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# **LATIN AMERICAN CIVIL AVIATION COMMISSION**

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# COMISIÓN LATINOAMERICANA DE AVIACIÓN CIVIL

SECRETARÍA **APARTADO 27032** LIMA, PERÚ

> CLAC/GEPEJTA-42/NE/13 18/03/19

# CUADRAGÉSIMA SEGUNDA REUNIÓN DEL GRUPO DE ESPECIALISTAS EN ASUNTOS POLÍTICOS, ECONÓMICOS Y JURÍDICOS DEL TRANSPORTE AÉREO (GEPEJTA/42)

(Antigua, Guatemala, 18 al 20 de marzo de 2019)

Cuestión 5 del

Orden del Día: Seguridad Operacional

Cuestión 5.3 del

Orden del Día: Presentar el objetivo del Panel de Mercancías Peligrosas de la OACI y

sus principales discusiones

#### **Antecedentes**

Como se ha de recordar, en la Cuadragésima Reunión del Grupo de Especialistas en Asuntos Políticos, Económicos y Jurídicos del Transporte Aéreo (GEPEJTA/40), Brasil presento la Nota de Estudio CLAC/GE/40-NE/12 "Compartir agenda de trabajo y ofertar cooperación en temas de seguridad operacional relacionados con los Paneles de que la ANAC participa en la Comisión de Navegación Aérea (ANC) de la OACI". Brasil tiene representante, en la calidad de miembro, en todos los paneles de la ANC, de los cuales ANAC participa de 06 que tratan de seguridad operacional. En un primer momento, ANAC pretende presentar Notas de Estudio con informaciones sobre las actividades actualmente desarrolladas en los paneles de seguridad operacional de la ANC, además de ponerse a disposición de los miembros para cooperar junto a los países que tengan interese respecto a lo tema.

## Análisis de la propuesta presentada

# **Objetivo**

- Uno de los objetivos de los paneles de la Comisión de Navegación Aérea de la OACI (ANC) es de evoluir y discutir, considerando plazos y fechas determinados, soluciones para problemas específicos y también desarrollar estándares para la evolución de la navegación aérea que no pueden ser elaborados dentro de la ANC o con los recursos establecidos de la Secretaría de la OACI.
- El Panel de Mercancías Peligrosas (DGP Dangerous Goods Panel) estudia elementos concernientes con el transporte de mercancías peligrosas por vía aérea. En las discusiones,

están incluidos temas relacionados con el transporte de pasajeros, de carga, de correo y de material de la compañía (COMAT – company material).

# Participación

- 4. Participan del DGP como miembros los siguientes Estados: Australia, Brasil, Canadá, China, Francia, Alemania, Italia, Japón, Holanda, Corea, Rusia, África del Sur, Emiratos Árabes Unidos, Estados Unidos y Reino Unido.
- 5. También participan como miembros del DGP algunos representantes de la industria: International Air Transport Association (IATA), International Federation of Air Line Pilots' Associations (IFALPA), International Coordinating Council of Aerospace Industries Associations (ICCAIA)
- 6. Destacase también la participación, como observador, del Sistema Regional de Cooperación para la Vigilancia de la Seguridad Operacional (SRVSOP) que es muy importante para garantizar la presencia de la región en las discusiones internacionales.

#### Discusiones

- 7. Normalmente, las discusiones del DGP proponen cambios en el Anexo 18 Transporte sin riesgos de mercancías peligrosas por vía aérea; en las Instrucciones Técnicas Doc 9284 AN/905 Instrucciones Técnicas para el transporte sin riesgos de mercancías peligrosas por vía aérea; y en el Doc 9481 Orientación sobre respuesta de emergencia para afrontar incidentes aéreos relacionados con mercancías peligrosas.
- 8. Actualmente, el DGP estudia muchos temas relacionados con elementos críticos de seguridad, incluyendo los riesgos del transporte de baterías de litio, cuyas discusiones poseen una forma multidisciplinar con otros paneles. Las provisiones para el transporte de baterías de litio cambiaron mucho en los últimos años y la expectativa es que continúen cambiando en los próximos años.
- 9. El DGP también estudia cambios para aclarar el texto del Anexo 18. La expectativa es que el Anexo 18 sea totalmente restructurado después de 2023 o de 2025.
- 10. El Panel también discute los procedimientos para notificar e investigar sucesos (discrepancias, incidentes o accidentes) con mercancías peligrosas. El resultado de las discusiones será un documento de guía para que los Estados puedan cumplir con los requisitos de notificación e investigación del Anexo 18.
- 11. Una de las discusiones más importantes de las últimas reuniones del DGP fue sobre el entrenamiento de mercancías peligrosas. En estas discusiones fue creado un documento para orientar acerca del entrenamiento de mercancías peligrosas por competencia.
- 12. En las próximas reuniones, el DGP deberá discutir acerca de la reglamentación de los Remotely Piloted Aircraft Systems (RPAS) y Unmanned Aircraft Systems (UAS). Este es un asunto relativamente nuevo, con características multidisciplinares, y por esta razón, debe ser discutido por varios paneles de la ANC en los próximos años.
- 13. Las discusiones del DGP son guiadas por una agenda oficial que clasifica los asuntos en diferentes áreas de estudio. Hay también job cards específicos y multidisciplinares que son discutidos por los miembros del panel. La agenda y los job cards son presentados en el ADJUNTO a este documento.

