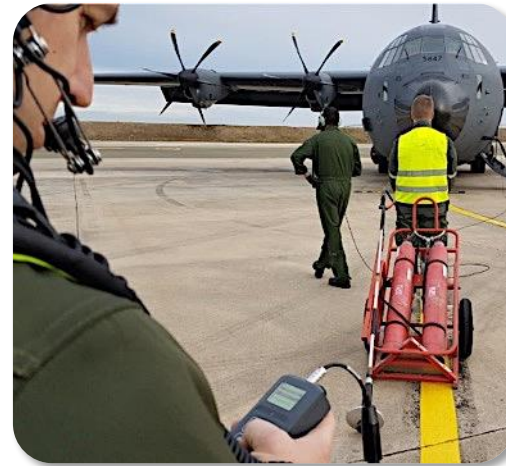


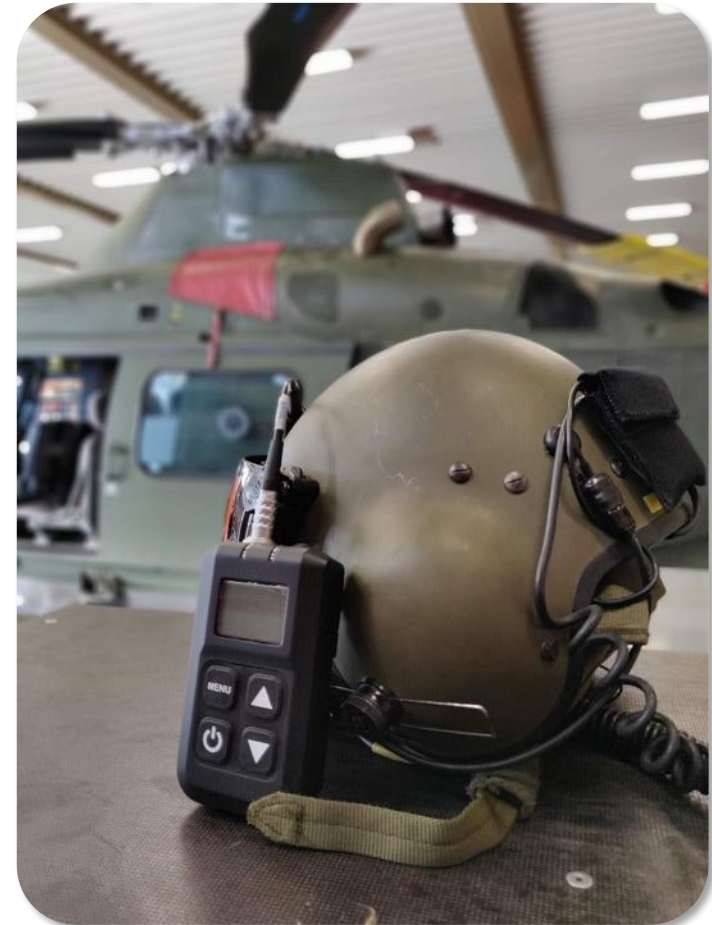
AirLink 30851A

Aircraft and Helicopter Wireless Intercom System



AIRLINK 3085IA PRESENTATION

1. GLOBALSYS presentation
2. System description
3. Base unit
4. Integrated Headset
5. Mobile Unit
6. References
7. Strong points



1 - Globalsys short presentation

- French company created in 1997
- Specialized in Cordless Audio, Wireless & Embedded Systems
- Partnership/ Cooperations with Airbus Innovation, Telerad, Dassault Aviation, ...
- Activities within Aeronautics, Defense & Industrial domain

Product Ranges:

AirLink 2085



*Cordless Headset
Airports, Airlines*

AirLink 3085



*Cordless Headset
Helicopters, Military*

Safe-Link



*VoIP over WiFi
Naval Applications*

IRoCon



*Cordless Comm & Cabin Mgt
Collaboration with AIRBUS*

2-System description

The AirLink 3085 is :

- A wireless extension of the intercom system
- Allow a **full duplex** communication
- Up to **8** users conferencing

With specific Globalsys features :

- Encrypted digital voice system (32kb/s)
- Frequency and time slot hopping (Handover)
- Vocal alerts
- **Active noise canceller** (Digital microphone filter)
- VOX and SQUELCH function
- Adaptable to any aircraft / helicopter



2 - System description

AirLink 3085 composition:

