

- ❑ Relationship of BVLOS InC and the Foremost UAS Test Range
- ❑ BVLOS Missions at the Range–
 - ❑ Overview of the Range
 - ❑ Range Infrastructure
 - ❑ SFOC Documentation Preparation
 - ❑ Why BVLOS InC



RELATIONSHIP OF BVLOS INNOVATION CENTRE OR BVLOS INC AND FOREMOST UAS TEST RANGE

- *BVLOS InC (Strategic relationship with Village of Foremost & UxS Consulting)*
- Foremost UAS Test Range user agency is the Village of Foremost & managed/operated by UxS with Restricted Airspace for drones R&D, T&E & training



Restricted Airspace for BVLOS R&D and Training – Operated by UxS Consulting

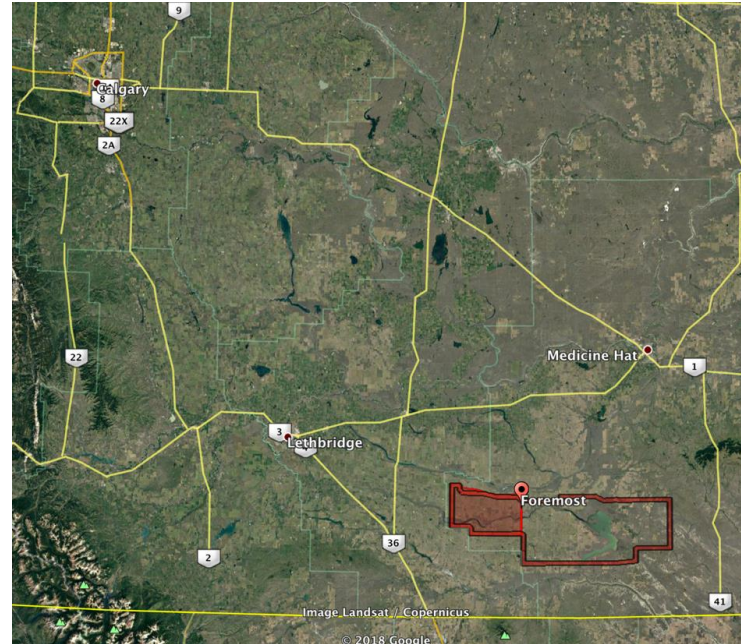
Transport Canada & NAV CANADA approved drone Airspace

Airspace

- 700 NM² (2400 km²)
- 18000 FT ASL ceiling
- BVLOS operations under Range SOP
- 300+ VFR days/year
- 280 mm avg rainfall/year
- 7.8 knots avg wind speed

Infrastructure

- 3000' x 75' Asphalt Runway
- 4000' x 100' Turf Runway
- Hangar accommodates MALE UAV
- Mobile Remote Operations Centre
- Situational Awareness displays
- Radar based Detect and Avoid
- Instrumentation and data capture



