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WORKING PAPER

ASSEMBLY — 39TH SESSION

TECHNICAL COMMISSION

Agenda Item 35: Aviation safety and air navigation standardization

A SAFE, HOLISTIC AND CONSIDERED FRAMEWORK FOR THE FURTHER INTRODUCTION OF REMOTE OPERATED TOWERS

(Presented by the International Transport Workers' Federation (ITF))

EXECUTIVE SUMMARY

The Remote Tower (ROT) technology is advancing rapidly. It is important that ICAO, other regulators, air navigation service providers and labour engage on the subject to ensure that where remote towers are deployed, they are done so in a way that is safe and sustainable.

The technology has advanced ahead of proper regulation and consistent and considered effort is now required by all stakeholders to ensure the appropriate regulatory environment is created.

The lack of a comprehensive global regulation leaves the door open to different countries to adopt whatever approach they see fit rather than having a more uniform and safe regulatory approach.

Action: The Assembly is invited to:

Start the work within ICAO for a comprehensive global regulation for the implementation and operation of remote towers. This global regulation should include:

a) a complete prohibition of the concept of simultaneous operation, i.e. more than one tower being operated concurrently by one person;
b) a remote tower licence endorsement to demonstrate appropriate training for ATCOs operating in a remote tower environment; and
c) adequate improvements on training requirements and competence schemes for ATSEP and maintenance staff so that new demand can be properly encompassed.

Strategic Objectives:	This working paper relates to the Safety Strategic Objective.
Financial implications:	
References:	

[1] English, Arabic, Chinese, French, Russian and Spanish versions provided by ITF.

1. INTRODUCTION

1.1 The ITF sees the development of Remotely Operated Towers (ROTs) as a significant headway and believe that they will play a much more significant role in the mid-term.

1.2 ROTs' introduction into the aviation community must be evaluated, considered and regulated with a holistic and timely fashion with the involvement of all stakeholders, including labour.

2. DISCUSSION

2.1 The ITF proposes the following requirements as the main pillars of ROTs:

2.1.1 *Safety requirements:* The ITF firmly believes that an equivalent level of safety must be maintained by any remote tower facility that would be found at a conventional tower. Any efficiency benefits derived from remote tower modules and/or centres must not be at the expense of safety.

2.1.2 *Training and competence requirements:* A separate remote towers rating endorsement training program should be required to ensure that the detailed technical and operational elements of remote towers are well understood. This could be a small conversion course from the ADI rating, or a full stand-alone rating course. For each remote tower to be operated, a unit endorsement training plan would need to be followed detailing all of the normal procedures and practices associated with the specifics of that particular location. Training should be harmonised by appropriate Common Core Content (CCC) training requirements, and related additions to unit training and competence plans, including OJTIs and Supervisors.

2.1.2.1 Furthermore, ROT high level goals are highly dependent on a successfully adopted automation layer, and thus relying greatly on system performance and resilience. ATSEPs as the professionals operating and maintaining systems and equipment approved for operational use are properly positioned to manage risks to operations and assets. The adoption of RTO would obviously impact on ATSEP activities. Enhanced technology required to support remote operations (more sensors, more equipment, augmentation reality systems, and so on and so forth) should imply improvements on training requirements and competence schemes so that new demand could be properly encompassed. Expertise on information and cyber security driven from the distributed architecture of the remote tower infrastructure and the use of shared resources, where security together with data integrity and availability is crucial and would inevitably lead to new ATSEP roles and responsibilities, with associated impact on training and competence assessment schemes.

2.1.3 *Licencing requirements:* Due to the specific nature of the technologies, human factor considerations and possible operating differences, it is our view that, as is common with other rating endorsements such as OCS and TCL, a specific rating endorsement should be created for remote tower operations. This would ensure that Air Traffic Controllers operating in a remote tower environment are properly trained in the specific nature of providing a service remotely. This is consistent with the approach for other rating endorsements in specific specialist areas such as OCS and TCL.

2.1.3.1 ATCO competence requirements should also include the need for one specific unit endorsement for each of the aerodromes where ATS are planned to be remotely provided.

2.1.3.2 The ITF strongly opposes any concept of Single Person Operation for any working position that provides services to different aerodromes at the same time, including ground based serviced provision such as clearance delivery.

2.1.4 *Transition requirement:* Introduction of remote operations shall be subject to full safety analysis.

2.1.5 *Contingency requirements:* Robust contingency arrangements are in place and practised.

2.1.6 *Security requirements:* The appropriate procedures and safeguards are in place to provide system integrity.

3. CONCLUSION

3.1 The ITF believes that falling behind with technological developments and/or introducing a fragmented approach to safety regulation of ROTs could create an uneven playing field, which could undermine the implementation of a better and more desirable concept of remote towers without undermining safety and security.

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