



NIUSKY PACIFIC LTD

ISPACG Presentation

Date: 25th-27th of April 2023

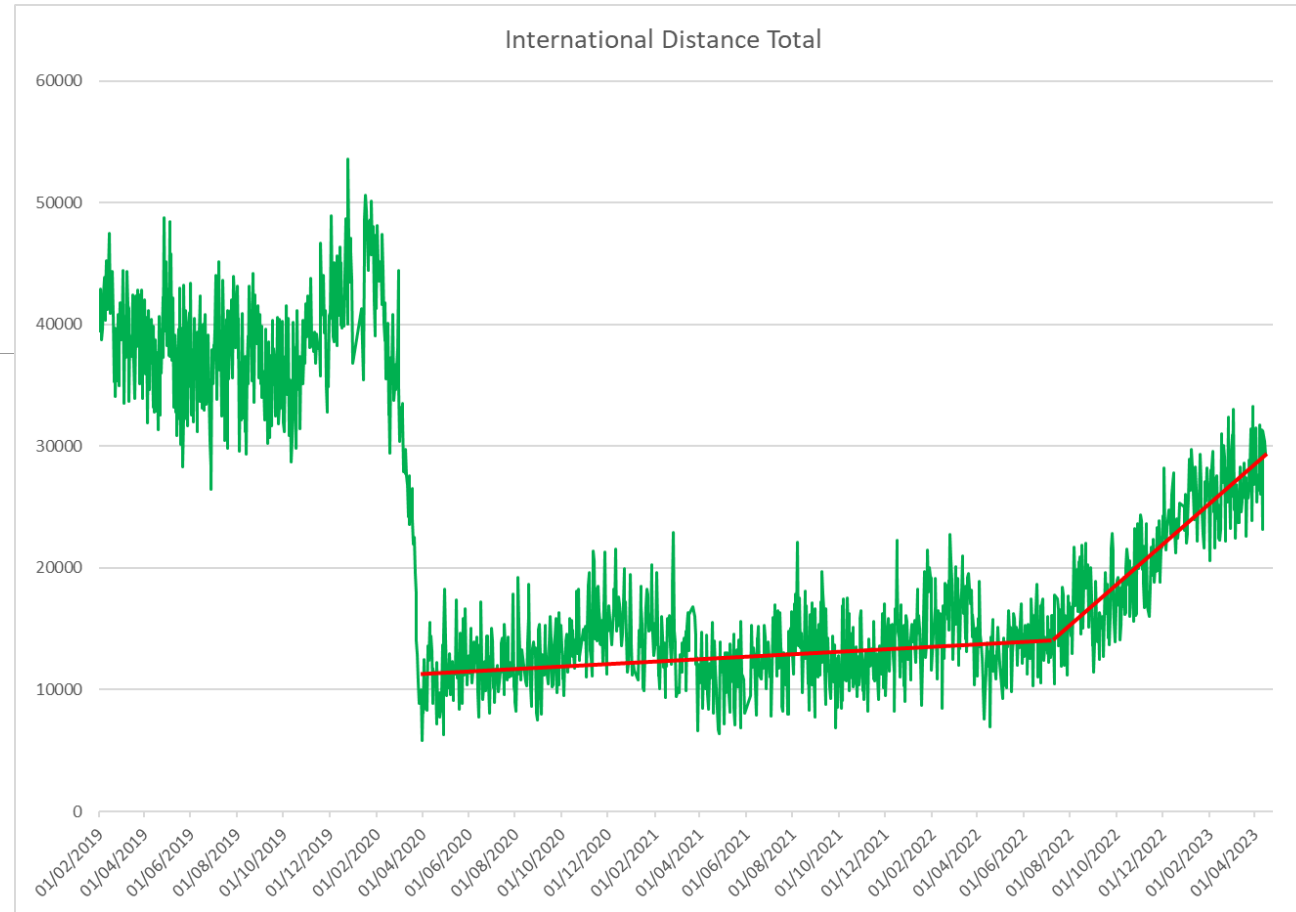
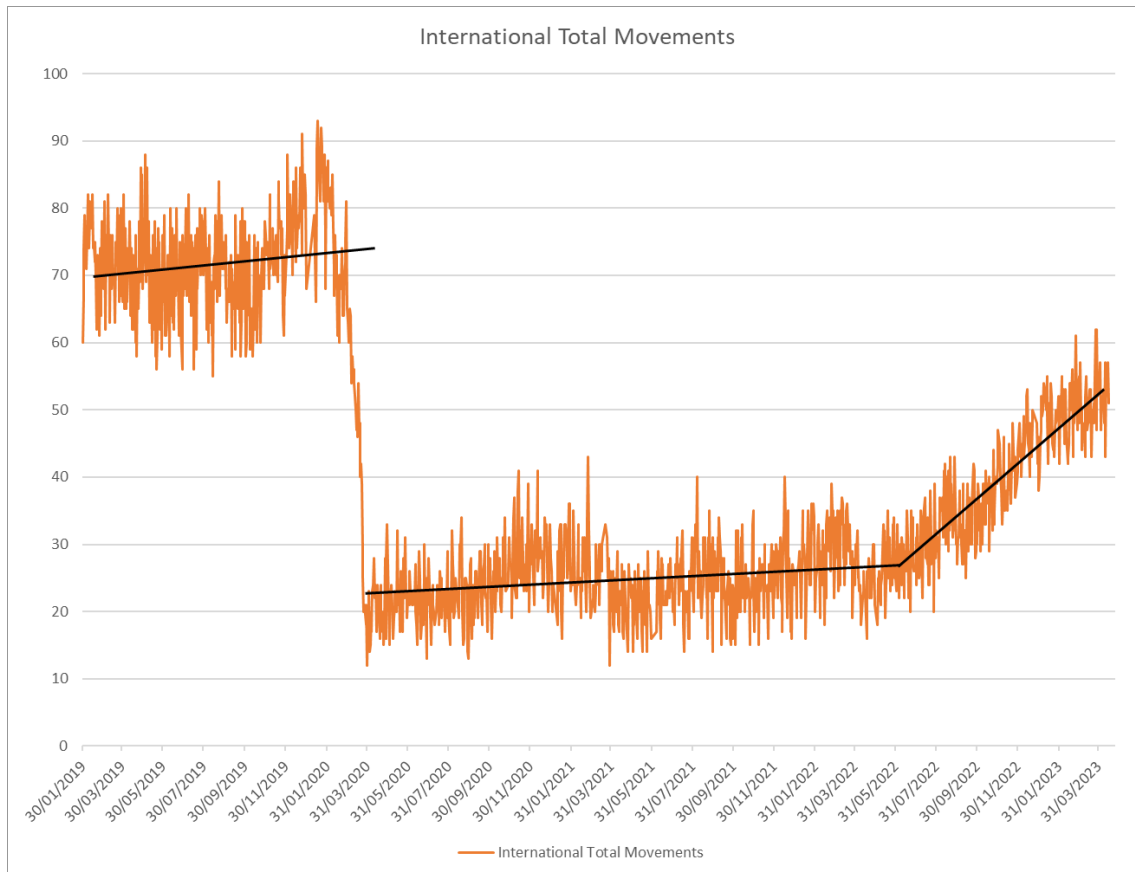
Presenters:

