



WORKING PAPER

**SEVENTH WORLDWIDE AIR TRANSPORT CONFERENCE
(ATCONF/7)**

Montréal, HQ, 16 to 20 November 2026

Agenda Item 3: Strengthening regulatory and institutional frameworks

3.2: Enhancing air connectivity through progressive economic and regulatory aviation frameworks for international air transport

**BUILDING AN EFFICIENT, COLLABORATIVE, CONVENIENT AND CONNECTED
DIGITAL INTELLIGENT DOMESTIC TRANSFER SERVICE — “GOVERNMENT-ENABLED
SERVICES, INDUSTRY-LED INNOVATION”: CHINA’S INNOVATIVE PRACTICE OF THE
“LTB MODEL”**

(Presented by China)

EXECUTIVE SUMMARY

China’s domestic air transport market is characterized by its large scale, significant regional disparities, and a considerable number of air carriers and regional airports. Constrained by geographical and economic conditions, certain inland, mountainous and remote areas suffer from uneven route distribution, low flight frequencies, and poor transfer connectivity, which to some degree undermines passenger travel experience and the efficiency of regional economic factor flows. To address this, the Civil Aviation Administration of China (CAAC), following the guiding principle of “government-enabled services, industry-led innovation” and focusing on the establishment of industry-level information-sharing and cooperation mechanisms, has been promoting the development of a “Linking the Trunk and Branch, Connecting Urban and Remote” (LTB MODEL) air transport network service system. Key measures include strengthening policy guidance, establishing two platforms and two systems for digital and intelligent transfer services, developing standards, advancing pilot demonstrations, and fostering brands for transfer facilitation. These measures have enhanced the collaborative allocation of resource across multiple entities and regions, offering passengers such facilitation services as “payment once, check-in once, security check once, and baggage through check-in,” thus creating conditions for the fair participation of large, medium, and small airports as well as trunk and regional airlines in the air transport network, and effectively improving the accessibility and convenience of travel for passengers in remote and regional areas. China's experience demonstrates that the LTB MODEL generates values across economic, social, scientific, technological, and cultural dimensions, and offers valuable lessons for enhancing global air connectivity.

¹ English and Chinese versions provided by China.

Action: The Conference is invited to:	
a) Encourage Member States, in light of their national and regional circumstances, to coordinate the development of digital infrastructure for transfer services, promote the interoperability of service--related data and information, and create conditions for the fair participation of large, medium and small airports and different types of air carriers in transfer service cooperation; b) Recommend that the International Civil Aviation Organization (ICAO) set up a panel on transfer services to develop guidelines and standards for digitalization of transfer services, select and publish typical best practices, and organize exchange seminars, so as to provide guidance to Member States on enhancing transfer facilitation services.	
<i>Strategic Goals:</i>	This working paper relates to Strategic Goal — <i>The Economic Development of Air Transport Assures the Delivery of Economic Prosperity and Societal Well-Being for All.</i>
<i>Financial implications:</i>	The activities referred to in this paper will be carried out subject to the availability of resources under the 2026-2028 Regular Programme Budget and/or from extra-budgetary contributions.
<i>References:</i>	<i>Policy and Guidance Material on the Economic Regulation of International Air Transport (Doc 9587); Manual on the Regulation of International Air Transport (Doc 9626).</i>

1. INTRODUCTION

1.1 Background

1.1.1 Air connectivity plays a crucial role in supporting trade exchanges, tourism, regional integration, and economic resilience. In recent years, passenger travel demand in China has become increasingly diversified, yet some inland and remote areas still face challenges such as inadequate route connectivity, poor transfer services, and insufficient information sharing. Given the realities of a large number of market players in China and considerable variations in airport sizes and information systems, the Civil Aviation Administration of China (CAAC), guided by the principle of “government-enabled services, industry-led innovation,” has continuously improved supporting policies and allocation of production factors. It has focused on the establishment of two platforms and two systems for the digitalization of transfer services, while building mechanisms for operational coordination, information support, and business model integration. At the same time, CAAC supports enterprises in pilot trials and brand development, fostering a new development landscape characterized by collaborative innovation and multi-stakeholder cooperation. Practice has shown that the “Linking the Trunk and Branch, Connecting Urban and Remote” air transport network service system (LTB MODEL) has facilitated cross-entity cooperation, continuously enhanced the connectivity and operational smoothness of the route network, and improved passenger travel experience and the overall efficiency of air transport services.

