TSR-1800: THERMAL SEARCH & RESCUE airborne automated search & spotting



Search a wider area, faster, at high resolution:

e.g. at 20cm resolution:

Cover 344km x 360m (~123km²) per hour @ 180 knots



TSR-1800 SNAPSHOT

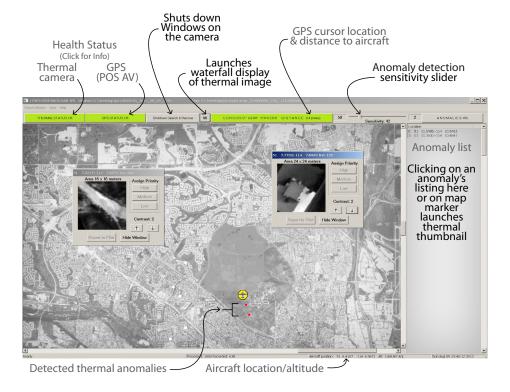
Automatically detects & reports thermal anomalies / 0.05°C sensitivity / Anomaly detection alerts / On-the-fly detection sensitivity slider / Moving map display with aircraft location / Interactive geo-cursor coordinates show distance to aircraft / Detailed, customizable basemap / Real-time georeferenced, high resolution thermal thumbnails / Waterfall display of entire thermal image

°41.8206 x -116°42.0056		Map Boundaries	
		Width: 183.3	Height: 118.9
			49°58.5586 x -112°25.217
tep 1. Define the S	Scarch Ar	ca	Current Aircraft Position
Top-Left corner in	ı DM.m		Lat: 61 38.1126
Lat (North)	62	0	Lon: -114 54.5340
Lon (East)	-115	0	Alt: 3524.0000
Sten 2 Search Area	a in Miles	from the Top Left corner-	
West>		105	Maximum Dimensions (Miles) 109.75
	East	-	
West>	East South	105	109.75
West> I North> S Stop 3. Generate th	East South le Search	105 100 Map Generate Flight I	109.75

Define custom search area



High resolution thermal thumbnails (brighter pixels=warmer temperatures, darker=cooler)





Alternatively view a waterfall display of the thermal image as the data are acquired and undergo first-order, real-time geocorrection

How High and How Fast?

The TSR-1800's automated thermal anomaly detection is made possible by the TABI imager's high temperature and spatial resolution capabilities. Flying low (~500m or 1627 feet above ground level) achieves a small ground footprint (20cm) for each pixel. Flying 150m or 488' AGL leads to 6cm pixels.

Searches can also be conducted at high ground speeds (170-300 knots).

The TSR-1800 automatically adjusts its search parameters every minute based on changing aircraft speeds to optimize target detection.

0.05° C detectable temperature differencess.

Wide swath coverage is provided by the imager's 1800 across-track pixels, meaning that while flying at ~1000' AGL (12cm resolution) the imaged track on the ground is ~220m (722').

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