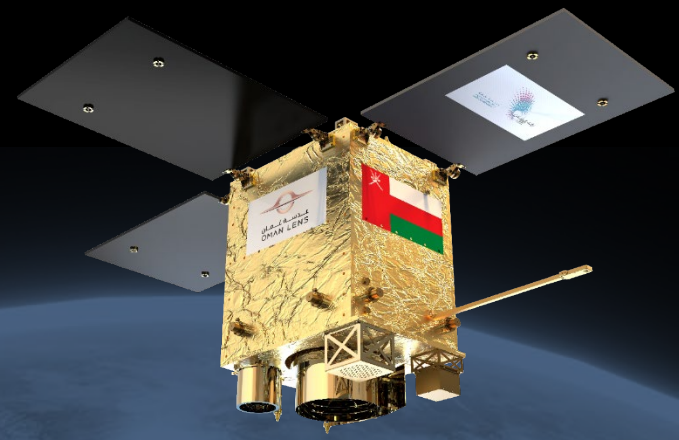
عدسة عُمان
OMAN LENS

OMAN LENS

Deploy AI in Space



"Our government will follow up progress in various sectors, including small and medium enterprises, and entrepreneurship, particularly those based on innovation, artificial intelligence, and advanced technologies. This is in addition to training and enabling youth to benefit from the opportunities made available in this vital sector, so that it could form a cornerstone in the national economy."

- His Majesty Sultan Haitham bin Tariq bin Taimur Al Said

23 February 2020

رؤية عُمان 2040 OmanVision

OUR VISION

Harnessing AI To Resolve Earth's Challenges

OUR MISSION

Launch region’s first ever AI satellite constellation

Offer outstanding support for Oman's national strategies

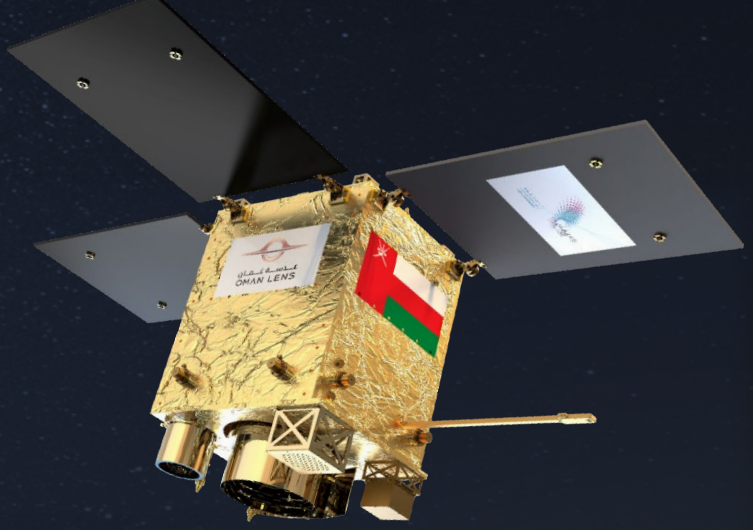
Provide exceptional space AI services to the Middle East and North Africa (MENA) region

Enhance Oman's space exploration capabilities, in line with "Oman Vision 2040".