# Conclusión

14. Constatando que la representatividad regional en los paneles de la ANC no es abundante y entendiendo la importancia de los temas debatidos en el Panel de Mercancías Peligrosas de la OACI para la región, la ANAC entiende que es relevante compartir la agenda de trabajo desarrollada de que participa y se pone a disposición de los miembros para cooperar junto a los países que tengan interese respecto a los temas relacionados.

# Medidas propuestas al grupo de expertos

- 15. Por todo lo expuesto, se invita al GEPEJTA a:
  - a) Tomar nota de la información presentada.

#### ATTACHMENT A

#### **AGENDA**

# Agenda Item 1: Harmonizing ICAO dangerous goods provisions with UN Recommendations on the Transport of Dangerous Goods

- **1.1:** Develop proposals, if necessary, for amendments to Annex 18 *The Safe Transport of Dangerous Goods by Air*
- **1.2:** Develop proposals, if necessary, for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2021-2022 Edition
- **1.3:** Develop proposals, if necessary, for amendments to the *Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284SU) for incorporation in the 2021-2022 Edition

# Agenda Item 2: Managing air-specific safety risks and identifying anomalies

- **2.1:** Develop proposals, if necessary, for amendments to Annex 18 *The Safe Transport of Dangerous Goods by Air*
- **2.2:** Develop proposals, if necessary, for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2021-2022 Edition
- **2.3:** Develop proposals, if necessary, for amendments to the *Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284SU) for incorporation in the 2021-2022 Edition
- **2.4:** Development of proposals, if necessary, for amendments to the *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481) for incorporation in the 2021-2022 Edition

# Agenda Item 3: Managing safety risks posed by the carriage of lithium batteries by air

- **3.1:** Consider how lithium battery package standard under development by SAE G27 Committee (AS6413) can be incorporated into ICAO provisions (Job card DGP.003.02)
- **3.2:** Consider marking, labelling and documentation requirements for lithium battery packages meeting the SAE G27 Committee draft standard AS6413 (Job card DGP.003.02)
- **3.3:** Consider the need for amendments to address impact from proposed amendment to Annex 6, Volume I on cargo compartment safety (Job cards DGP.003.02 and FLTOPSP.043)
- **3.4:** Consider measures to mitigate safety risks posed by lithium batteries carried and/or used by passengers, crew and the operator (Job card DGP.005.01)
- **3.5:** Consider the need for specific measures to mitigate safety risks posed by lithium batteries packed with or contained in equipment
- **3.6:** Develop provisions aimed at improving compliance throughout the transport supply chain, including simplification of provisions, guidance on State oversight and outreach, and responsibilities of entities outside the aviation stream (Job card DGP.003.02)
- **3.7:** Monitor UN Committee's work on hazard-based system for classification of lithium batteries and consider impact on ICAO provisions (Job card DGP.003.02)

- Agenda Item 4: Clarifying State oversight responsibilities in Annex 18 (Job card DGP.005.01)
- Agenda Item 5: Dangerous good accident and incident reporting system (Job card DGP.005.01)
- Agenda Item 6: Dangerous goods training for entities handling general cargo (Secretariat job card)
- Agenda Item 7: Aviation Security/Dangerous Goods Coordination (Job Card DGP.001.02)
  - **7.1:** Develop proposals, if necessary, for amendments to Annex 18 and/or Doc 9284 for the sake of alignment with Annex 17 *Security* and the *Aviation Security Manual* (Doc 8973)
  - **7.2:** Consider control measures for the cargo supply chain that addresses both safety and security concerns
  - 7.3: Review guidance material on chemical, biological or radiological attack

# **Agenda Item 8: Coordination with other panels**

- **8.1:** Flight Operations Panels (FLTOPSP)
- **8.2:** Airworthiness Panel (AIRP)
- **8.3:** Safety Management Panel (SMP)
- **8.4** Remotely Piloted Aircraft Systems Panel (RPASP)
- **8.5:** Any other panels
- **Agenda Item 9:** Harmonization of *Guidance Material for the Dangerous Goods Panel (DGP) to Aid in the Preparation of the Technical Instructions and Supporting Documents* with revised dangerous goods provisions

Agenda Item 10: Other business

# ATTACHMENT B ANC JOB CARDS

Note.— All work programme elements listed in DGP.001.01 were completed on schedule except for 9427. The ANC agreed that these elements should be considered recurrent tasks. They are therefore reproduced on this job card with new expected dates.

