Nomad Program Overview

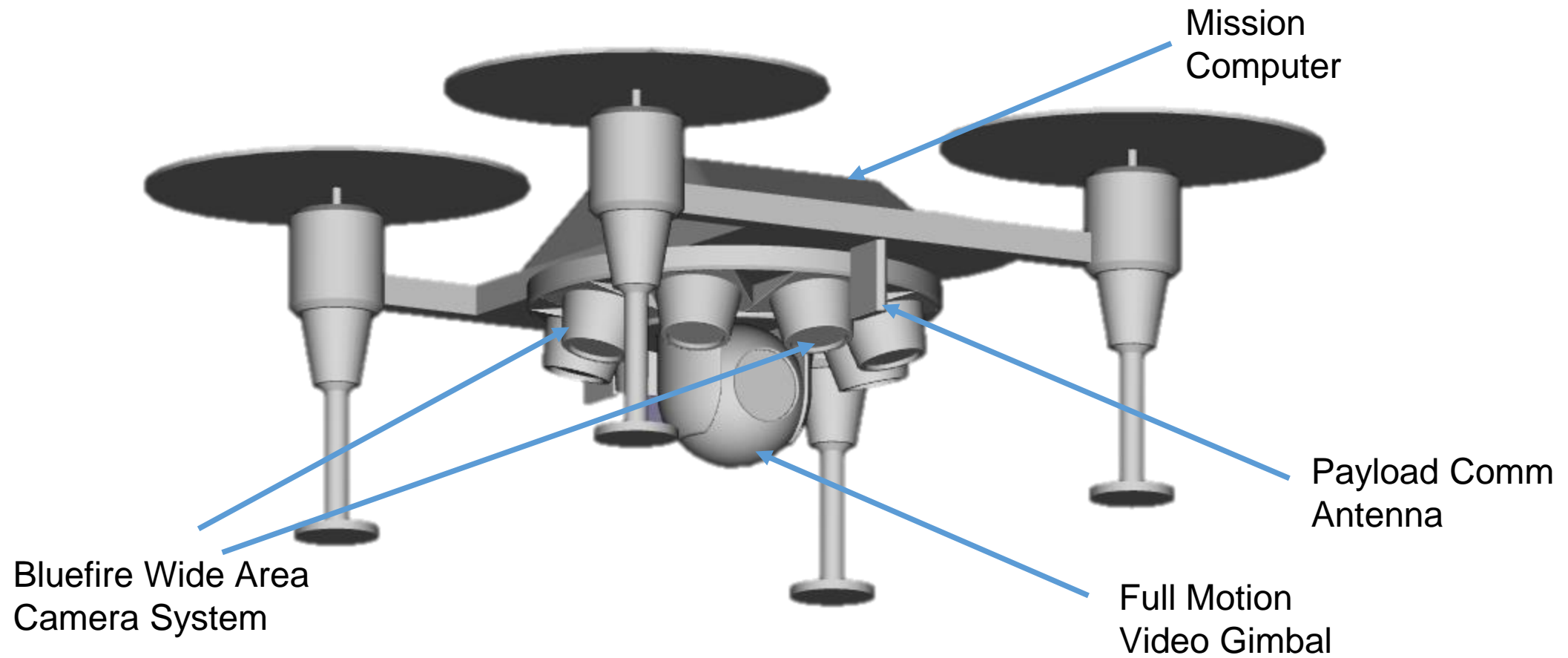# Overview
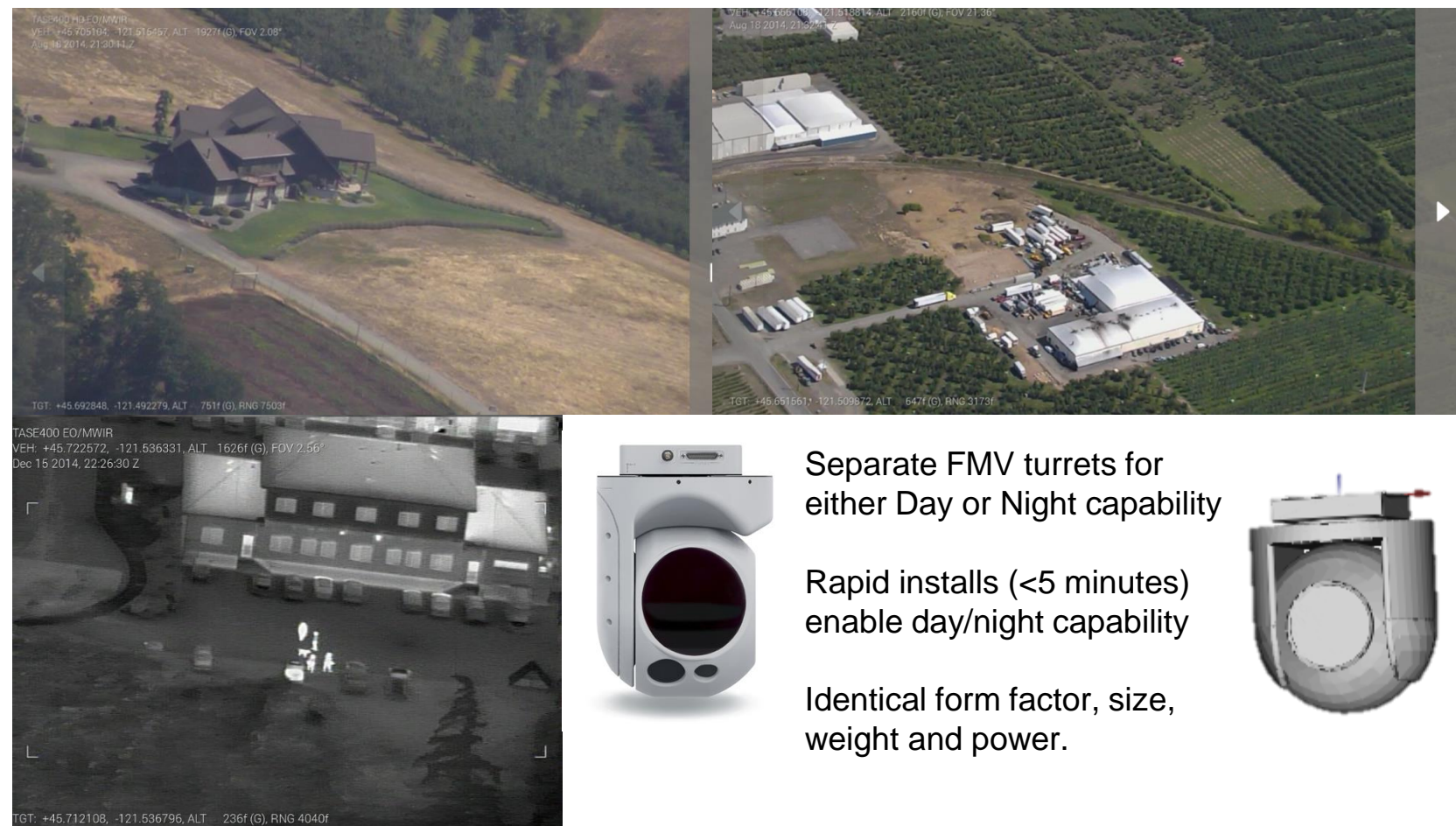
- Full Motion Video
  - Imaging System
  - Gimbal
  - Data Output
- Wide Area Camera
  - Cameras
  - Control Capability
- Communications
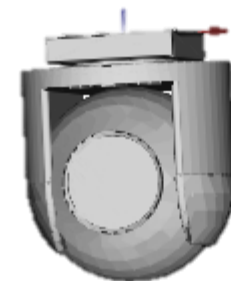
For Instructional Use Only