Doko Iru (AATSE Area)

Freesia Wavine (CNS/ATM Specialist)

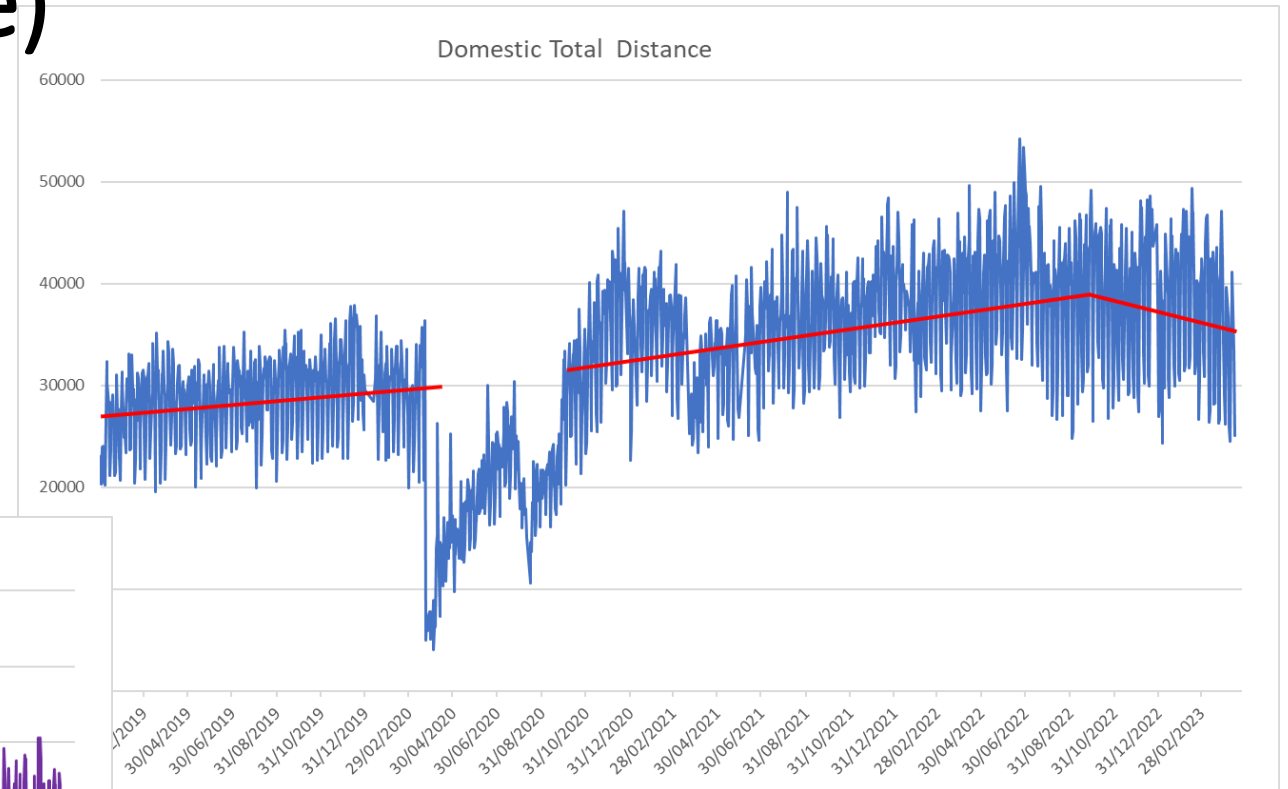
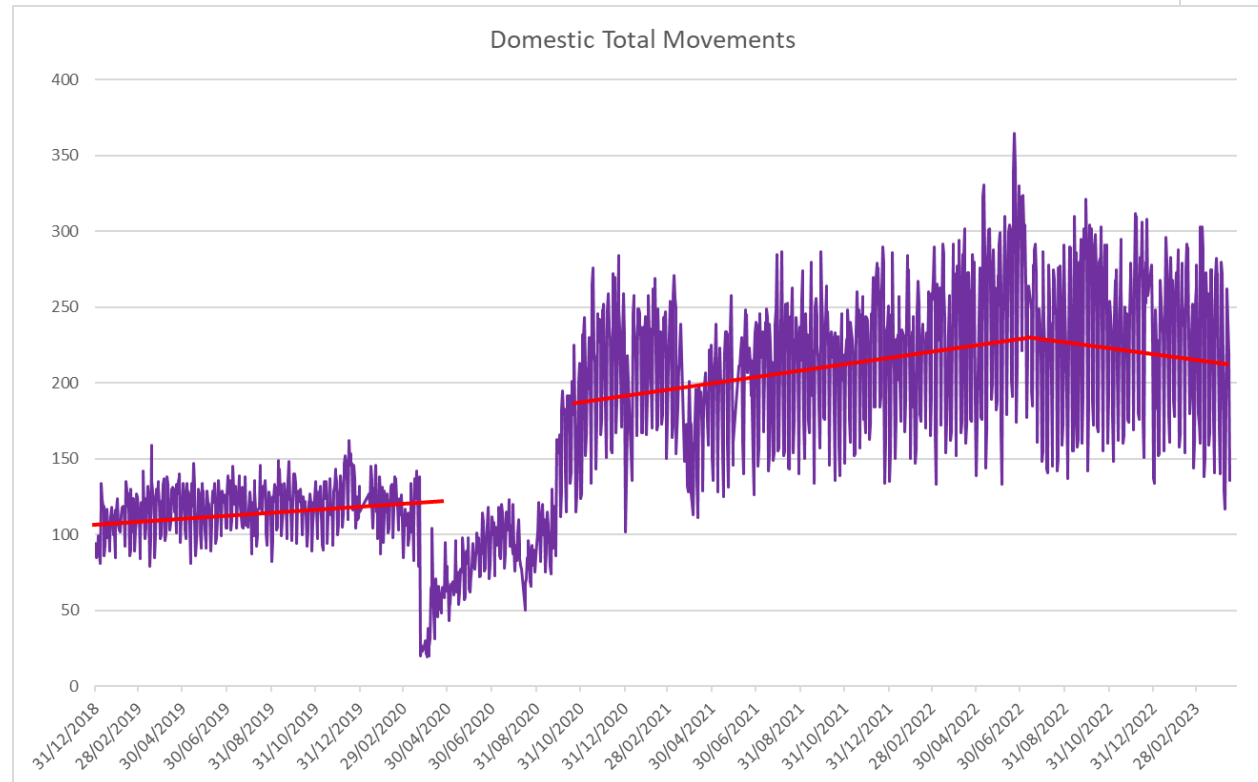
International Traffic (Update)