DGP.001.03	Aviation Security/Dangerous Goods Coordination
Source	C-DEC 196/2
Problem Statement	Annex 17, the Security Manual, Annex 18 and the Technical Instructions contain provisions related to the carriage of cargo and dangerous goods. There is a potential for overlap and lack homogeneity resulting in poor understanding and application of the requirements by those who must apply and oversee them.
Specific Details	The President of the ANC, when presenting the Commission's views of the AVSECP/23 Report to Council (C-MIN 196/2), drew the Council's attention to the potential for confusion between the term "high-risk cargo" proposed for Annex 17 and the term "high-consequence dangerous goods" contained in the Technical Instructions. The Commission recommended that appropriate cross-references be added to Annex 17 and Doc 9284 to mitigate any confusion and also supported enhanced coordination between DGP and AVSECP, particularly with regard to the development of a dangerous goods awareness module to enhance the training of security screeners. The Council supported the need for stronger cooperation and coordination between DGP and AVSECP. In response, the Secretary General established a joint task force to develop guidance material on countering the potential use of dangerous goods, particularly those of high consequence, in an act of unlawful interference, and to ensure that existing guidance material is appropriately harmonized.  Annex 18 and the Technical Instructions each contain a chapter on dangerous goods security. The detailed provisions in the Technical Instructions align which the UN Model Regulations. The United Nations Committee of experts on the Transport of Dangerous Goods developed the provisions following the terrorist attacks of 11 September 2001. They relate to the security of dangerous goods documents after much discussion on the DGP and the AVSECP. The initial intent was to keep the provisions in the dangerous goods documents temporarily, and to consider whether any of them should be moved to the aviation security documents at a future time. Whether some or all provisions should be moved to Annex 17 and the Security Manual needs to be considered.  Annex 17 contains extracts from Annex 18 which need to be maintained.  The AVSEC Manual contains provisions related to dangerous goods including dangerous goods awareness training and a prohibited articles list which needs to be maintained. The prohibited article
Expected Benefits	Enhanced security and safety of international civil aviation
Reference Documents	DGP/19-WP/38, DGP/19-WP/39, DGP/19-WP/59 (yellow cover report, paragraph 1.3) (security provisions in Annex 18 and Technical Instructions) AVSECP/23 Report (proposal to introduce definition for "high risk cargo" in Annex 17) C-MIN 196/2, C-DEC 196/2 (Review of DGP/23 Report, request for stronger collaboration between DGP and AVSECP) DGP-WG/12-WP/49, DGP-WG/13-WP/65 (informing DGP of task force and report of first meeting of joint task force including terms of reference) DGP/24-WP/81 (yellow cover report, paragraph 5.4) (reporting of task force activities) DG/25-WP/52 (yellow cover report, paragraph 6.3.1) (no new developments since DGP/24) Annex 18 (Chapter 13), Annex 17 (Definition for "Screening", 9.1.2, Attachment), Doc 9284, Doc 8973 (Definition, 8.3.6.2, 11.6.1.3, 11.6.3, Appendix 12
Primary Expert Group:	Dangerous Goods Panel (DGP)

	WPE	Document Affected or	Description of Amendment proposal or Action		Supporting Expert Status		Expected dates:			
	No.	Actions Needed	Description of America	ient proposal of Action	Group	Status	Delivery	Effective	Applicability	
<b>✓</b>	9421	Annex 18	Through coordination with AVS related provisions for inclusion i deemed necessary for the sake	ECP, amendments to security- n Amendment 13 to Annex 18 if of alignment with Annex 17	AVSECP	On-schedule	Q4 2019	Jun 2021	Dec 2021	
<b>✓</b>	9422	Annex 17	Through coordination with AVSE goods related provisions for i Annex 17 if deemed necessary Annex 18	AVSECP	On-schedule	Q4 2020	Apr 2022	Sep 2022		
<b>✓</b>	9423	Tech Ins for the ST of DG by Air (Doc 9284)	Through coordination with AVSI the Technical Instructions ("Di inclusion in its 2019-2020 Ed Aviation Security Manual if dee alignment with the UN Model Re	AVSECP	On-schedule	Q4 2019	Jan 2021	Jan 2021		
<b>✓</b>	9424	Aviation Security Manual (Doc 8973)	Through coordination with AVSECP, amendments for inclusion in the 10th Edition of the Aviation Security Manual if deemed necessary for the sake of alignment between dangerous goods awareness provisions in the Aviation Security Manual and dangerous goods provisions in the Technical Instructions		AVSECP	On-schedule	Q4 2018	Dec 2019	Dec 2019	
<b>✓</b>	9425	Aviation Security Manual (Doc 8973)	countering the potential use of those of high consequence, in	Through coordination with AVSECP, guidance material on countering the potential use of dangerous goods, particularly those of high consequence, in an act of unlawful interference for possible inclusion in the 10th Edition of the Aviation Security Manual		On-schedule	Q4 2018	Dec 2019	Dec 2019	
<b>✓</b>	9426	Actions	Through coordination with A dangerous goods awareness to screeners	Through coordination with AVSECP, training module for dangerous goods awareness to enhance the training of security screeners		On-schedule	Q4 2018	Dec 2019	Dec 2019	
<b>✓</b>	9427	Tech Ins for the ST of DG by Air (Doc 9284)	Through coordination with AVSECP, development of control measures for the cargo supply chain that addresses both safety and security concerns		AVSECP	Re-scheduled	Q4 2019	Jan 2021	Jan 2021	
S	tatus:		Priority:	Initial Issue Date:	Date Approved by ANC:		Session / Meeting:			
-			-	04 June 2016	28 June 2018		208-11			

# RATIONALE

AN-WP/9262: Note.— All completed work programme elements should remain as recurrent tasks with revised dates (current dates + two years) to ensure coordination for the sake of alignment among the various publications of the Technical Instructions, the Aviation Security Manual, proposed amendments to Annexes 17 and 18 and to dangerous-goods related training material.

