



**T**racking  
**A**nd  
**I**ntegrated  
**L**ogging  
**S**ystem

TAILS  
Phase 5

# Using Google Earth as a TAILS extension

# Using Google Earth as a TAILS extension

## Mapping in TAILS - Comparisons

- ◆ TAILS Mapper allows you to map your point data
  - Internet based, FWS developed (ECOS)
  - Multi-layers with some tools

**Cannot compare  
to ArcMap**

**Each is  
very different**

- ◆ Google Earth allows you to map your point data
  - Internet based, private
  - Multi-layers with some tools

**T**Tracking  
**A**nd  
**I**ntegrated  
**L**ogging  
**S**ystem

# Using Google Earth as a TAILS extension

## Choosing the data to Map

### ◆ TAILS Mapper or Google Earth

- Select from the wide array of Reports
- You need not include attributes
- Run the report, scroll to the bottom, choose an option:

**Google Earth**



**Mapper**

**T**racking  
**A**nd  
**I**ntegrated  
**L**ogging  
**S**ystem

# Using Google Earth as a TAILS extension

## Google Earth:

### ◆ Geo-Browser/Virtual Globe

- Stand alone interface
- Owned/distributed by Google
- Versions (Free, Plus, Pro, ES)
- Allowable by USFWS - Solicitor General:

“The majority of DOI’s uses are internal, in order to assist the employ in their research tasks. This is permissible under the “free” license. “

### ◆ Uses ‘KML’ & ‘KMZ’ files to portray data

- KML = Keyhole Markup Language
- KMZ is, essentially a zip/compressed version of KML



**T**racking  
**A**nd  
**I**ntegrated  
**L**ogging  
**S**ystem

# Using Google Earth as a TAILS extension

## Google Earth:

- ◆ Google Earth (Free version)
  - Displays satellite imagery
  - Varying resolutions and sources
    - 15 meter baseline resolution
    - 1 meter or less in and around most urban areas
    - Dates of imagery vary, currently most ~ 2007 (free version)

**T**tracking  
**A**nd  
**I**ntegrated  
**L**ogging  
**S**ystem

# Using Google Earth as a TAILS extension

## Google Earth:

### ◆ Google Earth (Free version)

– Allows overlay of data from KML/KMZ files

- Can't directly import other GIS files

– shapefiles / geodatabases / GPS data / CSV files

- Shapefiles may be converted to KML files ([demo](#))

– Allows you to draw points, lines, polygons, take measurements, review historic images, get “street-level” views, record “flyover” videos and more.



**T**racking  
**A**nd  
**I**ntegrated  
**L**ogging  
**S**ystem

# Using Google Earth as a TAILS extension

## Download to KML

- ◆ Run a TAILS Report (e.g., Activities by FY)
- ◆ Export - Download to KML



- ◆ If the result is small – it will open immediately
  - Allow the KML to auto-open
- ◆ If the result is large – KML is e-mailed to you
  - Access email and click on link provided (it will auto-open)
- ◆ Review the mapped result in Google Earth

**T**racking  
**A**nd  
**I**ntegrated  
**L**ogging  
**S**ystem

# Using Google Earth as a TAILS extension

## Using Google Earth Extension

Use Google Earth to:

- ◆ Determine / Confirm coordinates
- ◆ To aid in site visit scoping
- ◆ To review historic imagery



- ◆ View spatial relationships
- ◆ Get directions
- ◆ Record a 'video review' of site

Tracking  
And  
Integrated  
Logging  
System

TAILS  
Phase 5

# Using Google Earth as a TAILS extension

## Shape Files to KML

### ◆ Conversion Methods

- ArcMap/Toolbox (demo)
- Xtools Pro
- GPS Garmin
- Others

◆ Each is a bit different & gives differing results

◆ Try them all to see what you get / like



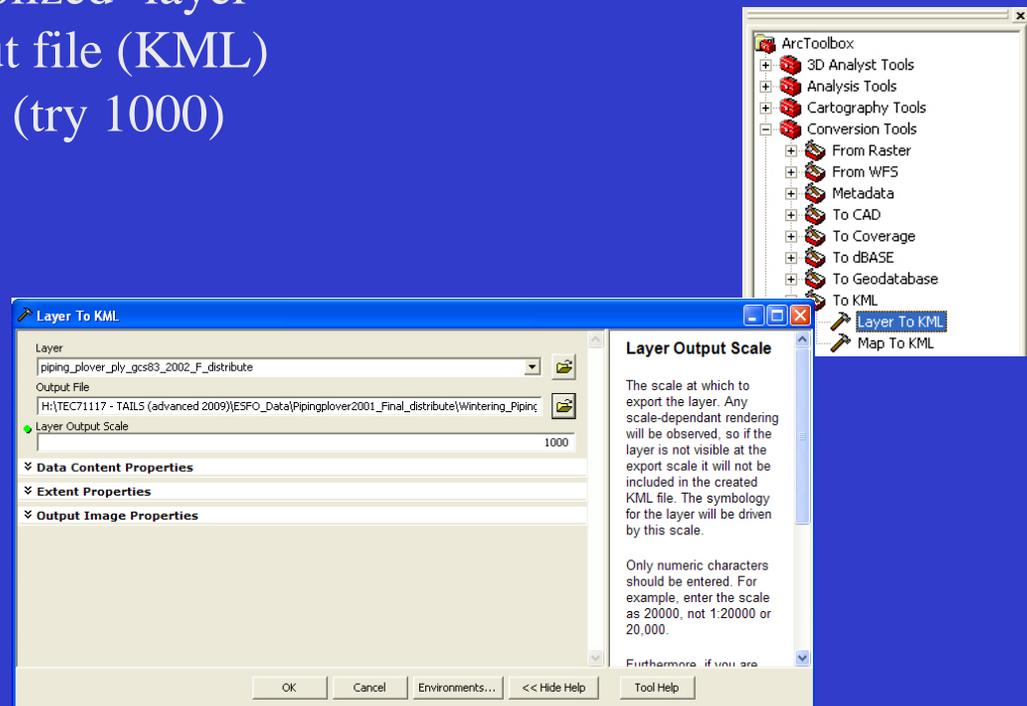
**T**racking  
**A**nd  
**I**ntegrated  
**L**ogging  
**S**ystem