- Traffic has seen a steady increase in international movements from mid-2022



Domestic Traffic (Update)

- Domestic traffic has picked up since the end of 2020, but has fallen back since mid-2022.



Air Traffic Management

- Thales TopSky ATM System
 - Fully deployed except towers (Jackson's and all outstations).
- Thales TopSky Electronic Flight Strips (EFS).
 - Future plans to transition to EFS
 - Requires modifications to current functionality



Surveillance

- Terrestrial ADS-B sites.
 - 3 operational sites Port Moresby, Nadzab and Tokua
 - Testing of 5 other sites in progress.
- Aireon Space Based ADS-B
 - Operational FIR wide above FL200
 - FIR wide below FL200, transition May 2023
- Mode-S SSR Radar
- Datalink- ADS-C



Separation status

- GNSS standards in lieu of DME.
- Applying RNP4 separation shortly (tbc).



Coordination status

- AIDC fully implemented with YBBB, KZAK and WAAA.
- Testing and implementation of CPLs with YBBB yet to be confirmed.
- CDNs yet to be tested on ATM system.
- OTDs in AIDC transmissions only enabled for KZAK.
- Letter of Agreements with YBBB, KZAK and WAAA updated.

Coordination status

- Issues:
 - AIDC transmissions back and forth A215 due to the route cutting through the tip of YBBBs boundary (exit/re-entry flights).



Communications

- Voice Communications (Ground to Ground)
 - Common Aeronautical Regional Virtual Private Network (CRV) with **YBBB, KZAK** with WAAA under test.
- Terrestrial VHF sites
 - 6 x Tower Sites
 - 10 x Remote Sites
 - 3 x New Remote Sites under test
- Datalink- CPDLC.
- HF
 - Frequency pooling under test
- Space Based VHF
 - Proof of concept in progress



