ICARUS

International Cooperation for
Animal Research Using Space

ICARUS' mission is working towards establishing a remote sensing platform for scientists world-wide that can track small organisms globally, using radio transmitters a small as 0.3 grams enabling observations and experiments over large spatial scales.

ICARUS is currently in the process of:
1. Designing the technical (satellite) solution
2. Soliciting scientific input.
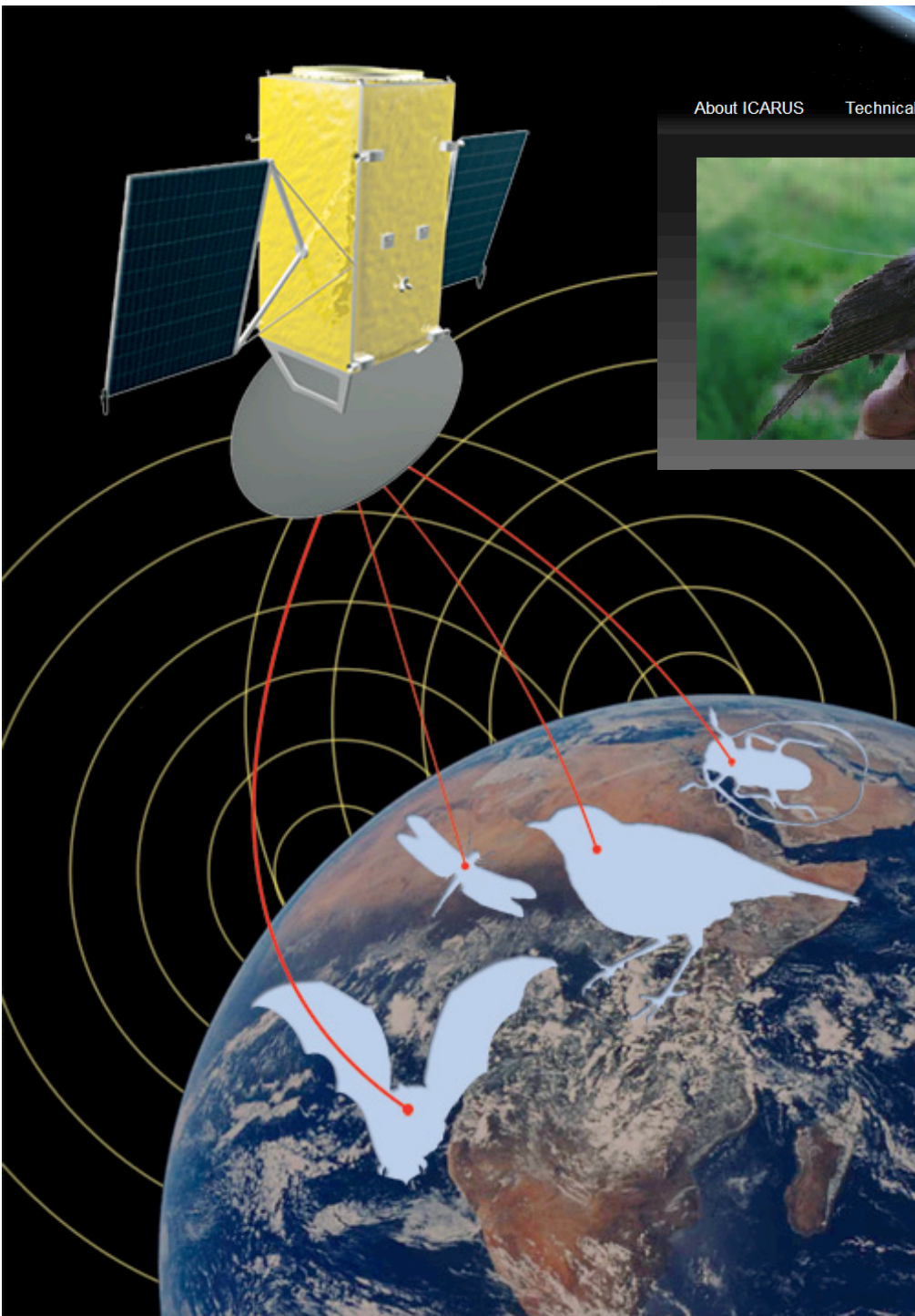
EEG radio transmissions using a 0.4 g transmitter

1 cm

© Sparrow Systems
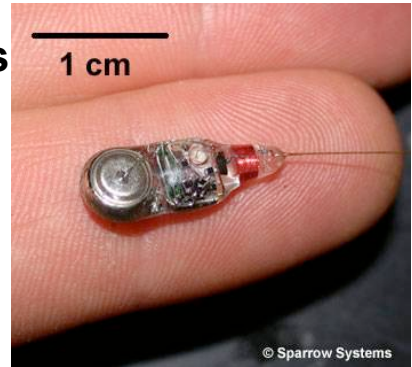
Flat EEG	SWS peaks	SWS and some pauses	Mostly SWS
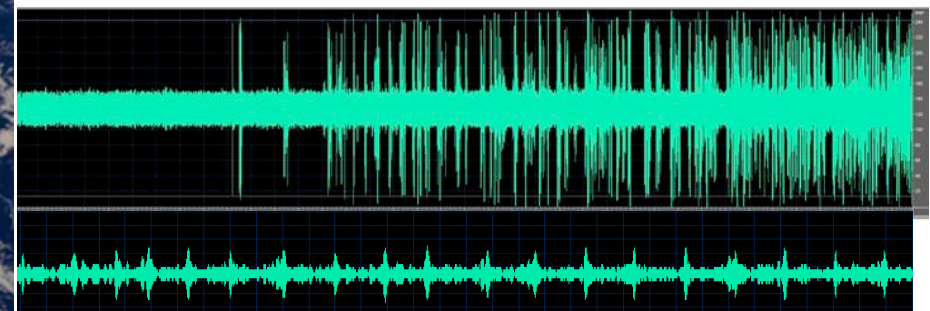
Heart rate: 320 beats/min; (3/7/06 166.6805MHz, 9:30am)

Why track animals and record physiological functions?

How animals deal with a changing environment?

What environmental cues do they use?

How are these cues signalized: sensory modalities and neural pathways?

Need micro-techniques to identify what processes are important and how they are operating

Nanotechnology for following these changes in free-living animals