WILDLIFE COMPUTERS

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UTILIZING ARGOS' PASS PREDICTION SOFTWARE

CLS offers a satellite pass prediction program that helps forecast satellite coverage at a given location. To determine when satellites will be in view, log into the CLS website—www.argos-system.org—and select "Data Access."

Log in with your Argos username and password and then click on "Satellite pass prediction" button on the right side of the screen.

Select Your Simulation Parameters

To run a simulation:

- Select a pass prediction period or simply click "Simulation Duration" which defaults to a 24-hour run.
- Ensure all satellites are selected.
- Click the latitude and longitude button and input your location coordinates. The location will display on the world map on the right-hand side.
- Complete the "Minimum Elevation Site" field. This is the horizon level. If tags are expected to have limited sky exposure (e.g. study site is in a fjord, etc.) the horizon level can be increased. The suggested default of 5 degrees is appropriate for open water deployments.
- Once parameters are configured, click "Simulate" below the world map.

Viewing the Results

Three output tabs are displayed at the top left of the screen.

Result Table

The result table is a detailed report of when passes will occur and the duration of each pass. The export icon in the top right-hand corner can be used to export the data in .csv format. ***Note, that the times shown are in UTC.***

Table of Synthesis

This table of synthesis provides a quick view of the number of passes each satellite is making during the specified time frame. The cumulated time is useful for getting an idea of coverage for a specific satellite.

Overlapping passes from multiple satellites are not considered, so this view overestimates overall satellite coverage.

Time Blocks Display

The hourly blocks graph gives a visual of pass times. The graphic display makes it easy to see gaps when no satellites are overhead.

Selecting Transmit Hours

Te best time to transmit is during long-duration satellite passes. Argos pass predictions are available for six months into the future so it can be beneficial to look at three different downloads at one month, three months, and six months and select the hours which consistently have the most satellite visibility.

If you expect your animal to move less than 500 km from your deployment location, pass prediction will improve Argos performance. However, the utility of pass predictions diminishes with distance and the number of hours you wish to transmit. If your animal will be moving more than 500 km, contact Wildlife Computers for assistance in selecting which hours to transmit.