Surface Features

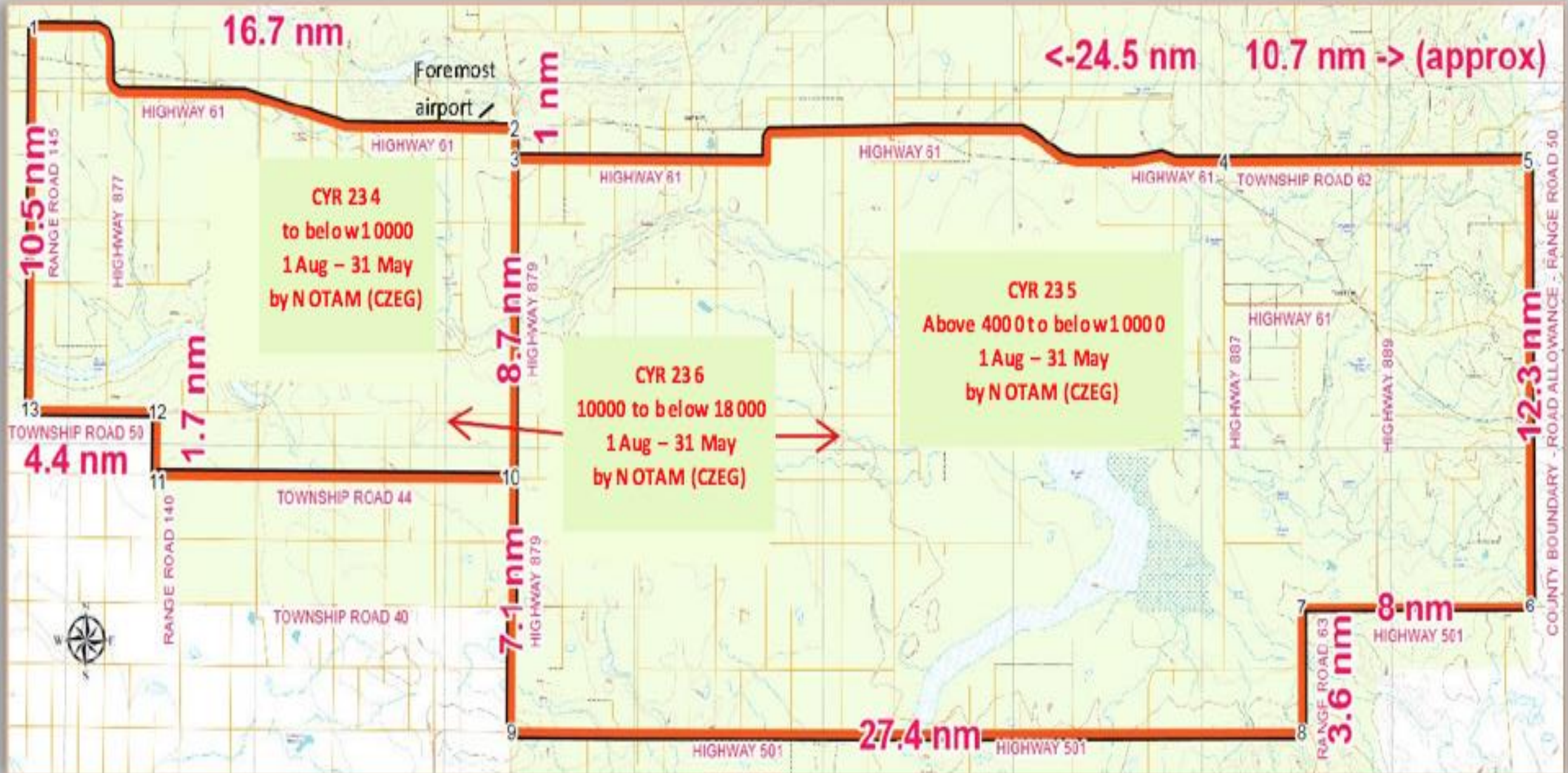
- Crops/Grassland/Water Features
- Livestock/Wildlife
- Oil & Gas Infrastructure
- Power Distribution Lines
- Road Network
- Rail Line

Regulator Provided Authorities

- Canadian Aviation Document (CAD)
- Memorandum of Understanding (MoU)
- Standard Operating Procedures (SOP)
- User Agency in Designated Airspace Handbook (DAH)
- Airspace Activation Agreement



FOREMOST UAS TEST RANGE – CYR MAP



FOREMOST UAS TEST RANGE – COMM TOWER & HANGAR



48' Tilt Tower

- Aircraft/land VHF Antennas
- ADS/B & 20x Zoom Cameras
- Can readily be lowered/raised



FIXED SITE HANGAR

- Door size: 60 ft X 18 ft
- Floor space ~3000 sq ft
- Mezzanine, electronic lab, conference room
- UAS Team setting up in the hangar floor
- 6 Passenger Mule for team usage

