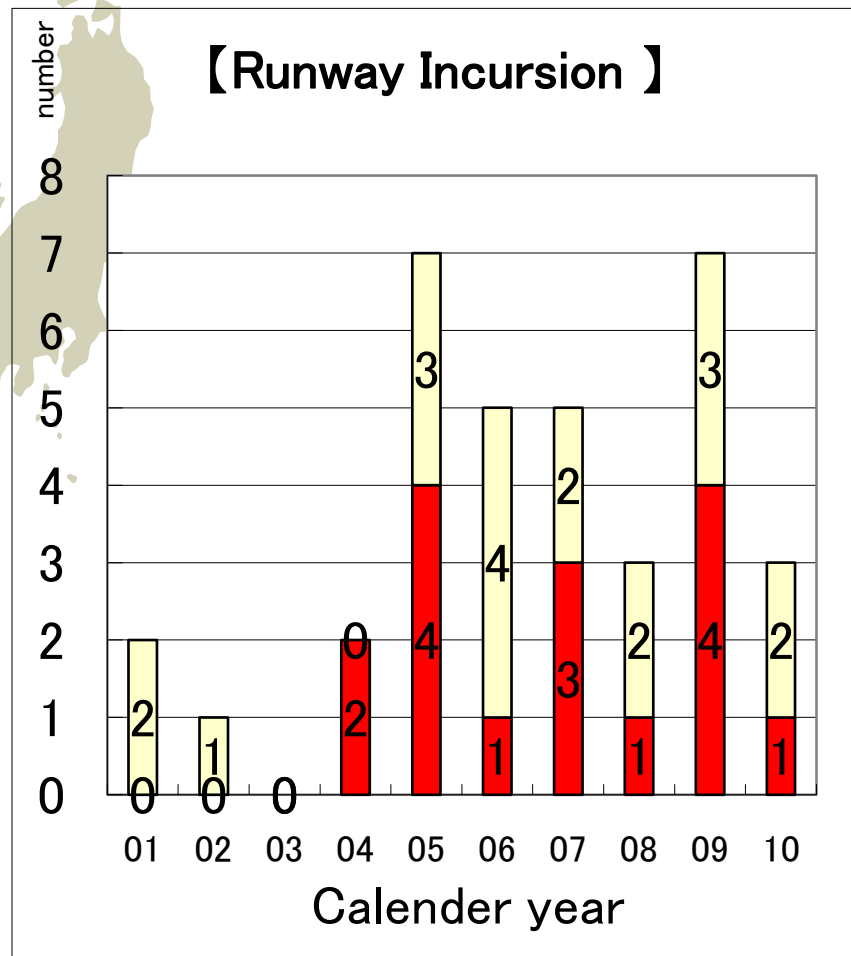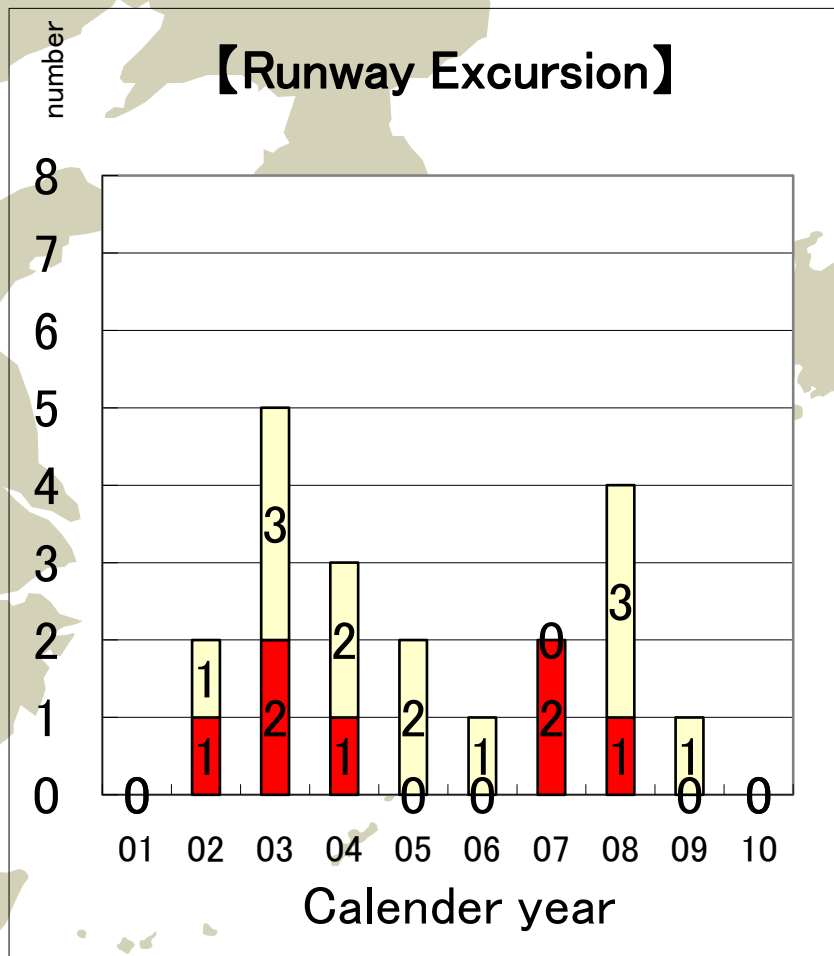# Runway Safety in Japan