عدسة عُمان
OMAN LENS

Oman Lens Launched 1st AI sate llite OL -1

11.11.2024 Oman Lens Launched its 1st AI Satellite

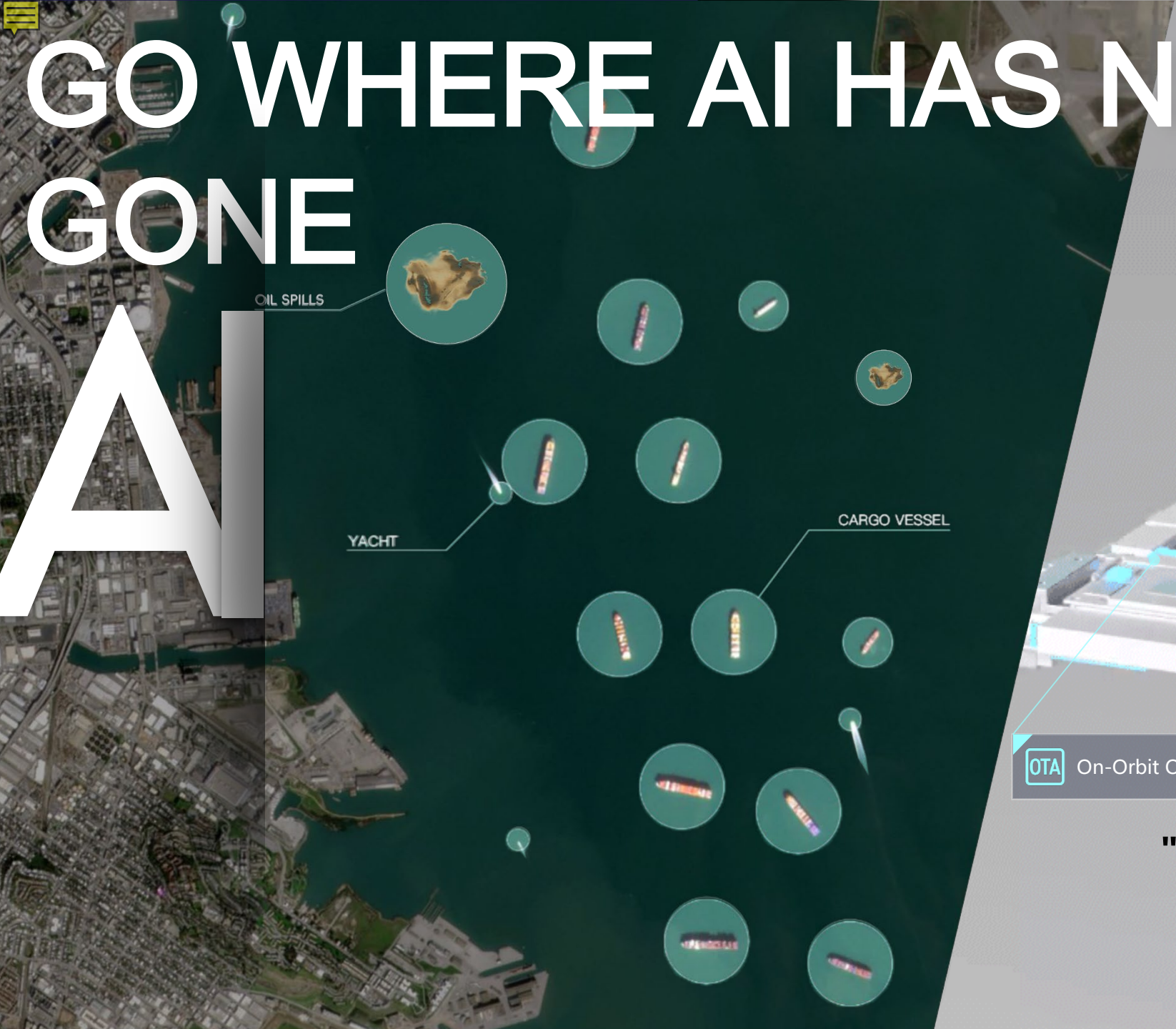


OL-1 in the Orbit

عدسة عُمان
OMAN LENS

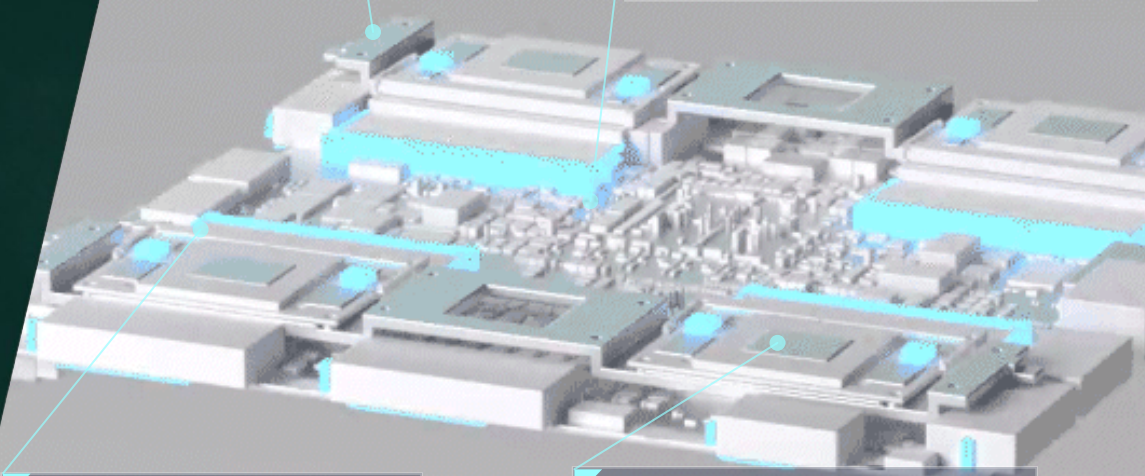
GO WHERE AI HAS NEVER GONE

AI



FPGA+CPU+GPU Architecture
≥300 TOPS Computing Power

On-Board AI Inference



OTA On-Orbit OTA Updates

Real-Time Data Processing

"STRING" AI COMPUTING UNIT

TOPS: Tera Operations Per Second

OTA: Over-The-Air

SPACEBORNE AI

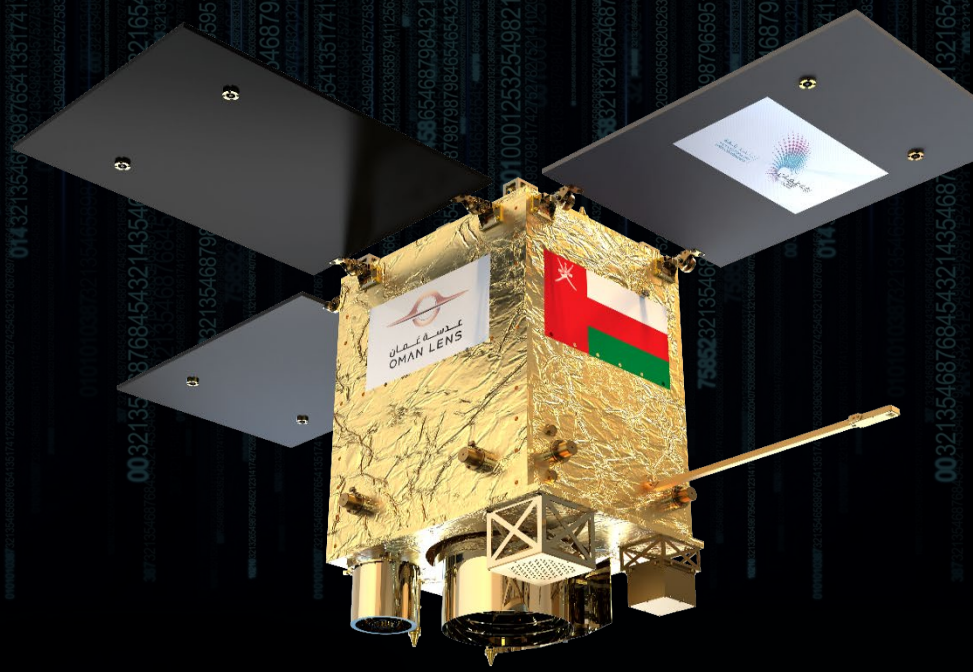
AI

Raw Data

On-Orbit Processing
(Image Correction
1/10 Image Compression)

AI Model Inference
(10X Data Processing Speed)

Analytics

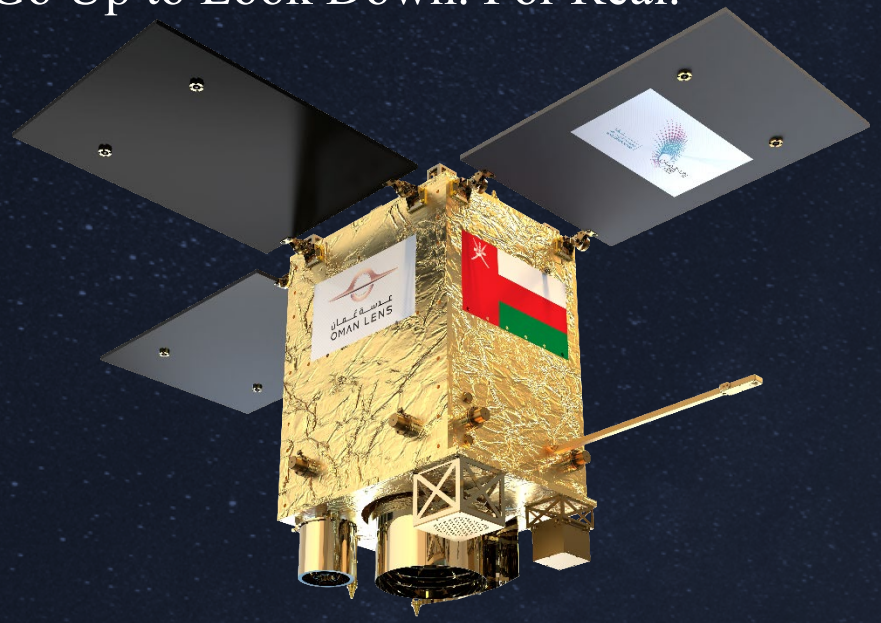


100x

Data Acquisition Efficiency

OMAN'S FIRST-EVER AI COMPUTING SATELLITE

We Go Up to Look Down. For Real.