DGP.002.02	Dangerous Goods Accident and Incident Reporting System								
Source	Air Navigation Commission (ANC Min. 189-6)								
Problem Statement	Lack of standardised global accident and incident data on dangerous goods carriage by air limits the information available to define actual or potential safety deficiencies.								
Specific Details	The ANC, during its review of the DGP/23 report and its addendum, placed high importance on the need for standardized criteria for collecting dangerous goods incident and accident data which could be shared globally.  The effectiveness of a dangerous goods safety reporting system is dependent on the consistency, reliability and relevancy of information collected by States from operators and other entities involved with the transport of dangerous goods, and on the ability to identify safety-related issues through analysis of the system and to share this information globally. In order to facilitate development of effective systems among all States, reporting and oversight requirements in Annex 18 and the Technical Instructions and guidance in the Supplement to the Technical Instructions need to be strengthened and harmonized. In order to facilitate consistent implementation of the provisions, harmonization with applicable provisions in Annexes 13 — Aircraft Accident and Incident Investigation and 19 — Safety Management is needed.								
Expected Benefits	Dangerous goods reporting systems which facilitate global analysis of information on actual or potential safety deficiencies and aid in determining actions necessary for the enhancement of safety.								
Reference Documents	DGP-WG/LB/1-WP/15 (paragraph 3.1.1.8 c)), ANC Min 189-6, DGP/24-WP/81 (yellow cover report, paragraph 5.2), DGP/25-WP/52 (yellow cover report, paragraph 6.1.1), ANC Min. 201-5								
Primary Expert Group:	Dangerous Goods Panel (DGP)								
	Supporting								

	WPE	Document Affected or	Description of Amenda	nent proposal or Action	Supporting	Status	Expected dates:		
	No.	Actions Needed	Description of America	lent proposal of Action	Group			Effective	Applicability
<b>✓</b>	9409	Tech Ins for the ST of DG by Air (Doc 9284)		New and revised reporting requirements in the Technical Instructions consistent with relevant provisions in Annexes 18, 19 and 13		Re-scheduled	Q4 2019	Jan 2021	Jan 2021
<b>✓</b>	9410	Supplement to the Tech Instructions (Doc 9284SU)	Guidance material for States on dangerous goods reporting and oversight		SMP	Re-scheduled	Q4 2019	Jan 2021	Jan 2021
<b>✓</b>	9411	Annex 18		Development of a framework to facilitate the sharing of dangerous goods safety-related issues globally		Re-scheduled	Q4 2019	Jun 2021	Nov 2021
<b>~</b>	9428	Annex 18		New and revised reporting and oversight requirements in Annex 18 consistent with relevant provisions in Annex 13 and Annex 19		Re-scheduled	Q4 2019	Jun 2021	Nov 2021
S	Status:		Priority: Initial Issue Date:		Date Approved	by ANC:	Session / Me	eting:	
Α	Approved		-	02 June 2016	28 June 2018		208-11		_

# RATIONALE

AN-WP/9262: Draft Standards for Annex 18 and provisions in the Technical Instructions are complete; they will be further reviewed after completion of guidance material.

DGP.003.02	Mitigating safety risks posed by the carriage of lithium batteries by air
Source	DGP/25, Air Navigation Commission (200-13, 201-5 and 6)
Problem Statement	The safety risks posed by uncontained thermal runaway of lithium batteries transported as cargo or carried by passengers on aircraft must be sufficiently mitigated.
Specific Details	Lithium batteries are capable of thermal runaway through cell defect, cell damage (including penetration, surge from outside), heat, rapid discharge or overcharging. The degree of risk is dependent on the battery chemistry, size, manufacturer, packaging, the total energy density of batteries loaded in a cargo compartment, and the cargo compartment configuration. These risks are compounded by the substantial increase in the number of batteries being transported (currently billions per year), increased energy density and upward trends for both. The FAA Office of Security and Hazardous Materials Safety reported 171 air incidents between 20 March 1991 and 15 January 2016 involving batteries and battery-powered devices (the majority of which were lithium) carried as cargo or in baggage involving smoke, fire, extreme heat or explosion. The United Arab Emirate's General Civil Aviation Authority (GCAA) final report on the fatal crash of a UPS cargo plane on 3 September 2010 near Dubai links the accident to lithium batteries and makes recommendations related to lithium batteries. Two other major aircraft accidents where lithium battery cargo shipments were implicated but not proven to be the source of the fire are Asiana Airlines 747 cargo flight near South Korea on 28 July 28 2011 and a UPS DC-8 cargo flight in Philadelphia, PA on 7 February 2006. The United States National Transportation Safety Board NTSB Issued Safety Recommendations About Lithium Batteries as Cargo on Aircraft (A-16-001 and -002) following the publication of the Report on the Asiana Airlines accident on 9 February 2016 and made safety recommendations related to lithium batteries and flammable liquids. The risks are compounded by non-compliance, both deliberate (to avoid extra costs and liability (no declaration signed)) and unintentional (complicated regulations). Deliberate non-compliance needs to be addressed through oversight, including enforcement when necessary. Oversight, however, is often limited for entities beyond CAA's authority, e.g. manu
Expected Benefits	Safe transport of lithium batteries by air on both passenger and cargo aircraft.

