



SSI-MONACOSAT COMPANY AND FUTUR PROGRAMS



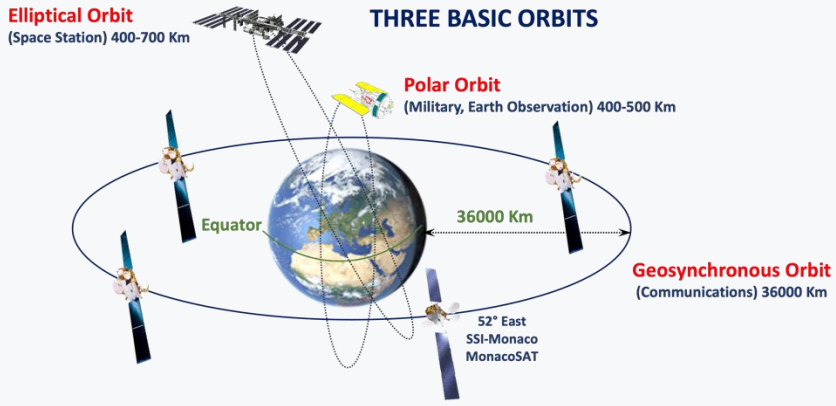
Speaker: Dr. Ilhami AYGUN President & CEO
Presentation at: TURKMENTEL 2024 Ashgabat - Turkmenistan
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CONFIDENTIAL

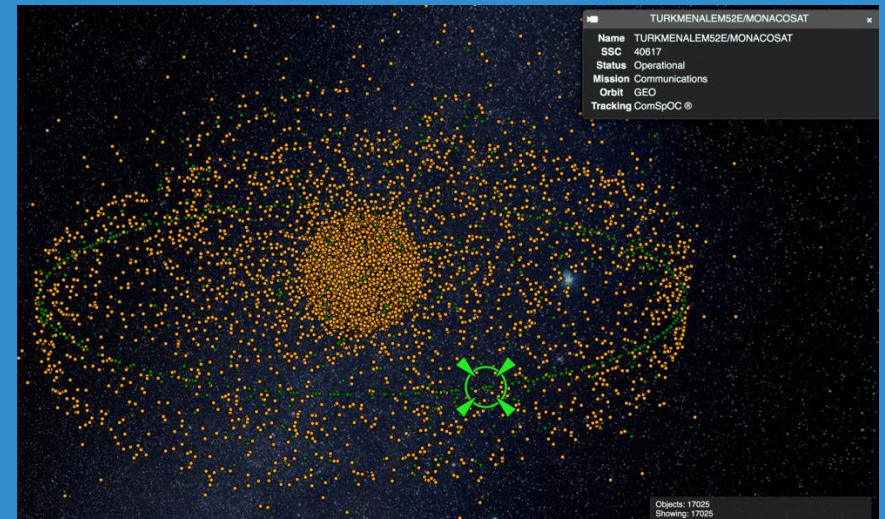
ORBITAL POSITIONS

A priced spot



SPACE POLLUTION

Raising awareness about a growing concern



TOTAL SPACE OBJECTS: >25000

ACTIVE GEO SATELLITES: 565

● NON-OPERATIONAL SATELLITES: 8462

● OPERATIONAL SATELLITES: 4852

GROWING SPACE DEBRIS POSES SIGNIFICANT SAFETY RISK TO PEOPLE AND PROPERTY IN SPACE

SSI-MONACO DEVELOPED AND SECURED THE 52°E ORBITAL POSITION FOR THE STATE OF MONACO

01

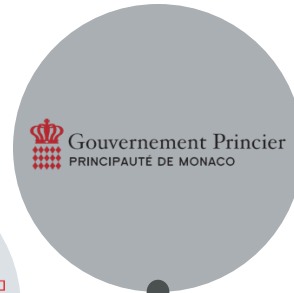
SSI-MONACO S.A.M. COMPANY AND TURKMENALEM52E/MONACOSAT-1 SATELLITE PROGRAM

COMPANY STRUCTURE

Who are we?

MONACOSAT S.A.M.

