

**ICAO NORTH ATLANTIC / SAFETY OVERSIGHT GROUP**

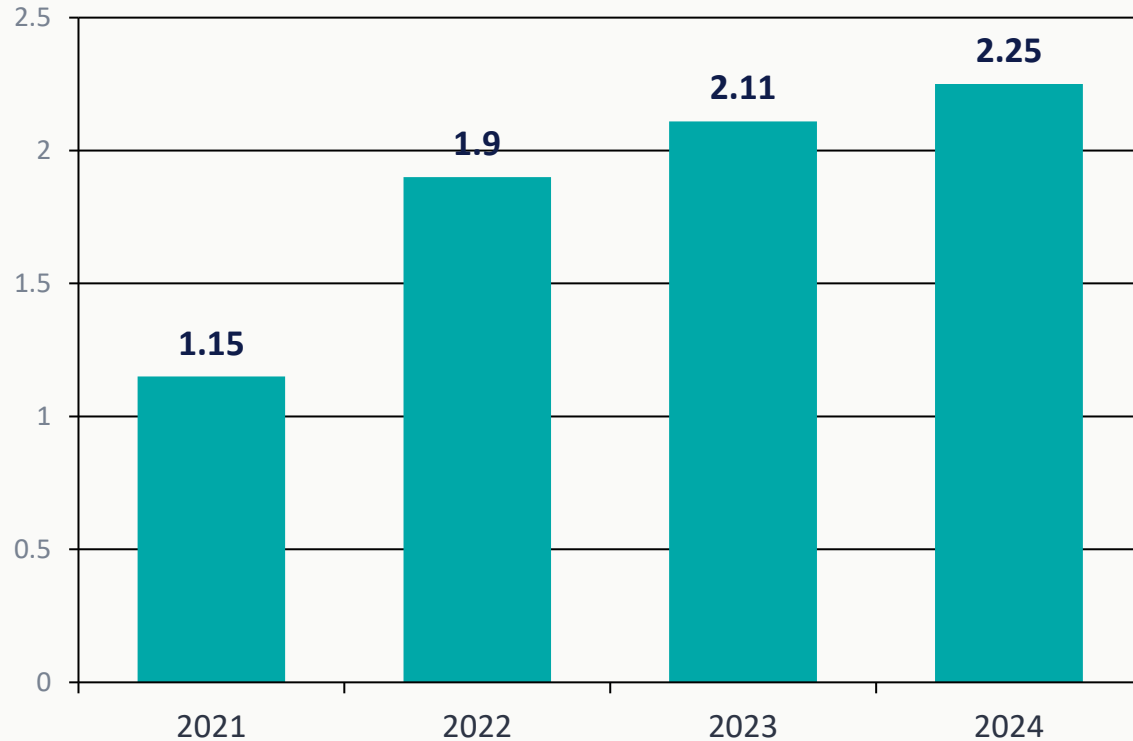
NAT VISION WORKSHOP 2026 • PARIS • 27 APRIL

# Safety Performance Measures & Targets

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# 2024 At a Glance

## TRAFFIC RECOVERY • +95.7% SINCE 2021



**2.25M** Flight Hours – 2024 Record

## 2024 SAFETY PERFORMANCE (Safety Key Performance Indicators – SKPIs)

**4 of 11**

### SKPIs MET

Zero accidents • EI 85.7%  
Lateral CRE improved

**7 of 11**

### SKPIs MISSED

Detection-based metrics  
Vertical CRE: 33.1 (TLS = 5)

### ASSESSMENT

Operationally sound today.  
Vigilant about emerging risk.

# Important Issues We Are Addressing

## ACTIVE ISSUES • GOVERNANCE RESPONSE

### Vertical CRE exceeding Target Level of Safety (TLS)

33.1 vs. TLS of  $5 \times 10^{-9}$  fapfh

#### RESPONSE

Mathematicians Working Group (MWG) methodology review; occupancy refinement

### Surveillance coverage gaps

Long-duration Large Height Deviation (LHDs) undetected (170 & 77 min)

#### RESPONSE

Space-based ADS-B deployment

### Coordination complexity

Flight Plan vs. Clearance — top causal factor

#### RESPONSE

Oceanic Clearance Removal (OCR) implementation

### GNSS interference

Emerging threat across NAT region

#### RESPONSE

NAT GNSS Interference Bulletin and NAT Crisis Response Documentation Review

### Space Weather impacts

Solar activity affecting HF, GNSS & polar ops

#### RESPONSE

Coordinated monitoring & contingency protocols

### Operator SLOP inconsistency

Sub-optimal application observed

#### RESPONSE

Data-sharing and Coordinated Communication with Operators, OESB Updates

# Our Safety Infrastructure is Working

WORKING

## Safety Policies/Procedures

### EVIDENCE

- OCR Regional Safety Case, Safety Case Template Updated
- Oceanic Errors Safety Bulletin (OESB)
- CSO framework: NAT Doc 013, GNSS Interference Bulletin
- Fast-Track Procedure Reviewed

### READY FOR

STO • RVSM expansion • Supersonic / hypersonic

MATURING

## Data Monitoring

### EVIDENCE

- Effective Scrutiny of NAT Safety Occurrences
- NAT Central Monitoring Agency Analysis
- Trajectory-Based Collision Risk Modelling (TBCRM) Project Team complete
- Combined CRE metric, FOX tool, and NAT HLA heat maps in development

### READY FOR

Space-based VHF data • Space weather feeds • GNSS interference

SCHEDULED

## SKPI Governance

### EVIDENCE

- Review every 3 years (per NAT SOG ToRs)
- 2024: Minor review completed
- 2026: Major review begins this year
- Coordinated with Enhanced NAT ASR (ENASR) Project Team work

### READY FOR

TLS realism • New-entrant metrics • Mixed-fleet measures

# Four SOG Initiatives

## SAFETY IN THE NORTH ATLANTIC IS A COLLECTIVE RESPONSIBILITY

**A**

### SKPI Review

2026 — On Schedule

- ✓ Formal 3-year cycle begins (per NAT SOG ToRs)
- ✓ NAT SG + MWG lead technical analysis
- ✓ Evaluate TLS realism for current operations
- ✓ Coordinate with ENASR PT on reporting

**B**

### NAT ASR Enhancement (ENASR PT)

Active — Jan to Dec 2026

- ✓ Dedicated project team in progress now
- ✓ Clarify 'safety story' for stakeholders
- ✓ Domain-based content restructuring
- ✓ Interim May • Final to NAT SOG/35

**C**

### Advanced Risk Modelling

MWG — Continuous

- ✓ Combined CRE metric implemented
- ✓ Target-Based Collision Risk Model (TBCRM) outputs refining models
- ✓ Occupancy methodology update progressing
- ✓ Incorporating Space Based ADS-B & Space Based VHF data

**D**

### Future-Ready Safety Cases

Aligned with Operational Considerations

- ✓ Space-based VHF • Space weather monitoring
- ✓ Space Transportation Ops (STO)
- ✓ Supersonic / hypersonic
- ✓ GNSS interference resilience

**The NAT Safety Framework is Working.**  
**It is also Evolving.**

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Questions?

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