Reference Documents	AN-WP/8817 (ANC Min 195-4), AN-WP/8860 (ANC Min 196-6), AN-WP/9034 (ANC Min 200-13), AN-WP/9034 (ANC Min 200-13), AN-WP/9021 and Addendum (ANC Min 201-5 and 6), DGP/25 Report, Agenda Item 5  FAA battery incident chart: http://www.faa.gov/about/office_org/headquarters_offices/ash/ash_programs/hazmat/aircarrier_info/media/Battery_incident_chart.pdf National Transportation Safety Board accident report, Inflight Cargo Fire UPS 1307, Philadelphia, Pennsylvania February 7, 2006  www.ntsb.gov/investigations/AccidentReports/Reports/AAR0707.pdf UAE GCAA final report on of UPS cargo plane on 3 September 2010 near Dubai: http://www.gcaa.gov.ae/en/ePublication/admin/iradmin/Lists/Incidents%20Investigation%20Reports/Attachments/40/2010-2010%20-%20Final%20Report%20-%20Boeing%20747-44AF%20-%20N571UP%20-%20Report%2013%202010.pdf  Aviation and Railway Accident Investigation Board (ARAIB), Republic of Korea Aircraft Accident Report — Asiana Airlines Boeing 747-400F, HL7604: http://araib.mltm.go.kr/USR/BORD0201/m_34591/DTL.jsp?id=eaib0501&idx=224003&mode=view National Transportation Safety Board Washington, DC 20594 Safety Recommendation
	National Transportation Safety Board Washington, DC 20594 Safety Recommendation  http://www.ntsb.gov/safety/safety-recs/RecLetters/A-16-001-002.pdf
Primary Expert Group:	Dangerous Goods Panel (DGP)

	WPE	Document Affected or	Document Affected or Description of Amendment proposal or Action		Supporting Expert	Status	Expected dates:		
	No.	Actions Needed	Description of Americanient proposal of Action	Group	Status	Delivery	Effective	Applicability	
~	9412	Tech Ins for the ST of DG by Air (Doc 9284)	Performance-based packaging standard for lithium batteries	AIRP	Re-scheduled	Q4 2019	Jan 2021	Jan 2021	
<b>~</b>	9413	Tech Ins for the ST of DG by Air (Doc 9284)	Additional operational controls to mitigate aviation-specific safety risks posed by lithium batteries including: - Any information defined via job card FLTOPSP.043 as necessary to the conduct of safety risk assessments for carriage of cargo including dangerous goods A mechanism to identify and communicate specific hazards associated with different battery types - A mechanism to ensure transparency of all shipments, including those not subject to full regulation (Section II batteries)	FLTOPSP	Re-scheduled	Q4 2019	Jan 2021	Jan 2021	
<b>~</b>	9414	Tech Ins for the ST of DG by Air (Doc 9284)	Provisions to mitigate safety risks posed by lithium batteries packed with or contained in equipment	FLTOPSP	Re-scheduled	Q4 2019	Jan 2021	Jan 2021	
<b>~</b>	9416	Tech Ins for the ST of DG by Air (Doc 9284)	Simplified provisions to facilitate full compliance		Re-scheduled	Q4 2019	Jan 2021	Jan 2021	
<b>~</b>	9418	Supplement to the Tech Instructions	Guidance to States on oversight and outreach all entities	SMP	Re-scheduled	Q4 2019	Jan 2021	Jan 2021	

	WPE	Document Affected or	Description of Amenda	cont proposal or Action	Supporting	Status	Expected dates:			
	No.	Actions Needed	Description of Amendment proposal or Action		Expert Group	Status	Delivery	Effective	Applicability	
		(Doc 9284SU)	performing dangerous goods functions both inside and outside the aviation system (e.g. operators, shippers, manufacturers) including:  — effective reporting of dangerous goods incidents and accidents;  — effective enforcement to address deliberate violations; and  — the sharing of safety information among States.							
<b>✓</b>	9419	Tech Ins for the ST of DG by Air (Doc 9284)	classification of lithium b coordination with the United Council's (ECOSOC)) Committee Dangerous Goods and on the	Provisions which provide for greater granularity with respect to classification of lithium batteries developed through coordination with the United Nations Economic and Social Council's (ECOSOC)) Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals		Re-scheduled	Q4 2019	Jan 2021	Jan 2021	
<b>✓</b>	9417	Annex 18		Provisions to ensure compliance of entities outside aviation stream (e.g. shippers'/manufacturers' responsibilities)		Re-scheduled	Q4 2019	Jun 2021	Nov 2021	
S	Status:		Priority:	Initial Issue Date:	Date Approved	by ANC:	Session / Me	eting:		
Approved			-	28 June 2018		208-11				
	PATIONAL F									