Computing Performance	80TOPS
Mass	≈95KG (without separation mechanism)
GSD	< 1m@500km (panchromatic)
Spectrum	RGB, NIR, PAN

1st

Fully registered Omani satellite launched

1st

High Resolution EO Satellite in Oman

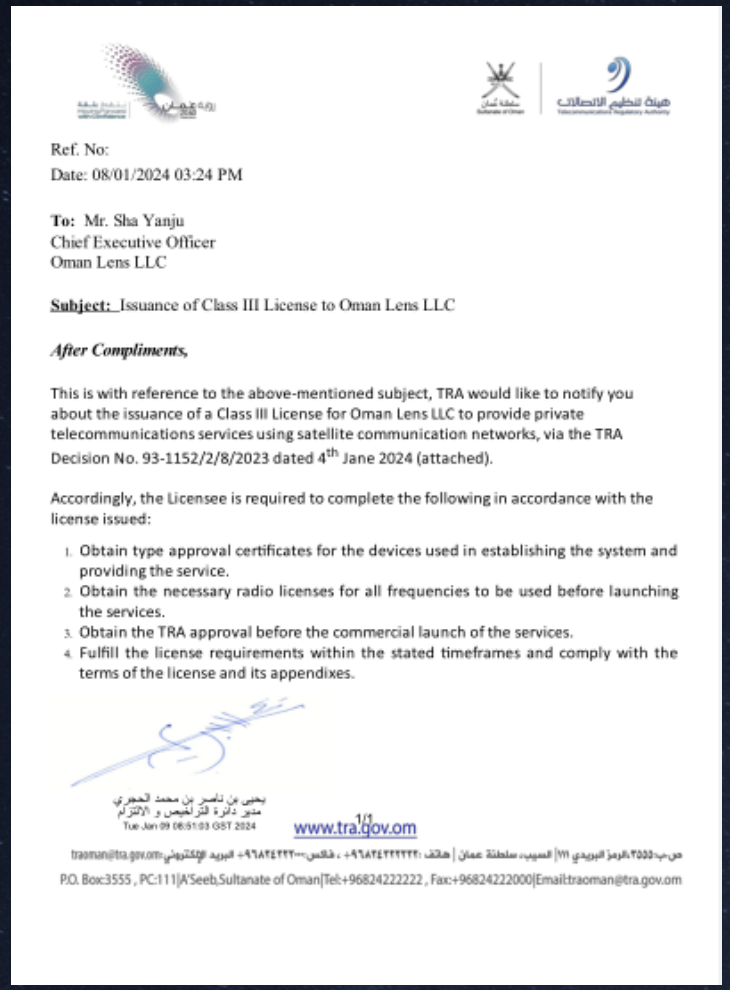
1st

Satellite Designed by an Omani Company

عدسة عمان
OMAN LENS

LICENSES

Class III License from TRA on 8th Jan. 2024



Ref. No:
Date: 08/01/2024 03:24 PM

To: Mr. Sha Yanju
Chief Executive Officer
Oman Lens LLC

Subject: Issuance of Class III License to Oman Lens LLC

After Compliments,

This is with reference to the above-mentioned subject, TRA would like to notify you about the issuance of a Class III License for Oman Lens LLC to provide private telecommunications services using satellite communication networks, via the TRA Decision No. 93-1152/2/8/2023 dated 4th Jane 2024 (attached).

