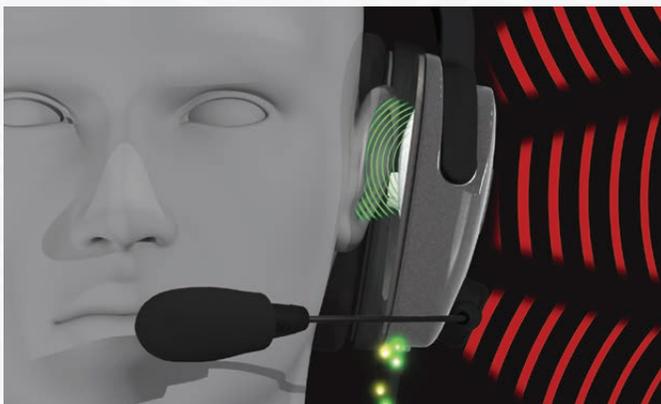
The cabin-friendly CPU provides powerful digital audio processing and convenient access to key controls.

The unique design features make it easy to place anywhere in your cockpit.

Upgradeable firmware means unlimited potential for Zulu PFX to evolve with new software innovations, bringing new features and enhanced performance to current Zulu PFX owners.

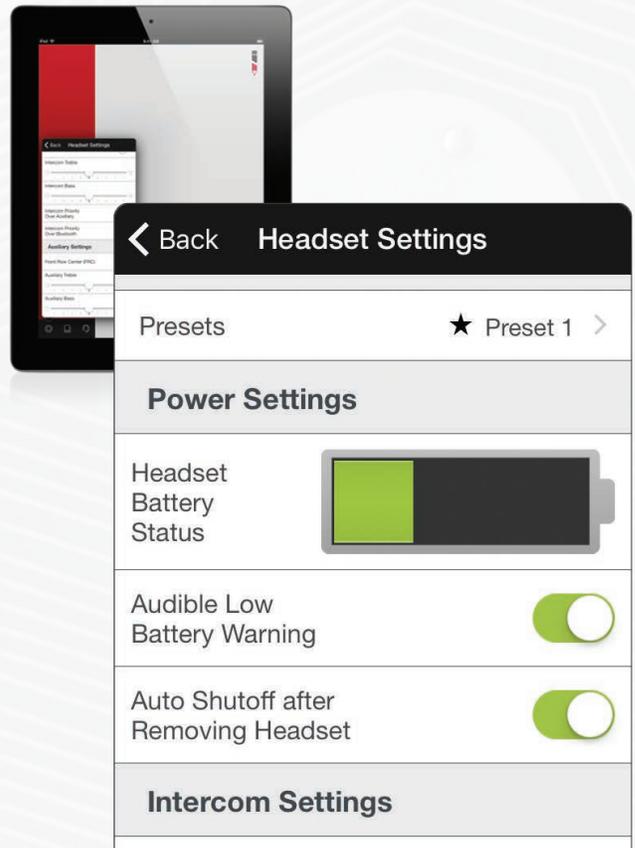


...and instantaneously creates precise ANR responses customized to your dynamic cockpit sound environment.



The result is a dramatic extension in the amount, consistency, and frequency range of noise cancellation—regardless of the aircraft—allowing important communication to come through with amazing clarity and producing music with outstanding fidelity.

Your preferences



Personal preferences can be set using the enhanced capabilities in **FlightLink**, the proprietary app developed by Lightspeed for the Apple iPad® and iPhone®. Bass and treble levels of the intercom and auxiliary inputs can be adjusted independently and separate intercom priority options can now be set for Bluetooth and wired input. Voice Clarity™ improves the clarity of incoming calls from ATC by boosting frequencies common in human speech while reducing those that are not.

Zulu.2 ANR Headset with Bluetooth®



Experience the remarkable comfort and quiet of the ANR aviation headset that firmly established Lightspeed as the innovation leader. The choice of private and professional pilots around the world, Zulu.2 is a triumph of communication connectivity and delivers all of the other features you expect from Lightspeed.

"So I made it through another winter without any problems with my headset. It really is impressive that something of such high sound quality can take the rigors of hot and cold and operate so flawlessly."

