**VOLANT**

Forestry

Situation

An international forestry company was losing millions of dollars per year in 5,000 acres of their most remote assets. The location asset volumes were difficult to assess and constantly under threat of fire, pests, disease and theft. Manned towers, their traditional approach, were expensive and were not reliable due to human error. Mapping with drones was the first step in setting up an intelligent, always-on monitoring platform, which would yield numerous benefits:

> An Increase in Inventory Quantification Accuracy
> Accurate Measurement of Waste (Dried Wood on the Ground) and Fuels
> Identification & Monitoring of Machine or Personnel Accessible Terrain
> Increase in Accuracy of Tree Mortality Rate
> Intelligent & Advanced Fire Detection Capabilities

Objectives

> Increase the Accuracy of Inventory Measurement
> Reduce the Risk Associated with Crop Disease
> Identify Fire Risk Fuel & Corridors
> Set-Up a 24/7 Intelligent Monitoring Platform
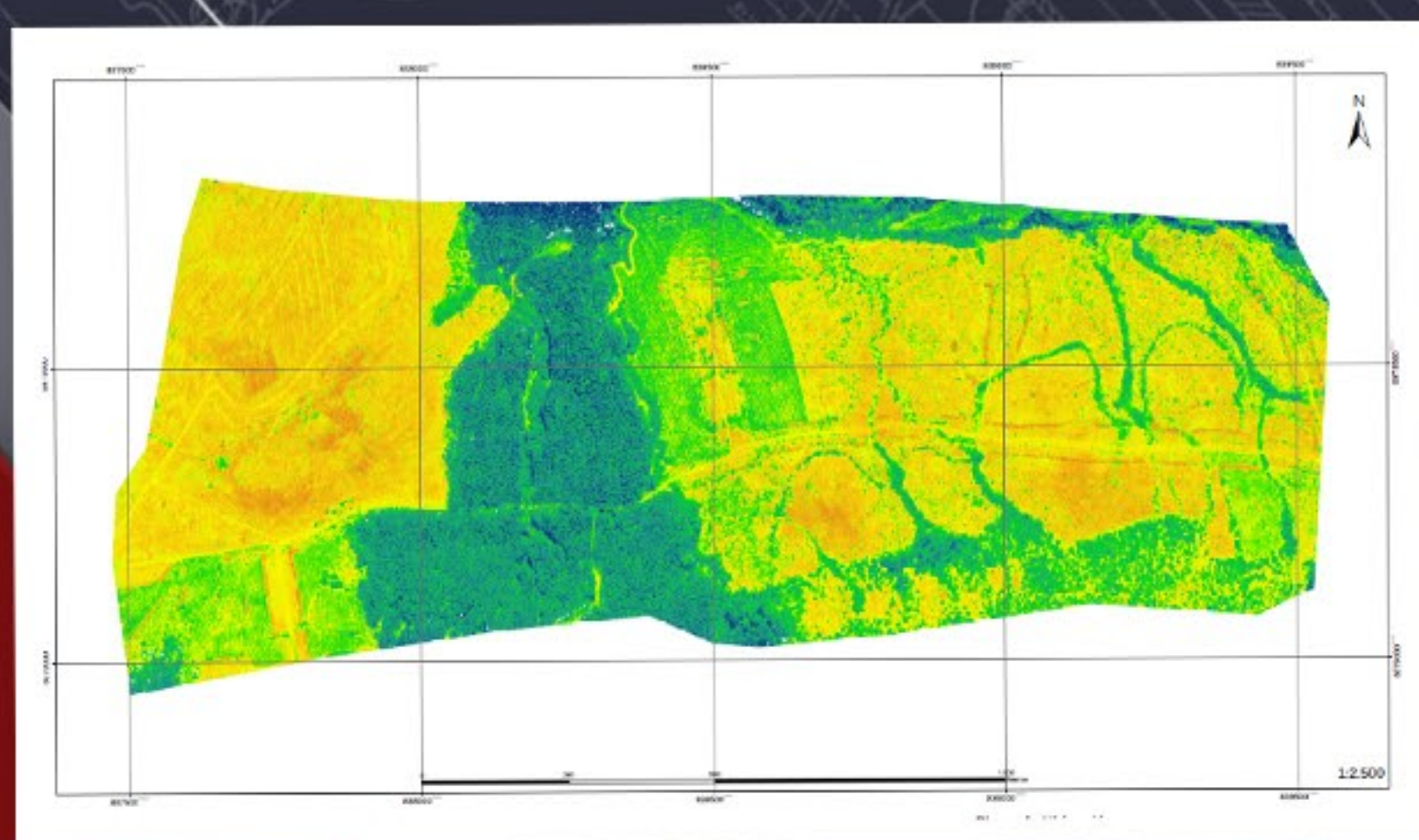
Plan

Step 1:
Provide a Comprehensive Map of the Forests

Step 2:
Provide Precise Planimetry and GIS Analysis via Photogrammetry

tep 3:
Identify Machinery and Personnel Access with Slope Modeling

Step 4:
Install Aerial Platform with AI Enabled 30X Zoom/Thermal Cameras (Pending)

Step 5:
Install IoT Connected Sensors to Monitor Weather and Soil Conditions (Pending)

Results

> Increase in Inventory Measurement Accuracy from 85% to 98%
> Informed Planning of Effective Fire Mitigation Tactics
> Increase in Information for Forest Health Assessments and Decision-Making