## RATIONALE

AN-WP/9262: WPE No. 9415 has been superseded by new job card on lithium batteries carried by passengers, crew and the operator

D	GP.005.0	2	Clarifying State oversight responsibilities in Annex 18								
Sc	ource		DGP-WG/16	DGP-WG/16							
	oblem atement		Annex 18 does not clearly outline States' responsibilities with respect to the safe transport of dangerous goods by air or its relationship with other Annexes.								
Sp	Work on aligning Annex 18 dangerous goods reporting and oversight requirements in Annex 18 with Annexes 19 and 13 (ANC Job Card DGP.002.01) revealed a lack of clar and sufficient detail in Annex 18 to effectively outline States' responsibilities with respect to the safe transport of dangerous goods by air and the interrelationship of oversight responsibilities between dangerous goods and other aviation activities.										
		Amendment 12 to Annex 18 introduced notes to clarify that the scope of an operator's safety management system included the carriage of dangerous goods, but nothing was introduced to clarify States' safety management responsibilities. Establishing a relationship between State oversight of the safe transport of dangerous goods by air with the State safety management responsibilities and critical elements of a system that enables a State to discharge its responsibilities for safety oversight contained in Annex 19 would provide clarity.									
			While this is necessary for day-to	to provide broad provisions for the safe transport of dangerous go-day operational use, more detailed requirements with respect to dial in attachments, Annex 18 does not as the approach taken for dial in attachments.	oversight respons	sibilities need to b	e included in t	he Annex. Wh	ile other		
			The above was identified as conf	ributing factors to safety oversight audit findings on dangerous goo	ods.						
			The intent of work to address the Annexes to clearly establish their	above is to clarify existing requirements, not to create any new on relationship to Annex 18.	es. The work ma	ay result in recomr	mendations for	r amendment	to other		
Ex	pected B	enefits	A framework allowing for effective	e assessment of a State's capability to oversee the safe transport	of dangerous god	ods by air.					
Re	eference		AN-WP/9021 (ANC Min 201-5)								
Do	ocuments		DGP/25 Report, paragraphs 6.1.1 and DGP-WG/16-WP/54, paragraph 3.1.1								
	imary Ex oup:	pert	Dangerous Goods Panel (DGP)								
	WPE		Document Affected or	Description of Amendment proposal or Action	Supporting Expert	Status		Expected date	s:		
	No.		Actions Needed		Group		Delivery	Effective	Applicability		
<b>✓</b>	9783	Actions		Comparison of Annex 18 with other Annexes and associated guidance material to identify any ambiguities, inconsistencies, unnecessary duplication and gaps	FLTOPSP FSMP AIGP ADOP AIRP AVSECP FALP	On-schedule	Q4 2018	Nov 2018	Nov 2018		
✓	9784	Actions		Identification of areas requiring collaboration between the DGP	FLTOPSP	On-schedule	Q4 2018	Nov 2018	Nov 2018		

			and panels	other	AIGP ADOP AIRP SMP AVSECP FALP				
•	9785	Actions	Recommendations for future associated dangerous goods do	amendment to Annex 18, cuments and other Annexes.	FLTOPSP AIGP ADOP AIRP SMP AVSECP FALP	Re-scheduled	Q4 2019	Jun 2021	Nov 2021
٧	9820	Actions	Preliminary assessment of recommendations in implementation			Re-scheduled	Q4 2019	Jun 2021	Nov 2021
Status:			Priority:	Initial Issue Date:	Date Approved by ANC: Session / Meeting:				
Approved			Medium	27 February 2017 28 June 2018 208-11					
I	RATIONA	ALE							