Erik Snuggerud

Alaskan Bush Pilot for Hageland Aviation
Cast member of the TV series "Flying Wild Alaska"



TECHNICAL SPECIFICATIONS

- General**
 Battery power supply: 3V, two AA batteries
 Weight: 14.7 oz. (including ear seals and mic boom)
 Panel aircraft 8-40 VDC
- Headphone**
 Transducer: 40mm moving coil
 Frequency response: 20 Hz-20 kHz
 Nominal impedance @ 1 kHz:
 OFF—Mono: 200 ohms, ON—Mono: 280 ohms
 OFF—Stereo: 400 ohms, ON—Stereo: 560 ohms
- Microphone**
 Transducer principle: Noise-canceling electret
 Frequency response: 200 Hz-6000 Hz
 Maximum SPL: 114 dB
 Terminating impedance: 220-2200 ohms
 Operating voltage: 8V-16V DC
- Bluetooth Enabled Phone**
 Yes
- Bluetooth Streaming Music**
 Yes

Outstanding noise reduction —Zulu.2 offers exceptional ANR consistency and performance over a deep, broad range of low frequency noise. Magnesium ear cups are superior at blocking out high frequency noise.

Superior comfort and durability — Weighing in at about 14.7 ounces (including ear seals and mic boom), Zulu.2 features our exclusive LightComfort™ design and plush ear seals that provide 20% more surface area for a better seal and more comfortable distribution of weight and side pressure, and 50% more space for your ear inside the ear cup than its closest competitor.

Bluetooth® connectivity — Enjoy excellent call clarity, music fidelity, and wireless access to critical audio alerts from aviation apps on mobile devices.

FlightLink compatible — Capture and retrieve incoming and outgoing communications with Lightspeed's free FlightLink recording app for the Apple® iPad® and iPhone® via the supplied patch cable.



Crystal clarity — The patent-pending Dual Aperture Disc™ microphone delivers unparalleled voice clarity and noise cancellation. The Front Row Center™ feature brings concert-class fidelity to music.

Cell phone/music connection — An integrated control box auxiliary input offers an additional option for connecting a cell phone, music player or other audio device.

ComPriority™ — Never miss important radio communications with patented ComPriority which lowers the volume of any auxiliary device automatically during radio or intercom transmissions.

Auto Shutoff™ — Lightspeed's proprietary Auto Shutoff feature saves battery life by automatically shutting down the headset power when not in use.

Included — Carrying case, cellphone/music patch cords, cord clips, two AA batteries, foam windscreen.

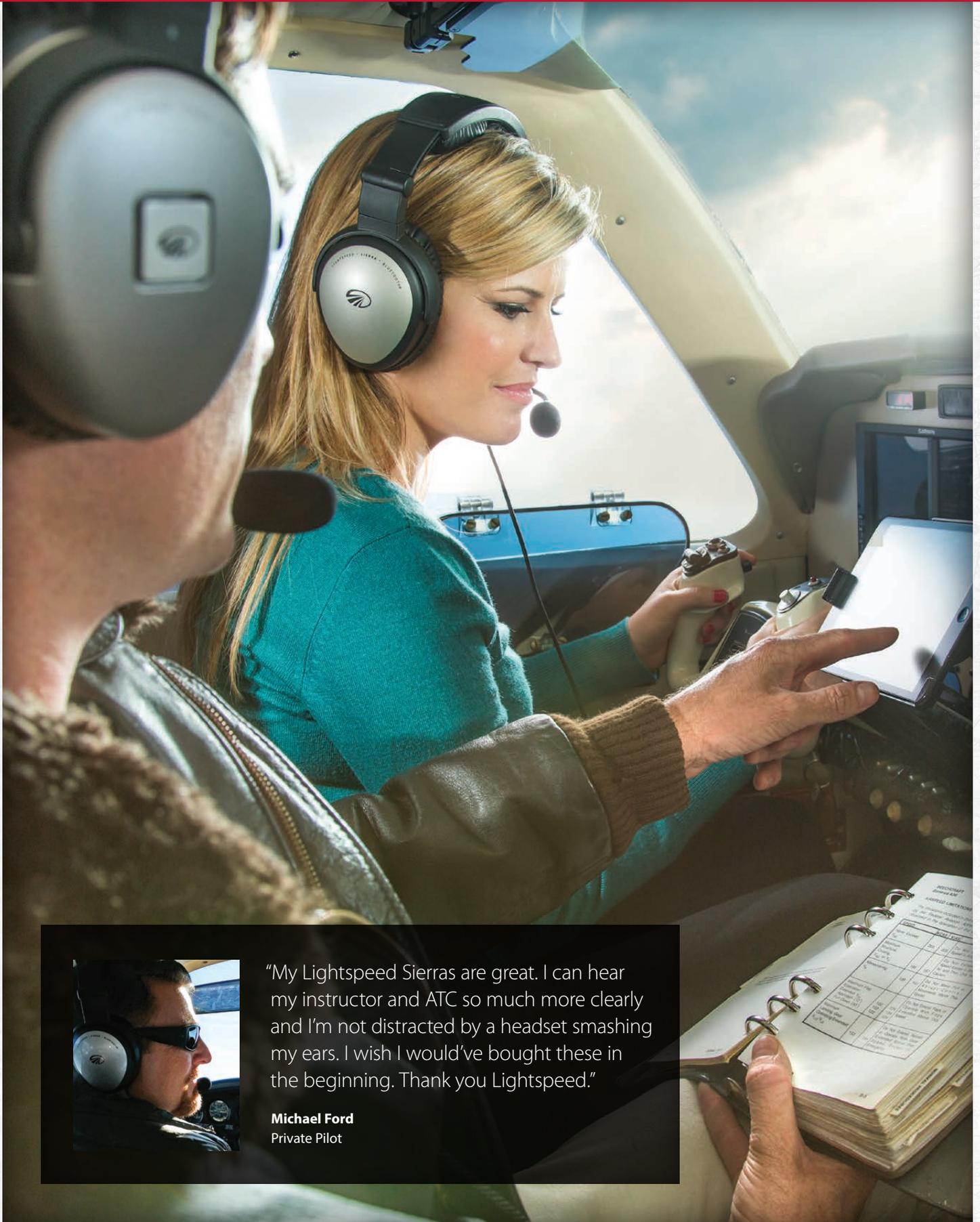
Available configurations:

- Dual GA battery power; straight upper cable
- Dual GA battery power; coiled upper cable
- LEMO panel power; straight upper cable
- LEMO panel power; coiled upper cable
- U-174 battery power; coiled upper cable



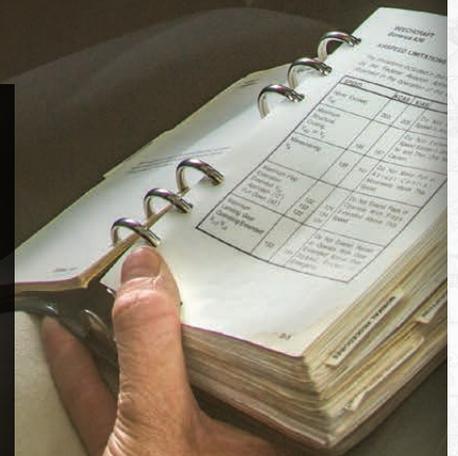
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Sierra ANR Headset with Bluetooth®



"My Lightspeed Sierras are great. I can hear my instructor and ATC so much more clearly and I'm not distracted by a headset smashing my ears. I wish I would've bought these in the beginning. Thank you Lightspeed!"

Michael Ford
Private Pilot



Step up to the world of premium ANR headsets with the value-priced Sierra. Picked as the “hands-down favorite” in *Aviation Consumer’s* real-world test of budget ANR headsets, Sierra delivers the comfort, quiet, and advanced features you’ve come to expect from Lightspeed.



Quiet — Active noise cancellation over a broad range of low frequency noise brings state of the art technology to Sierra.

Comfort — Sierra is a head-friendly 16 ounces and features plush ear seals that each provide nearly 10 square inches of surface area for a better seal and greater distribution of side pressure.

ComPriority™ — Never miss important radio communications with patented ComPriority, which lowers the volume of any auxiliary device automatically during radio or intercom transmissions.

Reversible microphone — A unique design allows microphone placement on the left or the right.

Cell Phone/Music Connection — In addition to full Bluetooth connectivity, Sierra offers an integrated control box auxiliary input for connecting a cell phone, music player or other audio device.

Included — Carrying case, music patch cord, cord clip, two AA batteries, foam windscreen.

Available Configurations

Battery Power (2 AA) / Dual GA plugs

TECHNICAL SPECIFICATIONS

Connector

Dual general aviation connectors

General

Battery power supply: 3V, two AA batteries
Weight: 16 oz. (including ear seals and mic boom)

Headphone

Transducer: 40mm moving coil
Frequency response: 20 Hz-20 kHz
Nominal impedance @ 1 kHz:
Off—Mono: 180 ohms, On—Mono: 300 ohms
Off—Stereo: 250 ohms, On—Stereo: 600 ohms

Microphone

Transducer principle: Noise-canceling electret
Frequency response: 200 Hz-6000 Hz
Maximum SPL: 114 dB
Terminating impedance: 220–2200 ohms
Operating voltage: 8V-16V DC

Bluetooth Enabled Phone

Yes

Bluetooth Streaming Music

Yes



FlightLink Compatible

Sierra is now compatible with FlightLink, the first in-flight cockpit recording application for the Apple iPad and iPhone.

