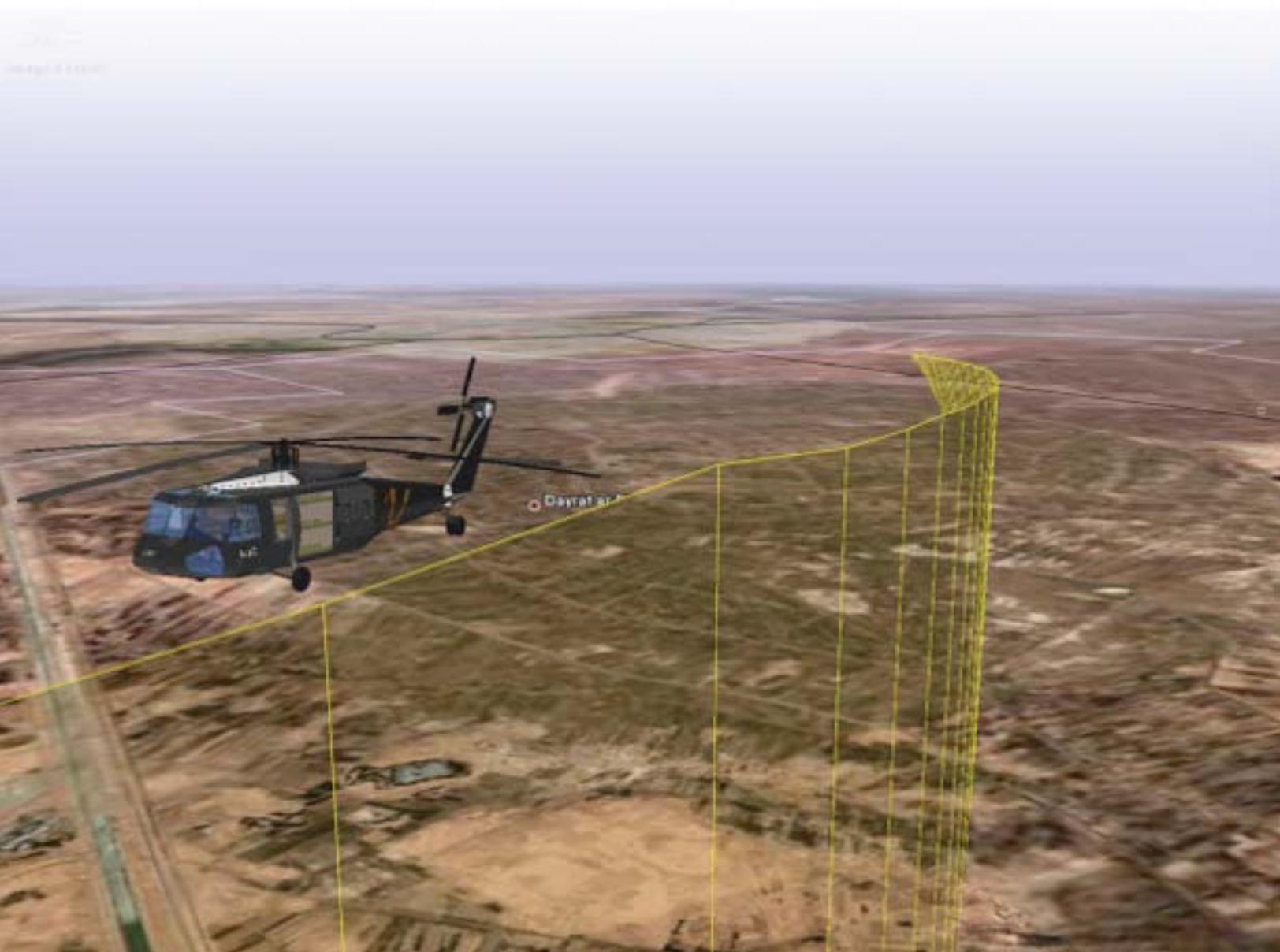


DDC VAADR View

VAADRView Software/Debrief Station
General Purpose Image Analysis and Enhancement



VAADRView is the viewing console for DDC VAADR recorders. It is predominantly used to debrief video recorded by VAADR. It can also control VAADR.