Accordingly, the Licensee is required to complete the following in accordance with the license issued:

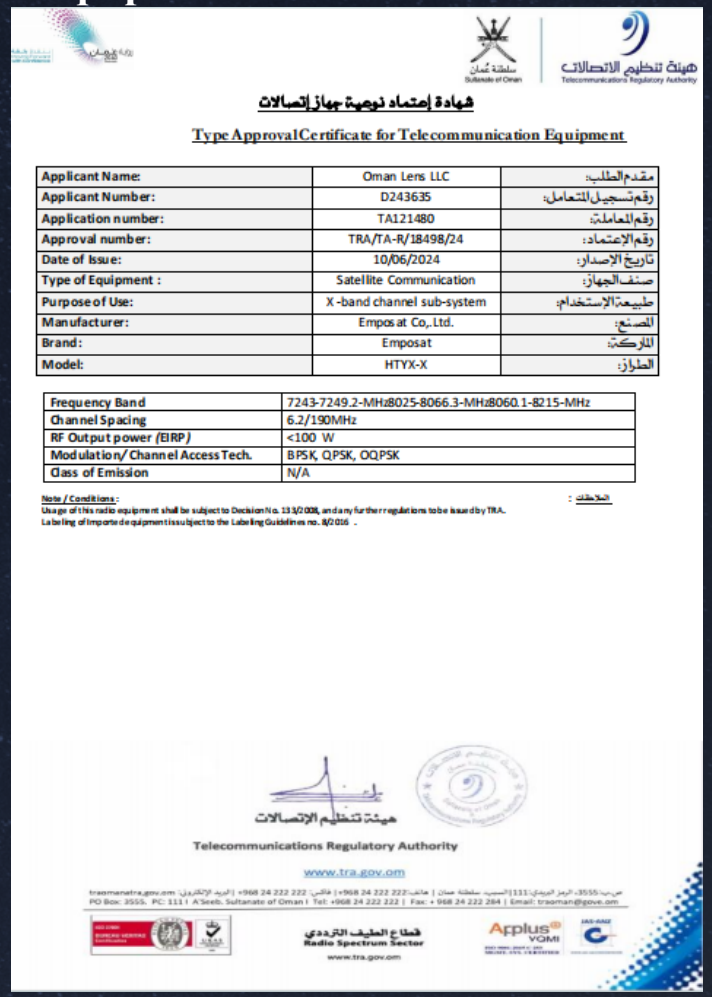
1. Obtain type approval certificates for the devices used in establishing the system and providing the service.
2. Obtain the necessary radio licenses for all frequencies to be used before launching the services.
3. Obtain the TRA approval before the commercial launch of the services.
4. Fulfill the license requirements within the stated timeframes and comply with the terms of the license and its appendixes.

يحيى بن ناصر بن محمد الحجري
مدير دائرة الترخيص و الالتزام
Tue Jan 09 06:51:03 GST 2024

1/1
www.tra.gov.om

P.O. Box:3555 , PC:111|A'Seeb,Sultanate of Oman|Tel:+96824222222 , Fax:+96824222000|Email:traoman@tra.gov.om

Type Approval for Ground Station Equipment on 10th June. 2024



شهادة إعتماد نوعية جهاز إتصالات

Type Approval Certificate for Telecommunication Equipment

Applicant Name:	Oman Lens LLC	مقدم الطلب:
Applicant Number:	D243635	رقم تسجيل المتعامل:
Application number:	TA121480	رقم المعاملة:
Approval number:	TRA/TA-R/18498/24	رقم الإعتماد:
Date of Issue:	10/06/2024	تاريخ الإصدار:
Type of Equipment :	Satellite Communication	صنف الجهاز:
Purpose of Use:	X -band channel sub-system	طبيعة الإستخدام:
Manufacturer:	Emposat Co,. Ltd.	المصنع:
Brand:	Emposat	الماركة:
Model:	HTYX-X	الطراز:

Frequency Band	7243-7249.2-MHz8025-8066.3-MHz8060.1-8215-MHz
Channel Spacing	6.2/190MHz
RF Output power (EIRP)	<100 W
Modulation/ Channel Access Tech.	BPSK, QPSK, OQPSK
Class of Emission	N/A

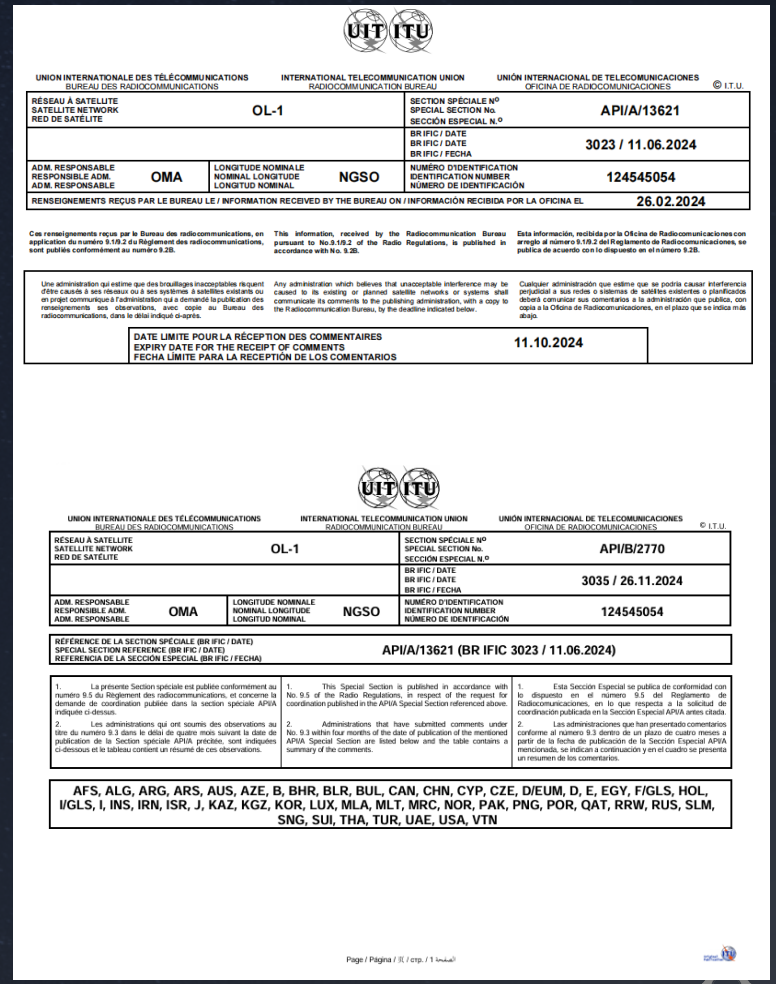
Note / Conditions :
Usage of this radio equipment shall be subject to Decision No. 13/2008, and any further regulations to be issued by TRA.
Labeling of importe de equipment is subject to the Labeling Guidelines no. 8/2016 .