1.2 Terms

1.2.1 The LTB MODEL is oriented towards enhancing the facilitation level of transfer services and promoting premium transfer service brands. It encourages airlines and airports to make full use of digital and intelligent means to optimize flight connections, passenger flows, baggage handling, and service information transmission, and to provide transfer passengers with at least one of the following facilitation measures: payment once, check-in once, security check once, and baggage through check-in. On this basis, it may further provide premium domestic through check-in services featuring “payment once, check-in once, security check once, and baggage through check-in and a worry-free travel experience.” This model promotes coordinated operations among market players, strengthens the connectivity between trunk and regional routes, and builds an air transport network with interconnected routes and interconnected airports.

Its goal is to achieve efficient and smooth connectivity among major domestic cities, as well as effective connectivity for cities in remote areas.

1.2.2 The “two platforms and two systems” for digital and intelligent transfer services, developed under the guidance of the CAAC, serve as the digital and intelligent backbone of the LTB MODEL. They consist of two platforms — the “Civil Aviation Transfer Passenger Service Platform” (hereinafter referred to as the Transfer Platform) and the “Domestic Through Check-in Flights Service Management Platform” (hereinafter referred to as the Through-Flight Platform) — and two systems — the “Payment once, Settlement Real-Time Guarantee Whole-Journey” model for transfer excess baggage (hereinafter referred to as the PSG Model) and the “Civil Aviation Transfer Service Capacity Publication System” (hereinafter referred to as the Capacity Publication System).

1.2.3 The Transfer Platform, built by TravelSky, serves as the foundational platform supporting transfer facilitation. It is primarily used to identify transfer passengers, transmit service support tasks, and track service status, enabling airports, airlines, and ground handling service providers to collaboratively offer services such as single check-in and through-checked baggage.

1.2.4 The Through Check-in Flights Platform, built by the CAAC Settlement Center, is primarily used for the filing of cooperation agreements and flight products for domestic through check-in flights, as well as business management and service supervision. It enables all participating parties to provide premium domestic through check-in flights services in accordance with unified rules.

1.2.5 The PSG Model refers to a service model in which, when a transfer passenger’s checked baggage exceeds the baggage allowance prescribed by the airline, the passenger may pay the excess baggage service fee for the entire connecting itinerary in a single payment at the originating airport, without the need to reclaim their baggage at the transfer airport, thus achieving baggage through check-in service throughout the entire journey. The model also supports real-time settlement and clearing of fees among participating service providers, such as airlines and airports, enabling the efficient flow and aggregation of billing and funds.

1.2.6 The Capability Publishing System, built by TravelSky, serves to aggregate and share information on transfer service capacities of airlines and airports, such as minimum connecting times and the scope for baggage through checked-in services, thus providing information support for enterprise coordination and industry management.

1.3 **Implementation Results**

1.3.1 As of the end of 2025, main results are as follows: (1) air services have covered 92.6 per cent of the prefecture-level administrative units, 91.2 per cent of the total population, and 94.3 per cent of total economic output in China; (2) all passenger airlines and over 90 per cent of commercial airports have joined the LTB MODEL; (3) domestic transfer passengers exceeded 140 million, accounting for one-fifth of the total domestic air travel market, of which approximately 100 million passengers benefited from facilitation services such as check-in once and baggage through checked-in.

2. **DISCUSSION**

2.1 **Progress in LTB MODEL Development**

2.1.1 To date, positive progress has been made in the LTB MODEL across policy, standards, digitalization, pilot projects and branding.

2.1.2 In terms of policy, CAAC has preliminarily put in place a policy framework comprising “top-level design, regulatory standards, and support policies,” established a working mechanism comprising dedicated task forces and an expert pool, and continuously improved the allocation of resources and policy support related to the LTB MODEL, including routes and flights, slots and financial subsidies. This has led to the formation of an open, moderate, innovative, and integrated regulatory system for the LTB MODEL.

2.1.3 In terms of standards, CAAC has systematically reviewed and refined LTB MODEL-related elements, including conceptual definitions, information transmission, service operations, and performance evaluation, with a view to establishing a standard system that is both internationally aligned and operationally effective.

2.1.4 In terms of digitalization, the CAAC has taken the lead in establishing two industry-level, non-profit digital platforms and two supporting systems for transfer services, which have enabled integrated information sharing and operational coordination across ticketing, flight operations, and service management systems for domestic transfers, while also guiding airports and airlines to accelerate LTB MODEL deployment. Currently, all 41 airlines, 260 airports, and over 300 ground handling service providers in the Chinese mainland have joined the relevant platforms and systems.