Monaco Government Partnership
 Fixed Satellite Services Operator
 Future Satellites Investments
 partnership with Monaco
 Acting Monaco Space Agency



SSI - MEDIA / SUPERYACHT TV

Superyacht TV channel
 Cable TV, Satellite TV, IPTV
 More channels to come

TURKMENISTAN GOVERNMENT

SSI-Monaco is lifetime partner of
 Turkmenistan.
 TürkmenÄlem52E/Monacosat-1
 common satellite.



AXIOM SPACE PARTNERSHIP

Private Space Station / Space Tourism
 ISS Replacement
 Monaco Module Project

SSI-INMARSAT PARTNERSHIP

Mobile Satellite Services
 Global Satellite Coverage for Sea,
 Land, Air and Emergency Services

TURKMENISTAN - MONACO SPACE COOPERATION



SECURE ORBITAL POSITION

In 2010, Space Systems International – Monaco S.A.M. ("SSI-Monaco") and the Government of Monaco have signed a license Agreement for the use of frequencies at the 52° East orbital position.



SUCCESSFUL LAUNCH FOR TURKMENALEM52E/MONACOSAT-1

27 April 2015, SSI-Monaco launched its first telecommunications Ku Band satellite, Manufactured by Thales Alenia Space and Launched by SpaceX F9. TurkmenAlem52E/ MonacoSat-1 is a joint project with Turkmenistan Government and is mainly for DTH-type services in Europe, Middle East, North Africa and Central Asia.



PLANNING THE FUTURE, TURKMENALEM52E-2

Following this success, Turkmenistan and SSI-Monaco began to develop a follow-on telecommunications satellite program, TurkmenAlem52E-2, in Ku Band. Turkmenistan MOC and SSI-Monaco became lifetime partners in developing Turkmenistan's Telecommunications.



SSI-MONACO GLOBAL OFFICES

SSI-Monaco



Space Systems International - Monaco S.A.M. (SSI - Monaco)

is an integrated telecommunications service provider specialized in satellite telecommunications, as well as a satellite operator, formed in 2004 by the worldwide known experts and consultants led by Dr. İlhami AYGUN

TURKMENALEM52E / MONACOSAT-1 SATELLITE



Connecting East and West.

LAUNCHED 27.April.2015 SpaceX



1.9 BILLION PEOPLE
ARE UNDER THE SATELLITE'S
COVERAGE

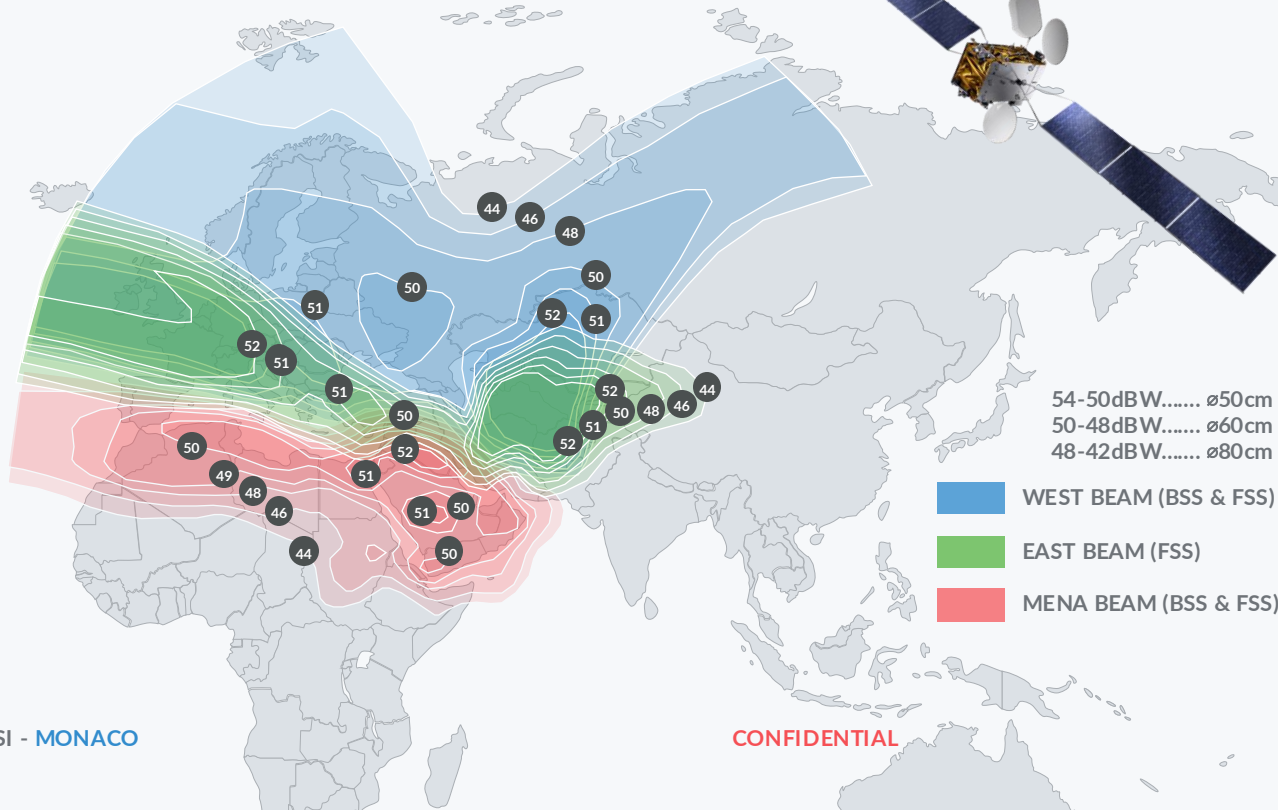
88 COUNTRIES COVERED
50 IN THE EAST BEAM
16 IN THE WEST BEAM
29 IN THE MENA BEAM