الملاحظات :

هيئة تنظيم الإتصالات
Telecommunications Regulatory Authority
www.tra.gov.om

قطاع الطيف الترددي
Radio Spectrum Sector
www.tra.gov.om

OL-1 Satellite Network (100 Sats) public in ITU on 11th June. 2024



UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS — BUREAU DES RADIOCOMMUNICATIONS
INTERNATIONAL TELECOMMUNICATION UNION — RADIOCOMMUNICATION BUREAU
UNIÓN INTERNACIONAL DE TELECOMUNICACIONES — OFICINA DE RADIOCOMUNICACIONES
© I.T.U.

RÉSEAU À SATELLITE / SATELLITE NETWORK / RED DE SATÉLITE	OL-1		SECTION SPÉCIALE Nº / SPECIAL SECTION No. / SECCIÓN ESPECIAL N.º	API/A/13621
			BR IFIC / DATE / BR IFIC / DATE / BR IFIC / FECHA	3023 / 11.06.2024
ADM. RESPONSABLE / RESPONSIBLE ADM. / ADM. RESPONSABLE	OMA	LONGITUDE NOMINALE / NOMINAL LONGITUDE / LONGITUD NOMINAL NGSO	NUMÉRO D'IDENTIFICATION / IDENTIFICATION NUMBER / NÚMERO DE IDENTIFICACIÓN	124545054
RENSEIGNEMENTS REÇUS PAR LE BUREAU LE / INFORMATION RECEIVED BY THE BUREAU ON / INFORMACIÓN RECIBIDA POR LA OFICINA EL				26.02.2024

Ces renseignements reçus par le Bureau des radiocommunications, en application du numéro 9.1/9.2 du Règlement des radiocommunications, sont publiés conformément au numéro 9.2B.

This information, received by the Radiocommunication Bureau pursuant to No.9.1/9.2 of the Radio Regulations, is published in accordance with No. 9.2B.

Esta información, recibida por la Oficina de Radiocomunicaciones con arreglo al número 9.1/9.2 del Reglamento de Radiocomunicaciones, se publica de acuerdo con lo dispuesto en el número 9.2B.

Une administration qui estime que des brouillages inacceptables risquent d'être causés à ses réseaux ou à ses systèmes à satellites existants ou en projet communique à l'administration qui a demandé la publication des renseignements ses observations, avec copie au Bureau des radiocommunications, dans le délai indiqué ci-après.

Any administration which believes that unacceptable interference may be caused to its existing or planned satellite networks or systems shall communicate its comments to the publishing administration, with a copy to the Radiocommunication Bureau, by the deadline indicated below.

Cualquier administración que estime que se podría causar interferencia perjudicial a sus redes o sistemas de satélites existentes o planificados deberá comunicar sus comentarios a la administración que publica, con copia a la Oficina de Radiocomunicaciones, en el plazo que se indica más abajo.

DATE LIMITE POUR LA RÉCEPTION DES COMMENTAIRES / EXPIRY DATE FOR THE RECEIPT OF COMMENTS / FECHA LÍMITE PARA LA RECEPTIÓN DE LOS COMENTARIOS: 11.10.2024

UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS — BUREAU DES RADIOCOMMUNICATIONS
INTERNATIONAL TELECOMMUNICATION UNION — RADIOCOMMUNICATION BUREAU
UNIÓN INTERNACIONAL DE TELECOMUNICACIONES — OFICINA DE RADIOCOMUNICACIONES
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RÉSEAU À SATELLITE / SATELLITE NETWORK / RED DE SATÉLITE	OL-1		SECTION SPÉCIALE Nº / SPECIAL SECTION No. / SECCIÓN ESPECIAL N.º	API/B/2770
			BR IFIC / DATE / BR IFIC / DATE / BR IFIC / FECHA	3035 / 26.11.2024
ADM. RESPONSABLE / RESPONSIBLE ADM. / ADM. RESPONSABLE	OMA	LONGITUDE NOMINALE / NOMINAL LONGITUDE / LONGITUD NOMINAL NGSO	NUMÉRO D'IDENTIFICATION / IDENTIFICATION NUMBER / NÚMERO DE IDENTIFICACIÓN	124545054

RÉFÉRENCE DE LA SECTION SPÉCIALE (BR IFIC / DATE) / SPECIAL SECTION REFERENCE (BR IFIC / DATE) / REFERENCIA DE LA SECCIÓN ESPECIAL (BR IFIC / FECHA): API/A/13621 (BR IFIC 3023 / 11.06.2024)

1. La présente Section spéciale est publiée conformément au numéro 9.5 du Règlement des radiocommunications, et concerne la demande de coordination publiée dans la section spéciale API/A indiquée ci-dessus.
2. Les administrations qui ont soumis des observations au titre du numéro 9.3 dans le délai de quatre mois suivant la date de publication de la Section spéciale API/A précitée, sont indiquées ci-dessous et le tableau contient un résumé de ces observations.

1. This Special Section is published in accordance with No. 9.5 of the Radio Regulations, in respect of the request for coordination published in the API/A Special Section referenced above.
2. Administrations that have submitted comments under No. 9.3 within four months of the date of publication of the mentioned API/A Special Section are listed below and the table contains a summary of the comments.

1. Esta Sección Especial se publica de conformidad con lo dispuesto en el número 9.5 del Reglamento de Radiocomunicaciones, en lo que respecta a la solicitud de coordinación publicada en la Sección Especial API/A antes citada.
2. Las administraciones que han presentado comentarios conforme al número 9.3 dentro de un plazo de cuatro meses a partir de la fecha de publicación de la Sección Especial API/A mencionada, se indican a continuación y en el cuadro se presenta un resumen de los comentarios.

AFS, ALG, ARG, ARS, AUS, AZE, B, BHR, BLR, BUL, CAN, CHN, CYP, CZE, D/EUM, D, E, EGY, F/GLS, HOL, I/GLS, I, INS, IRN, ISR, J, KAZ, KGZ, KOR, LUX, MLA, MLT, MRC, NOR, PAK, PNG, POR, QAT, RRW, RUS, SLM, SNG, SUI, THA, TUR, UAE, USA, VTN

Page / Página / 页 / стр. / الصفحة 1

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GROUND STATION

عدسة عُمان
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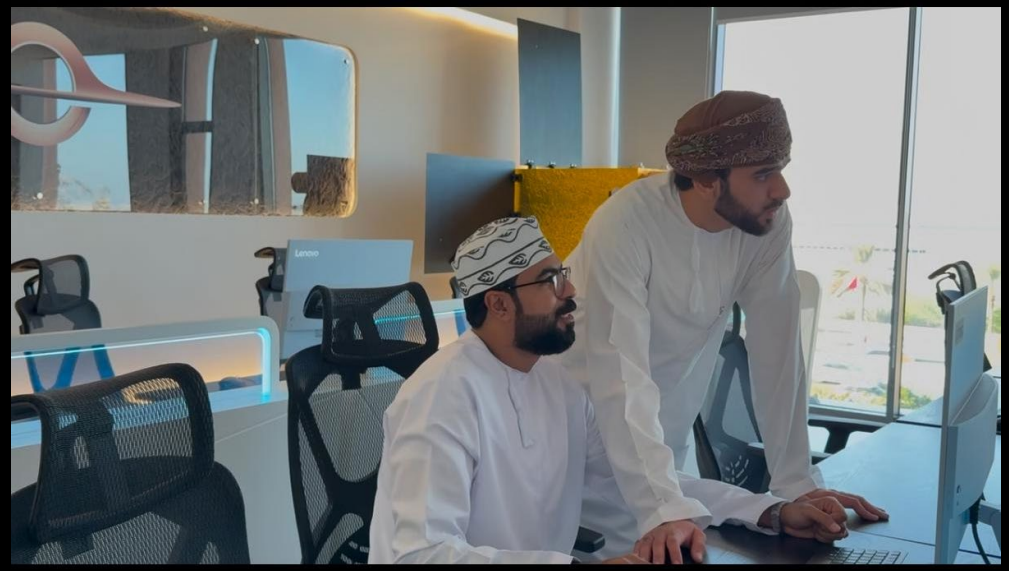
Satellite Operation Center (SOC) shall perform all required functions for the monitoring, command and data storage for Satellite.