AN-WP/9262

DGP.006.01	Lithium batteries carried and/or used by passengers, crew and the operator
Source	DGP/26, Recommendation 6/1
Problem Statement	Current measures to mitigate the potential safety risks posed by lithium batteries carried by passengers, crew and the operator on aircraft may not be effective
Specific Details	1. Overview  Lithium batteries may be carried by passengers and crew members in carry-on baggage, on the person, or, when contained in the equipment they power*, in checked baggage subject to the provisions of Part 8 of the Technical Instructions. Additionally, lithium batteries and equipment containing them such as electronic flight bags (EFB), personal entertainment devices, and credit card readers may be carried and used aboard the aircraft by the operator in accordance with Part 1;2.2 of the Technical Instructions provided the batteries meet the provisions for dangerous goods carried by passengers and crew in Part 8. These provisions provide various measures intended to mitigate the potential safety risks posed by lithium batteries carried by passengers, crew and the operator. However, thermal runaway events in the cabin and passenger baggage have become an increasingly regular occurrence. This suggests that the existing provisions may not be fully effective at mitigating the potential safety risks. Additionally, the provisions have become increasingly complex over time, increasing the potential to misunderstand and incorrectly implement them. Some of the restrictions, such as only allowing batteries that have passed specific UN tests, may not be realistic to implement since it may be impossible for anyone other than the battery manufacturer to determine this. These implementation difficulties may be contributing to the effectiveness of the mitigation measures. Work on ensuring the safety risks are effectively mitigated to an acceptable level is therefore necessary.  Provisions related to lithium batteries and/or electronic devices are contained in several documents and would therefore need to be reviewed. These include:  a) Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284); b) Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods (Doc 9481); c) Annex 6 — Operation of Aircraft; d) Manual of Electronic Flight Bags (Doc 10020); and e) Cabin Crew Safety T
	2. Additional background information The issue of lithium batteries and lithium battery-powered portable electronic devices (PEDs) carried and/or used by passengers, crew and the operator was raised by the Air Navigation Commission (ANC) during its review of an amendment proposed by the DGP related to power banks (ANC Min 203, 204 and 205) and indirectly through the recommendations of the Multidisciplinary Cargo Safety Group (CSG) (C 212/5) as described below.  ANC During its review of the proposed amendment related to power banks, which was later withdrawn because of a potential conflict with operator exceptions for the carriage of dangerous goods in Part 1:2.2, the ANC tasked the Dangerous Goods Panel (DGP) with:  a) developing meaningful criteria that passengers and staff could realistically apply when carrying PEDs; b) clarifying language used with respect to exceptions for dangerous goods of the operator in Part 1:2.2 to avoid misinterpretation and unintended consequences; c) considering the effects of power bank provisions on operators providing them for use by passengers our crew to be subject to UN testing requirements; and e) developing meaningful guidance for States, operational staff and passengers on criteria for carriage of devices on board an aircraft. In developing meaningful criteria, the Commission further suggested that the DGP consider provisions such as requiring that devices: a) be professionally manufactured, preferably indicating a trademark and model number; b) be in good repair and free from damage; c) be used in accordance with manufacturer's instructions when carried on the aircraft; d) be switched off completely if carried but not in use (not hibernation); and e) be meaningfully labelled with information on watt and amp hours. Recommendations of the CSG The CSG was established to respond to concerns of increased safety risks resulting from security measures which restricted the carriage of PEDs in checked baggage that

	were introduced by some States in March 2017. The group was tasked with identifying the safety hazards, assessing the associated safety risks, and developing mitigation strategies to reduce the safety risk to an acceptable level. Although alternate measures were introduced to address the security threat, the CSG did identify hazards associated with the carriage of PEDs including the potential for an explosion if personal items containing permitted dangerous goods, such as aerosol cans, are placed in the same checked baggage as a PED. The CSG developed recommendations for addressing the identified hazards (see Report of the Second Meeting of the Multidisciplinary Cargo Safety Group (CSG). The applicable recommendations (as amended by the ANC) are:  1) that the DGP evaluate whether the Technical Instructions should be amended to restrict the carriage of PEDs as carry-on baggage unless otherwise approved by the operator;  2) that the DGP review the items permitted to be carried by passengers in checked baggage and establish whether certain combinations should be forbidden;  3) that the DGP together with the battery manufacturing industry develop a clear definition of what was meant by PEDs; and  4) that the AIRP, FLTOPSP and DGP review the issue of operators placing charged PEDs in the cabin for passenger use, utilising the provisions of the Technical Instructions rather than seeking airworthiness certification approval.				
Expected Benefits	Improved safety as a result of a reduction in incidents involving lithium batteries carried and/or used by passengers, crew and the operator Reduced operational cost as a result of clear, realistic provisions				
Reference Documents	DGP/26 Report (Recommendation 6/5) Report of the Multidisciplinary Cargo Safety Group (CSG) (C-WP/14663) C Min. 212/5 ANC Min. 205-3, 4, 5 AN-WP/9174 DGP-WG/17 Report (paragraph 3.5.3.7) ANC Job cards DGP.003.01, AIRP.012.01				
Primary Expert Group:	Dangerous Goods Panel (DGP)				

	WPE	Document Affected or Actions Needed	Description of Amendment proposal or Action	Supporting Expert Group	Status	Expected dates:		
	No.					Delivery	Effective	Applicability
v	9901	Actions	Consider whether it is appropriate to maintain provisions currently in the Technical Instructions for COMAT otherwise classified as dangerous goods but which is required to be aboard an aircraft in accordance with operating regulations or to meet special requirements authorized by the State of the Operator or to be used during flight. If so, consider whether the current methodology of basing the safety of these provisions on restrictions applied to dangerous goods carried by passengers and crew is appropriate. Based on the above, revisions to passenger and crew provisions to carry dangerous goods in Part 8 and to exceptions for dangerous goods of the operator in Part 2;2 may be necessary.		On-schedule	Q4 2019	Jan 2021	Jan 2021
٧	9902	Actions	Review of emergency response procedures related to lithium batteries and PEDs and develop revisions to Doc 9481 if necessary		On-schedule	Q4 2019	Jan 2021	Jan 2021
•	9903	Actions	Consider whether provisions in the Technical Instructions for COMAT otherwise classified as dangerous goods but which is required to be aboard an aircraft in accordance with operating	FLTOPSP	On-schedule	Q4 2019	Jan 2021	Jan 2021