92% AVERAGE TV
PENETRATION
IN THE COVERED COUNTRIES

237 MILLION TOTAL
FIXED BROADBAND
SUBSCRIPTIONS
IN THE COVERED COUNTRIES

63% AVERAGE INTERNET
USAGE OF POPULATION
IN THE COVERED COUNTRIES

44% AVERAGE PAY TV
PENETRATION
IN THE COVERED COUNTRIES



SSI-Monaco has also different activities in its portfolio

SUPERYACHT TV



SUPERYACHT TV

THE FIRST AND ONLY **INTERNATIONAL LUXURY TELEVISION CHANNEL** DEDICATED TO THE **WORLD OF SUPERYACHTS AND LIFE ONBOARD**



LIVE TODAY ON:



MonacoSat-1 Satellite, at 52°E



Cable by Monaco Telecom, Channel 78 & IPTV



Website at <https://superyacht.tv>



Free iOS, Android, Google Play & Apple TV app

VIASAT



GLOBAL MOBILE SATELLITE COMMUNICATIONS
ANYWHERE, ANYTIME, EASILY

SSI-Monaco, partnering with the pioneer of mobile satellite communications Viasat-Inmarsat, offering a large portfolio of devices and services for Land, Sea and Air, whether you are a Government, Company or Individual to get connected Anywhere, Anytime, Easily



AXIOM



SSI AND AXIOM PARTNERS FOR TOMORROW'S
SPACE INNOVATION & TRAVEL

SSI PARTNERSHIP INCLUDES:



Develop **Space Tourism** for Monaco



Train future astronauts from Monaco



Develop "Monaco Module" to be attached to Axiom Station



Conduct **scientific experiments** in orbit



02

A PRELIMINARY STUDY FOR TURKMENALEM52E-2 FOLLOW-ON SATELLITE PROGRAM

COLOCATION

*preliminary study

TURKMENALEM52E-2 , Ku satellite at @52°East Position.
Colocation with TurkmenAlem52E/MonacoSat1 up to end of life (2030 – 2031)