Katsuyuki Nakatsubo

Electronic Navigation Research Institute, Japan

Status of Runway Safety

Serious incident and Minor incident

【Runway Excursion】

【Runway Incursion 】

■ : Serious incident   □ : Minor incident

Measures Taken(1) –Runway Excursion –

Risk: Inappropriate operation by pilots

Measure: Revision of Operating procedures, Crew Training such as SIM training on turbulent weather (LOFT)

Risk: High cost of expanding new RESA site due to mountainous geography

Measure: Consideration of alternative mitigating measures for these airports instead of expansion of RESA

Risk: Runway condition

Measure: Maintain appropriate transverse slopes, grooving, Periodic check and removal of FOD

Risk: Lack of information on rainy/icy ground condition

Measures: Checking/Reporting friction coefficient and ground condition
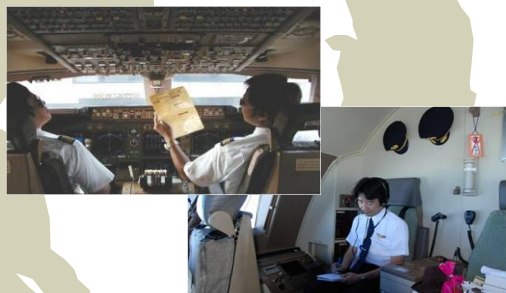
Measures Taken(2) –Runway Incursion –

Risk: Miscommunication between ATC and pilots

Measure: Read-back rules, Reminder for similar call sign, Sharing common recognition among all ATC staffs and pilots

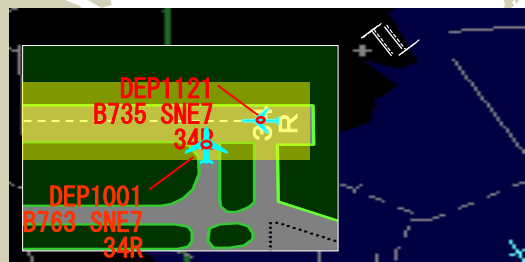**Risk: Lack of appropriate training for ATC/pilots**

Measure: Revision of Operating procedures, Crew Training (Application of LOSA/FOQA), Simulator training for ATC

Risk: Lack of appropriate visual aids and surveillance

Measure: Improvement of visual aids, Improvement of ATC support functions through enhanced ground surveillance such as Multilateration,

Other: Sharing of safety information among airport management and flight operators in each airport

- **Efforts from administration side**

  Implementation of State Safety Programme (SSP)

  Streamlining administrative organization for multidisciplinary/holistic approach for effective SMS including runway safety

Activities for the Future

- **Introduction/Improvement of various tools/aids such as RWSL**
  - **Standardization to avoid confusion**

- **R&D activities including those on Human Factor related issues**
  - **A/G-G/G communications, training of ATC/Pilot, fatigue etc.**

- **Sharing of runway safety data**
  - **Measures based on experiences of other states**
  - **Non-punitive reporting system**