CSS.001	Dangerous goods training for entities handling general cargo
Source	ANC 207-5
Problem Statement	Entities in the transport chain handling or processing general cargo can play a role in preventing the introduction of undeclared dangerous goods into air transport. However, other than for the operator, there are currently no provisions requiring entities not intending to handle dangerous goods to be trained. This may pose a risk to aviation safety.
Specific Details	The introduction of undeclared dangerous goods into general cargo poses a risk to aviation safety. One way of mitigating this risk is to ensure that entities processing or handling general cargo are able to identify and reject undeclared dangerous goods before they are offered for transport. Accordingly, a requirement for freight forwarders processing general cargo or mail to be trained in dangerous goods regardless of whether or not they intend to process dangerous goods is included in the Technical Instructions. However, it is not included in Annex 18 and was therefore never reviewed by States and international organizations before being introduced into the Technical Instructions (2003-2004 Edition). It has not been implemented in all States, which became evident during work undertaken by the Dangerous Goods Panel (DGP) to align the dangerous goods training provisions in the Technical Instructions with competency-based training and assessment principles (see DGP/25 Report, paragraph 1.2.1). It was discovered that some DGP members had not interpreted the training provision to be a requirement and considered it to be beyond the scope of Annex 18. For them, enforcing training for entities not intending to perform dangerous goods functions was not legally possible through Annex 18. Additionally, responses to State letter AN 11/2.1-16/91 suggest that approximately 40% of States (based on sixty-one replies) currently lack oversight authority over such entities. The ICAO Legal Bureau's position is that States can currently recommend but not require training for freight forwarders not handling dangerous goods through Annex 18. The ANC therefore tasked the DGP with establishing a mechanism to ensure a State's safety oversight system addresses all relevant entities handling dangerous goods, regardless of whether or not these entities intend to process or handle dangerous goods (ANC 201-5 and ANC job card DGP.004.01 — Scope of Annex 18).
	An amendment to the training provisions in Annex 18 (Chapter 10) was developed at DGP/26 in an attempt to accomplish this. The amendment introduced a requirement for the establishment of dangerous goods training programmes for not only entities handling or processing dangerous goods, but also for entities not intending to handle or process dangerous goods. Although it was supported by the majority of panel members, several opposed it as they maintained it was beyond the scope of Annex 18 and was not legally enforceable through that Annex in their States. They supported training, but believed there were other methods to achieve this objective that could be implemented globally. However, alternate proposals did not receive enough support. The majority of panel members ultimately recommended that comments from States be sought on the amendment proposed (DGP/26, Recommendation 6/4).
	The ANC conducted its preliminary review of the amendment (207-5). Although it supported training for all freight forwarders proportionate to their responsibilities, it considered the amendment as proposed unclear and raised concerns with the lack of consensus on the DGP and the potential that some States would be unable to legally implement the requirement. Specific concerns raised are contained in AN-WP/9184.PDP. The ANC tasked the Secretariat with developing this job card through the PCI process, recognizing a solution may involve other Annexes. The ANC emphasized that the solution should provide a distinction between entities that handle dangerous goods versus those that do not so that it is clear that the level of training required would not be the same for both.
	The ANC did support an associated amendment to the compliance provisions in Annex 18 (Chapter 11) developed by DGP/26 under the same recommendation, but agreed that it not be sent for comment until amendments to address the need for training of entities not handling dangerous goods were mature. The amendment introduces a requirement that States implement measures aimed at preventing undeclared dangerous goods from entering the air transport stream and to ensure operators establish procedures for preventing undeclared dangerous goods from entering it. It was proposed in an effort to address the fact that there are currently no provisions in Annex 18 to clearly indicate the need to mitigate against the risk of undeclared dangerous goods being introduced into general cargo. The proposed provisions are intended as high-level requirements so as to allow States and operators the flexibility to determine which measures would effectively mitigate the risks according to their risk profile and within their regulatory and operational environments. The ANC tasked the Secretariat with ensuring that these amendments align with the safety risk provisions being developed by the Flight Operations Panel (FLTOPSP) for the carriage of items in cargo compartments.
Expected Benefits	Decrease in the amount of hidden dangerous goods carried on aircraft and subsequent decrease in risk to aviation safety.

Reference	Annex 18
Documents	Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284)
	ANC Min. 207-5
	AN-WP/9184 and AN-WP/9184.PDP
	DGP/26 Report (Recommendation 6/5)
	ANC job card DGP.004.01
	ANC Min. 201-5
	DGP/25 Report (paragraph 1.2)
Primary Expert Group:	DGP

	WPE	Document Affected or Actions Needed	Description of Amendment proposal or Action	Supporting Expert Group	Status	Expected dates:		
	No.					Delivery	Effective	Applicability
~		Annex 18	Clarify oversight responsibilities	FLTOPSP	On-schedule	Q4 2019	Jun 2021	Nov 2021
<b>~</b>	,	Technical Instructions	Clarify scope of dangerous goods training requirements for entities handling/processing cargo	FLTOPSP	On-schedule	Q4 2019	Jan 2021	Jan 2021
<b>~</b>		Annex 6	Clarify responsibilities of entities handling/processing cargo	FLTOPSP	On-schedule	Q4 2019	Jun 2021	Nov 2021
<b>~</b>		Annex 19/Safety Management Manual	Consider guidance on safety interface management involving entities handling/processing cargo	SMP	On-schedule	Q4 2019	Jun 2021	Nov 2021