International Civil Aviation Organization

CNS/MET SG/7 and CNS/ATM/IC SG/10

Bangkok, Thailand, 15 – 21 July 2003

Agenda Item 13:   **Review developments, research, trials and demonstrations in relation to CNS/ATM**

NEW ZEALAND ATM SYSTEM IMPLEMENTATION

(Presented by New Zealand)

SUMMARY

Airways New Zealand is the provider of Air Navigation and Air Traffic Services in New Zealand's domestic and oceanic airspace. This information paper reviews the status of the domestic Air Traffic Management (ATM) system implementation in New Zealand.

1.   BACKGROUND

1.1   The New Zealand air navigation service provider (Airways) established a project in early 2000 to renew its domestic air traffic management system.

1.2   The chosen system needed to support not only the current capacity, performance and functional requirements but also predicted growth over the next 10 years and have the ability to implement any required CNS/ATM concepts.

1.3   The initial system needed to provide services to 3 major International Towers, 14 Regional Towers and 3 En-route Centres; this encompasses 39 radar positions.

1.4   The SkyLine system, supplied by Lockheed Martin ATM, provided a feature-rich, high availability, distributed and modular architecture as well as a seamless expansion capability.

2.   PROJECT STATUS

2.1   Following an extensive specification phase a number of enhancements were detailed for development; many of these were country unique features. This development work was undertaken jointly between Airways and Lockheed Martin ATM.

2.2   The system then went through a rigorous factory acceptance test, and site acceptance and system stability testing. In parallel to this integration and testing work Airways developed a thorough and robust conversion-training programme. This included computer-based training modules that ranged from helping controllers unfamiliar with a computer windows-type environment to complete simulated radar training exercises.

2.3   Transition to the SkyLine system was planned to occur in three phases over a four month period during which time the new and old systems would need to operate seamlessly together; with messages between the two being exchanged using AIDC.

2.4   The first two phases of the transition have been completed successfully, with the third, and last, transition expected to be completed in early September 2003.

2.5   The domestic SkyLine system has been successfully integrated with New Zealand's Oceanic system and the existing domestic system (Aircat) via AIDC. It is integrated with the AFTN and provides an automated data feed to the aviation billing system, as well as providing information to two international airports in connection with their noise monitoring activities, and to an Internet flight-tracking system.

3.   CONCLUSION

3.1   The implementation of the new domestic SkyLine ATM system is a significant success which ran to schedule and budget.

3.2   This system provides the platform to implement other CNS/ATM features such as CPDLC, ADS-B, ATN, PDC, etc, as operationally required.

4.   ACTION BY THE MEETING

4.1   The meeting is invited to:

(a) Note the content, and

(b) Exchange views on the various matters discussed in this paper.