Building Capabilities that Drive Innovation and growth

Eng. Mohammed Al Balushi

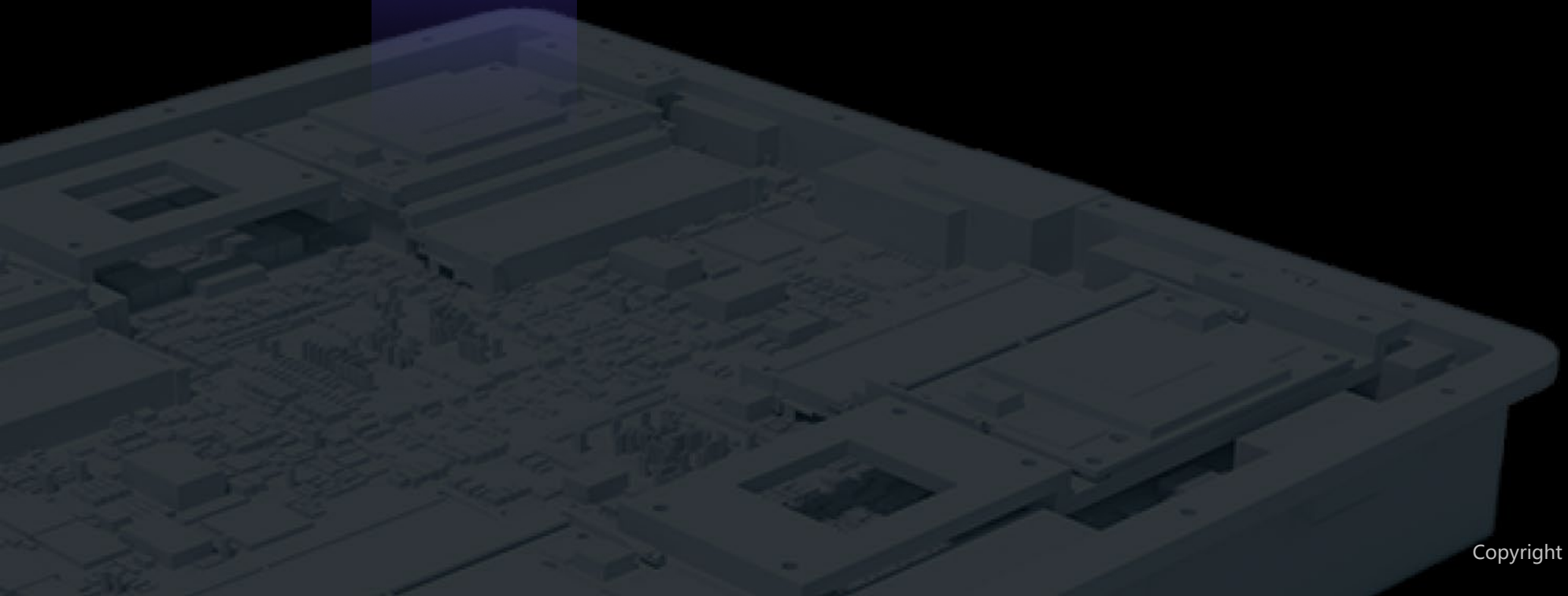
Eng. Yahya Al Mohamed

Eng. Ahmed Al Badri

عدسة عُمان
OMAN LENS

عـدسـة عُـمـان
OMAN LENS

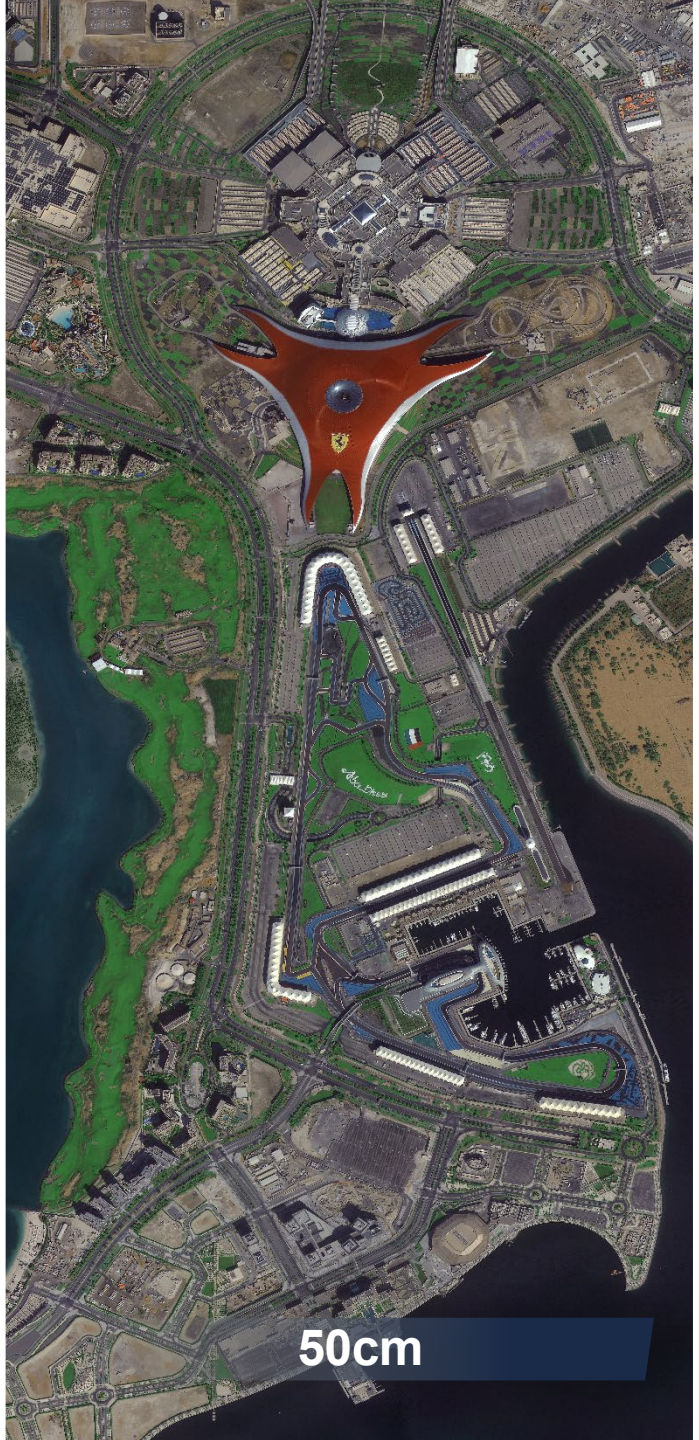
SATELLITE IMAGERY PRODUCT




Muttrah, Oman
1m OL-1
Abudhabi, UAE

Imagery Product

30cm

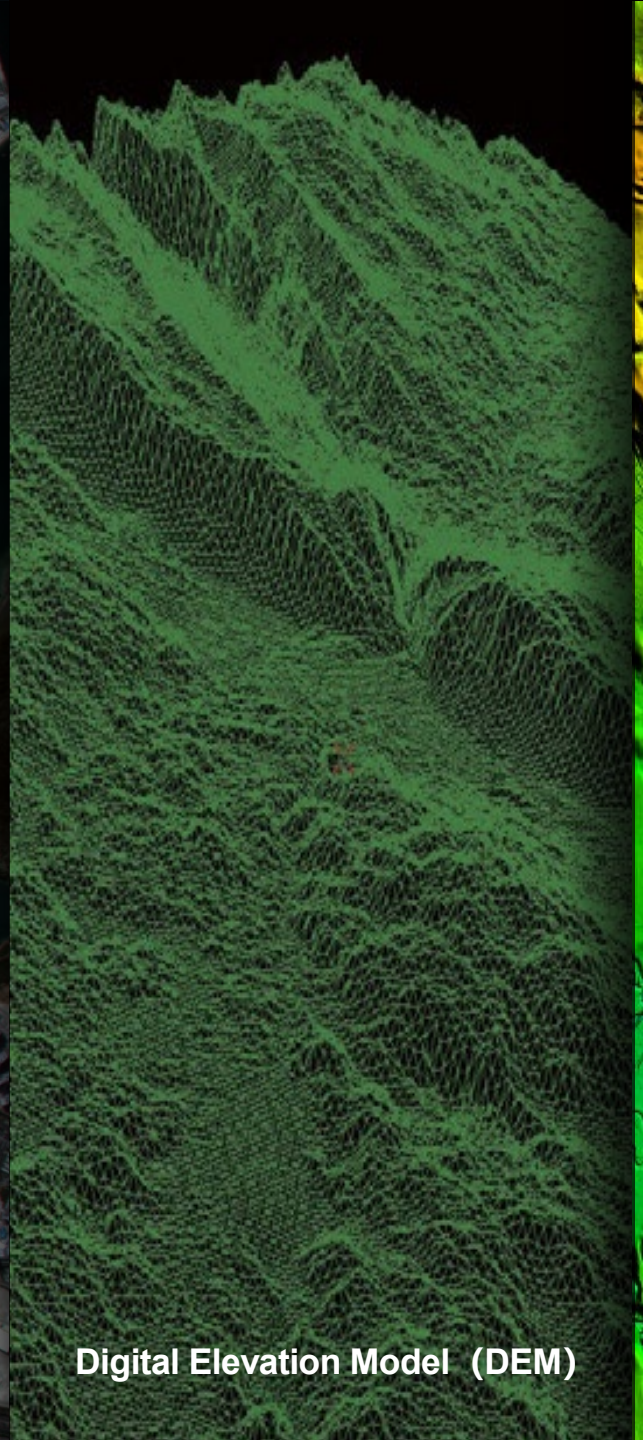


50cm

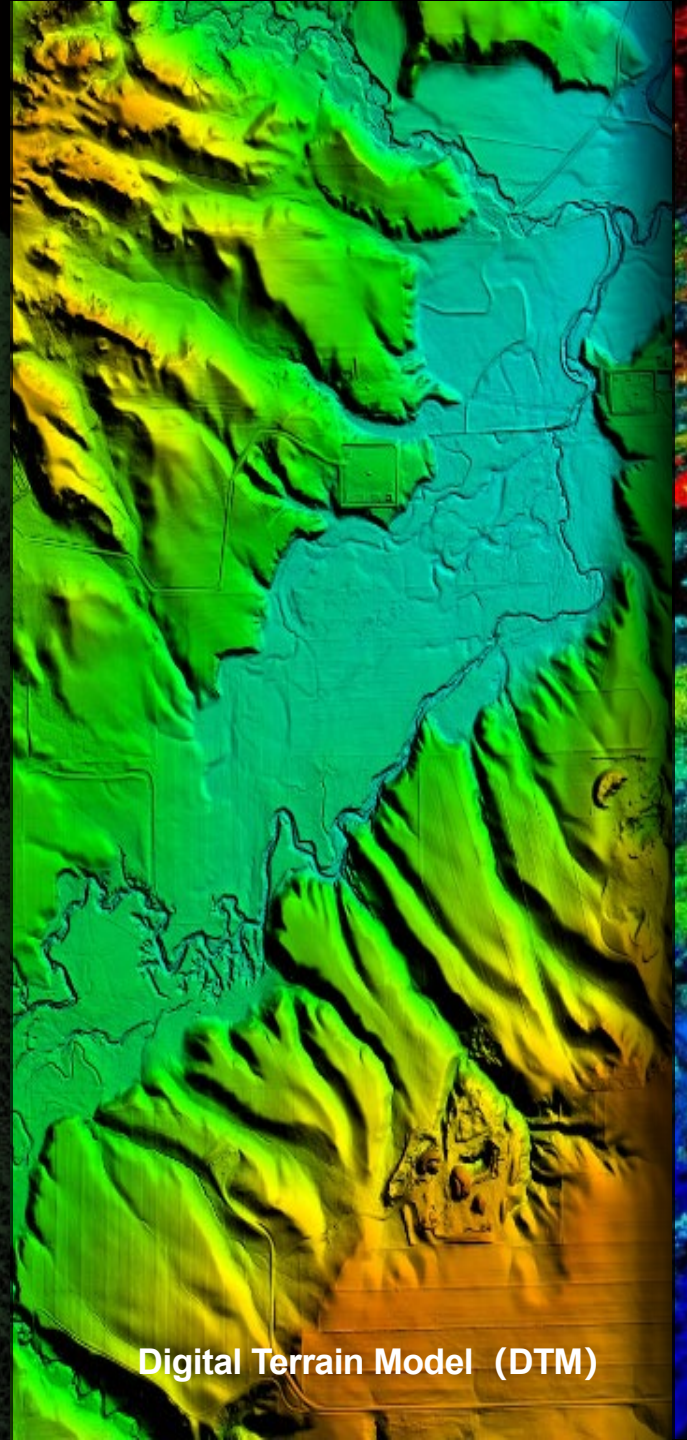
1m OL-1

Imagery Product

Digital Orthographic Model (DOM)