TURKMENALEM52E-2 GENERAL REQUIREMENTS

*preliminary study

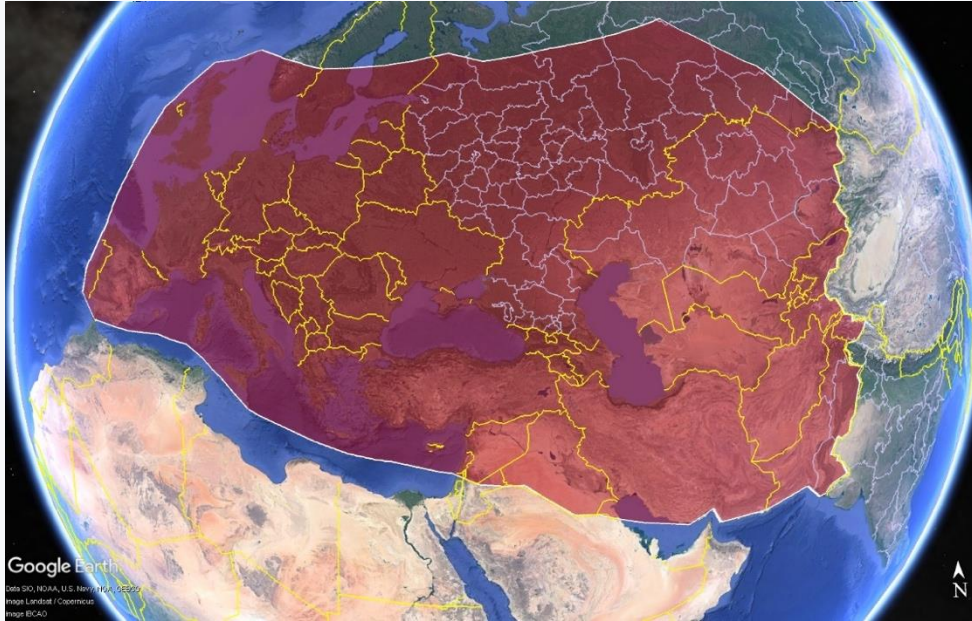
- 15 years lifetime (Min)
- Orbital position at 52° East $\pm 0,1^{\circ}$
- Colocation with TurkmenAlem52E/MonacoSat1 Ku Band Satellite up to end of life (2030 – 2031)