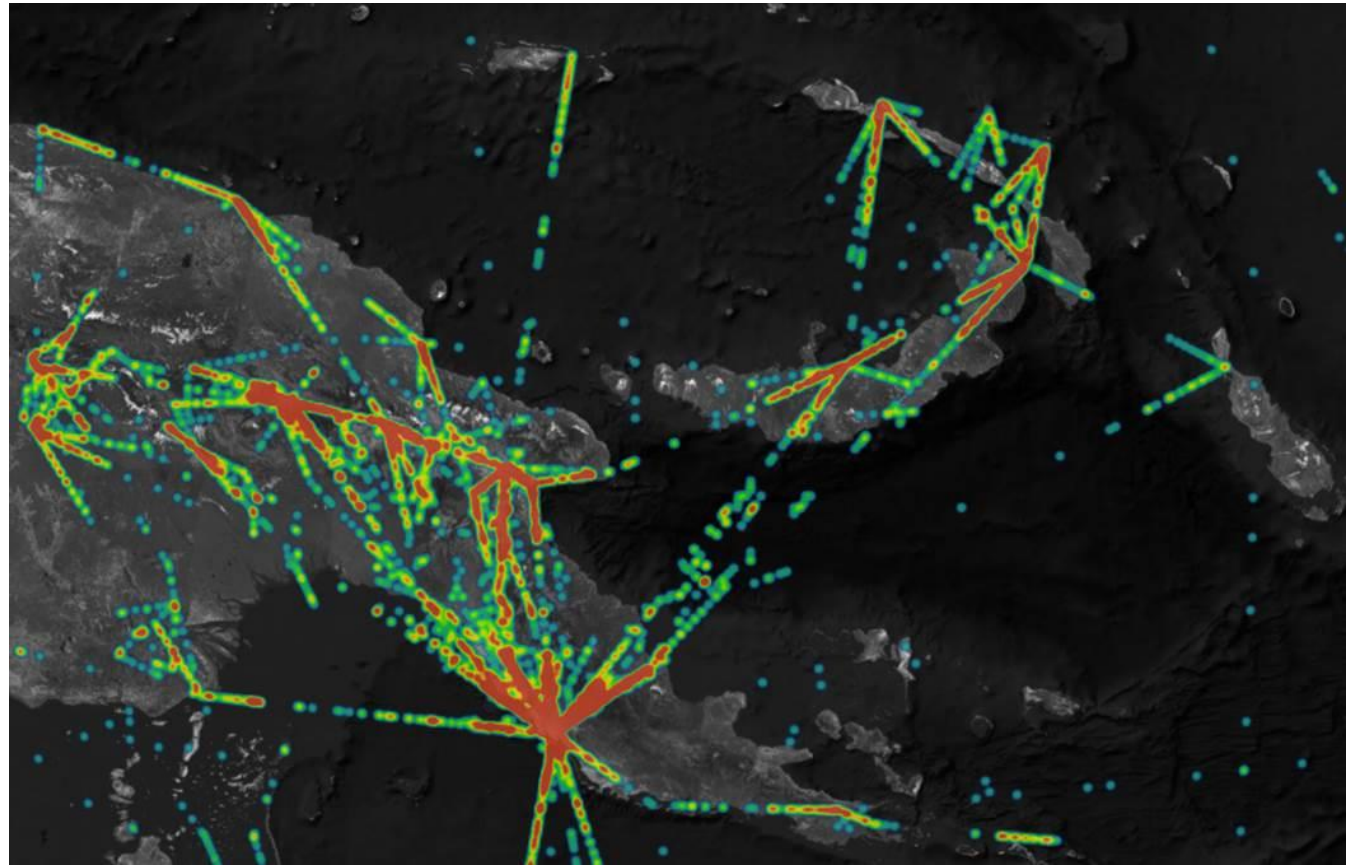
Current Projects

- VHF Improvement Program
 - Implementation of 4 new terrestrial VHF sites
 - Mt Lawes – complete
 - Mt Toma – complete
 - Vanimo – in progress
 - Mt Dahaluba – in progress
 - Upgrade of 3 existing terrestrial VHF sites
 - Mt Fala – complete
 - Tropos – complete
 - Mt Lunaman – in progress
- Flow Control
 - In-house software development, under test
- Frequentis NetBroker
 - Intelligent network monitoring and switching
 - Implemented between Nadzab and Port Moresby, under test



Other implementations

- SIDS and STARS
 - Flow Control System under test
- PBCS reporting
 - ATM system now capable of generating RSP/RCP data
 - Currently working on analyzing the data
- Space Based VHF
 - Technical discussions with Australian based company Skykraft



Future projects (next 5+ years)

- VSAT duplication
- Dynamic Airborne Reroute Procedures (DARP)
- Cyber security
- Flight Plan Conflict Function (FPCF)
- SWIM & Interoperability (PNG based)
- Minimum Safe Altitude Warning (MSAW)
- Electronic Flight Strips (EFS) for towers.
- Weather Radar
- Software development
- Mode S DAPs
- AIM
- Nadzab Tower TCU
- Regional Training school
- Drone surveillance
- Trajectory based operations
- UTM
- Digital Towers

Thank you!

Any questions?

