International Civil Aviation Organization

WORKING PAPER

A37-WP/78
TE/27
7/9/10

ASSEMBLY — 37TH SESSION

TECHNICAL COMMISSION

Agenda Item 46: Other issues to be considered by the Technical Commission

SENSITIVE SECURITY INFORMATION REGARDING AIRWORTHINESS OF AIRCRAFT

(Presented by the United States)

EXECUTIVE SUMMARY

The continued success and safety of commercial air transportation must address not only the safe operation of its components, but also the risks inherent in unlawful interference of these operations. Commercial aviation remains a target for malicious intent, and civil aviation oversight organizations must take a proactive approach to identifying where unnecessary risks may be mitigated or eliminated. Of particular concern is sensitive security information regarding design vulnerabilities of aircraft. As the State of Design may require mandatory aircraft design modifications, States of Design have a responsibility to communicate this information to States of Registry. Some of these modifications may be of a sensitive nature as they may reveal vulnerabilities in aircraft design, and the release of this information to the greater public could put aircraft at a security risk. The United States seeks consensus from Contracting States and ICAO on the protection and proper means of communication of this information from one authority to another.

Action: The Assembly is invited to recommend ICAO undertake a review of the SARPs to address the issue of mandatory continuing airworthiness information containing sensitive security information.

Strategic Objectives:	This working paper relates to Strategic Objective A.
Financial implications:	None.
References:	Annex 8 Annex 17

1. INTRODUCTION

1.1 Aviation is an increasingly transnational enterprise, and its continued development and success is dependent on cooperation and communication between the multitude of national oversight agencies, international organizations, and industry stakeholders involved in its operation. Aviation safety is being continuously improved upon, and through the ICAO-mandated programmes such as the State Safety Programme (SSP) and Safety Management System (SMS), mechanisms are in place to assure the safe operation of aircraft in the international system.

1.2 As with risks that may interfere with the *safe* operation of aircraft, the international community must mitigate those risks that interfere with the *secure* operation of aircraft. The United States seeks a consensus on a standardized approach to transmission of mandatory continuing airworthiness information that contains sensitive security information, to ensure that a premature public distribution of such information will not occur and potentially compromise aircraft security. To ensure a consistent and standardized approach to the transmission of this information, it is recommended that ICAO incorporate this process into the Standards and Recommended Practices (SARPs) and related guidance material.

1.3 States of Design have a responsibility to transmit mandatory continuing airworthiness information to States of Registry. Mandatory continuing airworthiness information may in some cases pertain to design aspects or operating limitations that may constitute a security risk, meaning the public release of the specific information may make the aircraft a target for acts of unlawful interference. The aircraft affected by mandatory continuing airworthiness information that contains sensitive security information may be on the registry of multiple States, and thus there exists an increasing opportunity for the premature release of this information to the greater public.

2. BACKGROUND

2.1 ICAO provides guidance on the responsibilities of States to both communicate and correct safety concerns identified in the design or operation or aircraft through Annex 8 — *Airworthiness of Aircraft*.

2.2 **States of Design** shall " transmit to every Contracting State which has in accordance with 4.2.3 a) advised the State of Design that it has entered the aircraft on its register, and to any other Contracting State upon request, any generally applicable information which it has found necessary for the continuing airworthiness of the aircraft, including its engines and propellers when applicable, and the safe operation of the aircraft (hereinafter called mandatory continuing airworthiness information)..."

2.3 **States of Registry** shall, "upon receipt of mandatory continuing airworthiness information from the State of Design, adopt the mandatory information directly or assess the information received and take appropriate action".

2.4 Annex 17 — *Security — Safeguarding International Civil Aviation against Acts of Unlawful Interference* discusses the Standards that must be in place to safeguard civil aviation from acts of unlawful interference, defined as "acts or attempted acts such as to jeopardize the safety of civil aviation and air transport." Further, this Annex requires, "each Contracting State shall establish and implement suitable protection and handling procedures for security information shared by other

Contracting States, or security information that affects the security interests of other Contracting States, in order to ensure that inappropriate use or disclosure of such information is avoided."

2.5 The normal process for corrective action of design deficiency is for the State of Design to communicate the mandatory continuing airworthiness information through an Airworthiness Directive, which is normally given as much visibility as possible to ensure that the appropriate measures are taken to correct the unsafe condition. In the case of potential security considerations, this is the opposite of what is desirable. Existing ICAO guidance addresses the mandatory communication of mandatory continuing airworthiness information in Annex 8, and mandates the need for Contracting States to establish commensurate protection for security information in Annex 17. To avoid unnecessary security risks through a varying interpretation of Annexes 8 and 17 Standards, the United States would like ICAO to issue clear guidance containing a standardized process for communicating and handling mandatory continuing airworthiness information that contains sensitive security information.

2.6 The need for a standardized process has stemmed from recent Airworthiness Directives issued by the United States to correct security-related design deficiencies. Distribution of mandatory continuing airworthiness information that contains sensitive security information must be controlled until the deficiency is corrected. Some States have already implemented processes for communicating and correcting security threats; however, these processes have evolved largely independently. Lacking standardized guidance these independent systems do not provide a means to assure the security vulnerability is corrected on the worldwide fleet prior to public notification.

2.7 There is a need to adopt a standard process to act on mandatory continuing airworthiness information that contains sensitive security information. Through the introduction of this working paper, the United States recommends ICAO undertake a review of the ICAO SARPs to address mandatory continuing airworthiness information that contains sensitive security information.

3. DISCUSSION

3.1 The international community must collaborate on how to mitigate this security risk through a standardized process for the release of mandatory continuing airworthiness information that contains sensitive security information.

3.2 The United States has worked to establish a process to control distribution of mandatory continuing airworthiness information that contains sensitive security information. The actual notice of the mandatory continuing airworthiness information that contains sensitive security information is sent to a controlled number of "trusted" individuals with security parameters (i.e., document control, encrypted email, and password protection) in place. There is no publication of the version of the Airworthiness Directive that provides actual notice, only pre-coordination with the affected operators and notification to the civil aviation authorities with the affected aircraft on their national registry. All affected parties are requested to treat that version of the Airworthiness Directive as sensitive information, and only share with those that have a need to know. Once the Airworthiness Directive has been complied with, an abridged version is published in the United States Federal Register.

3.3 Commercial aviation is a target for malicious intent. Any design-related information that may be used to intentionally interfere with the safe operation of an aircraft must be protected from inappropriate use and given only to those affected stakeholders.

3.4 Without a standardized process for communication and protection of this information, the aviation industry risks an increased likelihood of it being used for acts of unlawful interference.

4. CONCLUSION

4.1 The modern air transportation system is an interrelated network of processes, systems, and practices, and must proactively integrate system components to address risks from multiple perspectives. While mandatory continuing airworthiness information is meant to correct potential safety risks, transmission of mandatory continuing airworthiness information that contains sensitive security information to the international community may introduce potential security risks.

4.2 A standardized process to transmit this information to affected States should be developed by ICAO with the assistance of States with experience in this regard. Existing ICAO guidance in Annex 8 requests States communicate mandatory continuing airworthiness information and Annex 17 calls for the protection of certain security-related information. The United States would like to see this guidance linked within Annex 8 so that States are consistent in their responsibilities to protect mandatory continuing airworthiness information that contains sensitive security information.

4.3 The United States requests that the Assembly introduce the study of this issue in the ICAO work programme for the next triennium.

— END —