VISIBLE EARTH FROM 52° E

TURKMENALEM52E-2 : OPTION-1 TURKIC STATES COVERAGE 1/2

*preliminary study



Service area

Uplink

12.75 GHz

13.25 GHz

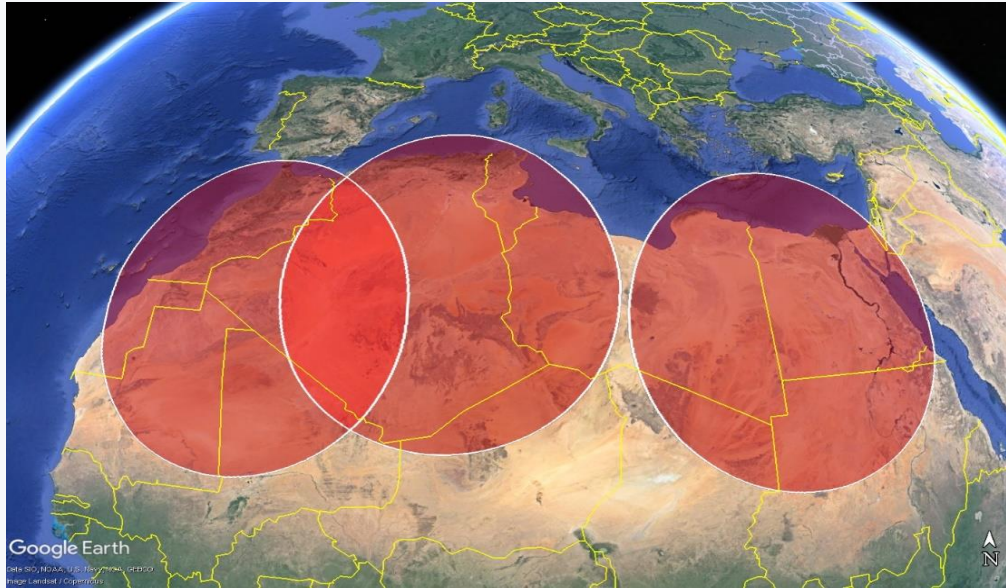
Downlink

10.7 - 10.95 GHz

11.2 - 11.45 GHz

TURKMENALEM52E-2 : OPTION-1 KU STEERABLE 2/2

*preliminary study



Service area

Uplink

12.75 GHz

13.25 GHz

17.8 GHz - 18.1 GHz

Downlink

10.7 - 10.95 GHz

11.2 - 11.45 GHz

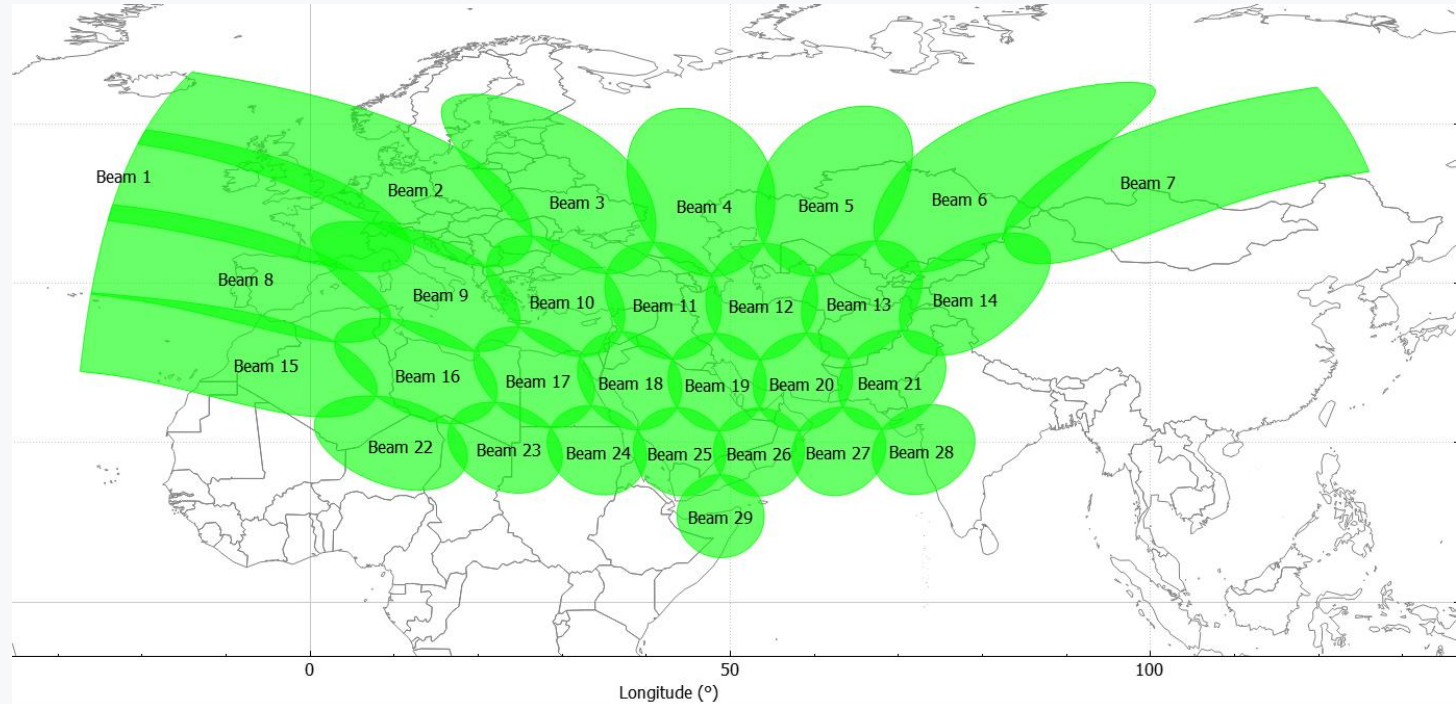
12.2 GHz - 12.5 GHz

TURKMENALEM52E-2 : OPTION-2 DTP DIGITAL PROCESSOR

*preliminary study

TurkmenAlem52E -2 can be equipped with most advanced Broadband Digital Transparent Processor

- FSS & BSS band
- Service area : Merge of East, West and MENA coverages
- Spots size : 1,8°
- Same performances, bandwidth, power in each spot
- most advanced Broadband Digital Transparent Processor
- Able to handle full bandwidth
- Full cross-connectivity and full flexibility in capacity allocation
- Signal cancellation and duplication, Channel gain control and Spectrum monitoring



LAUNCHER CONFIGURATION

*preliminary study

TurkmenAlem52E-2 compatible with the following launchers :

FALCON 9



Baseline

STARSHIP



VULCAN
CENTAUR



ARIANE 6



NEW
GLENN





TURKMENALEM52E-2
FOLLOW-ON SATELLITE
SOON TO BE REALISED...



THANK YOU

DR ILHAMI AYGUN
President & CEO

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