TRANSPORT CANADA (TC) SPECIAL FLIGHT OPERATION CERTIFICATE (SFOC) PREPARATION TO FLY BVLOS

- ▶ *Client Support on SFOC Documentation Preparation:*
 - ▶ *Provide outline of TC requirements for SFOC submittal such as:*
 - ▶ *CONOPS, Normal Procedures SOP, Safety Procedures, Emergency Procedures, Site Survey, etc*
 - ▶ *Safety Operational Risk Assessment or SORA*
 - ▶ *Review and provide feedback to client's above SFOC documentation*
- ▶ *As part of a TC requirement, submit the SFOC to TC for approval and SFOC generated to fly at the Range*
- ▶ *Note: foreign operators will also need to submit a SFOC with their qualifications plus have certificate for Canadian Online RPAS Ground School & a scheduled appointment with a Canadian approved flight reviewer for assessment.*

BVLOS INC CAPABILITIES

UAS / RPAS Expertise

- ✓ ***Technical***
- ✓ ***Operational***
- ✓ ***Regulatory Compliance***

BVLOS INC CAPABILITIES

➤ REGULATORY COMPLIANCE –

- ✓ *100+ companies & organizations – Transport Canada certifications for drone VLOS operations*
- *Airworthiness Program – comprehensive, risk-based, drone specific*
 - *Procedures & Processes*
 - *Training curriculum across airworthiness continuum*
 - *Audit – document procedures & processes required for 3rd party accreditation & audit of RPAS operations*

FLIGHT TESTING



FOREMOST UAS RANGE BOOKINGS

- ▶ *Client Requires SFOC to fly on the Range*
- ▶ *Bookings are 1st come; 1st served*
- ▶ *Typically, the drone client at the range should be looking at*
 - ▶ *Validate Test & Evaluation or R&D BVLOS concepts of operation*
 - ▶ *Airworthiness verifications*
- ▶ *Dependent on the client's needs, BVLOS InC will work with client on the recommended days required at the range.*

NOTE: above additional delays could be cancelled if client succeeds with test flight objectives on the range days booked.

WHY FOREMOST? ... DRONE SAFETY

▶ *Safety of ...*

- ▶ *People and property in the air,
and*
- ▶ *People and property on the
ground*

▶ *Safety achieved by ...*

- ▶ *Technology*
- ▶ *Regulations &
Adherence to Regulations*
- ▶ *Training*

AIRWORTHINESS

AIRWORTHINESS —



Technical
Airworthiness



Operational
Airworthiness



Regulatory
Airworthiness

TC SPECIFIC OPERATIONAL RISK ASSESSMENT (SORA) DOCUMENT REQUIREMENTS FLY BVLOS

- ▶ *Safely create, evaluate and conduct an UAS operation.*
- ▶ *Focuses on assigning to an UAS-operation two classes of risk, a ground risk class (GRC) and an air risk class (ARC).*
- ▶ *Allows operators to utilize certain or mitigating measures to reduce both risk-classes.*
- ▶ *The GRC and ARC form the basis to determine the Specific Assurance and Integrity Level (SAIL).*
- ▶ *The SAIL represents the level of confidence that the UAS operation will stay under control within the boundaries of the intended operation.*

WHY BVLOS INC? ... **AIRWORTHINESS**

- **TRANSCENDING OPERATION TO BVLOS MISSIONS-**
 - *Developing an RPAS airworthiness program in Project SkySensus*
 - *Airworthiness Program – comprehensive, risk-based, drone specific*
 - *Procedures & Processes*
 - *Training curriculum across airworthiness continuum*
 - *Above airworthiness criteria at the Foremost UAS Test Range*
 - *Audit – document procedures & processes required for 3rd party accreditation & audit of RPAS operations*
 - *Can provide the manufacturer and/or drone operator with an “Exit Strategy” to fly BVLOS outside the controlled environment of the Foremost UAS Test Range.*



www.BVLOSInC.com

Linked 

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