Digital Elevation Model（DEM）



Digital Terrain Model（DTM）

Digital Surface Model（DSM）

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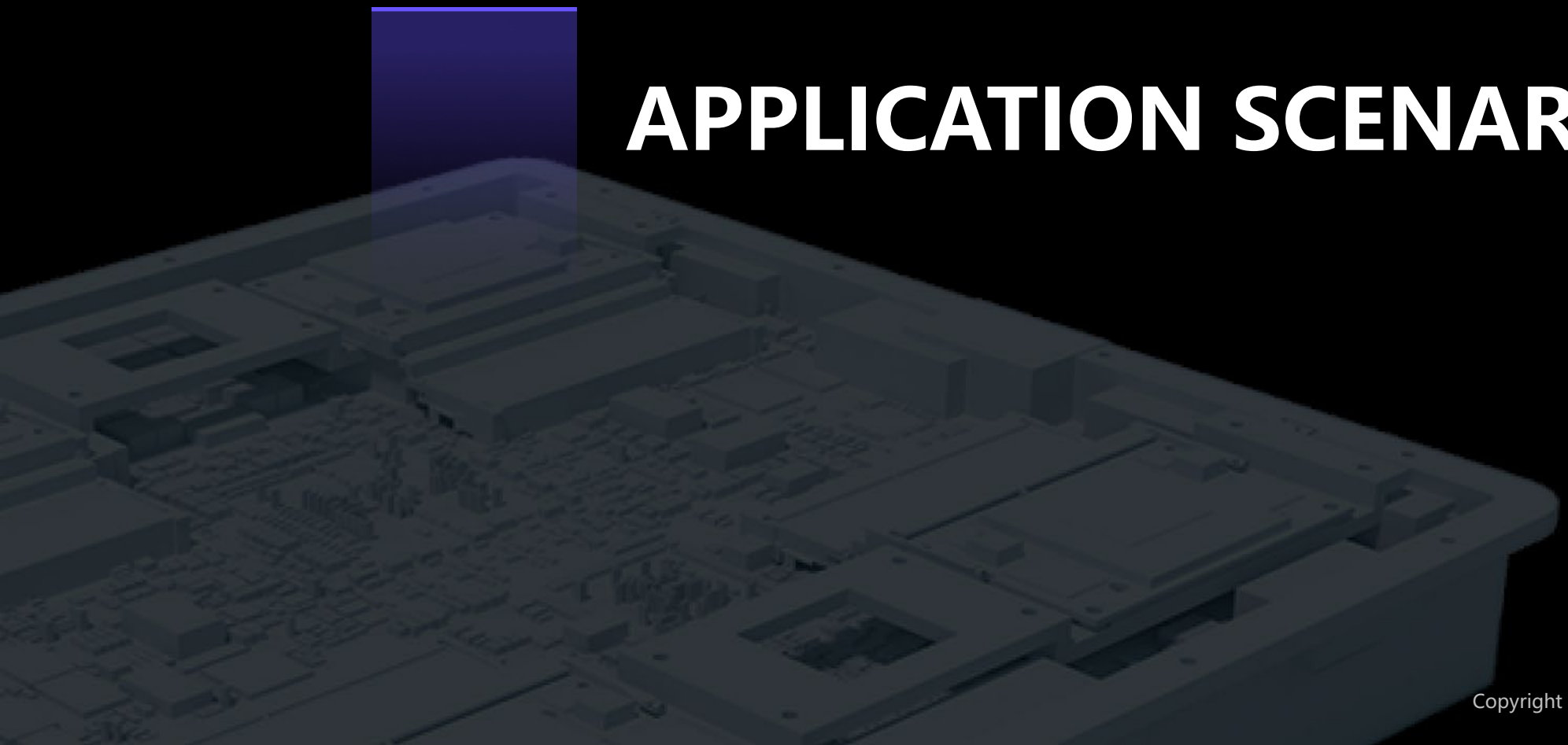
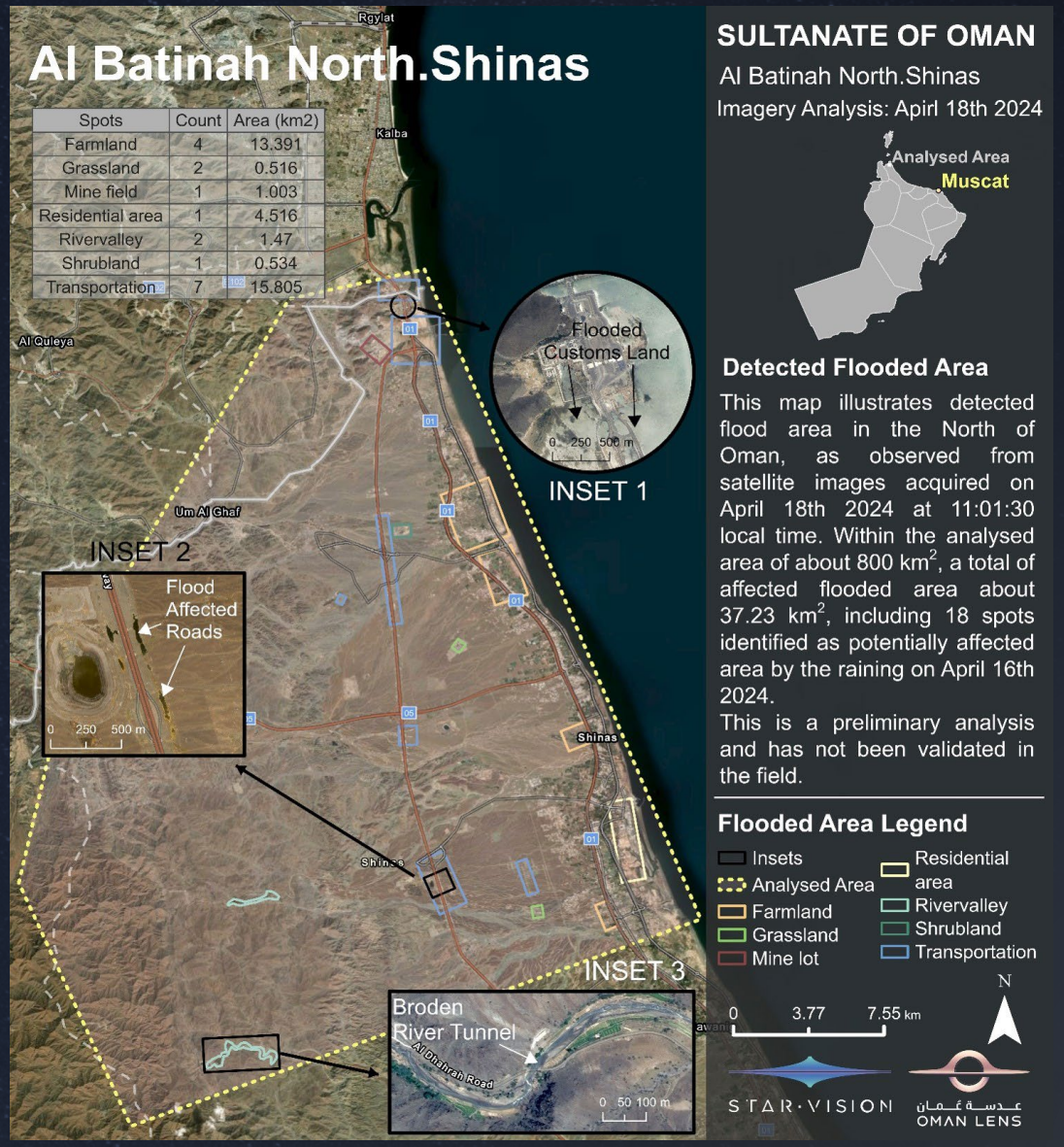
APPLICATION SCENARIOS



OUR PROGRESS IN OMAN

With Ministry of Transport Communications and Information Technology

Satellite + AI Technology in Satellite Imagery , Emergency Response



عدسة عمان
OMAN LENS

OUR PROGRESS IN OMAN

With the Ministry of Agriculture, Fisheries and Water Resources

60% ➡ 95%+

Tree Counting Accuracy

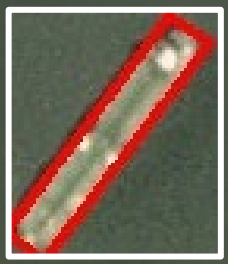
Tree Counting Project in Samail with local SME's

OMAN LENS

OUR PROGRESS IN OMAN

With Sultan Qaboos University, Oman

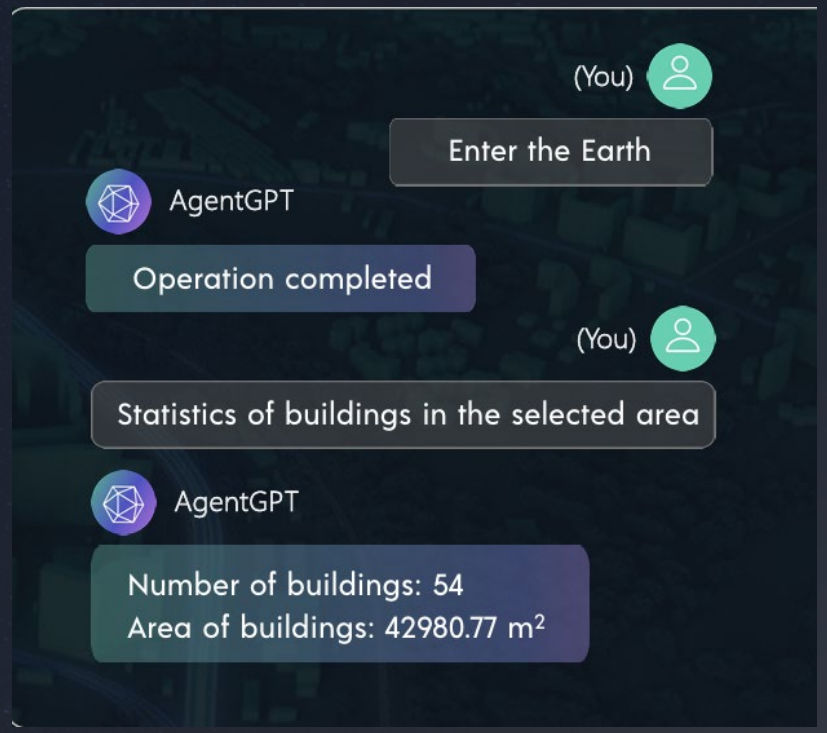
- On-orbit AI detection of vessels within 2s on 46 km² area
- Timely transmission of images, coordinates and ancillary data via narrowband communications
- Target tracking through multi-temporal information and constellation control