- One base station connected to the Aircraft Intercom System
 - Ensures audio mixing of all mobile stations
 - Ensures audio interface with Aircraft
 - Adaptable to any aircraft on the spot by adapter
- Up to 8 mobile stations
 - “**Mobile Unit**” Format: Adaptable to any flying helmet headset
 - Also available as a “**Fully-Integrated**” Headset

Qualifications:

- Qualified to MIL STD 810F & 461C
- HERO Qualified
- **COMBAT PROVEN** by French AirForce
- Temperature range -30 °C to + 60 °C



Cordless (fully) integrated Headset

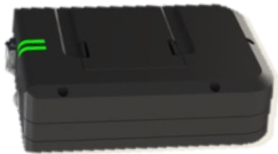


Mobile Unit
(headset/ helmet connectable)



Base Unit
("adaptable" format)

3 - Base station (2 different formats)



Adaptable Base Unit

- **Adaptable to any aircraft** on the spot (any Helicopter, Rafale, C130, Mirage 2000, Eurofighter, A400M, etc..) plug to existing ICS plug (or audio panel)
- **Removable battery pack**
- **Autonomy 15h**



Fixed on-Aircraft Base Unit

- **Metallic Base** directly connected to the ICS
 - Aircraft powered (from 16 to 36Vdc)
 - Optional : internal battery (in case of power supply failure)
- **Encrypted Digital voice system (32kb/s)**
 - **Radio Frequency: 1880 to 1898 MHz**

4 – Cordless Integrated Headset

- Integrated (in cups) electronics & battery
- Up to 8 h autonomy
- Vocal announcements (warnings...) Noise reduction on microphone (DSP based), adjustable
- Vox (adjustable threshold)
- Very high passive attenuation (SNR:32dB)
- Splash proof: IP 54



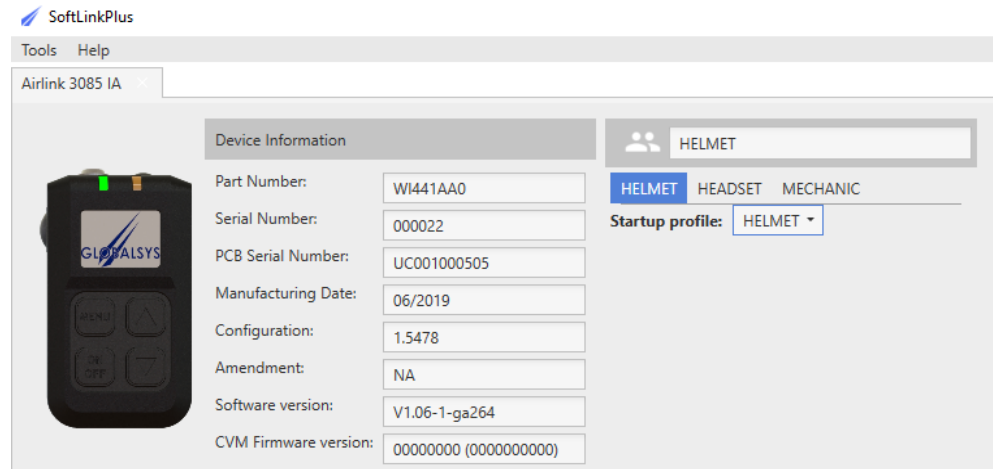
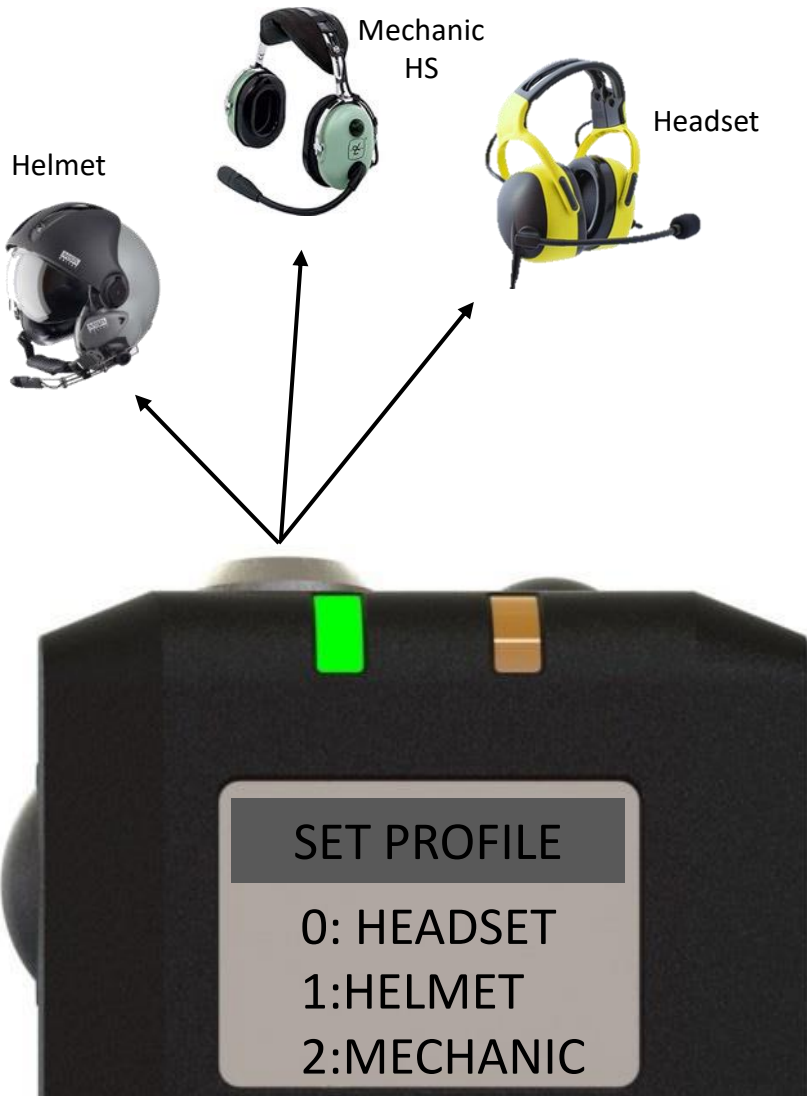
5 – Mobile Unit