# Using Google Earth as a TAILS extension

## Shapefile to KML (in ArcMap)

- ◆ Review in ArcMap, check symbology
- ◆ Toolbox
  - Navigate to Conversion Tools: Layer to KML
    - Double-click 'Layer to KML'
    - Select the symbolized 'layer'
    - Define the output file (KML)
    - Define the Scale (try 1000)
    - Click 'OK'

### ◆ Double Click KML



Tracking  
And  
Integrated  
Logging  
System

# Using Google Earth as a TAILS extension

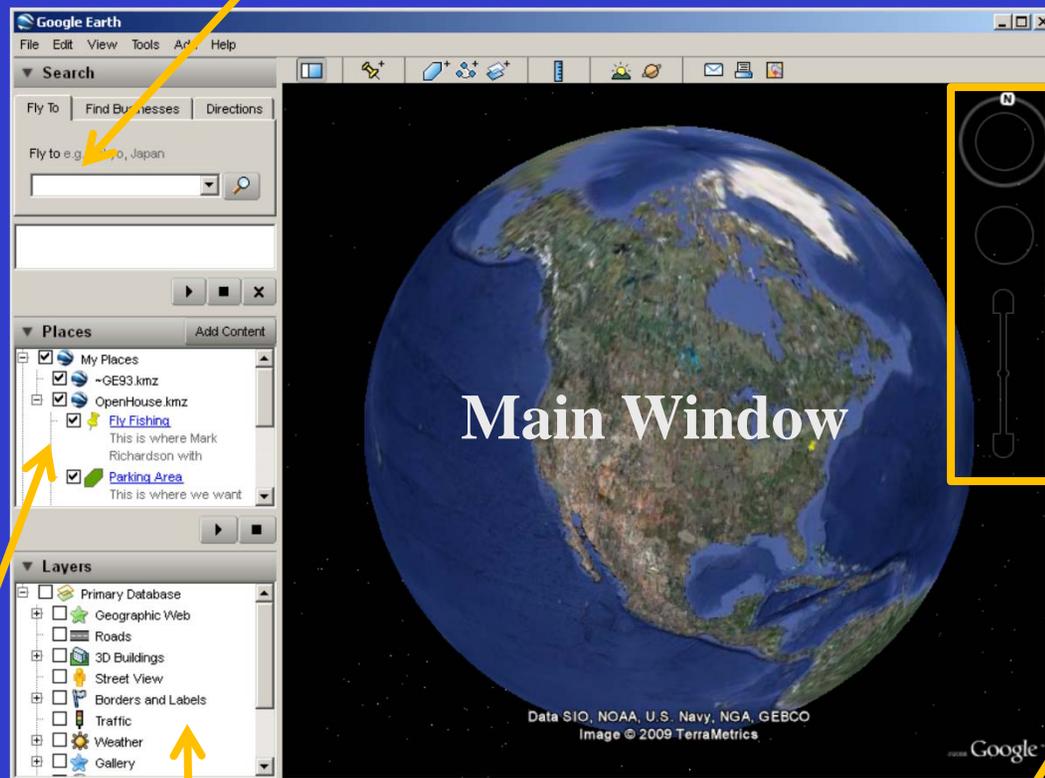
## Demo of Google Earth



**T**racking  
**A**nd  
**I**ntegrated  
**L**ogging  
**S**ystem

'Fly to' field

Direction of view



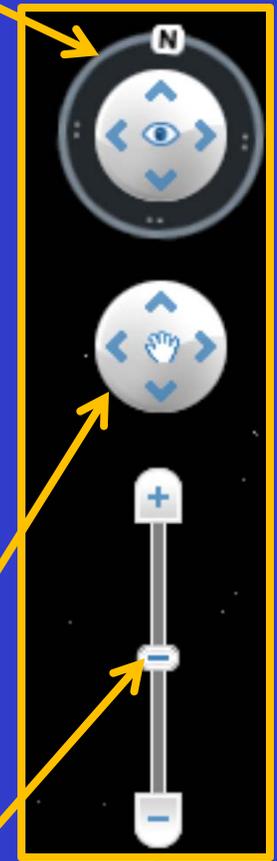
Main Window

Layers

Pan location

Places (includes layers you add)

Zoom in/Out Bar





**T**racking  
**A**nd  
**I**ntegrated  
**L**ogging  
**S**ystem

TAILS  
Phase 5

# Using Google Earth as a TAILS extension