

Advanced Remote Tower project Validation Results

Dr. F.J. van Schaik*, **Dr.ir. J.J.M. Roessingh***
J. Bengtsson**, **G. Lindqvist****, **K. Fält, M.Sc.*****

**National Aerospace Laboratory NLR, Amsterdam,
The Netherlands (Tel: xx31-20-5113113; e-mail: schaik@nlr.nl and roess@nlr.nl).
** Luftfartsverket LFV, Malmö – Sturup, Sweden (e-mail: goran.lindqvist@lfv.se)
*** Saab Security Systems AB, Järfälla, Sweden (e-mail: kari.falt@saabgroup.com)*

Abstract: The Advanced Remote Tower project (ART) studies enhancements to an existing LFV prototype facility for a remotely operated tower: projection on a 360 degrees panorama screen, adding synthesized geographic information and meteorological information, video tracking, fusion of video and radar tracks, labelling, visibility enhancement and surveillance operations with a remotely controlled Pan Tilt Zoom camera (PTZ). The ART functions have been embedded in the existing Swedish test facility for remote tower operations in Malmö airport Sturup observing Ängelholm traffic about 100 km to the North. They were tuned and validated by 15 tower controllers. Emphasis was on the traffic and situation awareness of tower controllers using remote cameras and projection system for safe operational tower control, replacing direct view on the airport and its traffic. The validation results give valuable information for further development and operational application even outside the Remote Tower application area.

Keywords: Remote Tower Control, Validation, Air Traffic Control