- Adaptable to any headset or helmet
- Removable battery pack
- up to 16h autonomy
- Fully waterproof: **IP 68** (up to 2 m dive)
- Vocal announcement
- Microphone **Noise reduction (based upon DSP)**
- Large display with backlight
- Adjustable VOX based on **voice detection**
- **Cockpit isolation** options
- **NVG** ready
- **Profile selection** : equipment customized on the spot to any User, with various profiles

5 - Mobile Unit configuration

PC (Windows) - based software "SoftLink", linked to Unit via USB:



For each profile, user can customize through Softlink :

- Volumes steps
- Vox steps
- Audio adaptation (Level, Impedance)
- Start up preferences
- Choice of language

→ up to 5 profiles can be stored on the unit and loaded on the spot.

eg: If different type of headsets are used on the same aircraft, unit can easily be configured to match on the spot with any headset or helmet.

5 - Mobile Unit optional features:



- Remote recognition (more info here after)
- Broadcast Mode= Multiple Users (Up to 128), **listen only**, interest for **Pax** briefing
- Direct mode: between Mobiles, no Base needed, interest for **Ground drops**
- External radio connexion (on Mobile Unit / through Base Unit, incl. PTT activation) -> On board Radios (UHF, VHF....)

5 - Remote Recognition

Recognition principle :

The user scan the in range aircrafts (each equipped with a Base Unit), retrieve their Tail n°, and select the one to talk with.