Full Bluetooth Integration

Enjoy excellent call clarity, music fidelity, and wireless access to critical audio alerts from aviation apps on mobile devices.

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Made in the USA



“Lightspeed Sierra was the hands-down favorite of every tester”
— *Aviation Consumer ANR on a Budget Field Test, 2012*

Write your own aviation adventure with

Write your own aviation adventure with our new line of flight bags named for storied aviation authors. Each leather flight bag is handmade from full-grain, oiled South American cowhide in espresso brown with contrasting black leather pocket flaps. Uncoated for authentic look and wear, they will become more supple with age and use, while taking on a rich patina. Each hide has its own distinctive grain and markings, making each bag as unique as the pilot who owns it.

While embracing the traditions of yesteryear, Lightspeed flight bags are also born of the same aviation focus we bring to our headsets and incorporate insightful features designed for the modern pilot, like purpose-built pockets for iPads and transceivers and rugged, but wing-friendly, textured PVC bottoms. Anyone who owns a Lightspeed headset will recognize the beauty, durability, and ingenuity of a product destined to make flying more enjoyable for years to come.



The Gann

Ready for a true journey, the Gann is imbued with the same insatiable thirst for adventure as the novelist it is named for. Spacious but cabin-friendly, this carpenter-style bag is a great companion to the pilot who has everything — and likes to take it along.

Dimensions: 16"W x 6"D x 13.5"H



A large zippered carpenter-style opening spreads wide to reveal a spacious, lined main compartment and an internal, zippered iPad pocket. (Shown with optional organizer insert, see right.)



The front organizer pocket is strategically designed for optimum placement of pens, keys, and other essential items.

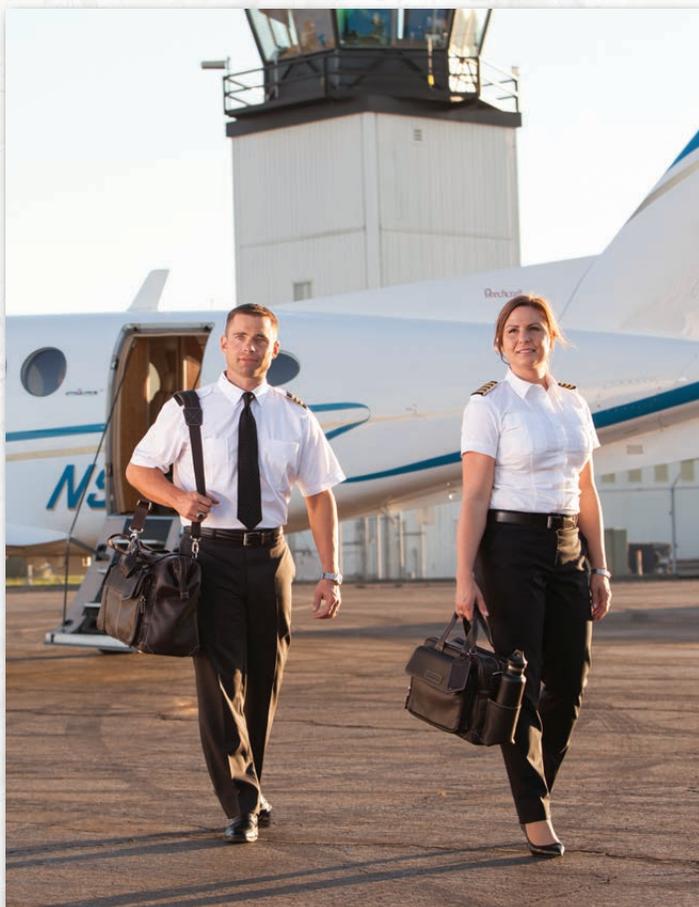


A large transceiver pocket with cut-out flap allows antenna-on storage.



A large, zippered rear pocket provides convenient storage for documents and other flat items while doubling as a Rollaboard slot.

With our Adventure Flight Bag Collection



The Markham

Set off on your own record flight with a flight bag as beautiful and daring as the pioneering aviator and writer whose name it bears. Thoughtfully designed to be both compact and functional, the Markham is perfect for the pilot who never knows what adventure waits at the end of the next runway.

