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ASSEMBLY — 35TH SESSION

Agenda Item 24: ICAO Global Aviation Safety Plan (GASP)
24.2: Progress of the ICAO programme for the prevention of controlled flight into terrain (CFIT)

THE STABILIZED PROCEDURES FOR THE PREVENTION OF CONTROLLED FLIGHT INTO TERRAIN (CFIT) IN THE REPUBLIC OF KOREA

(Presented by the Republic of Korea)

INFORMATION PAPER

SUMMARY

This paper provides information on the stabilized procedures for the prevention of Controlled Flight into Terrain (CFIT) implemented by the Republic of Korea.

1. INTRODUCTION

1.1 The Republic of Korea (ROK) suffered from several aviation accidents including CFIT accidents occurred in Mokpo, 1993 and in Guam, 1997. These two accidents happened in the phase of final approach brought enormous loss of lives and properties.

1.2 To prevent further accidents in the phase of approach and landing, ROK invested considerable amount of budget to study, review and establish stabilized approach procedures with a lot of experts and made governing rules and regulations accordingly. Aircraft operators are required to establish and implement CFIT prevention programme such as crew training and this helped to reduce errors of crew and therefore the factors of accidents.

2. ACTIVITIES OF GOVERNMENT AND AIRCRAFT OPERATORS TO PREVENT CFIT ACCIDENTS

2.1 **Government:**

a) Revised the Aviation Act to require aircraft operator to implement CFIT prevention training annually; Civil Aviation Safety Authority (CASA), Ministry of Construction and Transportation developed the standards for the stabilized approach, and introduced it in the Flight Standards Regulation (FSR) in 2001; and

b) Provided FSR with criteria of a stabilized approach procedures in accordance with ICAO Annex 6 Appendix 2.1.30; CASA established provisions in Aviation Act to conduct periodical training for CFIT prevention (Ministerial Decree of Aviation Act, Article 283 and Appendix 31).

2.2 **Aircraft operators**:

a) Established standard operation procedures (SOP) requiring aircraft to immediately implement missed approach if the aircraft is not able to proceed in accordance with a stabilized approach procedure;

b) Introduced flight crew's regular training on CFIT prevention procedure in the ground school instruction;

c) Implemented CFIT prevention training with the simulator in the simulator instruction;

d) Holding conferences and meetings for CFIT prevention to raise awareness of the CFIT problem;

e) Developing training materials for CFIT prevention;

f) Held CFIT/ALAR conference with the Flight Safety Foundation inviting participants from States in Asia region at Incheon in 30 June 2004; and

g) Monitoring the safe approach by operating FOQA (Flight Operational Quality Assurance) programme. The procedures and results of FOQA are presented in the Appendix.

3. CONCLUSION

ICAO set and recommended the detailed standards of stabilized approach to prevent CFIT accidents and this contributed to the flight safety of the States. The ROK also took advantage of it and gained successful results that ensure the flight safety and prevent CFIT accidents.

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APPENDIX

THE PROCEDURES AND RESULTS OF THE FOQA

1. Procedures

a) Find and analyze major [1]Exceedance and factors of [2]Unstabilized Approach through FOQA, which could lead to CFIT accidents;

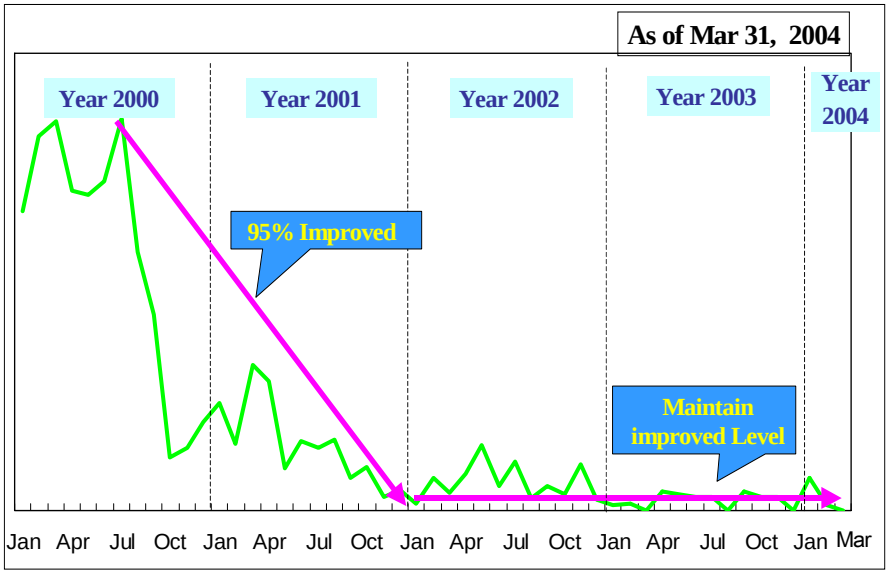
b) Notify the results to the flight crew; and

c) Conduct the FOQA meeting for concerned aircraft

2. Results of FOQA Programme

As the following figures present, ROK conducted FOQA from January 2000 to March 2004 and gained successful results that factors of CFIT accidents and of ALA significantly decreased.

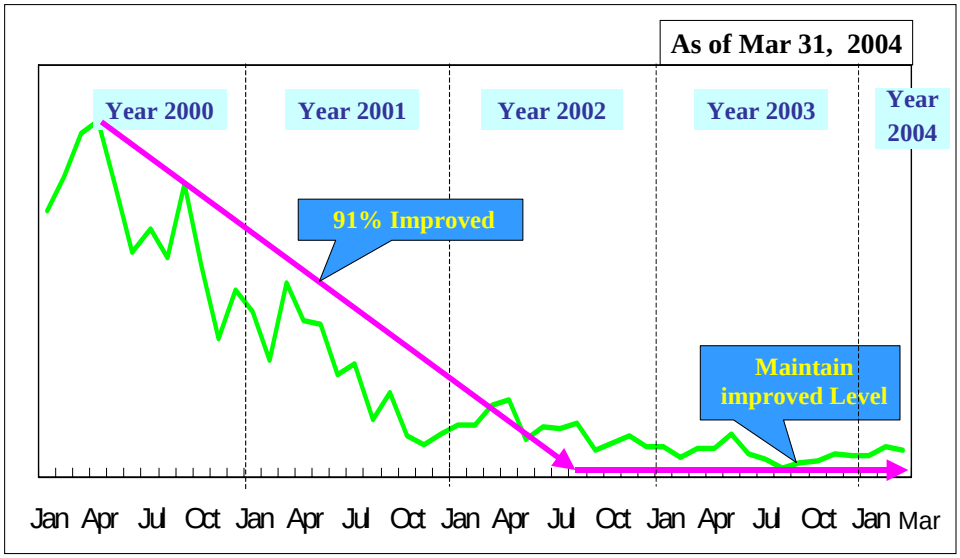
Improvement – 6 Major Exceedance to Prevent CFIT



❖ 6 Major Exceedances are closely related with CFIT including Approach Speed, Sink Rate, GPWS & Stall warning, Early Descent, and Below G/S

[1] Approach Speed, Sink rate, GPWS & Stall warning, Early Descent and Below Glide Slope
[2] Approach Speed, Path, configuration and Attitude during Approach and Landing Phase, etc.

Improvement-Unstabilized Approach for ALAR



❖ Unstabilized Approach includes Approach Speed, Path, Configuration, and Attitude during Approach & Landing Phase

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