Tail number : F-AAAA



Tail number : F-BBBB



Tail number : F-CCCC

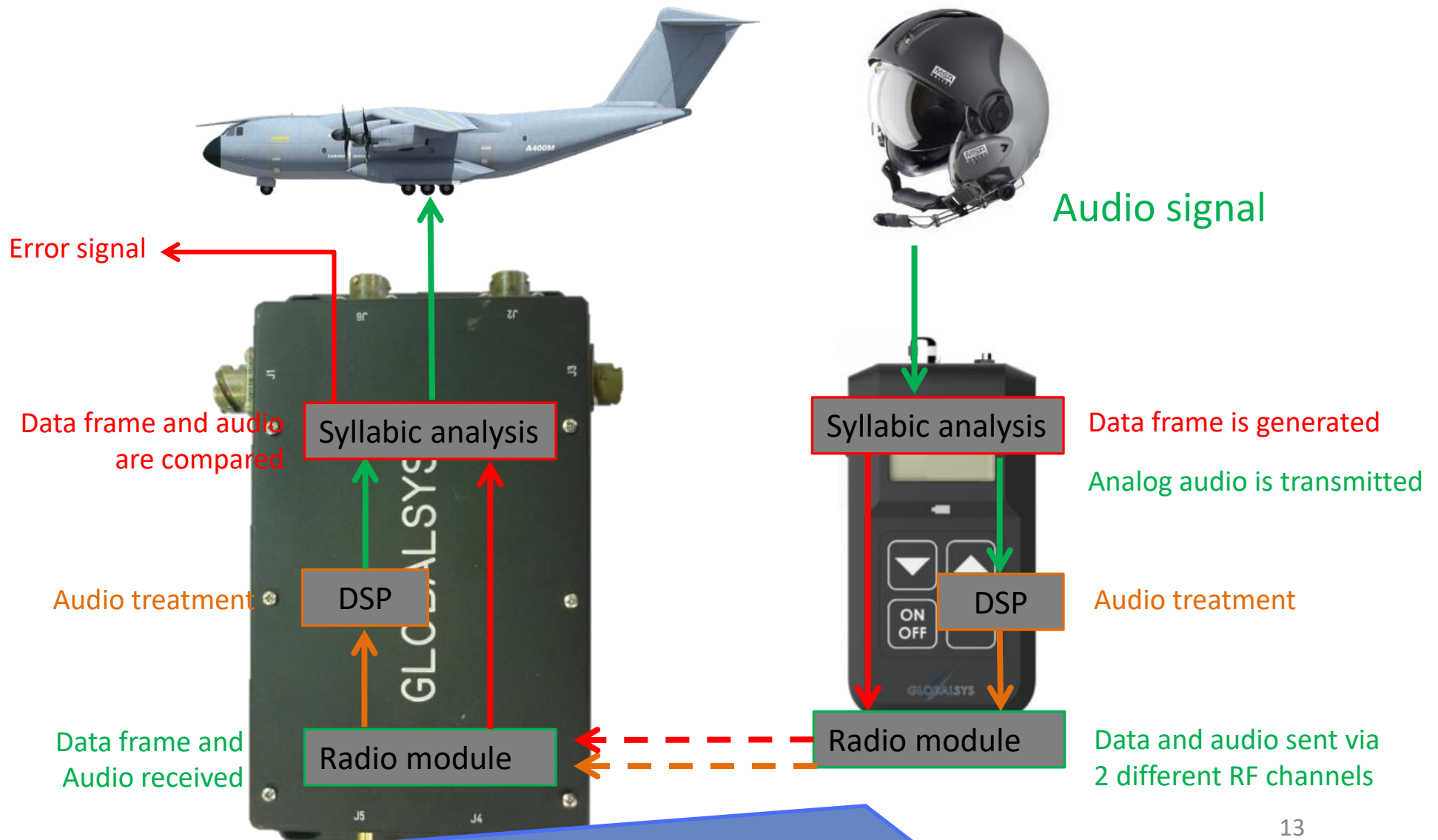
5 – Future features (design in progress):



- Range extension
 - DMR (UHF, VHF) = + 2 km in Half Duplex
 - LoRa in evaluation
- Audio Monitoring (DAL C)*
Very useful in cases where Cordless communication is Safety Critical
Mechanism: thanks to audio monitoring, any trouble/ failure within communic. path immediately detected, Users warned (both ends)

* Patented (Europe, USA)

5.1. Audio Monitoring : Mobile User to Aircraft (eg Cockpit Crew)



6. Worldwide References

Helicopters and Aircraft manufacturers



Military, Governmental Forces and civilian Operators



Brazilian Army



Belgium Forces:
NH 90 / AW 109



Abu Dhabi Police,
Helicopters



Israel Air Force,
(ORBIT Partner)



French Air Force



French Army



French Navy



French Ministry of Defense



Portuguese AirForce



F/A 18



AW 139



French Military Shipyards



Tigre, C130

⇒ More than 1000 systems* sold all over the world over the last 5 years

* : AIRLINK 2080, 3080 & 3085 (all based upon similar technology) together

6. Aircraft

- AH225M
- NH 90
- Tiger
- AW 109
- AW 139
- MI 17
- CASA
- C 130
- Dassault Rafale
- Dassault M2000
- F/A18
- MRTT (A330)



7 - STRONG POINTS

- GLOBALSYS has a proven experience of Cordless systems for Helicopters & Aircraft.
- Easily adaptable (**Plug&Play**) option for the base Station: no Aircraft modification, immediately available.
- **Affordable** solution able to support many new scenario/ use cases.
- Highly performing Digital Audio with Microphone **Noise reduction**, thanks to most recent communication processor and voice signal processing.
- Various options available for Tailored applications adapted to many mission profiles

www.globalsys.fr (also global-sys.com in progress, will be fully ready Q2 2020)
(but can be watched)

Thank you for your attention!



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