OUR PROGRESS IN OMAN

Satellite + AI Technology in Municipal Management Scenarios at Al Khuwair, Muscat

With the Ministry of Housing and Urban Planning



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OMAN LENS

SAGSC NETWORK ARCHITECTURE

SPACE

AIR

GROUND

SEA

CLOUD

Optical & SAR Satellites
Communication Satellites

UAV & Drones
Multifunctional Payloads

CCTV Cameras
Ground Sensors

Foundation Models
Big Data

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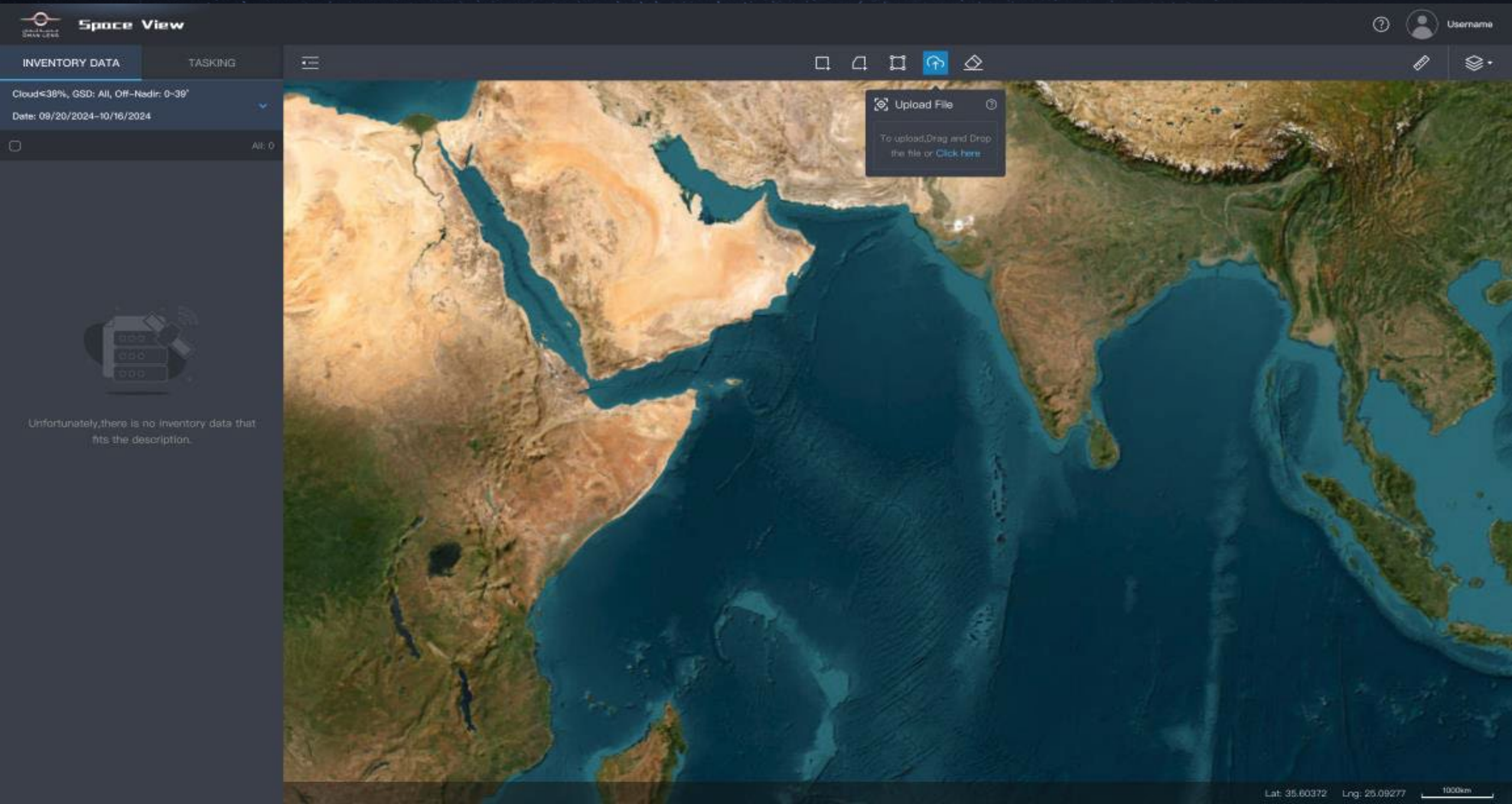
Software Platforms

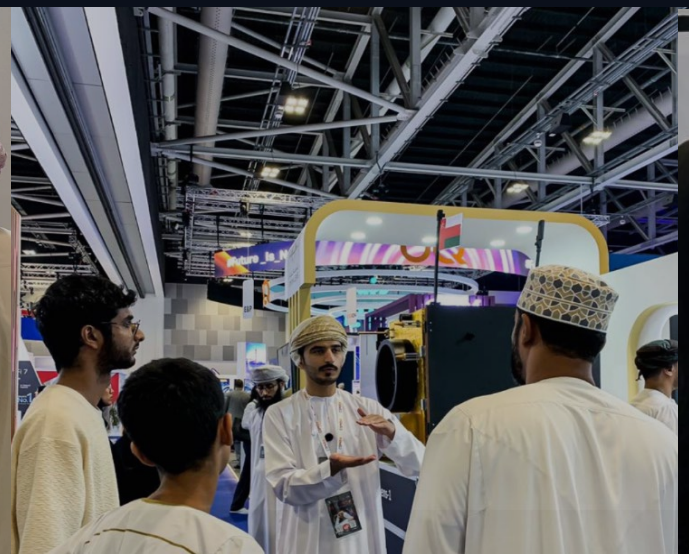


Committed to Community

COMEX

JOURNEY THROUGH GLOBAL EVENTS AND CONFERENCES

MIDDLE EAST SPACE CONFERENCE
مؤتمر الشرق الأوسط للفضاء



Signed Agreement Local & International

ESBAAR

MTC

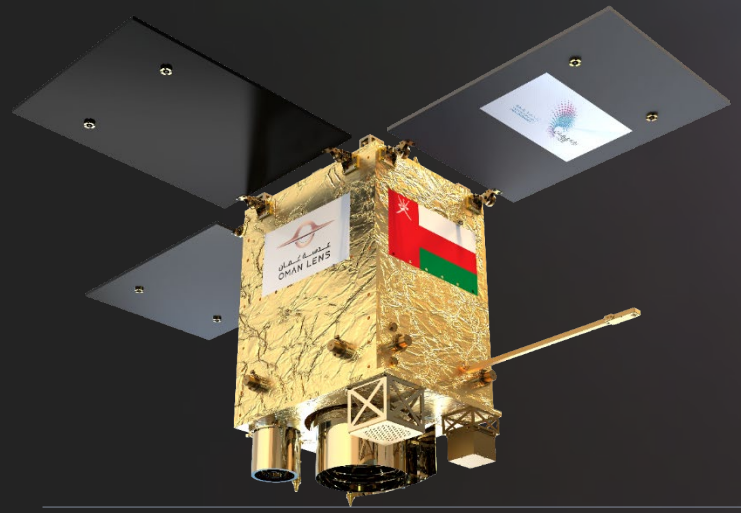
SQU

DSEL

KSA

عدسة عُمان
OMAN LENS

CONSTELLATION– AI COMPUTING SATELLITES



OL - 1

Sub-Meter Optical AI Computing Remote Sensing Satellite

Features:

- Optical Resolution < 1 Meter
- Multispectral resolution <4 Meter
- In-Orbit AI Target Recognition

First Phase (2024 -2027)

7 AI Computing Satellites and Ground Facilities

- As a pioneer in the commercial remote sensing market
- Occupy frequency and orbit resources

Mature Phase (2027 -2029)

Constellation with 20 AI Computing Satellites

- Maintain the leading position in the MENA market
- Regional remote sensing data application center

عدسة عمان
OMAN LENS

عـدسـة عُـمـان
OMAN LENS

Thank you

Deploy AI in Space, for Oman & More