VAADR Debrief station

Requirements to run VAADRView:

Minimum Requirements:

- VAADRView USB dongle
- Modern PC or laptop (within last 4-5 years)
- Microsoft XP, Vista or Windows 7
- 1 GB RAM
- 1280x1024 (or greater) size monitor

Recommended:

- Fast front side bus (800+ MHz)
- 2G+ RAM
- 7200 RPM (or faster) hard disk
- HD monitor
- High end video card with 1+ GB memory

Recommended if using Google Earth metadata feature:

- Dual core or quad core processor
- Dual head video card and 2 monitors (VAADRView on one monitor, Google Earth on the other)

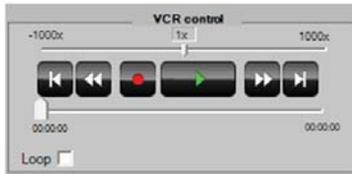
Features:

I/O

- Reads RAW, jpg, gif, png, tiff, AVI, MPEG2
- Write out AVI movies in RAW or compressed for playback in Windows Media Player (or other). Also writes bmp, jpeg, png, gif, tiff, and RAW of selected images
- Instantly play/analyze video on VAADR hardware directly, or from PC. No load wait times.
- Extract selected raw images for own processing
- Supports drag and drop of countless amount of video
- Completely configurable RAW data dialog box, to view your RAW imagery: resolution, byte ordering, header bytes, timestamps, rotation, decimation, etc.
- Create masked video or subsections, with opaque overlay boxes to block sensitive content

Look/feel

- Friendly and intuitive user interface
- Provides standard VCR Controls: Play, Fast Forward, Rewind, Pause, as well as many advanced features



- Multiple 'skins' for simple or advanced controls
- Zoom and pan around video while still or playing
- Many view modes: Native size, Fit To Window, Rotated, PixelText, and hexdump
- Other data: actual pixel data with mouse, histogram (line, frame, and area), line intensity,

Bookmarks

- Add bookmarks during debriefing, or display operator inserted bookmarks during recording.
- Add highlight-boxes, captions, etc. to each bookmark
- Playback only bookmarks, or index thru them
- Write out an AVI movie of bookmarks only
- Selectable playback time of each individual bookmark
- Different individuals can bookmark the same video with their own points of interest.
- Save bookmarks off for future use

Multiple videos

- Supports 2 movies loaded simultaneously, so that they might be compared to one another. Also a mosaic mode to view 2 movies simultaneously
- Any field or frame from one movie can be differenced with any field or frame from another movie

Processing

- Dynamic controls for zoom, contrast, rotation, flip, brightness, LAP, sharpen, histogram stretch, AGC, invert, color corrections, interpolate, white hot / black hot, etc.
- RAW video untouched, despite the processing done to enhance the playback.
- Supports plugins. Simple API to create other processing functions
- Bring out the most amount of detail with plugins such as: LAP (dynamic gamma), sharpening, various filters, tracker, thresholding, TRZ (translate/rotate/zoom), etc.
- Statistical and histogram analysis to analyze and detect defects or oddities in your sensor.
- Declassify mode for black boxing desired areas

Metadata

- Can record and display custom metadata
- Meta data retrieval and display, time-synchronized with video. All frames time stamped to 1/100th second with RTC or embedded IRIG codes
- Displays metadata (track, position of current video frame, etc.) in 3D over Google Earth

VAADR Viewing/Debrief System



VAADR is plug-and-play capable with USB2.0. Just plug it in to any PC or laptop, and have instant access to all video on the drive.



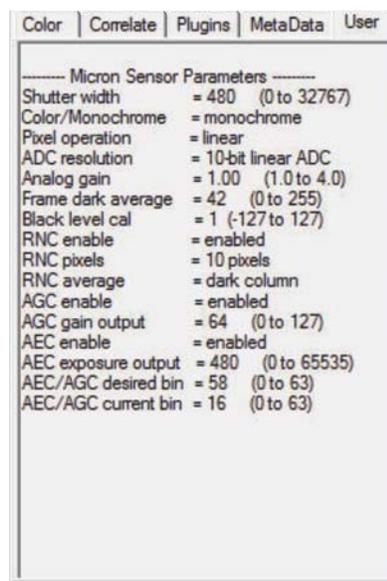
VAADR Debriefing station using VAADRView

Custom Metadata:

VAADRView can display metadata coming in over RS-422. The most common use for this is GPS data, but other data is often recorded. An example of some data formats:

- GPS (position, speed, altitude, etc.)
- Targeting information (i.e. where the camera is pointed, range, etc.)
- Camera settings
- Other sensors (temperature, vehicle info, etc.)
- Vehicle attitude e.g. aircraft pitch, yaw, and roll)
- Various Conditions

Some examples are below:



DDC can also do custom metadata based on your needs.