2.1.5 In terms of pilot projects, CAAC has supported a number of context-specific and diverse LTB MODEL initiatives across various regions, successively approving pilot projects in Ordos, Yunnan, Chengdu Tianfu-Lhasa, Xinjiang, Dalian, Wuhan, Shijiazhuang, and Gansu to explore new models and pathways for trunk-branch connectivity. A mechanism has also been established to encourage pilot testing and tolerate failures, with a view to consolidating and scaling up successful practices.

2.1.6 In terms of branding, interline cooperation between airlines and airports has continued to deepen, the range of “transfer + tourism” products has been steadily expanding, and a number of LTB MODEL brands with Chinese characteristics and demonstration effects are taking shape at an accelerated pace.

2.2 Comprehensive Value

2.2.1 Practice has demonstrated that, as an innovation in commercial operations and management models for civil aviation, the LTB MODEL has made positive contributions to enhancing air connectivity, supporting industry growth, and enabling affordable travel across economic, social, scientific, technological, and cultural dimensions.

2.2.2 Economic Value: Building on the route networks of airports and airlines across various regions, the LTB MODEL has fostered linkages with upstream and downstream industries such as catering, tourism, and entertainment. By streamlining transfer procedures and shortening transfer time, it provides passengers with more opportunities for leisure, entertainment, and cultural and tourism-related spending at transfer airports, giving rise to distinctive transfer-based industrial clusters with strong local characteristics. Taking Wuhan Tianhe International Airport as an example, the LTB MODEL facilitated 3.156 million transfer passenger trips in 2025. Based on the International Civil Aviation Organization’s (ICAO) relevant estimation methodologies, every million transfer passengers is estimated to generate economic contributions of several hundred million yuan, highlighting the significant multiplier effect of civil aviation.

2.2.3 Social Value: The LTB MODEL has made tremendous contributions to improving travel conditions for residents in remote areas. From 2021 to 2025, the LTB MODEL has significantly contributed to the growth of aviation population across the industry, with a considerable proportion of new passengers coming from second, third, and fourth-tier cities. In the first half of this year, the LTB MODEL has been

fully applied across all passenger airlines and 264 airports in China, serving a cumulative total of 87.4 million transfer passengers. It has enabled a large number of passengers who previously had to piece together their own itineraries—so-called “self-transfer” passengers—to also enjoy seamless transfer services, while integrating regional airports and remote areas more effectively into the national air transport network.

2.2.4 Scientific Value: The LTB MODEL represents a resource allocation optimization model developed by China’s civil aviation sector based on China’s national conditions. Through demand identification, capacity matching, route combination, and coordinated support, it has created additional route connectivity opportunities, enabling industry-wide resource sharing and collaborative operations. Statistics show that the LTB MODEL can dynamically generate approximately 25,000 sets of differentiated transfer connection options annually, providing practical evidence for optimizing the structure of the air transport network and improving resource utilization efficiency.

2.2.5 Technical Value: The LTB MODEL has enabled the integration of digital and intelligent resources and system interconnectivity through the “two platforms and two systems,” expanding the application scenarios of information technology in civil aviation transfer services. The Transfer Platform aggregates multi-source data including reservations, departure control, security checks, and baggage handling, providing a unified foundation for cross-entity transfer support. The Through Check-in Flights Platform is responsible for the filing, sales, and oversight of premium transfer products, embedding collaborative rules into standardized procedures. The PSG MODEL, building on existing industry capabilities, links service support with financial settlement, enabling single payment and real-time settlement. The Capability Publication System integrates and disseminates capability information such as minimum connecting times and the scope of baggage through check-in services, forming an industry-wide “digital capacity map” developed and shared by all stakeholders.

2.2.6 Cultural Value: The LTB MODEL, with the air transport network as its carrier, facilitates people-to-people exchanges, cultural interaction, and information dissemination, while enhancing the social visibility of cultural resources in remote areas. Taking Qiemo County in Xinjiang as an example: located on the edge of the Taklamakan Desert, Qiemo boasts unique desert oasis landscapes and multi-ethnic cultural features, but has long been constrained by geographical and transportation limitations. Since the introduction of the LTB MODEL, Qiemo has progressively developed a transfer network via Korla connecting to the rest of Xinjiang and major cities across China. The local identity of Qiemo as a “frontier oasis town,” along with its desert landscapes and folk culture, has gained greater exposure. Local cultural resources are gradually being transformed into cultural products recognizable and accessible to external markets, contributing to the promotion of multi-ethnic exchanges and the enhancement of local cultural influence.

— END —