Mission Computer

Payload Comm Antenna

Full Motion Video Gimbal

Bluefire Wide Area Camera System

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Full Motion Video

Size	6 in dia
Weight	9 lbs
Pointing Accuracy	1.5 deg
Video Format	h.264
Video Metadata	MISB Compliant KLV Metadata
EO	
GSD (200m Slant Range)	0.10 m
GSD (1000m Slant Range)	0.45 m
Frame Rate	30 fps
MWIR	
GSD (200m Slant Range)	0.50 m
GSD (1000m Slant Range)	0.80 m
Frame Rate	28 fps

Separate FMV turrets for either Day or Night capability

Rapid installs (<5 minutes) enable day/night capability

Identical form factor, size, weight and power.
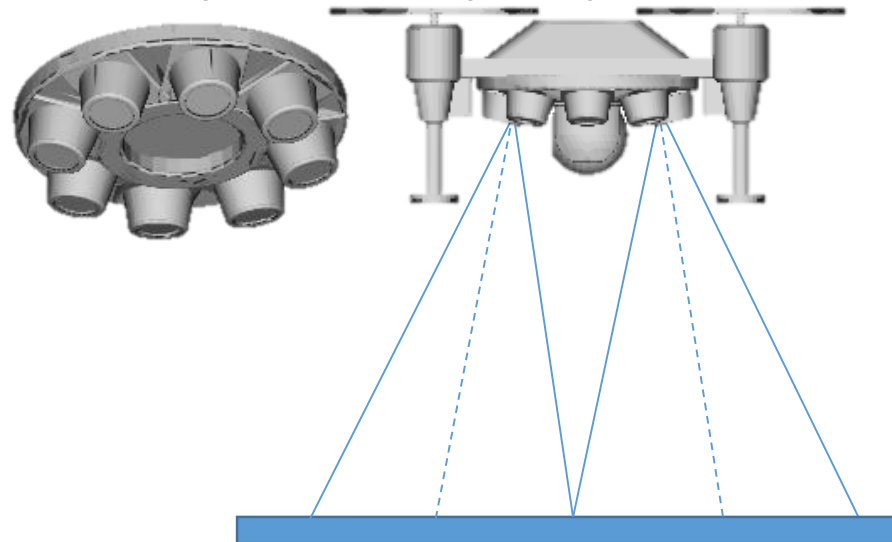
Training Note: This sensor was inspired by CloudCap TASE series sensors, but is completely notional for training.

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Bluefire Wide Area Camera

4 images are taken simultaneously and sent to the ground station, where they are stitched together into a single image

Weight	12 lbs
Coverage Area (200 ft AGL)	380,000 sq ft
Image Format	NITF Compliant JPEG 2000 Compressed
EO	
GSD	0.40 m
Latency	1.8 seconds
Frame Rate	2 fps
Low Light	
GSD	0.60 m
Latency	2 seconds
Frame Rate	1.5 fps

- Can operate in either manual or automatic mode

- Automatic mode sends images down constantly beneath the vehicle – used for overwatch or survey

- User selectable day (electro-optic) or night (low light cameras)

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- Hardened Single Board Computer

- Runs all mission processing applications
  - Health Monitoring
  - Product re-transmission

- Increased Storage Capability
  - Capable of storing 1100 wide area images, or
  - 95 minutes of video

- Sourced from US company

- Encrypted at rest

Weight	1 lb
Processor	Quad Core Intel Processor
Storage	250 GB Solid State
RAM	8 GB

- Advanced lightweight tactical datalink

- Capable of operating in Ku, L, S and C bands

- Data rates up to 40 mb/s

- Range up to 15 nautical miles

- FIPS 140-2 Complian Encryption

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