Dimensions: 12"W x 5.5"D x 9.5"H



A center top zipper opens into a large, lined main compartment (shown with optional organizer).



The divided front organizer pocket expands forward for easy access to essential items.



A transceiver pocket with leather antenna strap provides secure, easily accessible, antenna-on storage.



A zippered rear pocket provides convenient access to iPads, paper charts, or documents. Another pocket on the side is tailor-made for large water bottles.



Organizer insert

Designed to fit snugly inside the Markham and Antoine, the organizer insert is made from 210 Denier polyester. Perfectly sized to hold a headset, camera, and other essential gear, it features padded, sewn-in dividers, multiple accessory pockets and woven bindings to protect the edges.

Dimensions: 11"W x 4.5"D x 9"H

Customer Commitment, the Lightspeed



Way

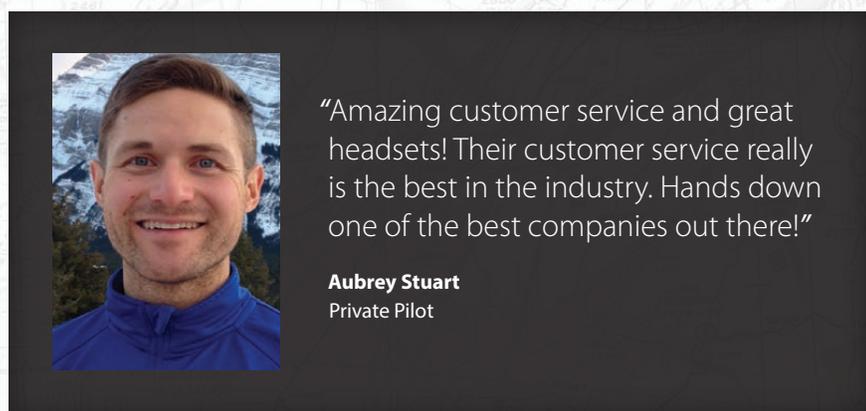
To most companies, customer support means an efficient call center. At Lightspeed, we define customer support more broadly.

Sure, we are very proud of our customer service team, whose expertise, promptness, and attitude have contributed greatly to the reputation and success we enjoy — but that's just the start.

At Lightspeed, customer support means sharing the passion pilots feel for flight; it means actively engaging with pilots at every opportunity to understand not just their needs, but why they fly; It means working hard to be an active part of the aviation community, doing our part to help it thrive through a variety of activities.

For example, each year Lightspeed provides both cash and in-kind contributions to a variety of aviation events and organizations. Some of these are large and well-known, such as AOPA, EAA, NAFI, AirVenture, and Sun 'n Fun. Others are smaller efforts, like AeroAngel, whose contributions may be less far-reaching, but no less important.

Another example — Lightspeed Live provides pilots and aviation enthusiasts the opportunity to visit with Lightspeed Aviation in a casual setting and learn about the heart and culture of the company, along with our products. Just as important, it allows us to meet our customers face-to-face, giving us the opportunity to take the pulse of the aviation community in the most direct, personal way possible.



“Amazing customer service and great headsets! Their customer service really is the best in the industry. Hands down one of the best companies out there!”

Aubrey Stuart
Private Pilot

Yet another example of our participation in the aviation community is the Lightspeed



Aviation Foundation. Founded in 2010, in its first six years it has donated roughly half million dollars to support growth and compassion in aviation, helping to fund many organizations whose missions contribute to the betterment of the aviation community and to help those in need.

The next time you hear a company promoting its outstanding customer support, you might consider just how far this support goes. At Lightspeed, we see it as a commitment to our individual customers and the things they are passionate about. Our goal is to create an experience that is so amazing that our customers will be advocates of not just our products, but our way of doing business.

High Flight

Oh, I have slipped the surly bonds of earth
And danced the skies on laughter-silvered wings;
Sunward I've climbed, and joined the tumbling mirth
Of sun-split clouds...and done a hundred things
You have not dreamed of...wheeled and soared and swung
High in the sunlit silence. Hov'ring there,
I've chased the shouting wind along, and flung
My eager craft through footless halls of air.
Up, up the long, delirious, burning blue
I've topped the windswept heights with easy grace
Where never lark, or even eagle flew.
And, while with silent, lifting mind I've trod
The high untrespassed sanctity of space
Put out my hand, and touched the face of God.

— John Gillespie Magee, Jr.



YouTube



#ForTheLoveOfFlight

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LIGHTSPEED[®]