Argos Satellites

* 1978 by French Space Agency, NASA, and NOAA
* 1986 CLS (Collecte Localisation satellite) to operate, maintain, and commercialize

<https://www.argos-system.org/applications-argos/wildlife-monitoring/>

How do they work?

* Trajectories are made available via a specifically designed website, where they are displayed on maps, in tables or charts
* Can also be received automatically by email, directly through mapping software, fax, or cd-rom

How much does it cost?

Is the cost scaled per device?

How often do I get data?

**\*\*\* SIZING \*\*\***

**-Pteropus needs to be at least 500g**

**-Eidolon needs to be at least 295g**

Average weight from catching data

P. rufus male = 622g

P. rufus female = 515g

E. dupreanum male = 322g

E. dupreanum female = 309g

**3% tag weight per species**

**P. rufus male = 18.66g**

**P. rufus female = 15.45g**

**E. dupreanum male = 9.66g**

**E. dupreanum female = 9.27g**

**5% tag weight per species**

**P. rufus male = 31.1g**

**P. rufus female = 25.75g**

**E. dupreanum male = 16.1g**

**E. dupreanum female = 15.45g**

**Collar weight = ~5g**

**Max tag weight (based on 5%, female weight, 5g collar)**

**P. rufus = 25g – 5g = 20g**

**E. dupreanum = 15g – 5g = 10g**

LOTEK

Solar ARGOS GPS – 16g

$2300

Non-Solar ARGOS GPS – 8.5g

$1900

GPS VHF – 8g

$1400

E-obs

GPS VHF – 15g

\*we’re going for duration over frequency with the argos tags

\*mix of frequency and duration for the VHF tags

Recommended receiver:

<https://www.telonics.com/products/vhfReceivers/tr-8.php>

recommended antennae:

<https://www.telonics.com/products/vhfAntennas/RA-23K.php>

Frequency: <http://www.classic.grss-ieee.org/frequency_allocations.html>

I think that 165 is fine.. someone told me that anything that says fixed is good…

Lotek

<https://www.lotek.com/products/pinpoint-solar-argos-or-vhf-download-for-birds/>

Solar Argos = ~2100-2300

E-obs

<https://e-obs.de/products.html>

+ Bella uses, good customer service, specific software to process data, used in Pteropus

- finicky?, software available in Madagascar?

PTT = $1150

Microwave telemetry

<https://www.microwavetelemetry.com/avian_transmitter_pricing>

+ used in Pteropus

Solar Argos/ GPS PTT (17g) = $4200

22g = $3900

GPS/GSM (25g) = $3950

Product Details

~15g

Detachable collar (self-made)

Solar (pteropus) battery (eidolon)

PTT, GSM, Argos

Can go up to 30g

You have to go back anyways to try and get tags that fall off/are lost..