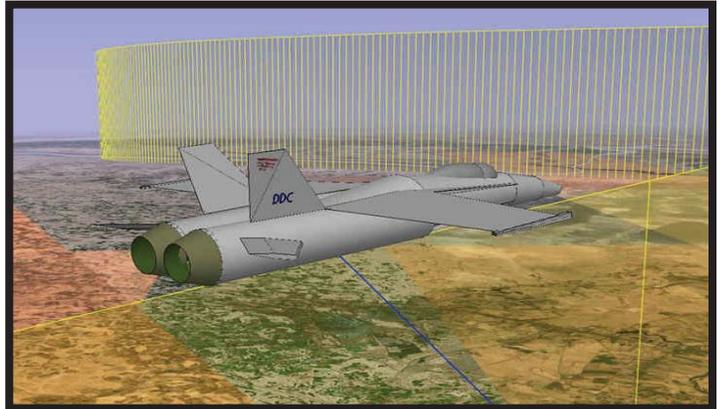
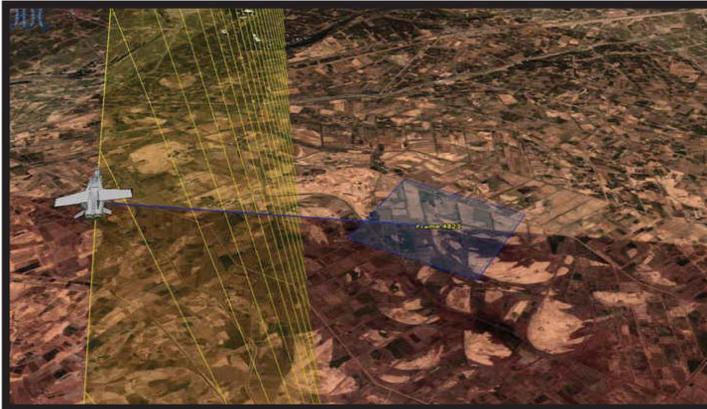
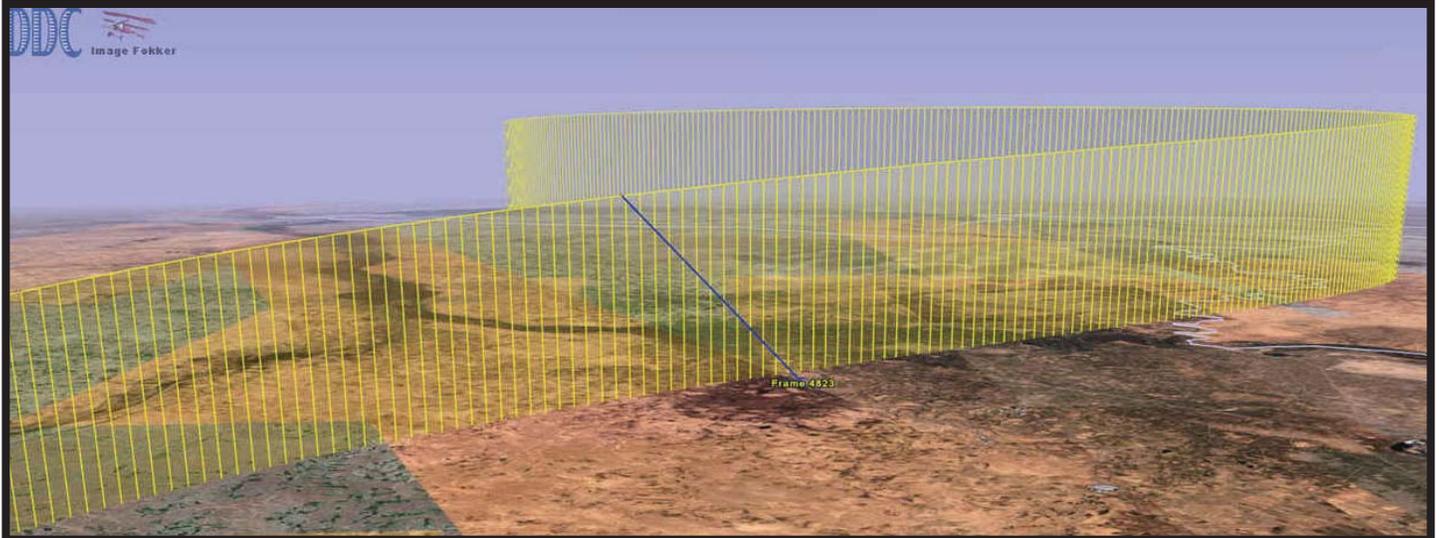
Ground Metadata Support:



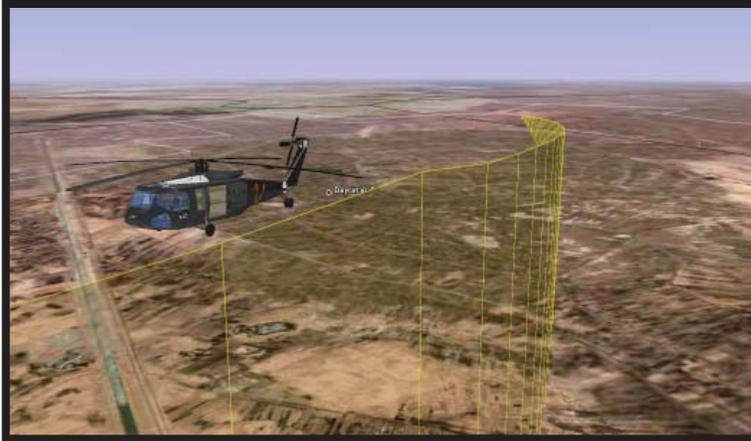
Ground Metadata Support:



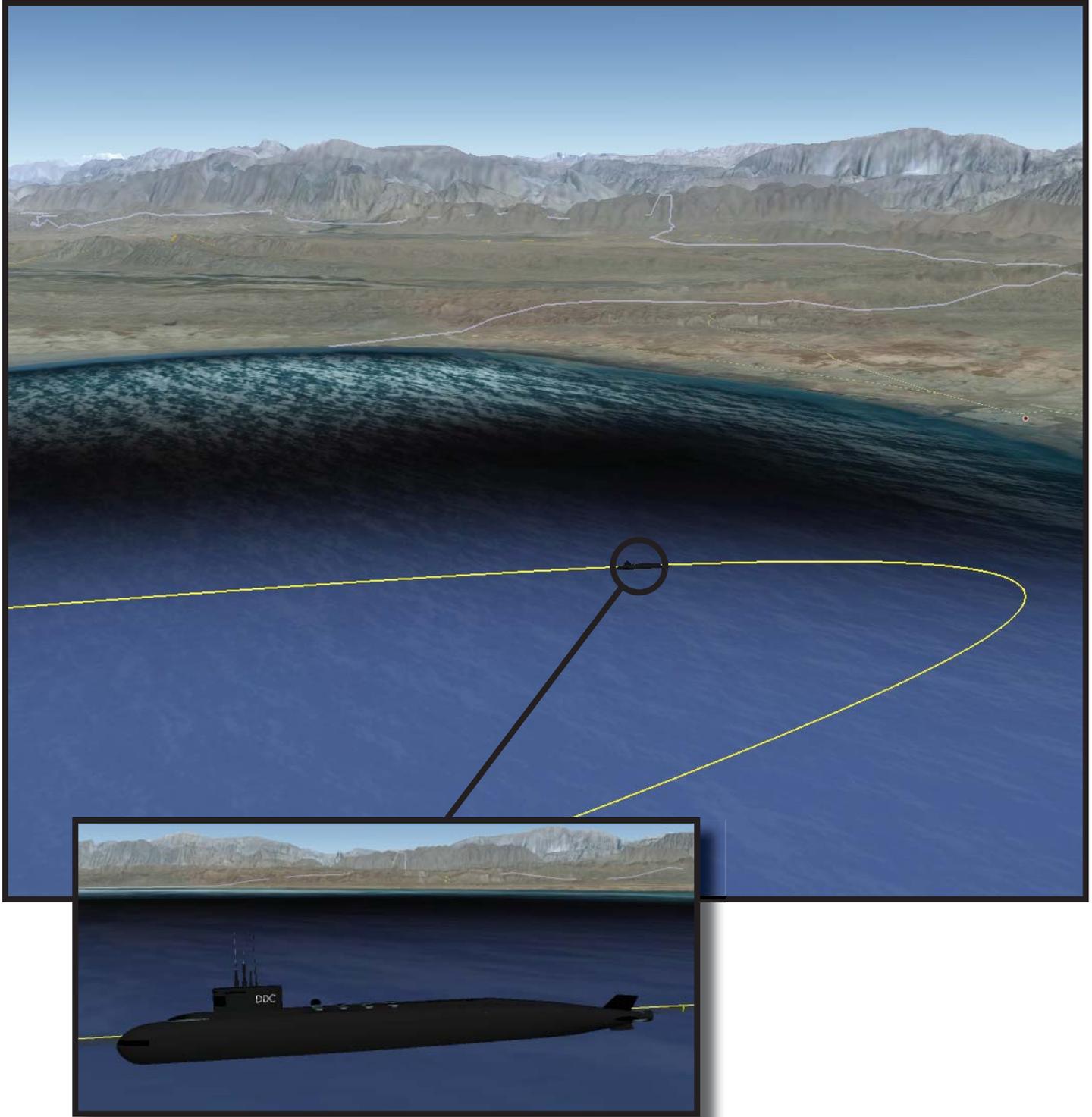
Air Metadata Support:



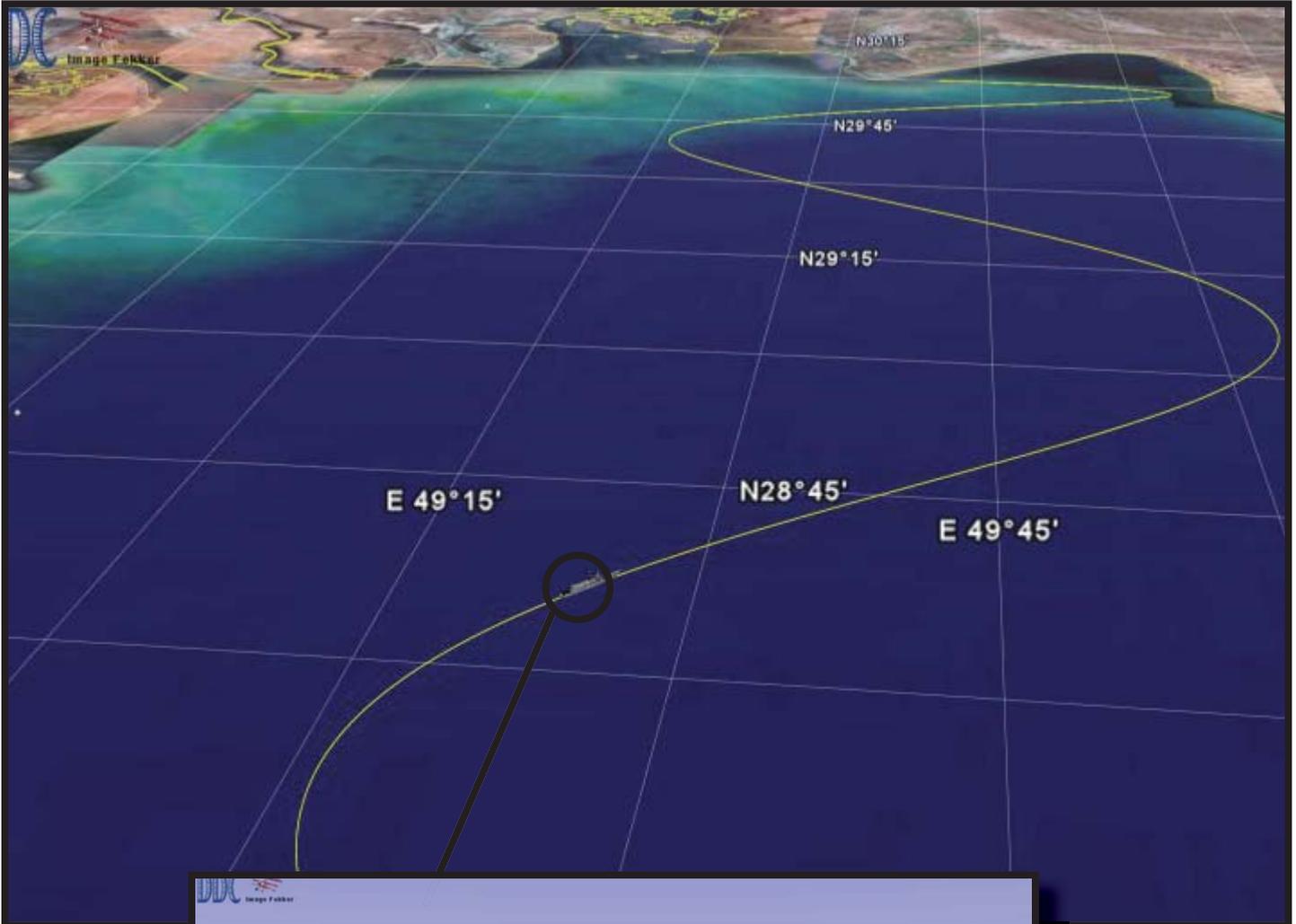
Air Metadata Support:



Sea Metadata Support:



Sea Metadata Support:



Sea Metadata Support:

